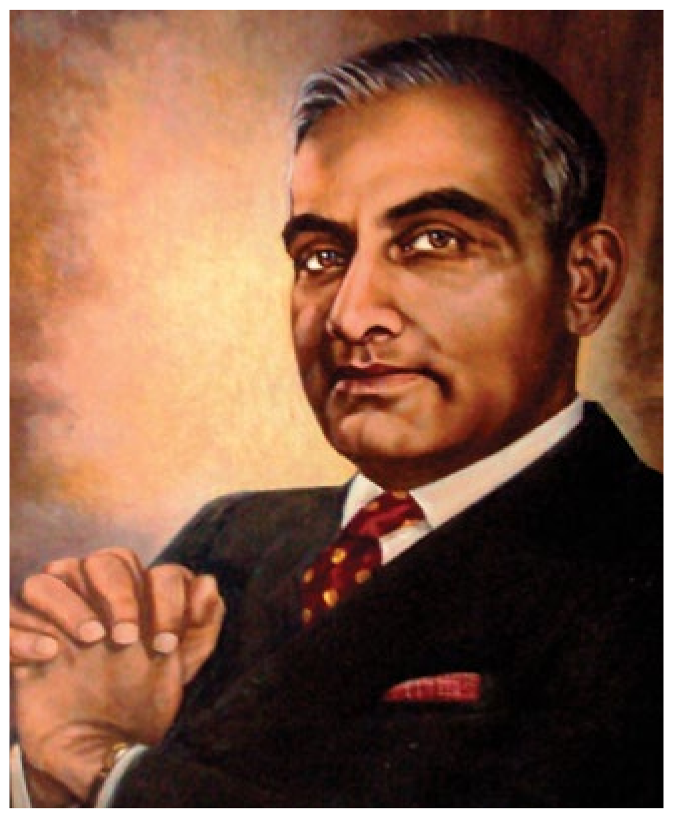
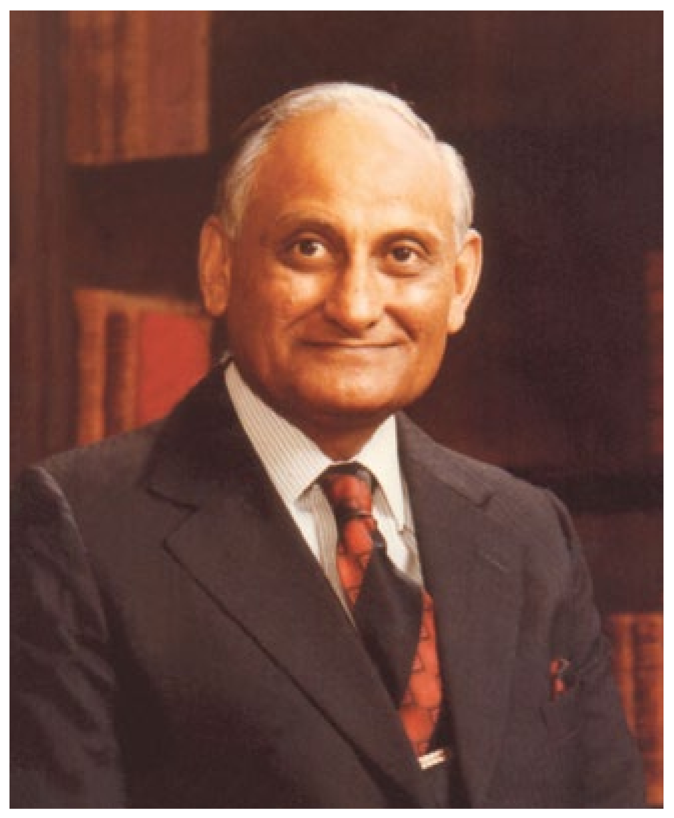


**Shri B.M. Birla**
Founder of the Institute



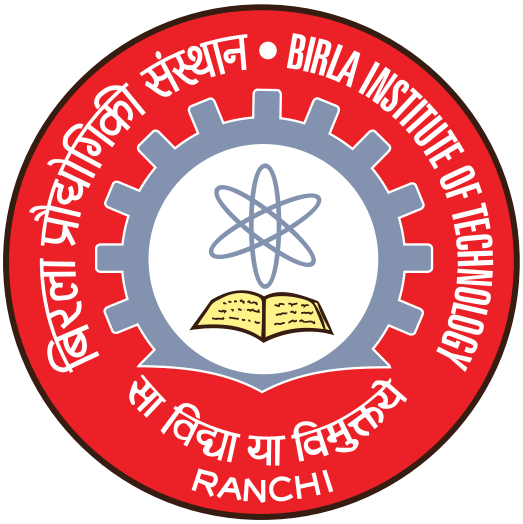
**Shri G.P. Birla**
Former Chairman of the Board of Governors

**Shri C. K. Birla**
Chairman of the Board of Governors

# ANNUAL REPORT

# वार्षिक प्रतिवेदन

## 2021-22



**BIRLA INSTITUTE OF TECHNOLOGY**

**बिरला प्रौद्योगिकी संस्थान**

(Deemed to be University)
Mesra, Ranchi - 835 215, Jharkhand

# CONTENTS

Pages

**Vice Chancellors Report** 1

**Introduction** 15

**Department** 33

- Department of Architecture & Planning 34
- Department of Bioengineering and Biotechnology 43
- Department of Chemical Engineering 51
- Department of Chemistry 62
- Department of Civil and Environmental Engineering 70
- Department of Computer Science and Engineering 90
- Centre for Quantitative Economics and Data Science 108
- Department of Electronics and Communication Engineering 112
- Department of Electrical and Electronics Engineering 129
- Department of Hotel Management and Catering Technology 141
- Department of Management 147
- Department of Mathematics 158
- Department of Mechanical Engineering 162
- Department of Pharmaceutical Sciences & Technology 170
- Department of Physics 180
- Department of Production and Industrial Engineering 186
- Department of Remote Sensing 192
- Department of Space Engineering and Rocketry 207

**BIT Off Campus Deoghar** 215

**BIT Off Campus Jaipur** 234

**BIT Off Campus Lalpur** 253

**BIT Off Campus NOIDA** 262

**BIT Off Campus Patna** 279

**University Polytechnic** 296

**BIT Dispensary** ....307

**National Cadet Corps** ....310

**National Service Scheme** .... 314

**Environmental Initiatives** ....322

**The Entrepreneurship Development Cell** ....325

**Creative Arts** .... 331

**Institutions Innovation Council** ....332

**Students Club Activities** .... 340

**Physical Education & Sports** .... 350

**Value Education Cell** ....354

**राजभाषा प्रकोष्ठ** ....356

**Sanshray (Rekindling Hope)** ....358

**Training and Placement** ....359

**Central Instrumentation Facility** ....370

**Central Library** ....376

Annexure-I : List of Deans and Associate Deans .... 380

Annexure II : Board of Governors ....382

Annexure III : Academic Council ....383

Annexure IV : Finance Committee ....386

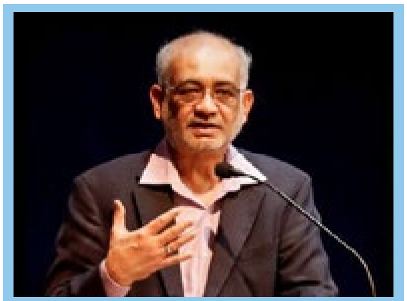
Annexure V : Building Works Committee ....387

Annexure VI : List of Heads / In-charges of Departments .... 388

Annexure VII : Addresses of off Campuses of BIT Mesra ....389

Annexure VIII : Internal Complaint Committee ....390

# Vice Chancellors Report



Vice Chancellor
**Professor Indranil Manna**

Birla Institute of Technology, Mesra, Ranchi founded by the philanthropist, industrialist Late Shri B.M. Birla in 1955, attained the status of a Deemed to be University in the year 1986. BIT Mesra is not only one of the oldest Institutes of Technology in the country but also is a pioneer in initiating disciplines like Space Engineering and Rocketry, Remote Sensing, and recently Quantitative Economics and Data Sciences. BIT Mesra was a pioneer in the country to have established the first Science and Technology Entrepreneurship Park in the country, the process of which started in 1974. BIT Mesra has consistently been ranked amongst the leading Technological Universities of the country. The Institute offers academic programs in all major disciplines of Engineering and allied Sciences with over 600 faculty members and over 10,000 students spread across various campuses covering all three levels of tertiary education.

The Institute has taken many initiatives to enhance the teaching learning process, promote innovation and entrepreneurship activities among the students, build state of the art engineering education infrastructure, and pursue high-end R & D activities through various schemes. It also enforces quality assurance initiatives like academic audits, examination reforms and research reviews conforming to the rules and norms of the regulatory bodies, pre and post accreditation assessments, collaborative initiatives, and ranking and ratings of the Institute.

The global pandemic due to COVID-19 caused a dark spell over the entire world lasting for nearly 2 years. BIT Mesra was no exception. The pandemic nearly brought the entire academic activities of this institute to a grinding halt at least on two occasions during the peaks in Mid-2020 and early 2021. Shear determination, grit and dedication helped us make variant effort to recover from this threat and resume academic activities in the normal way. By God's grace, BIT Mesra managed to conduct the Spring 2022 in hybrid mode and MO2022 onwards entirely in the usual physical mode. The institution recorded significant rise in admission, conduct of seminars, conferences and various student activities. Placement record touched a new height. A number of important visitors paid us visits on various occasions. The student activities saw a major upward swing and finally, BIT Mesra was on track.

I would now like to take this opportunity to present a brief report of the salient activities of the Institute, undertaken during the academic year 2021–22.

BIT Mesra is a constantly evolving Institution eager to introduce new academic programs, adopt new methodology in teaching, pursue new research avenues, augment its civil and digital infrastructure, introduce progressive administrative measures and implement all decisions of the Board and Regulatory Bodies proactively.

## Key Decisions of The Board of Governors:

- The Department of Architecture has been renamed as the Department of Architecture and Planning
- The AICTE IDEA (Idea Development, Evaluation & Application) Laboratory has been established in an area of around 5000 sq.ft. with a funding support of ₹1.06 crores from AICTE and BIT Mesra.
- Policies to encourage Innovation, Incubation, and Entrepreneurship is introduced through adoption of "Start Up Policy", "Innovation, Incubation and Entrepreneurship policy", and "Benevolent Fund Policy".
- BITMAA (BIT Mesra Alumni Association) has been founded and registered with IG registration.
- The existing RIE office has been renamed as Research and Development Cell.

- Renewal of registration under foreign contribution (regulation) Act 2010 and renewal of FCRA account has been initiated.
- Hindi cell (Rajyabhasha Prakosht) has been established.
- Ordinances of UP, PG and PHD programmes have been revised.
- Academic Council recommended to start new BTech courses in Artificial Intelligence and Machine Learning and a Certificate program in Game Design and Development.
- Rearrangement of increase/reduction in seats, course name change, course merger, and course closure for uploading the rearrangements in AICTE Portal have been completed.
- 73 offer of appointments for Assistant Professors and 22 Adjunct Professors were made in Academic Year 2021–22 through very rigorous 3-stage peer review process.
- "Visiting scholar Programme" between BIT Mesra and North Eastern University College of Engineering, Boston, Massachusetts has been initiated.

Several eminent visitors and speakers presented, discussed, and shared their ideas and expertise with students and faculty. Some of the distinguished visitors were:

## Distinguished Visitors

- Shri Sanjay Chawla, Director General, Aeronautical Quality Assurance, Department of Defence Production, Ministry of Defence, Govt. of India, New Delhi, India visited in September 2021.
- Dr. A.K. Saraf, Professor, Department of Earth Science, IIT Roorkee visited in December 2021.
- Dr. L. V. M. Reddy, President Indian Technology Congress Association and ISRO Council Member visited in March 2022.
- Dr. Sudebkumar Prasant Pal, Professor, IIT Kharagpur visited the campus.
- Dr. Anirban Chakraborty, Associate Faculty, Hosei University, Japan visited in December 2021.
- Shri Ram Mohan Chattopadhyay, Former Chief General Manager (Civil & Structural division), SAIL visited in December 2021.
- Prof. K. D. P. Nigam, Retd. Professor from IIT Delhi Visited in September 2021.
- Prof. Purnendu Ghosh, Executive Director, Birla Institute of Scientific Research, Jaipur visited the campus in April 2022.

Speakers like Mr. Ankit Rastogi, Mr. Karan Bajaj, Mr. Harish Uthayakumar, Mr. Vijay K. Srivastava & Mr. Rajive Sinha, Mr. Satish Ray, Mr. Nitin Jain (Founder and CEO, Indibni), Mr. Vijay Aggarwal, Mr. Vatsal Kanakiya, Mr. Raj A. Kapoor, and Mr. Satish Krishnan presented discussed and shared their ideas and expertise with students and faculty.

| | | |
|---|---|---|
| Mr. Ankit Rastogi | - | Chief Product Officer, Angel One. |
| Mr. Karan Bajaj | - | Founder & CEO, WhiteHat Jr/BYJU's FutureSchool Author |
| Mr. Harish Uthayakumar | - | Co-founder, bluelearn.in |
| Mr. Vijay K. Srivastasva | - | Global Founder & Social Imagineer, Asean Academy of Entrepreneurship and Employability |
| Mr. Rajive Sinha | - | COO, U2CA Consultants PVT. LTD., Co- Founder & Member Governing Board, Indian Academy Of Entrepreneurship |

| | | |
|---|---|---|
| Mr. Satish Ray | - | Youtuber & Standup Artist |
| Mr. Nitin Jain | - | Founder & CEO, INDIBNI |
| Mr. Vijay Aggarwal | - | CTO, BharatPe |
| Mr. Vatsal Kanakiya | - | CTO, 100X.VC |
| Mr. Raj A. Kapoor | - | Founder, Indian Blockchain Alliance |
| Mr. Satish Krishnan | - | MD, Financial Markets, Standard Chartererd Bank. |

The Institute constantly endeavors to foster and utilize the practice of collaboration with industries and research organizations for making our teaching and research programs more effective and modern.

## New Initiatives undertaken and Grants Related Information

In the year 2021–2022 several MOUs were signed with various Govt., and Private Institutions and Industries, some of the important ones are as follows:

- MOU was signed with CRPF's Central Training College (CTC – Telecom & Information Technology), Ranchi. Three short-term training programmes (funded by CRPF) were conducted for CRPF officer trainees at BIT.
  - Training on "Digital and Modern Communication" (32 people, 4 days)
  - Training on "Antenna Training" (20 people for 4 days)
  - Training on "Artificial Intelligence and Internet of Things" (20 people for 4 days)
- MOUs was signed with Jharkhand State Pollution Control Board (Jamshedpur & Ranchi). BIT is identified as Institute of Repute under the National Knowledge Network for NCAP programme.

## List of MOUs

| S. No. | Date | Organization | Duration |
|---|---|---|---|
| 1. | 04–08–2021 | BiOZEEN Bangalore Biotech Labs Pvt Ltd. | 01 Year |
| 2. | 04–08–2021 | Nano Temper Technologies, Bangalore, India | 03 Years |
| 3. | 20–08–2021 | Cognizant Technology Solutions India Pvt. Limited | 02 Years |
| 4. | 31–08–2021 | Sabita Engg. Works, Hatia, Ranchi | 02 Years |
| 5. | 18–10–2021 | Indian Trust for Rural Heritage and Development (ITRHD) | 05 Years |
| 6. | 22–10–2021 | National Institute of Urban Affairs, New Delhi, India | 03 Years |
| 7. | 01–12–2021 | Cambridge Assessment English, UK | 01 Year |
| 8. | 02–02–2022 | Artificial Computing Machines Pvt. Ltd, Ranchi | 02 Years |
| 9. | 30–11–2021 | M/s Cyber Guru-Kolkata | Till Terminated |

| | | | |
|---|---|---|---|
| 10. | 30-11-2021 | Schooglink Pvt. Ltd., Patna | Till Terminated |
| 11. | 30-12-2021 | Korawan India Multiventure Limited-Patna | Till Terminated |
| 12. | 10-01-2022 | M/s 1 Ansah Technology Pvt. Ltd. Lucknow | Till Terminated |
| 13. | 05-02-2022 | YBI Foundation-Delhi | Till Terminated |
| 14. | 14-02-2022 | NSE Academy Ltd.-Mumbai | 03 Years |
| 15. | 25-03-2022 | ERLDC, POSOCO- Kolkata | 03 Years |
| 16. | 04-06-2022 | Ram Krishna Dharmartha Foundation (RKDF) University, Ranchi | 03 Years |
| 17. | 30-06-2022 | Dronesabha Research Organisation OPC Pvt. Ltd., Dhanbad | 03 Years |
| 18. | 29-07-2021 | Advance Tech India Pvt Ltd.,Punjab | 03 Years |
| 19. | 02-02-2022 | Artificial Computing Machines | 02 Years |
| 20. | 14-02-2022 | NSE Academy Ltd., Mumbai | 03 Years |
| 21. | 29-03-2022 | Crypto University, Mumbai | Till Terminated |
| 22. | 05-02-2022 | BIT Patna has signed MOUs with Korawan India Multiventure Ltd, M/s 1 Ansha Technologies, Lucknow, Schooglink Pvt Ltd., Cyber Guru, and YBI Foundations. | Till terminated |

## Patents

BIT Mesra has taken several initiatives towards innovation and Intellectual Property (IP) generation. IPR Cell BIT Mesra has been working to support and encourage faculty members to protect their research and innovation by filing patents, copyright, trademarks, etc. In 21-22, BIT Faculty members filed 12 patents, 4 patents were granted, 6 patents were published, and others are under process.

A total of 36 new grants were sanctioned : 25 (research projects) and 6 (training/workshop/conference) during 1st April 2021 to 31st March 2022 by external sponsoring agencies (DST-SERB, CRG, ISRO, AICTE, ICMR, DRDO, DAE etc.) with a total sanctioned budget of ₹8.98 Crore.

- A total of 3 consultancy projects were sanctioned with a funding of ₹16.78 Lacs during 21-22.
- Revenue of ₹62.067 Lacs was generated from the use of Central Instrumentation Facility (CIF) during 2021-2022.

In total 71 different equipment costing ₹1.44 Crore were ordered under various research projects.

The Institute is very keen to promote the culture of research not just for creation of new knowledge but also for integrating them into our teaching programs, promoting the exiting research activities, and raising the reputation of the Institute to a much higher pedestal.

## Externally Funded Projects:

The Institute is very keen to promote the culture of research not just for creation of new knowledge but also for integrating them into our teaching programs, promoting the exiting innovation and entrepreneurial activities, and raising the reputation of the Institute to a much higher pedestal.

- A total of 36 new research grants were sanctioned during 1st April 2021 to 31st March 2022 by external sponsoring agencies (DST-SERB, ISRO, AICTE, ICMR, DRDO, DAE etc.) with a total sanctioned budget of Rs.8.98Crore.
- A total of 3 consultancy projects were sanctioned with funding of Rs. 16.78 Lakhs during 21–22.

Revenue of Rs. 62.067 Lakhs was generated from the use of Central Instrumental Facility (CIF) during 2021-2022.

BIT Mesra has always been keen to promote the culture of interaction with industry and academia. Recent initiatives in this direction are:

## Seminars and Conferences Organized

- International Symposium on Plant Biotechnology Towards Improving Agri-Food Industry and Healthcare Products (ISPB-2021)" funded by IINRG, Ranchi; IIAB, Ranchi; CTR&TI, Ranchi, DBT GOI, CSIR New Delhi (October 27–30, 2021)
- Advanced Instrumental Techniques in Chemistry and Materials Sciences (AITCMS22), funded by DST-STUTI (09th – 15th May 2022)
- IEEE International Conference on IoT and Blockchain Technology ICIBT-2022, funded by IEEE (6–8th May, 2022)
- International Network for Economics Research (INFER) funded by INFER and Politehnica University of Timisoara (9.06.2022)
- Short term training programme (STTP) of SASI (T) cum RM Grade-I Sl. No. 7 and GO's Technical Course Sl. No. 35 of CTC, CRPF, Ranchi funded by CRPF (14–18 Feb 2022)
- ATAL FDP on Trends in Measurement and control for System Automation funded by AICTE (28.06.21-02.07.21).
- One-week Hands-on Training Workshop on "Preparation and Characterization of Oral Solid Dosage Form" funded by DST-STUTI Programme of Indian Institute of Technology (ISM) Dhanbad, funded by DST-Govt. of India. (10.06.22–16.06.22)

Students take part in various activities including Inter college competitions, hackathons, design challenges and many other events which bring laurel to the University by winning awards and recognitions.

## Student Activities and Awards

| Sr. No. | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Sarvagya Kulshreshtha<br>IED/10019/21 | Guinness World Record-Fastest time to solve a Rubik's cube on a bi-cycle | Guinness World Record | 30th June 2022<br>Gurgaon, Haryana, India |
| 2. | Nishi Prakash Tiwari<br>PHD/BE/10059/19 | 1st Best Poster award at during "International Symposium on Plant Biotechnology Towards Improving Agri-Food Industry and Healthcare Products (ISPB-2021)" | Department of Bioengineering and Biotechnology BIT Mesra in association with, Ranchi; IINRG Ranchi; IIAB Ranchi; CTR&TI Ranchi | 27th – 30th October 2021<br>BIT Mesra |

| | | | | |
|---|---|---|---|---|
| 3. | Priyanshi Shrivastava<br>(BTECH/10414/19) | MITACS Globalink Research Internship Award 2022 | MITACS Globalink | May – July 2022<br>University of British Columbia, Vancouver, Canada |
| 4. | Dipansh Sha, Adarsh Akash & Sritej Kumar<br>(BArch: 10019/19, 10017/19, 10033/19) | First Prize, NATCON | Indian Institute of Architect | Nov 2021 |
| 5. | Uttaksh Anand, Slok Maskara, Harsh Singh, Shubham Sinha, Samridhhi Khanna<br>(BArch: 10014/20, 10012/20, 10003/20, 10008/20, 10019/20 | ANWESHAN – Short Film Trophy - 2022 | Annual NASA | January 2022 |
| 6. | Saurabh Gupta<br>(BTech/10490/20) | 3rd position at college level | Smart India Hackathon - preliminary | 27th May 2022 |
| 7. | Satyam<br>(Team Captain)<br>BTech/10115/19 | Team Firebolt Racing won three podium prize in BAJA SAE India 2022 in sales presentations, Accreralation event and Raftaar. | Soc. Of Automotive Engineers, India | 12th April 2022 |
| 8. | Ashutosh Bhaduria, Team Avion Racing<br>BTech/10495/19 | e-BAHA SAE India 2022.<br>7th in Endurance event | Soc. of Automotive Engineers, India | 15th May 2022 |
| 9. | Somya Garg<br>Team TAEVAS<br>BTech/10554/19 | 1st position in the Best Aerodynamic Analysis | SAE INDIA | 1st -3rd Sept 2021 |
| 10. | Mr. Nahar Jainam, BTECH/10153/21 | First position in the state of Gujarat in National Inter College Crossword Expedition 2022 | NICE-22 | April 2022 |
| 11. | Mr. Sarvagya Kulshreshtha<br>IED/10019/21 | Solving a rotating puzzle cube on a bicycle in a Fastest Time | Guinness World Record | 29th January 2022 |

## Civil Infrastructure Schemes Initiated

In continuation with previous year's renovation, up-gradation of existing infrastructure, during this financial year 2022–23, around ₹40 (Forty)crores has been approved for various construction activities, as follows:

## On-going Projects :

- Vertical expansion of a few academic buildings, to provide an additional space of around 24000sft. area.
- Vertical expansion of a few hostel buildings, to increase an additional capacity of total 480 Boys and 158 Girls.
- As amenities & facilities as a new Canteen for staff at 1st floor of existing Students' canteen & student Activity Space over existing Music room.
- Renovation works at various academic departments.

## Initiated Projects :

- Addition of a new wing at existing Girls' Hostel 8 to increase an additional capacity of 240 students.
- Hard & soft Landscaping of Lower Lawn to incorporate some open seating, jogger's path, walkway etc.
- Lift at Bio-Engineering building
- New Academic Tower with a total floor area of approximately 1.5 lakh sft.
- New Residential Tower for 120 quarter units.
- Sewerage treatment plant (STP)

## Constructed Projects :

- 2 (two) nos. of Food courts at different locations
- Old Guest house has been renovated with 5 suite rooms & 8 double bed rooms.
- Composter Shed.
- Idea Lab
- FireFighting Services in Main Institute Building
- Lift installation at few Academic buildings
- RO water services in all Hostels
- Renovation of Main Entrance Lobby, Visitors' Lounge and Ladies' Lounge at Main Institute Building

This Infrastructural up-gradation is not only being implemented in our Main Campus but at Institute's other Campuses also.

Our faculty members routinely receive awards and accolades from various agencies, conferences and institutions for their research, administrative and academic contributions.

## Awards/Recognitions by Faculties

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation |
|---|---|---|---|
| 1. | Dr. Indrajit Roy | Invited lecture to Pennsylvania State University, USA | Pennsylvania State University, USA |
| 2. | Dr. Tanushree Bhattacharya | Nodal Officer for Ranchi, NCAP | SPCB, RMC, GoI |
| 3. | Dr. Kirti Avishek | Member of the Monitoring committee under National Green Tribunal (NGT) to evaluate the status of Illegal sand mining in Garwa | National Green Tribunal, GoI |
| 4. | Dr. Praveen Srivastava | Gold Award in BLM2-ICAM4, International Joint E-Conference | Taylor University, Malaysia, and University of Kelaniya, Srilanka |
| 5. | Dr. Seshadev Padhi | Adrosonic Golden Applied Award | Adrosonic pvt. Ltd, Mumbai |
| 6. | Dr. Saurav Chakraborty | ASME Best Reviewer award for the Journal of Thermal Science and Engineering Progress | American Society of Mechanical Engineers |
| 7. | Dr. Priyank Kumar | Invited Talk: Wind Tunnel & their Applications on the PM eVidya Channel | NCERT, New Delhi |
| 8. | Dr. Upasna Sumanta | Proud Indian Innovative Teacher Award-2022 | The International Multidisciplinary Research Foundation, Vijayawada, Andhra Pradesh |

## Faculty Development Related Activities

- Faculty Development training was conducted (12 Sessions for 35 faculty members) on "Changing the Mindset: Importance of Entrepreneurship and Startup Culture using Design Pedagogy."
- Student Training Programme was conducted (12 Sessions for 60 students and 5 faculty observers) on "Design Driven Innovation and Entrepreneurship Programme for Startup Creation."
- 16 New faculty applied for fund under SEED MONEY SCHEME of BIT. Their proposals were evaluated by a team of experts, and a total of ₹56.65 Lacs was sanctioned for carrying out their research over 2 years period.
- Worldwide Innovation Network (WIN) Software (500 user licenses) was procured to promote Innovation and Entrepreneurship. Training sessions were conducted for faculty and student.
- SERB International Research Experience (SIRE) grant was received for 2 faculty members namely Dr. Sumit Mishra, Of Dept. of Chemistry and Dr. Muthu Kumar of Department of Bio Engineering and Bio Technology, They will be going abroad for few months to accelerate their research and international experience.

- Intellectual Property Right (IPR) cell was re-constituted to make it dynamic. Following Webinars were conducted to promote understanding and Importance of Patent and IPR in Academic Setup
  - "Intellectual Property Rights Awareness Programme" by Kolkata Patent General (23rd March, 2022)
  - A Talk on "Commercialization of Technologies" by Dr. Sanjeev Kr. Mazumdar, Manager, NDRDC (2nd March 2022)

BIT Mesra has always been keen to promote the culture of innovation and entrepreneurship. Recent initiatives in this direction are:

## Innovation and Entrepreneurship Related Activities

- The existing Institute Innovation Council (IIC) team was re-constituted with more dedicated faculty team to enhance BIT's contribution towards the objectives of MoE's Nations Innovation Mission.
- "Center of Excellence in Drone Technologies" was formed which is First among Private Universities to have such Centre for Drone and MOU signed with DRONEBAZAAR Pvt. Ltd. They will be funding for establishing "Center of Excellence in Drone Technologies" under ECE.
- MOU signed with ADROSONIC Pvt. Ltd. They will be funding for establishing "Digital Innovation Lab" in CQEDS.
- Institute Innovation Council (IIC) activities were appreciated in the recent regional meet at Kolkata.
- BIT's Performance Rating Has Improved from 1 to 3.5 Star in 2021.
- Two New Entrepreneurship related Policies were formulated: (a) Startup Policy and (b) Innovation, Incubation & Entrepreneurship Policy.
  - to promote faculty's involvement in Startup creation and Mentoring.
  - to encourage Students to think and create innovative solutions/products/startup.
  - 18 different Webinars were conducted under IIC. Different Mega Events (like BIT-NISHAN, QUIZANCE, ENIGMA, Internal Hackathon, Strategic Finance) were conducted.
- A New initiative of Innovation Contest called BIT-NISHAN was started in which students were evaluated for their innovative ideas.
- One of the team SHEO-Bike (Hybrid EV Cycle) selected under NISHAN got many appreciations from various Govt. agencies.

## Interesting Entrepreneurship related Notable Events

**GULF OF ENTREPRENEURS** event was organized on 21 Aug 2021 on the occasion of world entrepreneurs' day. A case study event with prize money of ₹3000 was distributed among the winners.

**Virtual Stock Simulation (VSS)** event organized from 25th Oct to 15th Nov 2021. An amount of ₹10,000 was distributed among the winners.

**E-SUMMIT'22** events were organized from 11th to 13th of March 2022. Following events were conducted as a part of this summit.

- **Unicorn League** – the participants have to develop unique ideas for futuristic startups.
- **Bizalytics** – This event included case studies revolving around historical business decisions, investments, customer optimization, mergers, and implementation decisions. The decisions were judged based on how effective it was for the company.

- **Under Pressure –** In this event, real-life crisis scenarios were presented, and risks were to be minimized and right decisions were to be evaluated in the face of disasters in given time.
- **PENTAGON** - A case study event in which the actual problem faced by Angel One was presented before the participants in the presence of Angel One personnel.
- **IPL Auction** - A thrilling event where contestants were supposed to bid for cricket players and form a team according to the field conditions given to each of them; the team with the most suitable and relevant players won the event.

## Other Notable Events Conducted

- **BIT was selected to host a Prestigious Science Festival called Vigyan Sarvatra Pujyate** during Science Day, 2022 The festival was conducted at 75 locations across India at the same time through which a total of 75 Expositions, 75 Lectures, 75 Films, 75 Radio Talks, 75 Science Literary activities, 75 books, 75 Posters, 75 Awards, events were conducted through hybrid mode.
- The event was conducted in BIT with full vigour and enthusiasm as a part of Azadi ka Amrit Mahotsav in the 75th Independence Year. Various events were conducted like Cultural and Scientific Programmes, Visit of School Children, Interaction with Industry Experts, Panel Discussion during 22nd to 28th February 2022. A total funding of `10.00 Lacs was provided by the Government for this purpose.
- National Innovation Foundation (NIF) Mentor Workshop was conducted at BIT (on 22nd March 2022) to felicitate the school students from Jharkhand whose innovative idea has been selected for National Round under the INSPIRE Award – MANAK (Million Minds Augmenting National Aspirations and Knowledge), being executed by DST with NIF, India. A fund of `1.25 Lacs was provided by NIF.

## Calendar and Annual Events

Despite the challenging year 2021–2022, due to an unprecedented pandemic situation, we could maintain academic activities as per the scheduled academic calendar.

## Academic Achievement and Scholarships

The Centre for Quantitative Economics and Data Science was established in the year 2021–2022 with the aim to provide fundamental knowledge and problem-solving skills in the area of Quantitative Economics and Data Sciences. The centre offers Integrated-5-year M.Sc. program in Quantitative Economics and Data Science.

**GP BIRLA Scholarship worth Rupees** 34261050.00/- was provided to students of the BIT Mesra including all off campuses and University Polytechnic.

| Session | Number of Beneficiaries | Total Amount |
|---|---|---|
| MO 21 | 300 | ₹ 1,68,068,90.00 |
| SP 22 | 313 | ₹ 1,74,541,60.00 |

| Institute Research Fellowships | | |
|---|---|---|
| Existing Institute Research Fellows (IRFs) upto SP 2021 | : | 116 |
| New Institute Research Fellows (IRFs) MO 2021 & SP 2022 | : | 19 |
| Total | : | 135 |
| Budget for the IRFs in the Financial Year 2022–23 ₹466.32 Crores | | |

## Foundation Day Celebration and Distinguished Alumni Award

Birla Institute of Technology, Mesra hosted a grand event "Foundation Day" to celebrate the past, present and the future on 14th & 15th July '2022.

This year as well the institute felicitated its most illustrious alumnus by way of conferring the Distinguished Alumni Award under 6 different categories, as decided earlier. Apart from this, to pay its tribute to our faculty members who have made us proud in the past, the institute under the Chairmanship of our Vice Chancellor decided to felicitate Distinguished Teacher's Award.

### Categories of Award :

BIT Mesra proposes to offer Distinguished Alumnus and Alumna awards to its most illustrious alumni for commendable contributions in any one of the following categories:

**Category 1 :** Contributions to Engineering, Technology and Entrepreneurship –

**Mr. Vijay Kumar**
B.E (Electronics & Communication Engineering) (1983 – 1987)

**Category 2 :** Leadership in Corporate World, Industry, Academia and Research Institutions – one award annually (alumnus or alumna)

**Mr. Amit Chadha**
B.E (Electrical and Electronics Engineering) (1992 – 1996)

**Category 3 :** Excellence in Teaching and Research in Engineering and Technology – one – one award annually (alumnus or alumna)

**Dr. Gopalan Jagadeesh**
M.E (Heat Power Engineering, Mechaical Engineering) (1990–1992)

**Category 4 :** Service to Society in India and abroad including support to the alma mater – one award annually (alumnus or alumna)

**Mr. Sanjeeva Kumar Singh**
B.E (Mechanical Engineering) (1983 – 1987)

**Category 5:** Distinguished service in any of the above categories by an illustrious alumna (Distinguished Alumna Award)

**Ms. Sohini Roychowdhury**
B.E (Electronics & Communication Engineering) (2003 –2007)

**Category 6:** Distinguished Alumni Award for Contributions to Engineering, Technology and Entrepreneurship (Distinguished Alumnus Award) –

**Mr. Nitin Jain**
M.Sc (Animation) (2009–12) Jaipur Campus

**Distinguished Teacher Award for contribution towards academic excellence in teaching and research**

1. Prof. A.K. Chatterjee
2. Prof. Dinakar Sasmal
3. Prof. K. Roy Chowdhury
4. Prof. Bhuwan Mohan Karan
5. Prof. A P Singh
6. Prof. Dipak Jairath

## Birla Institute of Technology Mesra Alumni Association (BITMAA)

Our Alumni Association, Birla Institute of Technology Alumni Association (BITMAA) has been registered under Societies Act XXI, 1860 this year on 10th of January 2022. The PAN card and bank account is also operational. The process to apply for 12A and 80G Certificate is under process.

## Alumni Interactions:

1. A webinar on Germany as an emerging destination for higher studies by Dr. Ashish Sridhar on 24th July 2021
2. Rahul Kumar, BIT Mesra Alumnus from the batch of 2006, interacted with the students and faculties on the topic 'How AI and Internet of Things are transforming B2B Industries in India" on 4th September 2021.
3. Professor Siddhartha Bhattacharya (1996 Graduate of ECE Department at BIT Mesra), Director of Master of Science in Business Analytics addressed the students and faculties on the topic 'Roles of Business Analytics and Data Science' on 2nd October 2021.
4. Faculty Webinar Series, Organised by BITMAA-NA (BIT Mesra Alumni Association – North America Chapter), by Professor Anijo Punnen Mathew (2000 Graduate of the Architecture Department at BIT Mesra) on 27th November 2021.
5. Mr. Romit Maulik, Assistant Computational Scientist in the MCS Division at Argonne National Laboratory and a Research Assistant Professor in the Department of Applied Mathematics at the Illinois Institute of Technology, Chicago, addressed the students and faculties on the topic 'Scientific machine learning: Research at the intersection of mathematics, computing, and data' on 29th January 2022.
6. Miss Sohini Roychowdhury delivered a webinar on "Career Pathways on AI: Academia, Industry and Entrepreneurship" on 5th February 2022 for the faculties and students.
7. Prof. Ganesh Halade gave a webinar on 'Interaction of Heart and Fat on Heart Failure' on 26th February 2022
8. Webinar by Prof. Rajkumar Verma on 'the Role of Purinergic Receptor P2X4 in Neuroinflammation after Ischemic Stroke' on 11th March 2022.
9. Prof. Jitendra Bajpai (1965 – 1970), Civil Engineer from BIT Mesra is an adjunct faculty at School of Professional Studies and Graduate School of Architecture, Planning and Preservation of Columbia University, New York, USA, delivered a talk on 'Next Generation of Infrastructure' on 16th April 2022

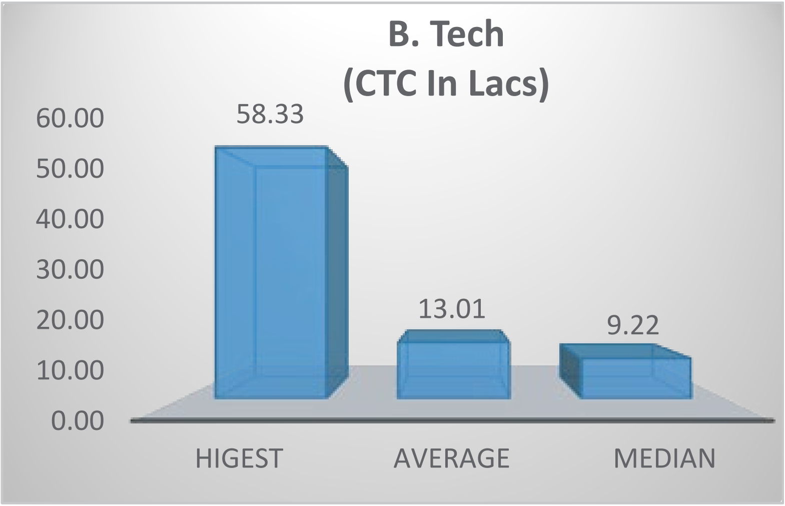
## ISRE (Immersive Summer Research Program)-2022

After 6th Semester, selected students of Engineering are being sent to top US Universities for pursuing their summer research experience for around 8 weeks. The program is termed as Immersive Research Experience Program.

This year a total of 15 students participated in ISRE: (9 visited US for their research + 2 Pursued Online research) carried out their research at Illinois Institute of Technology, Chicago, 2 students (Both at US) carried out their research at North Eastern University, Boston and 2 students pursued their research online from Carnegie Mellon University, Pittsburgh.

## Placement Summary:

In the Campus Recruitment Programme of 2021–22, around 232 recruiters from different sectors visited for full time recruitment and internship, achieving an overall target of 925 job offers. The Mesra campus boasts of an average package of ₹13.01 lacs per annum and the highest national salary of ₹ 58.33 lacs per annum for BE Programme.



## Degrees Awarded:

In the 31st Convocation a total of 3069 degrees were awarded

| 31st Convocation | | | | | | |
|---|---|---|---|---|---|---|
| S. No. | Center | Course | | | | Total |
| | | Ph.D | PG | UG | Diploma | |
| 1 | **Mesra** | 23 | 441 | 814 | 0 | **1278** |
| 2 | **Patna** | 3 | 11 | 411 | 0 | **425** |
| 3 | **Deoghar** | 1 | 0 | 162 | 0 | **163** |
| 4 | **Allahabad** | 4 | 0 | 0 | 0 | **4** |
| 5 | **Lalpur** | 2 | 158 | 384 | 0 | **544** |
| 6 | **Noida** | 3 | 18 | 145 | 0 | **166** |
| 7 | **Jaipur** | 2 | 14 | 191 | 0 | **207** |
| 8 | **University Polytechnic** | 0 | 0 | 40 | 219 | **259** |
| | | | | | **TOTAL** | **3046** |

## Role of BIT in implementing NEP 2020:

National Education Policy 2020 is the new hallmark and guideline for education in the country. BIT Mesra is an active member not only to implement within the Institute but also in the State and National level:

- To ensure that the National Education Policy is implemented in BIT Mesra premises, various seminar and conferences has been organized in recent past.
- Webinar on Completion of 1 year of Transformative Reforms under National Education policy, 2020 was organized from 29th July'21 to 10th Aug.'21 by BIT Mesra and Ministry of Education.
- Faculty members were also encouraged to participate in the seminar, conferences and webinar related to National Education Policy. Faculty members attended State Level Workshop on Implementation of National Education Policy 2020 organised by Department of Higher and Technical Education, Govt. of Jharkhand on 9th Dec.'21.
- Prof. Indranil Manna, Vice Chancellor of BIT, Mesra and the President of Indian National Academy of Engineering (INAE) organized a panel discussion (on 20th April 2022) comprised of Dr. K. Kasturi Rangan, Directors of IITs, leading academicians and industry experts deliberated on opportunities and challenges of implementation of National Education Policy (NEP) 2020 for engineering disciplines and profession.

## Social service rendered by BIT (vaccination, Rural and BIT dispensary) and technical help to the State and neighboring villages.

Besides maintaining its reputation of as a nationally acclaimed center of engineering education and research, BIT Mesra has always made serious efforts to remain connected with the neighborhood by providing humanitarian support including employment opportunities, entrepreneurial training and medical aid wherever possible.

- The health center of BIT Mesra played a major role in the COVID-19 vaccination drive and a total of 13,630 person were vaccinated which include individuals from nearby areas. BIT also have a rural dispensary to ensure that the neighboring village can get the benefit of the medical services.
- Ministry of Education sponsored projects under Unnat Bharat Abhiyaan have been implemented in the nearby villages for their employment generation through technological intervention and for creation of self-help groups and woman empowerment programs.

We are dedicated to continuing the rich tradition of our Institute and will keep working to realize the goals set forth by our founding fathers in accordance with the highest international standards for higher technical education.

# INTRODUCTION

## The Main Building at BIT, Mesra, Ranchi

Birla Institute of Technology, Mesra was established by the renowned philanthropist and visionary industrialist, Late Sri B. M. Birla in July 1955. Initially it was started as an affiliated college of the erstwhile Bihar University and later in 1960 upon creation of the new university in the state; its affiliation was transferred to Ranchi University. In pursuance of the recommendation of the Education Commission Government of India (1964 -1966) and on the basis of the report of a joint selection committee of the UGC and AUDIT, in March 1972, the Institute was granted the status of an 'Autonomous' college by making special provision in Bihar State University Act. The chancellor of the University of Bihar made the rules for its governance.

The achievement of the Institute in terms of research and excellent academic program led to its attaining the status of a deemed university under section 3 of the UGC act in August 1986.

The Institute has constantly improved on its technical facilities as well as in academics in order to keep pace with the fast changing technology scenario, thereby acquiring a pride of place amongst the institutions offering technical education in the country. This Institute celebrated the golden jubilee of its establishment in the year 2005 reaffirming its commitment to the cause of higher education.

## Administration

B.I.T. Mesra is a "Deemed to be University" under sec. 3 of the of the U.G.C act 1956. It functions under the overall supervision, direction and control of a high-powered Board of Governors, comprising representatives of all the Ministry of Education, Government of India, the UGC, the state government, the Chancellor, the A.I.C.T.E, the Hindustan Charity Trust and the Institute faculty. The Governor of the state of Jharkhand is the Chancellor of the Institute. Shri C.K. Birla is the chairman of the board of governors, the composition of the board of governors is given in Annexure – II.

The academic Council decides the academic policy of the Institute. It controls the approves the curriculum the courses and the examination results. It appoints committee like regulation committee for Undergraduate and Post-Graduate Courses, Semester Program Coordination Committee, Admission Committee, Scholarship

Committee, Student Welfare Committee etc. and Departmental Board of Studies to look into the specific academic matters arising from time to time. The teaching training and research activities of various Departments at the Institute are constantly under review for both facilities and Standards. The Vice Chancellor of the Institute is the chairman of the academic Council. The members of the Academic Council have been enlisted in Annexure – III.

The Finance Committee gives financial advice to the Institute in matters relating to building work as well. The composition of these committees have been given in Annexure-IV and V.

## The Main Campus, Mesra, Ranchi

The main campus of the Institute is fully residential and is spread over 780 acres. The main building of the Institute itself covers an area of 30,000 square meters and accommodates the various research and training laboratory, administrative offices and classrooms

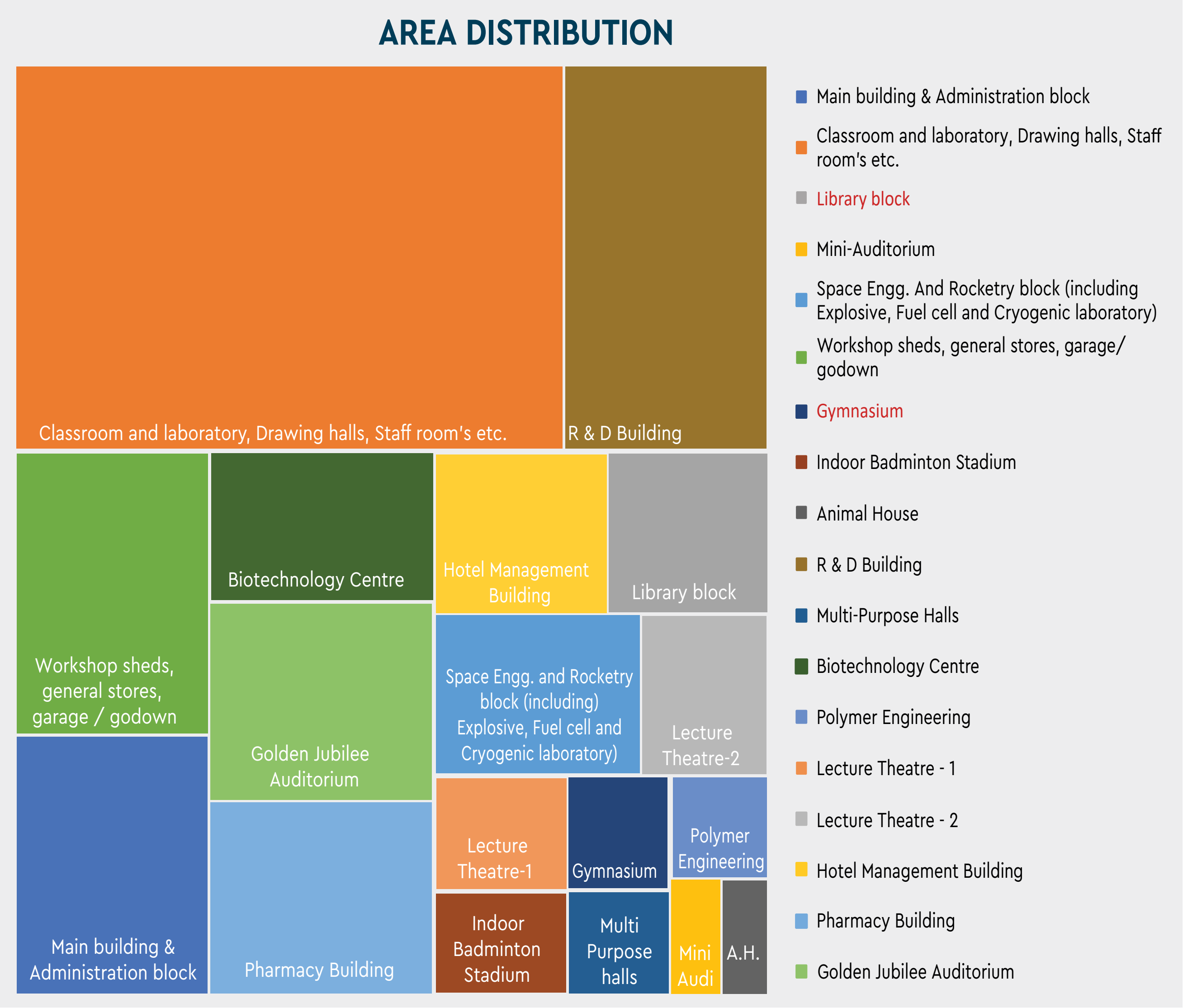
The workshop Annex has built up area of 4,000 square meters. The laboratory and the office of Department of space engineering and rocketry are situated for security reason in a sub campus, about half a kilometer away from the main building the. The campus is self contained amidst well laid lawn with its own protected water supply, marketing centre, dispensary, Bank and schools the first off campus was established in Ranchi City at Lalpur in 1976 with the experience to support with the spirit is it to support the continuing education program for the working engineers and professionals.

The G.P. Birla Auditorium

| Institute Building | (Sq Mtrs.) |
|---|---|
| Main building & Administration block | 3700 |
| Classroom and laboratory, Drawing halls, Staff room's etc | 19300 |
| Library block | 2600 |
| Mini-Auditorium | 450 |
| Space Engg. And Rocketry block (including Explosive, Fuel cell and Cryogenic laboratory) | 2490 |
| Workshop sheds, general stores, garage/godown | 4880 |
| Gymnasium | 850 |
| Indoor Badminton Stadium | 1000 |
| Animal House | 400 |
| R & D Building | 7200 |

| | |
|---|---|
| Multi-Purpose halls | 785 |
| Biotechnology Centre | 3477 |
| Polymer Engineering | 744 |
| Lecture Theatre-1 | 1143 |
| Lecture Theatre-2 | 1535 |
| Hotel Management Building | 2835 |
| Pharmacy Building | 3220 |
| Golden Jubilee Auditorium | 3280 |
| **Residential Complex** | |
| Staff quarter in different categories | 422 |
| Residential complex for supporting services Guards, Dairy Shopkeepers, Washer man etc. | 116 |

The campus area distribution is shown in the following treemap visualization.



de: 23.412396
tude: 85.439175
tion: 624.13m
racy: 11.8m
23-02-2020 10:16
211

Lecture Halls

Latitude: 23.411809
Longitude: 85.438816
Elevation: 603.26m
Accuracy: 4.1m
Time: 23-02-2020 10:11
Note: 203
ude: 23.41248
tude: 85.440657
tion: 602.66m

Design Studio and Lecture Hall

Staff Quarters and Club House

Student Hostels

SBI and UCO Banking Facilities

Transport Section

राष्ट्रीय कैडेट कोर
NATIONAL CADET CORPS
B.I.T. MESRA

NCC Office

## Others

- Consumer's co-operative stores
- NCC Block
- Rifle Firing Range
- NCC Parade ground
- Club House

IC Arena and Cafeteria

## Guest Houses

The Institute maintains two Guest houses with a total numbers of 38 furnished rooms and one VIP Guest-House with 3 deluxe bedrooms to accommodate the Institute's Guests.

## Auditorium

The Institute building houses an auditorium having capacity of 350 persons. Larger scale events organized at Golden Jubilee Auditorium having capacity of about 3000 persons.

Mini Auditorium

Sports Complex

## Games and sports complex

The Institute has Highway structure sports facilities for Indoor as well as outdoor games. These are as follows:

| | |
|---|---|
| Gymnasium including Multi Gym | 1 |
| Stadium for track and field for sports/athletics | 1 |
| Cricket ground including net | 2 |
| Football ground | 2 |
| Hockey ground | 2 |
| Basketball courts | 4 |
| Volleyball courts | 6 |
| Tennis courts | 6 |
| Badminton courts | 8 |
| Kho – Kho ground | 1 |
| Kabaddi Ground | 1 |

Gymnasium and Student Activity Room

The Indoor Stadium

The Volley Ball Court

Seminar Hall

Dispensary

Administrative Offices

## Dispensary Cum Health Centre

**Facilities available**

- OPD services : 8 A.M to 12.00 Noon, 4.00 P.M to 8.00 P.M
- Emergency services : Round the Clock
- Total number of Beds : 12 (Male-9, Female-4)

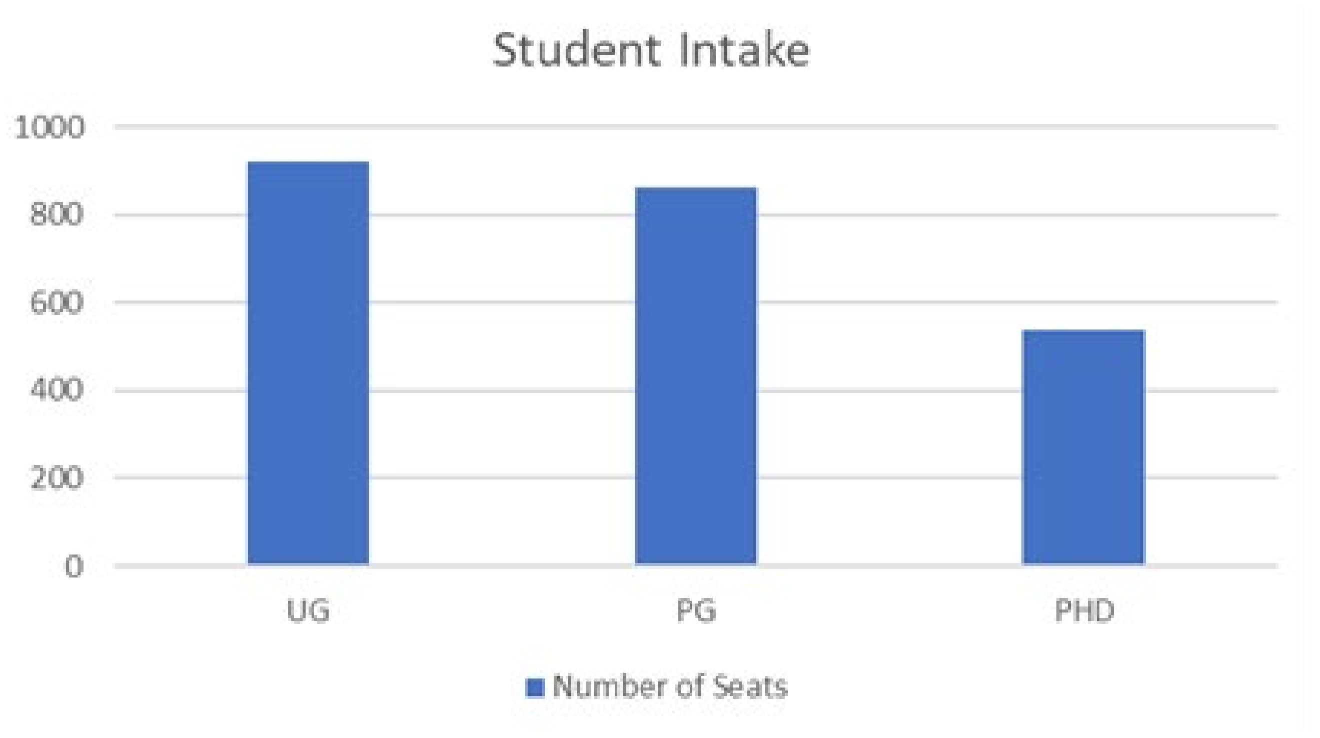
## Shopping Centre

A well – maintained Cooperative Store provides the daily requirements of the campus residents. Over past few years, additional Shopping Complexes have been developed to meet the day-to-day Sundry needs.

## Hostel Facilities for Students

Since the Institute is completely residential, it has 12 boys and 2 girls hostel for their accommodation. All rooms of the hostel have internet facility. Boarders participate in inter – hostel tournaments, indoor and outdoor games, various competitions and adventure trips. Each hostel is having its own well maintained dining hall and a mess committee being managed by the students under the supervision of Hostel Wardens.

## Student Intake and Admissions



## Admission in UG Programmes 2021–22 (Mesra Campus)

| Sr. No. | Course | | No of Seats | Received Application Form | Numbers of Admissions |
|---|---|---|---|---|---|
| 1. | B.Tech* | JOSAA | 780<br>+<br>NRI | * | 788 |
| | | NRI | | | |
| | | EBC/OBC | | | |
| | | GOI (J&K) | | | |
| 2. | B.Arch* | JOSAA | 40<br>+<br>NRI | * | 36 |
| | | NRI | | | |
| | | EBC/OBC | | | |
| 3. | B. Pharm. | | 60 | 184 | 58 |
| 4. | BHMCT | | 40 | 88 | 25 |
| **Total:** | | | **920** | **272** | **907** |

*Data Not Available since admission to these programmes is through JoSAA/CSAB.

## Details of UG Admission at Mesra Campus:

| Sr. No. | Branch | Numbers of Admissions |
|---|---|---|
| 1 | Bachelor of Architecture | 36 |
| 2 | B.Tech Biotechnology | 22 |
| 3 | B.Tech Chemical Engineering | 116 |
| 4 | B.Tech Civil Engineering | 64 |
| 5 | B.Tech Computer Sc. & Engineering | 142 |
| 6 | B.TechElectronics& Communication Engg. | 131 |
| 7 | B.Tech Electrical & Electronics Engg. | 67 |
| 8 | B.Tech Mechanical Engineering | 131 |
| 9 | B.Tech Information Technology | 72 |
| 10 | B.Tech Production Engineering | 43 |
| 11 | Bachelor of Pharmacy | 58 |
| 12 | Bachelorof Hotel Management & Catering Technology | 25 |
| **Total :** | | 907 |

## Admission in PG Programmes 2021–21 (Mesra Campus)

| Sr. No. | Course | | No of Seats | Numbers of Admissions |
|---|---|---|---|---|
| 1 | MBA | | 120 | 100 |
| 2 | MCA | | 60 | 48 |
| 3 | M. Tech Automated Manufacturing Systems | | 12 | 00 |
| 5 | M. Tech Civil Engineering | a). Soil Mech. & Found | 12 | 16 |
| | | b). Structural Engg. | 12 | |
| 6 | M. Tech CAAD | | 12 | 06 |
| 7 | M. Tech – EEE | a). Power Elect. | 18 | 15 |
| | | b). Control System | 12 | |
| | | c). Power System | 12 | |
| 8 | M. Tech – ECE | a). Wireless Comm. | 18 | 19 |
| | | b). Microwave | 12 | |
| | | c). Instrumentation & Control | 12 | |

| Sr. No. | Course | | No of Seats | Numbers of Admissions |
|---|---|---|---|---|
| 9 | M. Tech Mechanical Engineering | a). Heat Power | 12 | 07 |
| | | b). Design of Mechanical Equipment | 12 | |
| 10 | M. Tech – SER | a). Aerodynamics | 12 | 20 |
| | | b). Rocket Propulsion | 12 | |
| 11 | M.Tech Bio- Technology | | 18 | 13 |
| 12 | M.Tech Computer Science & Engineering | | 16 | 12 |
| 13 | M.Tech Information Security | | 18 | 03 |
| 14 | M.Tech Information Technology | | 18 | 06 |
| 15 | M.Tech Energy Technology | | 12 | 03 |
| 16 | M.Tech Env. Science & Engg. | | 18 | 11 |
| 17 | M.Tech Remote Sensing | | 18 | 07 |
| 18 | M.Sc. Chemistry | | 15 | 05 |
| 19 | M.Sc. Mathematics | | 15 | 06 |
| 20 | M.Sc. Physics | | 15 | 06 |
| 21 | M.Sc. Biotechnology | | 30 | 19 |
| 22 | M.Sc. Geo – Informatics | | 20 | 09 |
| 23 | M.Pharm | | 75 | 55 |
| 24 | MUP | | 20 | 16 |
| 25 | Integrated M.Sc. Chemistry | | 30 | 02 |
| 26 | Integrated M.Sc. Physics | | 30 | 18 |
| 27 | Integrated M.Sc. Mathematics | | 60 | 56 |
| 28 | Integrated M.Sc. Food Tech. | | 30 | 05 |
| 29 | Integrated M.Sc. QE and DS | | 30 | 29 |
| **Total :** | | | **848** | **512** |

## Admission in Ph.DProgramme – 2021 (Session MO-2021)

| Sr. No. | Departments | Admitted Candidates |
|---|---|---|
| 1 | Architecture | 05 |
| 2 | Bio – Engineering | 09 |

| | | |
|---|---|---|
| 3 | Computer Science.& Engineering | 16 |
| 4 | Chemistry | 05 |
| 5 | Chemical Engineering | 02 |
| 6 | Civil & Environmental Engineering | 05 |
| 7 | Electrical and Electronics Engineering | 03 |
| 8 | Electronics and Communication Engineering | 07 |
| 9 | Mechanical Engineering | 06 |
| 10 | Mathematics | 04 |
| 11 | Management | 02 |
| 12 | Production Engineering | 02 |
| 13 | Physics | 05 |
| 14 | Pharmaceutical Science & Technology | 04 |
| | **Total:** | **75** |

## Admission in Ph.D Programme – 2021 (Session SP-2022).

| Sr. No. | Department | Admitted Candidates |
|---|---|---|
| 1 | Architecture | 01 |
| 2 | Bio Engineering | 05 |
| 3 | Computer Science & Engineering | 02 |
| 4 | Chemistry | 02 |
| 5 | Civil & Env. Engineering | 03 |
| 6 | EEE | 02 |
| 7 | ECE | 04 |
| 8 | Mathematics | 01 |
| 9 | Management | 01 |
| 10 | Physics | 04 |
| 11 | Pharmaceutical Sc. & Tech. | 06 |
| 12 | Remote Sensing | 04 |
| 13 | SER | 01 |
| | **Total:** | **36** |

## Convocations, Results and Gold Medalist

LIST OF ELIGIBLE CANDIDATES FOR THE AWARD OF **GOLD MEDAL**

| Sr. No. | ROLL NO. | NAME | CGPA | CENTER |
|---|---|---|---|---|
| 1 | **Bachelor of Architecture** | | | |
| | BARCH/10026/15 | SHIVANGI SINGH | 9.05 | MESRA |
| 2 | **Bachelor of Engineering (Biotechnology)** | | | |
| | BE/10059/16 | GYANDEEP | 8.66 | MESRA |
| 3 | **Bachelor of Engineering (Chemical)** | | | |
| | BE/10381/16 | SWATI PRIYA | 9.25 | MESRA |
| 4 | **Bachelor of Engineering (Chemical-Plastics and Polymer)** | | | |
| | BE/10610/16 | VIJYA LAXMI | 8.34 | MESRA |
| 5 | **Bachelor of Engineering (Civil)** | | | |
| | BE/10557/16 | AMAN UJJWAL | 9.36 | MESRA |
| 6 | **Bachelor of Engineering (Computer Science)** | | | |
| | BE/10396/16 | CHANDRALA JESHWANTH KUMAR | 9.29 | MESRA |
| 7 | **Bachelor of Engineering (Electrical and Electronics)** | | | |
| | BE/10547/16 | SAHARSH | 9.11 | MESRA |
| 8 | **Bachelor of Engineering (Electronics and Communication)** | | | |
| | BE/10337/16 | SAI YASWANTH DIVVELA | 9.09 | MESRA |
| 9 | **Bachelor of Engineering (Information Technology)** | | | |
| | BE/10232/16 | AAKRITI KEDIA | 9.20 | MESRA |
| 10 | **Bachelor of Engineering (Mechanical)** | | | |
| | BE/10202/16 | BALAJEE SURYAVANSHI | 9.42 | MESRA |
| 11 | **Bachelor of Engineering (Production)** | | | |
| | BE/10110/16 | JYOTI | 8.85 | MESRA |
| 12 | **Bachelor of Hotel Management and Catering Technology** | | | |
| | BHMCT/10008/16 | BANTI MODAK | 8.17 | MESRA |
| 13 | **Bachelor of Pharmacy** | | | |
| | BPH/10049/16 | PRIYAMBADA RAI | 8.87 | MESRA |
| 14 | **Bachelor of Business Administration** | | | |
| | BBA/15094/17 | AROHI RAJ | 9.51 | PATNA |
| 15 | **Bachelor of Computer Applications** | | | |
| | BCA/40511/17 | AKSHAT VED | 9.39 | LALPUR |
| 16 | **Bachelor of Science (Animation and Multimedia)** | | | |
| | BAM/25003/17 | JYESTHA ARORA | 9.19 | JAIPUR |
| 17 | **Bachelor of Science (Medical Lab Technology)** | | | |
| | BMLT/14/17 | MEGHLAL SAW | 9.70 | UNIV. POLY. |

## Degree Awarded

| 31st CONVOCATION (MESRA) | | | | | |
|---|---|---|---|---|---|
| 1 | **Doctor of Philosophy** | | | | **Total** |
| | Doctor of Philosophy (Engineering) | | | | 14 |
| | Doctor of Philosophy (Management) | | | | 4 |
| | Doctor of Philosophy (Science) | | | | 2 |
| | Doctor of Philosophy (Technology) | | | | 3 |
| | | | **Total** | | **23** |
| 2 | **Post-Graduate Degrees** | **ID** | **I** | **II** | **Total** |
| | Integrated Master of Science (Chemistry) | 1 | 7 | 1 | 9 |
| | Integrated Master of Science (Food Technology) | 3 | 4 | 0 | 7 |
| | Integrated Master of Science (Mathematics and Computing) | 22 | 24 | 4 | 50 |
| | Integrated Master of Science (Physics) | 4 | 9 | 4 | 17 |
| | Master of Business Administration | 0 | 87 | 1 | 88 |
| | Master of Computer Applications | 0 | 43 | 0 | 43 |
| | Master of Pharmacy | 0 | 57 | 0 | 57 |
| | Master of Science (Biotechnology) | 0 | 20 | 0 | 20 |
| | Master of Science (Chemistry) | 0 | 7 | 0 | 7 |
| | Master of Science (Geo-Informatics) | 0 | 13 | 0 | 13 |
| | Master of Science (Physics) | 0 | 5 | 0 | 5 |
| | Master of Technology (Automated Manufacturing Systems) | 0 | 1 | 0 | 1 |
| | Master of Technology (Biotechnology) | 0 | 9 | 0 | 9 |
| | Master of Technology (Chemical) | 0 | 2 | 0 | 2 |
| | Master of Technology (Computer Aided Analysis and Design) | 0 | 2 | 0 | 2 |
| | Master of Technology (Civil Engineering) | 0 | 18 | 0 | 18 |
| | Master of Technology (Computer Science and Engineering) | 0 | 12 | 0 | 12 |
| | Master of Technology (Electronics and Communication Engineering) | 0 | 11 | 0 | 11 |
| | Master of Technology (Electrical Engineering) | 0 | 22 | 0 | 22 |
| | Master of Technology (Energy Technology) | 0 | 2 | 0 | 2 |
| | Master of Technology (Environmental Science and Engineering) | 0 | 7 | 0 | 7 |
| | Master of Technology (Information Security) | 0 | 2 | 0 | 2 |
| | Master of Technology (Information Technology) | 0 | 7 | 0 | 7 |
| | Master of Technology (Mechanical Engineering) | 0 | 7 | 0 | 7 |
| | Master of Technology (Remote Sensing) | 0 | 10 | 0 | 10 |
| | Master of Technology (Space Engineering and Rocketry) | 0 | 2 | 0 | 2 |
| | Master of Urban Planning | 0 | 11 | 0 | 11 |
| | | | **Total** | | **441** |

| 3 | Under-Graduate Degrees | ID | I | II | Total |
|---|---|---|---|---|---|
| | Bachelor of Architecture | 22 | 8 | 1 | 31 |
| | Bachelor of Engineering (Biotechnology) | 22 | 1 | 0 | 23 |
| | Bachelor of Engineering (Chemical) | 35 | 13 | 1 | 49 |
| | Bachelor of Engineering (Chemical-Plastics and Polymer) | 21 | 4 | 0 | 25 |
| | Bachelor of Engineering (Civil) | 45 | 6 | 1 | 52 |
| | Bachelor of Engineering (Computer Science) | 105 | 24 | 2 | 131 |
| | Bachelor of Engineering (Electrical and Electronics) | 41 | 15 | 0 | 56 |
| | Bachelor of Engineering (Electronics and Communication) | 92 | 23 | 2 | 117 |
| | Bachelor of Engineering (Information Technology) | 51 | 10 | 2 | 63 |
| | Bachelor of Engineering (Mechanical) | 101 | 17 | 0 | 118 |
| | Bachelor of Engineering (Production) | 36 | 2 | 0 | 38 |
| | Bachelor of Hotel Management and Catering Technology | 10 | 14 | 2 | 26 |
| | Bachelor of Pharmacy | 39 | 4 | 2 | 45 |
| | Bachelor of Science (Major in Chemistry) | 4 | 0 | 0 | 4 |
| | Bachelor of Science (Major in Food Technology) | 1 | 0 | 0 | 1 |
| | Bachelor of Science (Major in Mathematics and Computing) | 11 | 0 | 0 | 11 |
| | Bachelor of Science (Major in Physics) | 22 | 2 | 0 | 24 |
| | | | **Total** | | **814** |
| | | | **Grand Total** | | **1278** |

*ID : First Class with Distinction
I : First Class
II : Second Class

## 31st CONVOCATION (DEOGHAR)

| 1 | **Doctor of Philosophy** | | | - | **Total** |
|---|---|---|---|---|---|
| | Doctor of Philosophy (Engineering) | | | | 1 |
| | **Total** | | | | **1** |
| | | | | | |
| **2** | **Under-Graduate Degrees** | **ID** | **I** | **II** | **Total** |
| | Bachelor of Engineering (Computer Science) | 17 | 24 | 3 | 44 |
| | Bachelor of Engineering (Electronics and Communication) | 13 | 18 | 5 | 36 |
| | Bachelor of Engineering (Electrical and Electronics) | 12 | 14 | 10 | 36 |
| | Bachelor of Engineering (Information Technology) | 1 | 4 | 1 | 6 |
| | Bachelor of Engineering (Mechanical) | 19 | 15 | 6 | 40 |
| | **Total** | | | | **162** |
| | **Grand Total** | | | | **163** |

| 31st CONVOCATION (ALLAHABAD) | | | | | |
|---|---|---|---|---|---|
| 1 | **Doctor of Philosophy** | | | - | **Total** |
| | Doctor of Philosophy (Engineering) | | | | 2 |
| | Doctor of Philosophy (Management) | | | | 1 |
| | Doctor of Philosophy (Science) | | | | 1 |
| | | | | **Total** | **4** |

| 31st CONVOCATION (LALPUR) | | | | | |
|---|---|---|---|---|---|
| 1 | **Doctor of Philosophy** | | | | **Total** |
| | Doctor of Philosophy (Management) | | | | 1 |
| | Doctor of Philosophy (Technology) | | | | 1 |
| | | | | **Total** | **2** |
| 2 | **Post-Graduate Degrees** | **ID** | **I** | **II** | **Total** |
| | Master of Business Administration | 0 | 89 | 1 | 90 |
| | Master of Computer Applications | 13 | 50 | 4 | 67 |
| | Master of Tourism Management | 0 | 0 | 1 | 1 |
| | | | **Total** | | **158** |
| 3 | **Under-Graduate Degrees** | **ID** | **I** | **II** | **Total** |
| | Bachelor of Business Administration | 136 | 39 | 2 | 177 |
| | Bachelor of Computer Applications | 146 | 51 | 10 | 207 |
| | | | **Total** | | **384** |
| | | **Grand Total** | | | **544** |

| 31st CONVOCATION (NOIDA) | | | | | |
|---|---|---|---|---|---|
| 1 | **Doctor of Philosophy** | | | | **Total** |
| | Doctor of Philosophy (Engineering) | | | | 2 |
| | Doctor of Philosophy (Technology) | | | | 1 |
| | | | **Total** | | **3** |
| 2 | **Post Graduate Degrees** | **ID** | **I** | **II** | **Total** |
| | Master of Business Administration | 0 | 11 | 1 | 12 |
| | Master of Computer Applications | 0 | 3 | 2 | 5 |
| | Master of Technology (Computer Science and Engineering) | 0 | 1 | 0 | 1 |
| | | | **Total** | | **18** |
| 3 | **Under-Graduate Degrees** | **ID** | **I** | **II** | **Total** |
| | Bachelor of Business Administration | 41 | 25 | 5 | 71 |
| | Bachelor of Computer Applications | 20 | 14 | 6 | 40 |
| | Bachelor of Science (Animation and Multimedia) | 29 | 5 | 0 | 34 |
| | | | **Total** | | **145** |
| | | | **Grand Total** | | **166** |

## 31st CONVOCATION (JAIPUR)

| 1 | **Doctor of Philosophy** | | | | **Total** |
|---|---|---|---|---|---|
| | Doctor of Philosophy (Engineering) | | | | 1 |
| | Doctor of Philosophy (Management) | | | | 1 |
| | | | | **Total** | **2** |
| **2** | **Post Graduate Degrees** | **ID** | **I** | **II** | **Total** |
| | Master of Animation Design | 0 | 4 | 0 | 4 |
| | Master of Computer Applications | 3 | 5 | 2 | 10 |
| | | | | **Total** | **14** |
| **3** | **Under-Graduate Degrees** | **ID** | **I** | **II** | **Total** |
| | Bachelor of Business Administration | 13 | 3 | 3 | 19 |
| | Bachelor of Computer Applications | 15 | 17 | 3 | 35 |
| | Bachelor of Engineering (Computer Science) | 35 | 12 | 3 | 50 |
| | Bachelor of Engineering (Electrical and Electronics) | 16 | 13 | 2 | 31 |
| | Bachelor of Engineering (Electronics and Communication) | 15 | 24 | 1 | 40 |
| | Bachelor of Science (Animation and Multimedia) | 12 | 4 | 0 | 16 |
| | | | | **Total** | **191** |
| | | | **Grand Total** | | **207** |

## 31st CONVOCATION (UNIVERSITY POLYTECHNIC)

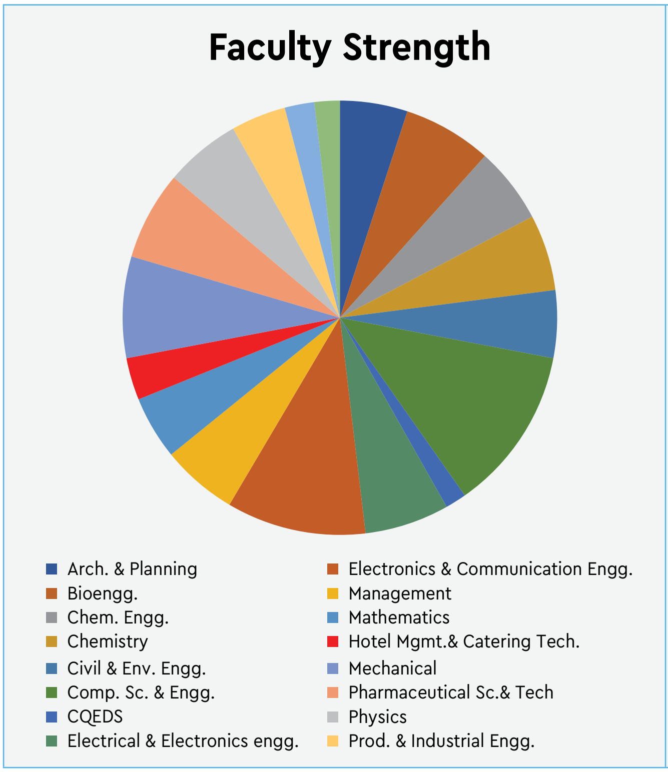
| 1 | **Under-Graduate Degrees** | **ID** | **I** | **II** | **Total** |
|---|---|---|---|---|---|
| | Bachelor of Science (Medical Lab Technology) | 21 | 17 | 2 | 40 |
| | **Total** | | | | **40** |
| **2** | **Diploma** | **ID** | **I** | **II** | **Total** |
| | Diploma in Automobile Engineering | 12 | 44 | 17 | 73 |
| | Diploma in Computer Engineering | 14 | 7 | 9 | 30 |
| | Diploma in Electrical and Electronics Engineering | 18 | 15 | 1 | 34 |
| | Diploma in Electronics Engineering | 6 | 13 | 7 | 26 |
| | Diploma in Manufacturing Engineering | 8 | 10 | 9 | 27 |
| | Diploma in Mechanical Engineering | 14 | 13 | 2 | 29 |
| | | | **Total** | | **219** |
| | | | **Grand Total** | | **259** |

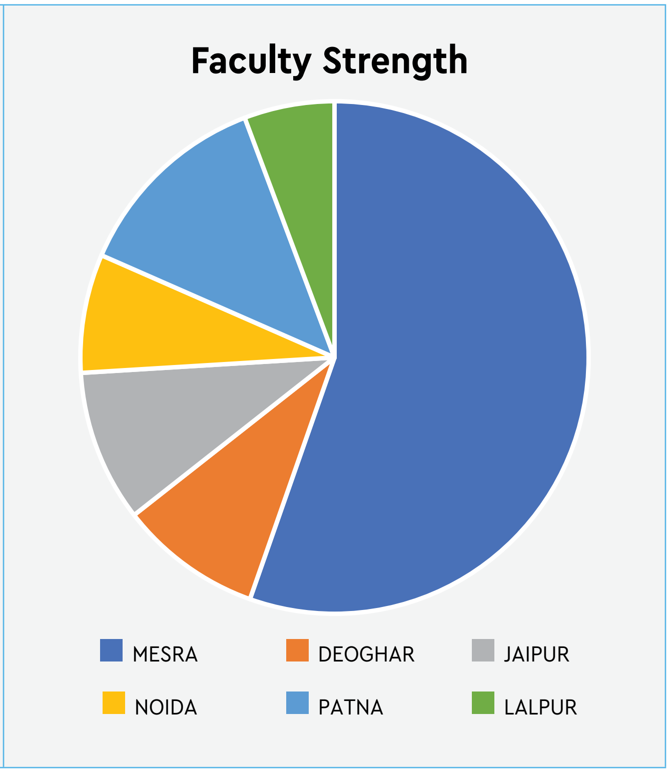
### 31st Convocation (Pass out from March 2020 to April 2021)

| S. No. | Center | Course | | | | Total |
|---|---|---|---|---|---|---|
| | | Ph.D | PG | UG | Diploma | |
| 1 | **Mesra** | 23 | 441 | 814 | 0 | **1278** |
| 2 | **Patna** | 3 | 11 | 411 | 0 | **425** |
| 3 | **Deoghar** | 1 | 0 | 162 | 0 | **163** |
| 4 | **Allahabad** | 4 | 0 | 0 | 0 | **4** |
| 5 | **Lalpur** | 2 | 158 | 384 | 0 | **544** |
| 6 | **Noida** | 3 | 18 | 145 | 0 | **166** |
| 7 | **Jaipur** | 2 | 14 | 191 | 0 | **207** |
| 8 | **University Polytechnic** | 0 | 0 | 40 | 219 | **259** |
| | | | | | **TOTAL** | **3046** |

## Faculty Strength:

The faculty percentage in terms of total sanctioned post for last five years is presented in the following chart. The faculty segregation based on gender and regular / contractual TEQIP Faculties are also presented in the next figure. Finally, a Department wise faculty distribution is provided. A total of 318 faculties are present in Mesra (as on 30.06.2022)





# DEPARTMENT

# Department of Architecture & Planning

## SECTION 1 DEPARTMENTAL PROFILE

FACULTY MEMBERS
DEPT. OF
ARCHITECTURE

## 1.1 About the Department :

The Department of Architecture & Planning was established at BIT Mesra in the year 1993, in keeping with the multifarious scope of Architecture & Planning as the art and science of designing spaces and adding value to a meaningful, built environment. It is a subject which is a combination of faculties of engineering, science as well as arts. The programme is a balanced combination of all these streams, yet follows a unique pedagogical methodology that is its hallmark.

### Vision

The underlying vision for the Department of Architecture & Planning is to make the department an academic knowledge hub that will actively contribute in the contemporary domain, by

- Providing innovative professionals who will contribute wholesomely to nation building.
- Providing individuals who can make significant contribution to the advancement of the society.
- Preparing students for leadership roles in the fields of Architecture & Planning.

### Mission

The mission of the Department of Architecture & Planning is to foster a student-centered educational program in architecture. The programme through its pedagogy which is heuristic and responsive to technological, cultural, and social environments, seeks to offer a diverse, interdisciplinary and rigorous curriculum that will promote personal development and professional excellence.

### Studying in the Department of Architecture & Planning

Department of Architecture & Planning, BIT Mesra, a leading center for research and teaching in architecture, urban design, and sustainable design, is one of the top-ranking Architecture & Planning Department in the country. The department is noted for its meticulous teaching leading to fundamental, applied research and collaboration with leading experts from practice and industry. Since its inception in 1993, the Department has made a substantial contribution in the national and international arena by rendering academic and professional services.

*Department of Architecture & Planning, BIT Mesra ranks 8th as per India Today 2022*

*Department of Architecture & Planning, BIT Mesra ranks 6th as per Education World 2021*

*Department of Architecture & Planning BIT Mesra has been ranked 25th position in NIRF 2022*

The course structure is poised between theoretical knowledge and its practical application with ample application-based lab subjects evenly distributed throughout the syllabus. the practical orientation of working in an actual office is also taken care of in the Practical Training subject in the final year of the course.

Students also get a scope to exercise the applicability of the entire course learning in the Final Year Thesis dissemination.

Architecture students find rewarding employment in planning, design and construction industries.

Many pursue higher studies in India and abroad in City Planning, Urban Design, Landscape Architecture, Conservation, Construction Management – to name a few.

## SECTION 2 RESEARCH PROJECTS

### 2.1 Sponsored Projects (Research and Consultancy)

**Ongoing Projects :**

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | AICTE MODROBS | PI –<br>Dr. Satyaki Sarkar | AICTE | 2021 | ₹8,00,000/- | 2 years |
| 2. | Rehabilitation of PAFs at ECL Rajmahal Project | PI- Dr. Manjari Chakraborty;<br>Co-PI Dr. Rajan Chandra Sinha;<br>Ar. Prashant Prasad;<br>Ar. Abhinandan Bera | ECL | 25th April 2022 | ₹23,60,000/- | 3 months |
| 3 | Developing a toolkit for assessing housing needs for scheduled tribes in urban areas | Dr. Smriti Mishra (PI)<br>Ms. Anila S. Surin (Co-PI) | BIT, Mesra | July 2019 | ₹2,00,000/- | 2Yrs. |
| 4 | Role of water bodies on settlement pattern: a case study of Ranchi district | Shama Parween | BIT, Mesra | 24/12/2020 | ₹1,91,000/- | 2Yrs. |
| 5 | Implications of Plot level redevelopment, A case of Ranchi | Ar. Rizwan Kazmi | BIT, Mesra | 24/12/2020 | ₹1,95,000/- | 2Yrs. |
| 6 | People –place connection: Local People's preoaration of foagship ganga riverfront case of Patna | Ar. Anjali Pathak | BIT, Mesra | 24/12/2020 | ₹13,00,000/- | 2Yrs. |

| | | | | | | |
|---|---|---|---|---|---|---|
| 7 | Understanding Impact of colonial urbanism and sanitary polices on the contemporary urban geography and challenges to urban sewage management in Allahabad | Ar. Tiwari Pavan Kumar | BIT, Mesra | 24/12/2020 | ₹1,90,000/- | 2 Years |

## SECTION 3 SEMINAR / CONFERENCE

### 3.1 Seminar / Conferences / Short – Term Courses Conducted :

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event (dd.mm.year) |
|---|---|---|---|---|
| 1. | Technique of Design, Analysis and Retrofitting of Skyscrapers | Dr. Manjari Chakraborty, Dr. Satyaki Sarkar, Dr. Prashant Prasad | BIT, Mesra | 13th – 17th Dec 2021 |
| 2 | Mobility in Sustainable Cities | Dr. Manjari Chakraborty, Dr. Satyaki Sarkar, Dr. Prashant Prasad | BIT, Mesra | 20th – 24thJune 2022 |
| 3. | Stakeholder Interaction Session | Dr. Smriti Mishra<br>Ar. Anila S Surin | BIT, Mesra | 05th May 2022 |
| 4. | Symposium-2022 – Journey in Architecture School & Beyond | Ritu Agrawal | BIT Mesra | 08th March 2022 |
| 5. | Alumni connect | Ritu Agrawal | BIT Mesra | 09th April 2022 |
| 6. | Seminar on Heritage Conservation & Site study by Shri S.D. Singh, ITRHD | Satyaki Sarkar | BIT Mesra | 28h March 2022 |

### 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by

**Faculty Members**

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 1. | Ar. Ritu Agrawal | Mobility in Sustainable Cities ( STTP- Online) | BIT Mesra, Ranchi | Department of Architecture and Planning, BIT Mesra, Ranchi | Online | 20th-24thJune 2022 |
| 2. | Ar. Ritu Agrawal | National Research Development Workshop on 'Statistical Technique and Data Analytics' (Online) | BIT Mesra, Ranchi | Department of Management, BIT Mesra, Ranchi | Online | 10th – 14th June 2022 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 3. | Ar. Ritu Agrawal | Research Methods in Architecture<br>(STTP-Online ) | BIT Mesra, Ranchi | Department of Architecture and Planning, NIT Patna | Online | 11th – 15th April 2022 |
| 4. | Ar. Ritu Agrawal | Quantitative Methods for Qualitative Research in Architecture and Planning(FDP – Online) | BIT Mesra, Ranchi | COA-TRC, Bhopal and IES College of Architecture, Trissur, Kerala | Online | 7th – 11th March 2022 |
| 5. | Ar. Ritu Agrawal | Intellectual Property Rights in Architecture and Design (FDP – Online ) | BIT Mesra, Ranchi | AICTE- QIP Sponsored -MITS Gwalior | Online | 21st – 25th Feb 2022 |
| 6. | Ar. Ritu Agrawal | Techniques of Design, Analysis, and Retrofitting of Skyscrapers (STTP – Online ) | BIT Mesra, Ranchi | Department of Architecture and Planning, BIT Mesra, Ranchi | Online | 13th – 17th Dec 2021 |
| 7. | Ar. Ritu Agrawal | Inclusive Initiatives for Sustainable Development – Need and Relevance of Interdisciplinary Research<br>(FDP – Online ) | BIT Mesra, Ranchi | Amity Business School (ABS), Amity Law School (ALS) and Amity School of Architecture and Planning (ASAP), Amity University Kolkata | Online | 16th – 21st Aug 2021 |
| 8. | Ar. Ritu Agrawal | Addressing Livability in a Post-Pandemic World (FDP – Online ) | BIT Mesra, Ranchi | Amity School of Architecture and Planning, Kolkata and Centre for Science and Environment (CSE) | Online | 14th – 20th July 2021 |
| 9. | Smriti Mishra | Techniques of Design, Analysis, and Retrofitting of Skyscrapers | BIT Mesra, Ranchi | BIT Mesra, Ranchi | Virtual/ Online mode | 13th - 17th Dec 2021 |
| 10. | Smriti Mishra | 'Archi-Nari' – A Women's Perspective in Architectural Capacity Building | Council of Architecture | Council of Architecture and SAL School of Architecture, Ahmedabad, Gujrat | Virtual/ Online mode | 8th – 11th March 2022 |
| 11. | Smriti Mishra | Making Indian Cities Disaster and Climate Change Resilient Towards Responsive and Actionable Urban Planning, Policy and Development" from organized by | National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India | National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India in collaboration with IMPRI Impact and Policy Research Institute | Virtual/ Online mode | 23rd – 25th May 2022 |

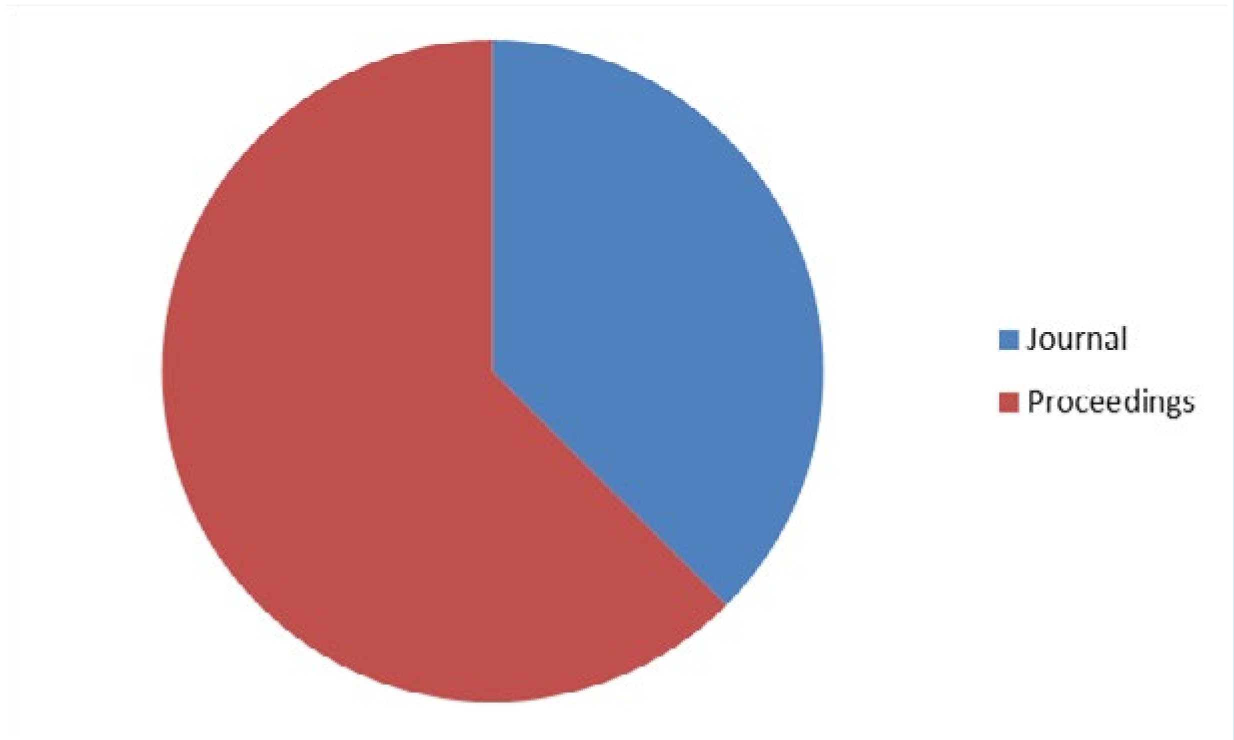
| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 12. | Smriti Mishra | Training of ArcGIS Pro Essential Workflows | BIT Mesra, Ranchi | ESRI | Online mode | 5th – 7th Jan 2022 |
| 13. | Rizwan Kazmi | Intellectual Property Rights in Architecture & Design | AICTE-QIP | Madhav Institute of Technology & Science, Gwalior | Online | 21th – 25th Feb 2022 |
| 14. | Rizwan Kazmi | 'ARCHI-NARI' – A WOMEN'S PERSPECTIVE IN ARCHITECTURAL CAPACITY BUILDING | COA-TRC Pune | COA-TRC Pune | Online | 8th – 11th March 2022 |
| 15. | Rizwan Kazmi | "Provisions of Energy Conservation Building Code" | COA in collaboration with Aayojan School of Architecture | COA & BEE | Online | 4th – 8th April 2022 |
| 16. | Rizwan Kazmi | Module 2: Professional Ethics & Sustainability | AICTE | National Initiative for Technical Teacher's Training | Online Course (Swayam) | September to February 2022 |
| 17. | Rizwan Kazmi | Module 3: Communication Skills, Modes & Knowledge Dissemination | AICTE | National Initiative for Technical Teacher's Training | Online Course (Swayam) | September to February 2022 |
| 18. | Rizwan Kazmi | RACHNA: Innovative Construction Technologies & Thermal comfort for Affordable Housing | MoHUA | CSB Cell, GIZ, BMTPC, GoJ | Ranchi Smart City Auditorium, Ranchi | 7th April 2022 |
| 19. | Shama Parween | Intellectual Property Rights in Architecture & Design | AICTE-QIP | Madhav Institute of Technology & Science, Gwalior | Online | 21st – 25th Feb 2022 |
| 20. | Shama Parween | 'ARCHI-NARI' – A WOMEN'S PERSPECTIVE IN ARCHITECTURAL CAPACITY BUILDING | COA-TRC Pune | COA-TRC Pune | Online | 8th – 11th March 2022 |
| 21. | Shama Parween | STTP on Mobility in sustainable Cities | Department of Architecture & Planning | Department of Architecture &Planning and NIUA | Online | 20th – 24th June 2022 |
| 22. | Shama Parween | RACHNA: Innovative Construction Technologies & Thermal comfort for Affordable Housing | MoHUA | CSB Cell, GIZ, BMTPC, GoJ | Ranchi Smart City Auditorium, Ranchi | 7th April 2022 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 23. | Dr. Bimal Chandra Roy | Advances in Teaching and Research in the Field of Disaster Resilience and Green Technology for Sustainable Development Goals" | Ministry of Home Affairs, Govt. of India, New Delhi | National Institute of Disaster Management, | On-line | 6th – 10th June 2022 |

## SECTION 4 RESEARCH PUBLICATIONS

**Publications in Journals : 3**

**Publications in Proceedings: 5**



## SECTION 5 AWARD / PATENT / COLLABORATIONS

### 5.1 MoUs / Collaborations (between 1st July 2021 to 30th June 2022) :

| Sr. No. | Name of Organisation / University | Purpose / Area/Short Description | Year / Duration |
|---|---|---|---|
| 1. | National Institute of Urban Affairs, New Delhi | Sustainable & Inclusive Urban Development | 2021 (3 years) |
| 2. | Indian Trust for Rural Heritage & Development | Rural Heritage Preservation | 2021 (5 years) |

## 6.1 Departmental Students' Activities

| Sr. No. | Name of the Activity | Students' Co-Ordinator | Faculty Coordinator | Date / Duration |
|---|---|---|---|---|
| 1. | Model Making Workshop | Aditi | Rizwan Kazmi & Shama Parween | 16th – 17th-April 2022 |
| 2. | RACHNA | - | Dr. Rajan Sinha & Rizwan Kazmi | 2nd – 22nd July 2022 |

## 6.2 List of Faculties

| Sr. No. | Name | Designation |
|---|---|---|
| 1. | Dr. Manjari Chakraborty | Professor & Head |
| 2. | Dr. Satyaki Sarkar | Associate Prof. |
| 3. | Mrs. Ritu Agrawal | Assist. Prof. |
| 4. | Dr. Smriti Mishra | Assist. Prof. |
| 5. | Dr. Bimal Chandra Roy | Assist. Prof. |
| 6. | Dr. Rajan Chandra Sinha | Assist. Prof. |
| 7. | Mr. Anuj Kr. Toppo | Assist. Prof. |
| 8. | Mr. Mrinal Pathak | Assist. Prof. |
| 9. | Mr. Apurv Ashish | Assist. Prof. |
| 10. | Ms. Anila S. Surin | Assist. Prof. |
| 11. | Mr. Tiwari Pavan Kumar | Assist. Prof. |
| 12. | Ms. Anjali Pathak | Assist. Prof. |
| 13. | Mr. Rizwan Kazmi | Assist. Prof. |
| 14. | Ms. Shama Parveen | Assist. Prof. |
| 15. | Dr. Prashant Prasad | Assist. Prof. |
| 16. | Ar. Abhinandan Bera | Assist. Prof. |

## 6.3 List of Adjunct Faculties

| Sr. No. | Name | Designation | Affiliation |
|---|---|---|---|
| 1. | Ar. Sudipta Chakraborty | Adjunct Professor | Department of Architecture & Planning BIT, Mesra<br>Ex-Chief Architect, CMPDIL, Ranchi. |
| 2. | Prof. Chetan V. Vaidya | Adjunct Professor | Department of Architecture & Planning BIT, Mesra<br>Ex Director<br>School of Planning and Architecture ( SPA), New Delhi |

## 6.4 Board of Studies

| Sr. No. | Name of the Member | Designation | Role |
|---|---|---|---|
| Internal Member | | | |
| 1. | Prof. Manjari Chakraborty | Professor & HOD | Chairman |
| 2. | Dr. Smriti Mishra | Assist. Prof., Architecture & Planning | Member |
| 3. | Dr. Bimal Chandra Roy | Assist. Prof., Architecture & Planning | Member |
| 4. | Prof. Akhouri Pramod Krishna | Prof. & Head Dept. of Remote Sensing | Member |
| 5. | Prof. Sudeshna Chakravarty | Prof. & Head Dept. of Civil & Environment Engg. | Member |
| 6. | In-charge | Dept. of Architecture, BIT Patna | Member |
| **External Member** | | | |
| 1. | Prof. Chetan Vaidya | Ex-Director, School of Planning and Architecture, New Delhi | |
| 2. | Prof. Gaurav Raheja | Professor, Department of Architecture & Planning, Indian Institute of Technology, Roorkee | |
| 3. | Ar. Sudipta Chakraborty | Ex-Chief Architect, CMPDIL, Ranchi | |
| 4. | Dr. Mini Malhotra | Research & Development Wing, Oak Ridge National Laboratory, Tennessee, USA | |

## SECTION 7 OTHER INFORMATION

## 7.1 Achievements of Students :

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1 | Uttkarsh Anand | Gold Certificate – 6 week Architectural Writing Workshop | Ar. Apurva Bose Dutta, ACEDGE | Jan-Feb 2022, Online |
| 2 | Ridhhi Sharma & Nayanthara R. & Stevenson Barla | First Runner-up NATCON | Indian Institute of Architect | Nov, 2021 |
| 3 | Dipansh Sha, Adarsh Akash & Sritej Kumar | First Prize, NATCON | Indian Institute of Architect | Nov, 2021 |
| 4 | Uttaksh Anand, Slok Maskara, Harsh Singh, Shubham Sinha, Samridhhi Khanna | ANWESHAN – Short Film Trophy – 2022 | Annual NASA | January, 2022 |

## 7.2 Distinguished Visitors from Industry/Academia/Research organizations

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture (Insert Picture here. Further send the JPEG file along with the email.) |
|---|---|---|---|
| 1. | Ar Atanu Chakraborty, Director of PRAKALP Kolkata | 13th April 2022 | |
| 2. | Shree Deo Singh, State Head, ITRHD | 28th March 2022 | |

## 7.2 List of Distinguished Alumni

| Sr.No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | Gaurav Gupta/93 batch | ARCHLINE Design Pvt. Ltd –Noida, India Managing Director & Principal Architect |
| 2 | Mamta Uppal/93 Batch | Works at Dimensions Design Build Inc |
| 3 | Sandeep Kumar/93 batch | Sr General Manager at Salarpuria Sattva, Bengaluru |
| 4 | Roop Chanda/94 batch | Associate Director at RSP Design Consultant's INDIA Pvt Ltd Bengaluru |
| 5 | Shaon Sikta Sengupta/ 94batch | Edifice Consultants Pvt. Ltd |
| 6 | Biplob Nandy/94 batch | Principal Architect, Biplob Nandy & Associates, Siliguri |
| 7 | Trisha Debdas/96 batch | Head of Business Planning and Operations for Strategic Accounts at Refinitiv Greater New York City |
| 8 | Apurb Minz/96 batch | Principal Architect, Apurb & Associates, Ranchi |
| 9 | Framarz Mistry/97 batch | Director, Design Technology Mohawk Industries, Greater Atlanta |
| 10 | Dogra Gurjeet Singh/ 98 batch | PROVECTUS TECH CONSULTANTS – Business Director, Jamshedpur |

## 7.3 Infrastructure Development

ARC GIS 3D city Engine installed under AICTE MODROBS

One new A3 colour printer installed

New furniture with displays and students work storage added to studios

# Department of Bioengineering and Biotechnology

## SECTION 1 DEPARTMENTAL PROFILE

## 1. About the Department:

**Vision**

The Department of Bioengineering has a vision to impart international standard quality education in the field of Bioscience, Biotechnology and Bioengineering.

**Mission**

- To create state-of-the-art infrastructure for Research and Training in Biotechnology and Bioengineering.
- To provide globally acceptable technical education in Bioscience, Biotechnology and Bioengineering.
- To nurture graduates for innovation and creativity in the field of Bioscience, Biotechnology and Bioengineering having ethical and social concern.
- To promote collaboration with Academia, Industries and Research Organizations at National and International level.
- To contribute to socio-economic development through education and bioentrepreneurship.

## SECTION 2 RESEARCH PROJECTS

## 2.1 Sponsored Projects (Research and Consultancy)

**a) Ongoing Projects :**

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | Identification of the most active cocoonase of sericigenous insects through molecular characterization | Dr D. M. Pandey | DBT, New Delhi | 21 Feb-2018 | ₹ 22.93 Lacs only (CTR&TI, Ranchi; IISER, Pune; BIT Mesra with Total 71.23 Lacs) | 20th Aug 2021 |

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 2. | Development of Novel Antileukemics through Structural and Functional Studies of Engineered and Chimeric Plant type Asparaginase | Co-PI | SERB (DST, Govt. of India) | January, 2022 | ₹ 33,66,000/ | 3 years |
| 3. | In-silico design and validation of boronic acid-based molecules for the treatment of colorectal cancer: Computer aided hit to lead discovery | Dr. Alok Jain<br>(PI) | Department of Biotechnology, India | 02/07/2019 | ₹ 11,360,000/- | 5 years |
| 4. | Self-fitting 4D-Printed Smart Scaffolds with Efficient Bone Regenerative Potential (FILENO. CRG/2021/002179) | Dr. Sneha Singh (PI)<br>Dr. Dilip Kr. Singh (Co-PI-BIT Mesra)<br>Prof. Ashok Kumar (Co-PI- IIT Kanpur) | SERB-CRG | 24/12/2021 | ₹ 70,56,808/- | 03 years |
| 5. | Development of multi-functional nano-HAP bone substitute for effective bone regeneration in critical defects<br>(FILE NO. DST/NM/NT/2018/48) | Dr. Sneha Singh (PI, BIT Mesra)<br>Dr. Abhimanyu Dev (Co-PI-BIT Mesra)<br>Prof. Ashok Kumar (PI, IIT Kanpur)<br>Dr. Saravanan Mathesharan (Co-PI-IIT Kanpur) | DST Nanomission | 10/07/2019 | ₹ 1,13,25,480/- | 03 years |
| 6. | Analysis and identification of features from neural dynamics and their correlations with autonomic nervous system for development of hybrid brain-computer interface | Dr. Rakesh Kumar Sinha | AICTE | *14.08.2021* | ₹ 17.64706 Lacs | 03 years |
| 7. | Development of Novel Antileukemics Through the structural and Functional Studies of Engineered and kimeric Plant-Type Asparaginases | Dr. H. R. Singh (Co-PI)<br>Dr. V. K. Nigam (Co-PI) | SERB(DST) Govt. of India. | 08.02.2022 | ₹ 33.66264 Lac | 03 years |

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 8. | Molecular characterization of type VI secretion system in Enterobacter species | RP Singh | DBT | 01 JULY 2021 | ₹1,13,60,000/ | 5 Years |

## SECTION 3 SEMINAR / CONFERENCE

### 3.1 Seminar / Conferences / Short – Term Courses Conducted

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event |
|---|---|---|---|---|
| 1. | International Symposium on Plant Biotechnology Towards Improving Agri-Food Industry and Healthcare Products (ISPB-2021)" | Dr. D. M. Pandey | IINRG, Ranchi; IIAB, Ranchi; CTR&TI, Ranchi & IFP Ranchi<br>ACITE, DBT GOI, CSIR New Delhi | 27th - 30th Oct 2021 |

### 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by

**Faculty Members**

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 1. | Dr. Sneha Singh | International Online Conference on Materials Science and Technology (ICMT), 2021 | - | Mahatma Gandhi University, Kottayam, Kerala, India & Gdansk University of Technology, Gdansk, Poland & Wroclaw University of Technology, Wroclaw, Poland | Online | 12th – 14th Nov 2021 |
| 2. | S. Ghosh Sachan | 5-day online FDP on "Inculcating Universal Human Values in Technical Education" F.No AICTE/ FDP-SI/OnlineWorkshop /201/112937 | - | AICTE | | |
| 3. | Dinesh Prasad | 5 Days FDP on Genome Engineering for Environment" | AICTE Training And Learning Academy | | Centre for the Environment,<br>Indian Institute of Technology<br>Guwahati, Assam, India<br>(Online) | 23rd – 27th August 2021 |

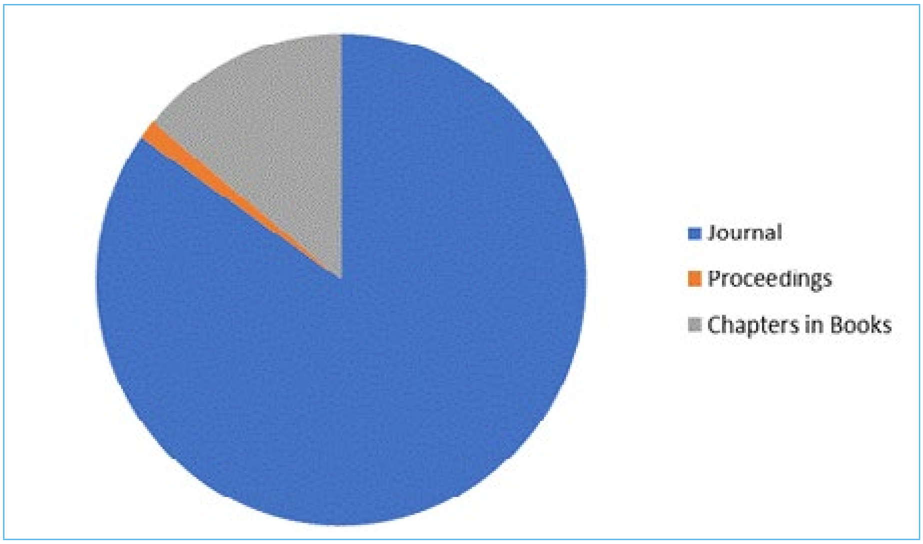
| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 4. | D. M. Pandey | 7 Days National Workshop on GENOME EDITING | | Glostem Private Limited | Online | 27th June - 03rd July 2022 |
| 5. | Dr. Koel Mukherjee | One week programme on "Advanced Instrumental Techniques in Chemistry and Material Sciences" | DST-STUTI programme | Department of Chemistry, BIT Mesra, Ranchi, | BIT Mesra | 9th – 15th May 2022 |
| 6. | Dr Anjana Dwivedi | "Inculcating Universal Human Values in Technical Education" | AICTE | AICTE | Online | 29th Nov - 3rd Dec 2021 |

## SECTION 4 RESEARCH PUBLICATIONS

**Publications in Journals : 67**

**Publications in Proceedings:** 1

**Chapter(s) in Edited Book :11**



## SECTION 5 AWARD / PATENT / COLLABORATIONS

### 5.1 Award / Recognition Bestowed on Faculties

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 1 | Muthu Kumar Sampath | International Research Experience (SIRE) | SERB | National | 2022 |

## 5.2 Patents (Applied / Granted)

| Sr. No. | Name of the Inventor | Title of the Invention | Application / Patent No. (As applicable) | Year | Short Description about the patent |
|---|---|---|---|---|---|
| 1 | Ashok Kumar, Sneha Singh, Archita Gupta, Prerna Singh, Sneha Gupta, Sanjay Kumar Mehta | A Delivery System for Phytobioactives in Bone Healing | APPLICATION NUMBER 202211024100 | 2022 | The patent deals with the exploration of different local delivery systems for phytobioactives for their sustained delivery and efficient bone healing |
| 2 | Singh RP, Zvi Hayouka, Tirosh O | Genetically modified bacteria and use there of | US Patent, application no.- 63/221,135) | 2021 | |

## 5.3 MoUs / Collaborations

| Sr. No. | Name of Organisation / University | Purpose / Area | Year / Duration |
|---|---|---|---|
| 1 | IIT Gandhinagar | Research Collaboration | 2020 – Ongoing |
| 2 | Central University Gujarat | Research Collaboration | 2020 – Ongoing |
| 3 | Central University Rajasthan | Research Collaboration | 2020 – Ongoing |
| 4 | Guru Nanak Dev University, Amritsar | Research Collaboration | 2020 – Ongoing |
| 5 | Biocon Academy Bangalore | Povide internship opportunities for the stuents with Biocon Limited, Bangalore. | 2021 – Ongoing |
| 6 | CTR&TI, Ranchi, Jharkahnd & IISER, Pune | Research Collaboration | 2018 – Ongoing |
| 7 | Indian Institute of Technology Kanpur, Kanpur, Uttar Pradesh, India | Research collaboration in the area of tissue engineering | 2016 – Present |
| 8 | University of Miyazaki, Miyazaki, Japan | Research collaboration in the area of tissue engineering | 2017 – Present |

## SECTION 6 ACTIVITIES/ FACULTY MEMBERS / DOS /DAS

## 6.1. List of Faculties

| Sr. No. | Name | Designation |
|---|---|---|
| 1 | Dr. Rakesh Kumar Sinha | Professor and Head |
| 2 | Dr. Kunal Mukhopadhyay | Professor and Dean |
| 3 | Dr. Padmini Padmanabhan | Professor |
| 4 | Dr. Ramesh Chandra | Professor |
| 5 | Dr. Dev Mani Pandey | Associate Professor |

| | | |
|---|---|---|
| 6 | Dr. Vinod Kumar Nigam | Associate Professor |
| 7 | Dr. Manish Kumar | Associate Professor |
| 8 | Dr. Raju Poddar | Associate Professor |
| 9 | Dr. Shashwati Ghosh Sachan | Assistant Professor |
| 10 | Dr. Alok Jain | Assistant Professor |
| 11 | Dr. Sheela Chandra | Assistant Professor |
| 12 | Dr. Santosh Kumar Jha | Assistant Professor |
| 13 | Dr. Koel Mukherjee | Assistant Professor |
| 14 | Dr. Shubha Rani Sharma | Assistant Professor |
| 15 | Dr. Dinesh Prasad | Assistant Professor |
| 16 | Dr. Yogender Aggarwal | Assistant Professor |
| 17 | Dr. Anjana Dwivedi | Assistant Professor |
| 18 | Dr. Soham Chattopadhyay | Assistant Professor |
| 19 | Dr. S. Muthu Kumar | Assistant Professor |
| 20 | Dr. Sneha Singh | Assistant Professor |
| 21 | Dr. Rajnish P. Singh | Assistant Professor (Ramalinga Fellow) |

## 6.2 Board of Studies

| Sr. No. | Name of the Member | Designation | Role |
|---|---|---|---|
| 1. | HOD, Department of Bioengineering and Biotechnology | Professor & HOD | Chairman |
| 2. | Dr. K. Mukhopadhyay | Professor | Member |
| 3. | Dr. (Mrs.) Padmini Padmanabhan | Professor | Member |
| 4. | Dr. Ramesh Chandra | Professor | Member |
| 5. | Dr. Manish Kumar | Associate Professor | Member |
| 6. | Dr. Soham Chattopadhyay | Assistant Professor | Member |
| 7. | Dr. Gautam Sarkhel | Professor (Chem Eng) | Member |
| 8. | Dr. Ashok Sharon | Professor (Chemistry) | Member |

## SECTION 7 OTHER INFORMATION

## 7.1 Achievements of Students:

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Nishi Prakash Tiwari | 1st Best Poster award at during "International Symposium on Plant Biotechnology Towards Improving Agri-Food Industry and Healthcare Products (ISPB-2021)" | Department of Bioengineering and Biotechnology BIT Mesra in association with, Ranchi; IINRG Ranchi; IIAB Ranchi; CTR&TI Ranchi, & IFP Ranchi | October 27 to 30, 2021<br>BIT Mesra |

| | | | | |
|---|---|---|---|---|
| 2. | Umang Kumar | 2nd Best Poster award at during "International Symposium on Plant Biotechnology Towards Improving Agri-Food Industry and Healthcare Products (ISPB-2021)" | Department of Bioengineering and Biotechnology BIT Mesra in association with, Ranchi; IINRG Ranchi; IIAB Ranchi; CTR&TI Ranchi, & IFP Ranchi | October 27 to 30, 2021<br>BIT Mesra |
| 3. | Alka Yadav | Best Poster award at Biosangam 2022: An International Conference On Emerging Trends In Biotechnology organized by Motilal Nehru National Insititute of Technology (MNIT) Allahabad | Motilal Nehru National Insititute of Technology (MNIT) Allahabad | March 10–12, 2022. |

## 7.2 Distinguished Visitors from Industry/Academia/Research organizations

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture |
|---|---|---|---|
| 1. | Dr. Nitin Kulkarni, Director, IFP, Ranchi | February 08, 2022 | |
| 2. | Dr. S. K. Panda, Professor,<br>Central University of Rajasthan, Ajmer, Rajasthan, India | June 27, 2022 | |

## 7.3 Any other relevant information

1. Dr. Nitin Kulkarni, Director, IFP, Ranchi and Team visited BIT Mesra on February 08, 2022 and interacted with Professor Indranil Manna, Hon'ble Vice Chancellor, BIT Mesra.

From L to R: Prof. R. K. Sinha, Dr. Y. Mishra, Prof. I. Manna, Dr. Nitin Kulkarni, Prof. C Jeganathan and Dr. D. M. Pandey

2. An International Symposium on Plant Biotechnology towards Improving Agri-Food Industry and Healthcare Products (ISPB-2021) was organized by Department of Bioengineering and Biotechnology, Birla Institute of Technology (BIT), Mesra, Ranchi, India in association with ICAR-Indian Institute of Agricultural Biotechnology (ICAR-IIAB) Ranchi, India; ICAR-Indian Institute of Natural Resins and Gums (ICAR-IINRG), Ranchi, India; Institute of Forest Productivity (IFP), Ranchi, India; Central Tasar Research and Training Institute (CTR&TI), Ranchi, India; and The Biotech Research Society, India (BRSI) at BIT Mesra, Ranchi, India during October 27–30, 2021.

Release of ISPB-2021 Souvenir by dignitaries in CAT Hall from L to R: Prof. R. K. Sinha, Dr. C. Chattopadhyay, Dr. K. Sathyanarayana, Prof. I. Manna, Dr. K. K. Sharma and Dr. D. M. Pandey

## 7.4 Special Covid Initiatives, if any:

We have recently carried out the research to identify the reasons for Omicron immune evasion. Notable mutations and their effect was characterised that explain the structural basis of antibody efficacy in Delta and a compromised neutralisation effect for the Omicron variant. Our, results pave the way for robust vaccine design that can be effective for many variants. Source: Comput. Biol. Med. (2022, Accepted)

# Department of Chemical Engineering

## SECTION 1 DEPARTMENTAL PROFILE

CHEMICAL ENGINEERING

### 1.1 About the Department:

The Department of Chemical Engineering with well qualified faculty provides high standard of education in the diversified fields of Chemical Engineering. The Department has immense strength in the area of Polymer Engineering. **The Department received national recognition by winning the Gold Trophy for Plasticon Award 2012 in the category of Best Educational Institution Contributing to Plastics.** The Plasticon Award was conferred on 1st February 2012, at 8th International Plastics Exhibition and conference. The programme was supported by Ministry of Chemicals and Fertilizers, Department of Chemicals and Petrochemicals, Government of India. Faculty members are working on sponsored projects and collaborative research with various organizations. The Department is also recognized under DST-FIST.

The Department has modern and sophisticated laboratories and workshop facilities such as Chemical Engineering Unit Operation laboratory, Chemical Reaction Engineering Laboratory, Process Control Laboratory, Synthesis Laboratory, Energy Engineering Laboratory, Polymer Characterization Laboratory etc. The Department has excellent facilities in Polymer Processing Workshop and Product Development Laboratory including mould design and manufacturing facility. The various materials in characterization facilities include Instron Universal Testing Machine, Rigaku wide angle X-Ray diffractometer, ATLAS accelerated weathering testing system, HAAKE Rheometers. The Product Development facilities include MCP HEK vacuum casting system for prototyping and Stratasys Fused Deposition Modelling system rapid prototyping. The students are trained in various CAE applications in the field of product and process design with various software such as ASPEN PLUS, Accelrys, MATLAB, PROENGINEER, ANSYS, CATIA, FLUENT, POLYFLOW, and MOLDFLOW.

There are several Projects sponsored by DRDL, DST, Ministry of New and Renewable Energy, Coir Board etc. to the credit of the Department. Major research areas are: Nanotechnology, Advanced Polymer Composites, Alternative Energy, Bio-resources Utilization, Pollution Control, Water Treatment Technologies, Polymer Blends and Interpenetrating Polymer Networks, Nano filtration Membrane, Recycling of Polymer Waste, Specialty Polymer, Colloids and Interfacial Science, Tissue Engineering, Sensors, Fuel Cell Membrane.

The Department conducts short and long-term courses in Polymer Processing, Quality Control, CAE, etc. Apart from manpower development, consultancy and testing facilities to the plastics industries are also provided. The Department also conducted an Integrated Industrial Training Programme in plastics processing industry at Amiantit Oman, in Sultanate of Oman.

### VISION

To be a centre of excellence for the provision of effective teaching/learning, skill development and research in the areas of chemical engineering and allied areas through the application of chemical engineering principles.

### MISSION

1. To educate and prepare graduate engineers with critical thinking skills in the areas of chemical engineering & polymer science and engineering, who will be the leaders in industry, academia and administrative services, both at national and international levels.
2. To inculcate a fundamental knowledge base in undergraduate students which enable them to carry out post-graduate study, do innovative interdisciplinary doctoral research and to be engaged in long-life learning.
3. To train students in addressing the challenges in chemical, petrochemical, polymer and allied industries by developing sustainable and eco-friendly technologies.

## SECTION 2 RESEARCH PROJECTS

## 2.1 Sponsored Projects (Research and Consultancy)

**a) Ongoing Projects:**

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | *Development of process technology for enhanced resistant starch content in rice and rice based snack (Puffed rice)* | PI: Dr. Anupam Roy | DST-SERB | 06.06.2019 | ₹ 53.06 Lacs | 3 years |
| 2. | *Development of non destructive process technology for simultaneous micronutrient fortification and bioavailability enhancement in Dal through selective binding of phytic acid* | PI: Dr. Anupam Roy | DBT | 04.02.2021 | ₹ *57.9 Lacs* | 3 years |

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 3. | *Role of hybrid nanofillers on the physiochemical and tribological behaviour of polymer nanocomposite for load bearing advanced mechanical components applications* | *Co-PI: Dr. J Sudeepan* | DST-SERB | 03.03.2022 | *₹45.84 Lacs* | 3 years |
| 4. | *Design and development of low cost technology for micronutrient protein-fortified whole grain puffed rice* | PI: Dr. Anupam Roy | ICMR | *01.05.2022* | *₹ 51.02 Lacs* | 2 years |
| 5. | *Modification of expanded porous starch matrix (EPSM) for promoting survival of probiotic bacteria in both high temperature and gastrointestinal condition: Lab scale to food product matrix validation* | PI: Dr. Anupam Roy | ICMR | *01.06.2022* | *₹ 11.67 Lacs* | 3 years |
| 6. | *Design and Development of Energy Efficient modified refrigeration system using Phase Change Material and its CFD analysis* | PI: Dr. Debasree Ghosh | DST-SERB | *08.06.2022* | *Rs 29.81264 Lacs* | 3 years |

**b) Projects Completed**

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Date of completion of the Project |
|---|---|---|---|---|---|---|
| 1. | Biopolymer based nano-layer fortification of self-assembled micronutrients over pre-conditioned rice: Retention of fortified nutrients and scale up studies | PI: Dr. Anupam Roy | ICMR | 01.11.2019 | ₹ 42.973 Lacs | 31.05.2022 |

## SECTION 3 SEMINAR / CONFERENCE

### 3.1 Seminar / Conferences / Short – Term Courses Conducted :

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event |
|---|---|---|---|---|
| 1 | One-day webinar was organized on "Waste 2 Wealth" | *Dr. A.K. Sen, Dr.Anand Bharti, Dr. Rohit Kumar* | *Institute Funding* | 12.03.2022 |

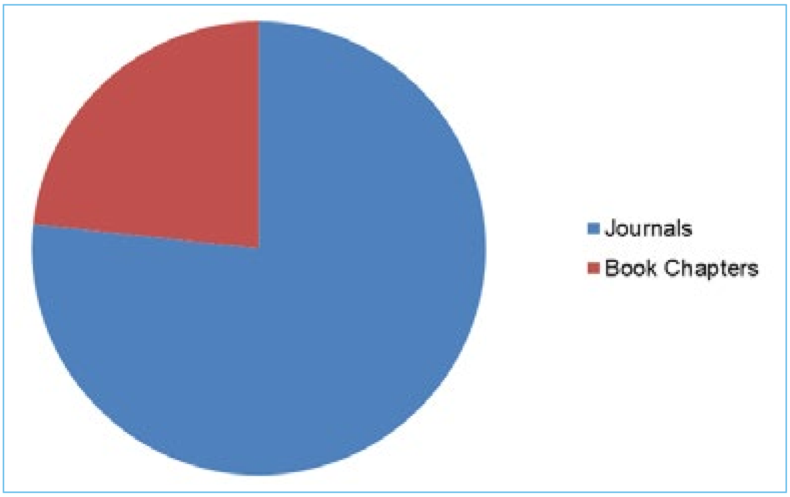
## 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 1. | Dr. Arnab Karmakar | Two Weeks Self-Paced Online FDP on "Delivering Online Course using Canvas LMS" | Birla Institute of Technology Mesra on | Birla Institute of Technology Mesra | Birla Institute of Technology Mesra | 28th June to 9th July, 2021 |
| 2. | Dr. B. C. Ruidas | AICTE-NITTTR Course on module 1: orientation towards technical education and curriculum aspects<br>AICTE-NITTTR Course on module 8: Institutional Management and Administrative Procedures<br>AICTE-NITTTR Course on module 6: Student Assessment and Evaluation | | AICTE-NITTTR | Online | September 2021 |
| 3. | Dr. Anand Bharti | 5-days AICTE Training And Learning (ATAL) Academy Online Elementary Faculty Development Programme on "Biomass to fuels, Chemicals and value-added products for sustainable energy and environmental future" | | National Institute of Technology, Tiruchirappalli | National Institute of Technology, Tiruchirappalli | 20th December to 24th December 2021 |

## SECTION 4 RESEARCH PUBLICATIONS

***Publications in Journals : 56***

**Chapter(s) in Edited Book: 17**



## SECTION 5 AWARD / PATENT / COLLABORATIONS

### 5.1 Award / Recognition Bestowed on Faculties (State / National / International)

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 1. | Dr. Rohit Kumar | Sumant Sinha Sustanability Leadership Award | Renew Power | National | 13.11.2021 |

### 5.2 Patents (Applied / Granted)

| Sr. No. | Name of the Inventor | Title of the Invention | Application / Patent No. (As applicable) | Year |
|---|---|---|---|---|

### 5.3 MoUs / Collaborations

| Sr. No. | Name of Organisation / University | Purpose / Area | Year / Duration |
|---|---|---|---|

## SECTION 6 ACTIVITIES/ FACULTY MEMBERS / DOS /DAS

### 6.1 Departmental Students' Activities

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Co-ordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 1. | Session on Higher Studies,<br>Speaker- Ms. Prerna, K-14 Batch (Chemical Engineering), currently pursuing PhD at University of Minnesota. | - | Dr. Sumit kumar Jana | 19th February 2022, 1 hr. |
| 2. | INDUSTRY CONNECT HZL,<br>Speaker – Mrs. Sunipa Roy, Chief Commerical Officer, Hindustan Zinc limited. | | Dr. Sumit kumar Jana | 12th February 2022, 1 hr. |
| 3. | Session on Higher Studies,<br>Speaker- Mr. Prasoon Kumar, K-15 Batch (Chemical Engineering), currently pursuing PhD at University of Iowa. | | Dr. Sumit kumar Jana | 15th January 2022, 1 hr. |
| 4. | Essay Competition | | Dr. Sumit kumar Jana | 11.01.2022 to 11.02.2022 |

### 6.2 List of Faculties

| Sr. No. | Name | Designation |
|---|---|---|
| 1. | Dr. Gautam Sarkhel | Professor |
| 2. | Dr. Sudipta Goswami | Professor |
| 3. | Dr. Akhil Kumar Sen | Associate Professor |
| 4. | Dr. Arup Choudhury | Associate Professor |

| Sr. No. | Name | Designation |
|---|---|---|
| 5. | Dr. G.T. Mohanraj | Associate Professor |
| 6. | Dr. Pulak Datta | Assistant Professor |
| 7. | Dr. Debasree Ghosh | Assistant Professor |
| 8. | Dr. Sumit Kumar Jana | Assistant Professor |
| 9. | Dr. Sudeepan Jayapalan | Assistant Professor |
| 10. | Dr. Arnab Karmakar | Assistant Professor |
| 11. | Dr. Amarnath Mishra | Assistant Professor |
| 12. | Dr. Abhijit Mondal | Assistant Professor |
| 13. | Dr. Anupam Roy | Assistant Professor |
| 14. | Dr. Bidhan Chandra Ruidas | Assistant Professor |
| 15. | Dr. Amit Kumar Tiwari | Assistant Professor |
| 16. | Dr. Anand Bharti | Assistant Professor |
| 17. | Dr. Yogendra Nath Prajapati | Assistant Professor |
| 18. | Dr. Rohit Kumar | Assistant Professor |

## 6.3 List of Adjunct Faculties

| Sr. No. | Name | Designation | Affiliation |
|---|---|---|---|
| 1. | Prof. Subhabrata Ray | Adjunct Professor | Ex-Prof. IIT Kharagpur |
| 2. | Prof. Chandan Guha | Adjunct Professor | Ex. Head Jadavpur University |
| 3. | Dr. Anuranjan Pandeya | Adjunct Professor | Scientific Digital System |
| 4. | Dr.Suvendu Bhattacharyay | Adjunct Professor | Ex-Chief Scientist CFTRI |

## 6.4 Board of Studies:

***Chemical Engineering***

| Sr. No. | Name of the Member | Designation | Role |
|---|---|---|---|
| 1. | *HoD/In-charge* | *Ex-Officio* | Chairman |
| 2. | *Dr. Gautam Sarkhel* | *Professor* | Internal Member |
| 3. | *Dr. (Mrs.) S. Goswami* | *Professor* | Internal Member |
| 4. | *Dr. G.T. Mohanraj* | *Associate Professor* | Internal Member |
| 5. | *Dr. Anand Bharti* | *Assistant Professor* | Internal Member |
| 6. | *Dr. Sumit Kumar Jana* | *Assistant Professor* | Internal Member |
| 7. | *Dr (Mrs.) Padmini Padmanavan* | *Professor* | Internal Member |
| 8. | *Dr. Sudip das* | *Professor* | Internal Member |
| 9. | *One student representative of UG programme* | | Internal Member |

| Sr. No. | Name of the Member | Designation | Role |
|---|---|---|---|
| 10. | *One student representative of PG programme* | | Internal Member |
| 11. | *Dr. Pallab Ghosh* | *Professor, Dept. of chemical engineering, IIT G* | External Member |
| 12. | *Dr. Sudip Pattanayek* | *Professor, Chemical Engineering Department, IIT D* | External Member |
| 13. | *Dr. H.N. Mishra* | *Ex-Professor, Department of Food and Agricultural Engineering, IIT KGP* | External Member |
| 14. | *Prof. Priyabrata Sarkar* | *Ex-Professor, Department of Polymer Science & technology, University of Calcutta* | External Member |
| 15. | *Dr. Lalaso Vishnu Mohite* | *Senior Scientist, Aditya Birla Science and Technology Comp Ltd.* | External Member |
| 16. | *Dr. Chandan Guria* | *Professor, Department of Petroleum Engineereing, ISM Dhanbad* | External Member |
| 17. | *Dr. kartik Chandra Ghanta* | *Professor, Department of Chemical Engineering, NIT Durgapur* | External Member |
| 18. | *Mr. Basudev Chakraborty* | *GM Coal Cabonization, RDCIS, SAIl* | External Member |

## SECTION 7 OTHER INFORMATION

### 7.1 Publication by students, if any

**Publications in Journals :**

I. *Karmakar, Arnab, Dipanjan Kar, Adil Ahmad, and Sumit Kumar Jana. "Design of a Thermal Desalination System with Spray Flash Drum and Condenser under Vacuum Based on Droplet Dynamics." Heat and Mass Transfer, 2021. https://doi.org/10.1007/s00231-021-03152-4.*

II. *Pandit, Aniruddha Bhalchandra, Sarvar Abbas, and Joydeb Mukherjee. "Mathematical Modelling of Pulsatile Blood Flow in Straight Rigid Artery System." Transactions of the Indian National Academy of Engineering, 2022. https://doi.org/10.1007/s41403-022-00349-9.*

III. *Sinha, Ritika, Swaraj Sengupta, and Sudeepan Jayapalan. "Effect of Hybrid Fillers on the Mechanical Behavior of Polypropylene Based Hybrid Composites." Journal of the Indian Chemical Society 99, no. 2 (2022). https://doi.org/10.1016/j.jics.2021.100317.*

IV. *Tiwary, Pragya, Prabha Nisha Toppo, and Arnab Karmakar. "Transient Analysis and Parameter Estimation with Optimizations in a Plate Heat Exchanger." Sādhanā 47, no. 3 (2022): 125. https://doi.org/10.1007/s12046-022-01885-4.*

### 7.2 Achievements of Students :

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Abhishek Kumar Patra (BTECH/10645/18) | Global Winner for the Undergraduate track of the COINS Grand Challenge 2021 | COINS Global, an International construction management software company based in UK | Sept 2021,<br>Online |

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 2. | Priyanshi Shrivastava<br>(BTECH/10414/19) | MITACS Globalink Research Internship Award 2022 | MITACS Globalink | May 2022 – July 2022<br>University of British Columbia, Vancouver, Canada |
| 3. | Kumar Ayush<br>(BTECH/10527/19) | MITACS Globalink Research Internship Award 2022 | MITACS Globalink | May 2022 – July 2022<br>University of Regina, Saskatchewan, Canada |
| 4. | Naman Singh Bhandari<br>(BTECH/10518/19) | MITACS Globalink Research Internship Award 2022 | MITACS Globalink | May 2022 – July 2022<br>University of Regina, Saskatchewan, Canada |

## 7.3 Distinguished Visitors from Industry/Academia/Research organizations:

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture |
|---|---|---|---|
| 1. | Prof. K. D. P. Nigam<br>(Ex. Professor, IIT Delhi) | 22.10.2021 | |
| 2. | Prof. Subhabrata Ray, (Ex-Prof. IIT Kharagpur) | 24.03.2022 – 25.03.2022 | |
| 3. | Prof. Purnendu Ghosh<br>(Executive Director, Birla Institute of Scientific Research, Jaipur) | 18.04.2022 – 19.04.2022 | |

## 7.4 List of Distinguished Alumni

| Sr.No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | Aparajita, BE/1499/2009, | <br>Aparajita (BE/1499/2009) was student of 2009 batch of department of chemical engineering, BIT Mesra, Ranchi. Aparajita cleared UPSC-CSE exam in the year 2017 with an All India rank of 40 and Got IAS cadre. Presently, she is woking as Additional Commissioner, Municipal Corporation Faridabad. |
| 2. | Kumar Arvind Bedia (BE/1242/11) | Apperead in JPSC 2021 and earned 193rd rank. Mr. Bedia has been selected in Jharkhand Administrative Service.<br> |
| 3. | Prashant Kumar (BE/10706/13) | Apperead in JPSC 2021 and earned 39th rank. Mr. Prashant has been selected in Jharkhand Police Service.<br> |

## 7.5 Infrastructure Development

Development of Labs:

**Chemical Engineering Lab II**

**Applied Food Chemistry, Microbiology and Process Engineering**

## 7.6 Any other relevant information:

The following Instruments has been purchased:

- Vapour- – Liquid Equilibrium (VLE) Apparatus
- Colony Counter
- Millipore Water Purification System
- Karl Fischer Titrator
- Paristaltic Pump
- PROTON EXCHANGE MEMBRANE
- Fuel Cell Test Station

- Fermentor/BioReactor
- EIS Measurement – Impedance Analyser
- Catalytic Fixed Bed Tubular Reactor
- Continous Photochemical Reactor
- COD Digestion Apparatus
- Rotational Viscometer
- Rancimat
- Potentiometric titrator
- Modified Soacking Chember

# Department of Chemistry

## SECTION 1 DEPARTMENTAL PROFILE

### 1.1 About the Department

**About the Department:**

**Vision**

To become a recognized center of excellence for teaching, research, and innovations and contribute significantly to producing academic professionals and entrepreneurs in frontier chemical sciences.

**Mission**

- To impart quality education and fundamental concepts of chemical sciences to students & scholars through our state-of-the-art laboratory, teaching, and research facilities
- Building a scientific environment and motivation towards innovation with quality research in chemical sciences and interdisciplinary areas.

## SECTION 2 RESEARCH PROJECTS

### 2.1 Sponsored Projects (Research and Consultancy)

**a) Ongoing Projects :**

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 1 | Biocompatibility and mechanical studies of nanostructured HAP, metal doped nanostructured HAP on alumina by RF Magnetron Sputtering. | PI:Dr.Deep Shikha<br>Co PI:Dr.S.K.Sinha | SERB | 23/02/2022 | 27.7 Lac | 3 |

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 2. | Combination of small light emitting molecules with carbon materials for next generation optoelectronics | PI: Dr. Anirban Pradhan<br>Co PI: NA | SERB-DST | 22/06/2022 | 16 Lac | 2022 to 2024 |
| 3 | Metal organic frameworks and sequential electrocoagulation for remediation of mining effluents | PI:Dr.Sumit Mishra | SERB-DST | 02/03/2022 | 25 Lac | 2022 to 2025 |
| 4 | Development of non-destructive process technology for simultaneous micronutrient fortification and bioavailability enhancement in Dal through selective binding of phytic acid | Co-PI: Dr S Naskar | DBT | 04/02/2021 | 57.9 Lac | |

## b) Projects Completed

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Date of completion of the Project |
|---|---|---|---|---|---|---|
| 1. | Synthesis and development of novel HSP90 inhibitors as potential anti-HIV candidate molecules and elucidation of their mechanism of inhibition | PI: Dr. A. Sharon | DST-SERB | 03/10/2018 | 23.33 Lac | 31/03/2022 |
| 2 | Band-Gap Engineering of Lead-Free Perovskite Quantum-Dots for Optoelectronic Application | PI: Dr. Joydeep Dhar<br>Co-PI: Dr. A. Sharon | AICTE-TEQIP CRS | 11/07/2019 | 11. 45 Lac | |

## c) Consultancy Projects carried out/ongoing :

| Sl. No. | Title of Project | Funding Agency | Duration | | Grant mobilized (₹ Lacs) | Principal Investigator / Co- Investigator | Ongoing / Completed* |
|---|---|---|---|---|---|---|---|
| | | | from | to | | | |
| 1. | Single Crystal Analysis | Dr. Reddy Lab, Hyderabad | 02/02/2022 | Continue | 2 | PI: Dr. A. Sharon | Ongoing |

## 3.1 Seminar / Conferences / Short – Term Courses Conducted :

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event |
|---|---|---|---|---|
| 1 | Advanced Instrumental Techniques in Chemistry and Materials Sciences (AITCMS22) | Dr. S. Mishra | DST-STUTI | 09th – 15th May 2022 |
| 2 | "Instrumentation & Computation for Experimental Pedagogy in Chemical Education" | Dr. S. Naskar | Institute | 09th June 2022 |
| 3 | Cloud-Based Hands-on Workshop on Computational Chemistry, Molecular Modeling. Drug Design, and Biologics. | Dr. J. Dhar and<br>Dr. D. Chakraborty | Institute | 21st – 23rd Dec 2021 |

## 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by

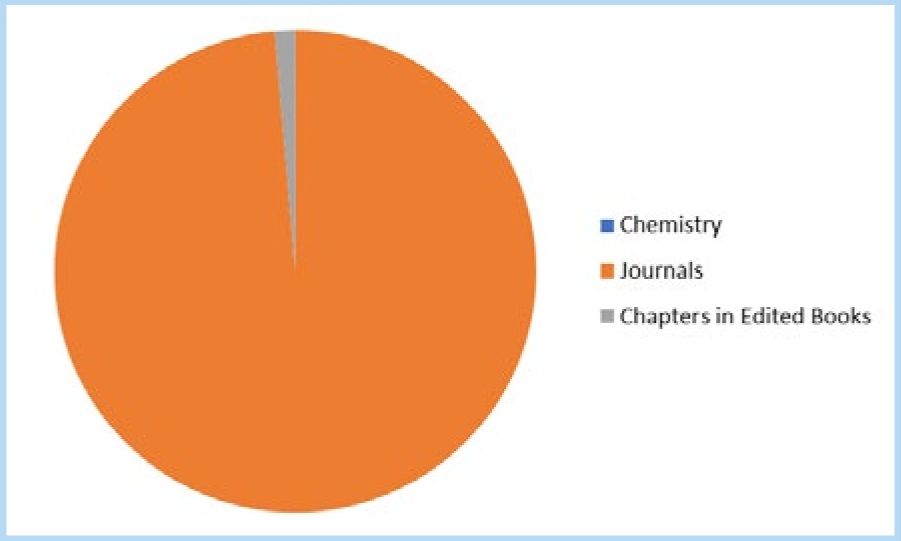
**Faculty Members**

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 1 | Dr. S.S. Mahapatra | 27th International Conference of International Academy of Physical Sciences (CONIAPS XXVII) on<br>Recent Advances in Catalysis Science & Engineering (RACSE) | International Academy of Physical Sciences | Department of Chemistry<br>National Institute of Technology (NIT) Jamshedpur | NIT Jamshedpur | 26th – 28th October 2021 |
| 2. | Dr. S.S. Mahapatra | International Conference on Thermo Fluids and System Design (ICTFSD 2022) | BIT-Mesra | Department of Mechanical Engineering<br>Birla Institute of Technology<br>Mesra, Ranchi<br>Jharkhand | BIT-Mesra | 22nd – 23rd March 2022 |
| 3. | Dr. Anirban Pradhan | Short Term Training Programme on Research Methodology-Basic | BIT-Mesra | BIT-Lalpur off campus Ranchi | BIT-Lalpur off campus Ranchi | 23rd – 27th May 2022 |

## SECTION 4 RESEARCH PUBLICATIONS

**Publications in Journals :28**

**Chapter(s) in Edited Book:4**



## SECTION 5 AWARD / PATENT / COLLABORATIONS

### 5.1 Patents (Applied / Granted)

| Sr. No. | Name of the Inventor | Title of the Invention | Application / Patent No. (As applicable) | Year | Short Description about the patent |
|---|---|---|---|---|---|
| 1. | S. K. Swain, A. Panda, Usha Jha, S. A. Kumar; | A household filter unit using iron ore fines (IOF) and manganese ore (MO) for decontamination of arsenic from groundwater. | Patent no.398783 | Awarded: June 08, 2022 | Water Purification System |
| 2. | A. Sharon, C. Bal, P. K. Kushwaha, N. Kumari | 3-(Isoxazolylmethyl)-1,2,4-Oxadiazole Derivatives and method of preparing the same. | 202031034370 A | Publication: Feb 18, 2022 | Discovery of New Chemical Entity with Method |

### 5.2 MoUs / Collaborations :

| Sr. No. | Name of Organisation / University | Purpose / Area/*Short Description* | Year / Duration |
|---|---|---|---|
| 1. | Wilmot Cancer Institute, University of Rochester Medical Center, Rochester, New York, USA | *Computational Biology:*<br>*PI: Dr. A. Sharon* | 2018-Continue |

## 6.1 List of Faculties

| Sr. No. | Name | Designation |
|---|---|---|
| 1. | Dr. A. Sharon | Professor & Head |
| 2. | Dr. P. K. Srivastava | Professor |
| 3. | Dr. U. Jha | Professor |
| 4. | Dr. J. P. Pandey | Professor |
| 5. | Dr. B. Verma | Associate Professor |
| 6. | Dr S. Mishra | Associate Professor |
| 7. | Dr. S. Naskar | Associate Professor |
| 8. | Dr. P Kar | Associate Professor |
| 9. | Dr. C. Bal | Associate Professor |
| 10. | Dr. Deepshikha | Assistant Professor |
| 11. | Dr. B. D. Ghosh | Assistant Professor |
| 12. | Dr. S. S. Mahapatra | Assistant Professor |
| 13. | Dr. G. Sen | Assistant Professor |
| 14. | Dr. G. K. Agrawal | Assistant Professor |
| 15. | Dr. J. Dhar | Assistant Professor |
| 16. | Dr. Anirban Pradhan | Assistant Professor |
| 17. | Dr. Debdutta Chakraborty | Assistant Professor |
| 18. | Dr. Atul Kumar | Assistant Professor |

## 6.2 List of Adjunct Faculties

| Sr. No. | Name | Designation | Affiliation |
|---|---|---|---|
| 1. | Dr. Amit Basak | Sr. Adjunct Professor | Former Professor, IIT Kharagpur |

## 6.3 Board of Studies

| Sr. No | Name of Member | Designation | Role |
|---|---|---|---|
| 1. | HOD | Head of the Department (Ex-Officio) | Chairperson |
| 2. | Dr. P.K. Srivastava | Professor<br>Dept. of Chemistry | Member |
| 3. | Dr. Usha Jha | Professor<br>Dept. of Chemistry | Member |

| Sr. No | Name of Member | Designation | Role |
|---|---|---|---|
| 4. | Dr. J.P. Pandey | Professor,<br>Dept. of Chemistry | Member |
| 5 | Dr. Sumit Mishra | Associate Professor,<br>Dept. of Chemistry | Member |
| 6 | Dr. Subhendu Naskar | Associate Professor,<br>Dept. of Chemistry | Member |
| 7. | Dr. P. Kar | Associate Professor,<br>Dept. of Chemistry | Member |
| 8. | Dr. C. Bal | Associate Professor,<br>Dept. of Chemistry | Member |
| 9. | Dr. G. Sen | Assistant Professor,<br>Dept. of Chemistry | Member |
| 10 | Dr. T. Ghose | Professor,<br>Dept. of Electrical and Electronics Eng. | Member |
| 11 | Dr. Sudip Das | Professor,<br>Dept. of Space Eng. & Rocketry | Member |
| 12 | Dr. Pradyut Ghosh | Professor, Indian Association for the Cultivation of Science (IACS), Kolkata | External Member |
| 13 | Dr. Manas K. Ghorai | Professor,<br>Indian Institute of Technology, Kanpur | External Member |
| 14 | Dr. Rakeshwar Bandichhor | Vice- President & Head of Chemistry,<br>Dr. Reddy's Laboratories Ltd. Hyderabad | External Member |
| 15 | Dr. Satish Patil | Professor, Solid State and Structural Chemistry Unit, Indian Institute of Science, Banglore | External Member |

## SECTION 7 OTHER INFORMATION

### 7.1 Achievements of Students :

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Ms. Anindita Mukherjee | Best Oral Presentation | GD Goenka University, Gurugram | 4th April 2022 |

### 7.2 List of Distinguished Alumni

| Sr. No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | Harsh Aryan Jalan, IMSc 2K19 | AIR:32 in IIT JAM 2022 , Joined IIT Bombay for MSc. |
| 2. | Prachi Priya , IMSc 2K19 | AIR:140 in IIT JAM 2022, Joined IISc Bangalore for Integrated PhD . |
| 3. | Sunidhi Raj, IMSc 2K19 | AIR:510 in IIT JAM 2022. Joined IIT Patna for MSc. |

| Sr. No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | Bhavi Rathod, IMSc 2K19 | AIR: 662 in IIT JAM 2022,Joined NIT Rourkela for MSc. |
| 2. | Shaini Banerjee, IMSc 2K19 | M.Sc Biotherapeutics in University College Dublin, Ireland |
| 3. | Utkarsh Singh, IMSc 2K18 | AIR:310 in IIT JAM 2021 Joined JNCASR, Bengaluru for Integrated PhD(Material Science). |
| 4. | Shubhadeep Saha, IMSc 2K18 | Joined IISER TVM for MSc |
| 5. | Koustav Kundu, IMSc 2K17 | Joined IIT Mandi for MSc |
| 6. | Sayan Ghosh, IMSc 2K16 | Joined Research Associate at Syngene International, Bangalore |
| 7. | Asparshika Shruti, IMSc 2K16 | Joined Bowling Green State University, USA for Ph.D |
| 8. | Sumant Verma, IMSc 2K16 | Working in ESL Vedanta, Bokaro |
| 9. | Keshav Kishor, IMSc 2K15 | Joined Department of Chemistry and Biochemistry, University of Delaware, Newark, DE, for PhD. |
| 10. | Sneha Nayak, IMSc 2K15 | Joined School of Molecular Sciences (Organic Chemistry), Arizona State University,Tempe, AZ, for PhD. |
| 11. | Suryansh kashyap , IMSc 2K14 | Joined as Assistant Scientist,<br>DSRI CCRUM MINISTRY OF AYUSH GOVT OF INDIA, NEWDELHI |
| 12. | Nilsha Ghosh, MSc 2K20 | Assistant lecturer at Aakash institute, Bangalore |
| 13. | ARPAN, MSc 2K19 | Working in ESL Vedanta, Bokaro |
| 14. | Dr. Shalini Divya, M.Sc. 2K10 | CEO of the Tasmanian, an NZ-based battery manufacturing company |
| 15. | Dr. Arijit Hazari, M.Sc. 2K13 | Postdoctoral Research Associate (Marie SkÅ‚odowska-Curie fellow) Institute of Inorganic Chemistryâ€‹ University of Stuttgartâ€‹, Germany |
| 16. | Monika Yadav, IM.Sc. 2K11 | Graduate Research Assistant<br>Department Of Chemistry, Purdue University, USA |
| 17. | Shambhu Deo Chnadra, IM.Sc. 2K13 | Graduate Research Assistant<br>Department Of Chemistry The University of British Columbia, Canada |
| 18. | Shrikant Singh, IM.Sc. 2K13 | Graduate Research Assistant<br>Department Of Chemistry University of Saskatchewan, Canada |
| 19. | Simran, IM.Sc. 2K13 | Graduate Research Assistant, Department Of Chemistry, Simon Fraser University, British Columbia, Canada |
| 20. | Ela Rani, IMSc. 2K13 | Personal teacher, Vedantu Ltd. |
| 21. | Rishika Kothari, IMSc. 2K14 | Junior Engineer, National Fertilizer Limited, Hyderabad |
| 22. | Prem Kumar Kushwaha, IMSc. 2K15 | Process R&D Scientist, Dr. Reddy Laboratories, Hyderabad |
| 23. | Omanjana Goswami, IMSc. 2K12 | Doctoral Candidate, Rutgers University, New Jersey, USA |
| 24. | Tanmoya Akash Pradhan, B.Sc. Chemistry (2012–15) | Researcher at Asian Paints R & T Facility, Mumbai |
| 25. | Rahul Jha B.Sc. Chemistry (2013-16) | Graduate Research Assistant University of Kentucky, USA |
| 26. | Siddharth Mukherjee B.Sc. Chemistry (2017–20) | IMBA Finance, SDA Bocconi, Milan, Italy |

| Sr. No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 27. | K. Nikhila B.Sc. Chemistry | MSc-PhD dual degree in Environmental Sciences and Engineering, Indian Institute of Technology, Bombay |
| 28. | Dr. Konreddy Anand Ph.D. Chemistry (2010–15) | Postdoctoral Research Associate University of Georgia Athens, Georgia, USA |
| 29. | Dr. Mohan Kasula Ph.D. Chemistry (2010–15) | Assistant Professor |
| 30. | Dr. Tuniki Balaraju Ph.D. Chemistry (2010–14) | Scientist, Aragen Biosciences, Hyderabad |
| 31. | Dr Nandkishore Thombare Ph.D. Chemistry (2014–17) | Scientist, ICAR- Indian Institute of Natural Resins and Gums, Namkum, Ranchi- 834010 |
| 32. | Dr. Ch. Jamkhokai Mate Ph.D. Chemistry (2017–20) | Scientist, ICAR- Indian Institute of Natural Resins and Gums, Namkum, Ranchi- 834010 |
| 33. | Dr. Sweta Sinha PhD. Chemistry (2012–16) | Assistant Professor,Amity University – Ranchi Campus |
| 34. | Dr. Usha Rani Grandhe PhD Chemistry (2011–15) | Postdoctoral Researcher University of Georgia Athens, Georgia, USA |
| 35. | Dr Md. Shahid PhD Chemistry (2012–17) | Assistant professor (On Contract), Department of Chemistry, Central University of Jharkhand, Brambe, Ranchi. |

## 7.3 Any other relevant information:

a) Automated Flash Chromatography Purification System Installation for UG/PG/Research.

b) Theoretical Chemistry and Molecular Modeling Facility Upgraded for UG/PG/Research

# Department of Civil and Environmental Engineering

## SECTION 1 DEPARTMENTAL PROFILE

### 1.1 About the Department/Off Campus:

**About the Department**: The Department of Civil Engineering was established in 1957. It was renamed as Department of Civil and Environmental Engineering in 2014. The Department has well established laboratory facilities on:

- Concrete and Road Materials
- Geology
- Hydraulics
- Soil Mechanics
- Structural Engineering
- Surveying Laboratory
- Computer Laboratory
- Environmental Engineering

The faculty members are well qualified and are having degrees from reputed Institutes. Faculty members also possess work experience from reputed organizations from outside India. They are actively involved in research and consultancy. The department had contributed a lot in the infrastructural and industrial growth in Jharkhand by providing technical expertise and consultancy of worth several crores INR. Students from the Department have pursued internship from universities of international repute such as the Illinois Institute of Technology, Chicago. The Department has facilities for:

- Field-testing in Geotechnical Engineering
- Transportation Engineering
- Non-Destructive Testing of concrete.

The Department offers the following programs:

| Sr. No. | Programme | Year of Starting | Intake | NBA Accreditation |
|---|---|---|---|---|
| 1 | B.Tech. (Civil Engineering) | 1957 | 60 | 2002, 2009, 2016 |
| 2 | M.Tech. (Structural Engineering) | 1967 | 12 | 2009, 2016 |
| 3 | M.Tech. (Soil Mechanics and Foundation Engineering) | 1967 | 12 | 2002, 2009, 2018 |
| 4 | M.Tech. (Environmental Science and Engineering) | 2002 | 18 | 2016 |

**Vision**

To develop quality intellectuals through education, research, and motivation, so that they can bring a positive contribution to society, in areas of Civil & Environmental Engineering.

**Mission**

- To develop professional skills through quality education & research.
- To outreach various sectors of society through interdisciplinary programmes and practical oriented approach.
- To create dynamic, logical, and effective leaders with inspiring mindsets.

## SECTION 2 RESEARCH PROJECTS

## 2.1 Sponsored Projects (Research and Consultancy)

### a) Ongoing Projects:

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | Performance Evaluation of Cement Concrete Pavements in Rural Roads | PI – Prof. Bindhu Lal, Co-PIs – Prof. Anand Kr. Sinha and Mr. Mani Mohan | NRIDA, Ministry of Rural Development, Government of India | 01/04/2022 | ₹ 22.76 Lacs | One Year |
| 2. | Prediction of Particulate Matter and Gaseous Pollutant Concentration Through ANN, PNN And CART Models and Comparison with CALPUFF and AERMOD In Singrauli Coal Mines, | PI- Dr. Tanushree Bhattacharya | Funding agency Coal India Ltd., scheme: R & D. | 30/04/2021 | ₹ 85.25 Lacs | 3 years |
| 3 | Effect of Blasting on Opencast Mine Dump and Development of Relationship between Blast Induced Vibration and Dump Design | Dr. S. Sengupta (PI)<br>Dr. Indrajit Roy (Co-PI)<br>Dr. A Pattnaik (Co-PI) | Ministry of Coal, Government of India | 12/02/2021 | ₹ 33 Lacs | 2 years |
| 4 | Source Apportionment, Hydrodynamic Study and Environmental Fate Assessment of Micro-Plastics in Drinking Water Supplying Reservoirs of Ranchi, Jharkhand | PI – Dr. Sukalyan Chakraborty<br>Co-PI – Dr. Mili Ghosh and dr. madhu Priya | SERB-CRG | 11/05/2022 | ₹ 38.5 Lacs | 3 years |
| 5 | National Carbonaceous Aerosols Programme (NCAP): Working Group III – Emissions, sources apportionment and climate effects | PI: R. Naresh Kumar<br>Co-PI: Jawed Iqbal | MoEFCC | 01/04/2016 | ₹ 159.5 Lacs | 7 Years |

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 6 | Metal organic frameworks and sequential electrocoagulation for remediation of mining effluents | PI: Sumit Mishra<br>Co-PI: Ashoke Sharon<br>Co-PI: R. Naresh Kumar | SERB | 01/04/ 2022 | ₹ 25.01 Lacs | 3 Years |

## b) Projects Completed:

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Date of completion of the Project |
|---|---|---|---|---|---|---|
| 1. | Development of Guidelines for Design of All Tiers of Shovel-Dumper Dump above Dragline Dump, with Delineation of Phreatic Surface, within Dragline Dump, throughout the Year and Validation Study of Two Dragline Mines under Coal India Limited | PI – Dr. Indrajit Roy, Co-PI – Prof. Anand Kr. Sinha, Prof. Sudeshna Chakravarty, and Prof. Bindhu Lal | Coal India Limited | 01/04/ 2018 | ₹ 75.3 Lacs | 31.1.2022 |
| 2 | Mobility, Bioaccessibility and Source Apportionment Study of Toxic Heavy Metals in Indoor and Outdoor Dust Environment: An Isotope Fingerprinting Approach. | PI-Tanushree Bhattacharya | SERB | 13/10/ 2017 | 41.907 Lac | 12.09.2021 |

c) Consultancy Projects carried out/ongoing:

| Sl. No. | Title of Project | Funding Agency | Duration from | Duration to | Grant mobilized (₹ Lacs) | Principal Investigator / Co- Investigator | Ongoing / Completed |
|---|---|---|---|---|---|---|---|
| 1. | Scrutiny of DPRs under PMGSY | NRIDA, Ministry of Rural Development, Government of India | Commencement of PMGSY in 2000 | Ongoing | 16.55 Lacs in FY 2021–2022 | STA Coordinator - Prof. Anand Kr. Sinha, Member – Prof. Bindhu Lal | Ongoing |
| 2. | Slope Stability Study of Rajmahal ocm | ECL | 17.01.22 | Ongoing | 3.54 Lacs. | Indrajit Roy (PI)<br>Dr. Sukalyan Chakraborty (Co-PI)<br>Dr. Tanushree Bhattacharya (CO-PI) | Ongoing |

| Sl. No. | Title of Project | Funding Agency | Duration from | to | Grant mobilized (₹ Lacs) | Principal Investigator / Co- Investigator | Ongoing / Completed |
|---|---|---|---|---|---|---|---|
| 3 | Slope Stability Study of Pachawara (N) ocm | BGR Mining | 15.02.22 | 30.05.22 | 1.77 Lacs. | Indrajit Roy (PI)<br>Dr. Kirti Abhishek<br>(Co-PI)<br>Dr. Jawed Iqbal (CO-PI) | Completed |
| 4 | Slope Stability Study of Flyash dumping ocm in Ghogha Surkha (under GPCL) | United Exploration | 12.06.22 | Ongoing | 5.90 Lacs. | Indrajit Roy (PI)<br>Dr. Kirti Abhishek<br>(Co-PI)<br>Dr. Ashish Kumar Patnaik (CO-PI)<br>Dr. Neeta Kumari (Co-PI) | Ongoing |
| 5 | Slope Stability Study Gotitoria East & West | Golder Stone | 30.06.22 | On-going | 7.08 Lacs | Indrajit Roy- PI.<br>Dr. A.K Pattanaik, Dr. P Rajhans, Dr. S. Sen – CO-PI | Ongoing |
| 6 | Slope Stability of Umarsar, Mata- No Madh & Panandhro | GMDC | 01.07.21 | 30.06.22 | 14.16 Lacs | Indrajit Roy- PI. | Completed |
| 7 | Augmentation report on Natural resources including arrying capacity of rivers and streams passing by the Catchment area and Its mitigation measures for Chandragupt Coal Mines, CCl, Ranchi | Sushree Chandragupt OCP mines pvt Ltd | 13–06–22 | ongoing | 11.80Lacs | Kirti Avishek | Ongoing |

| Sl. No. | Title of Project | Funding Agency | Duration from | Duration to | Grant mobilized (₹ Lacs) | Principal Investigator / Co- Investigator | Ongoing / Completed |
|---|---|---|---|---|---|---|---|
| 8 | Carbon footprint and carbon sink study due to proposed open cast mining at KBP.OCP | KBP Mines Pvt Ltd | 13.5.22 | Ongoing | 10.62Lacs | Kirti Avishek | Ongoing |

## SECTION 3 SEMINAR / CONFERENCE

### 3.1 Seminar / Conferences / Short – Term Courses Conducted:

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event |
|---|---|---|---|---|
| 1. | Case Studies of Civil Engineering Projects in Steel Plants and Mines Planning and Management of Design and Execution | Mr. Mani Mohan<br>Dr. Ashish Kumar Patnaik<br>Dr. Puja Rajhans | contingency fund allotted for the<br>CIL R&D Project (P. Code-09256) | 02.12.2021 |
| 2 | Guest Lecture Series (6 Nos) | HoD, CEE | BIT Mesra | 18.09.2021 (2 Nos)<br>25.09.2021<br>09.10.2021<br>23.10.2021<br>30.10.2021 |
| 3 | Guest Lecture Series (4 Nos) | HoD, CEE | BIT Mesra | 14.05.2022 (2 Nos)<br>15.05.2022 (2 Nos) |

### 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by

**Faculty Members:**

| Sr. No. | Name of the Faculty | Title of the Conference/Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 1 | Dr. Siddhartha Sengupta | One Day Online Workshop on "Creating Lab-to-Land Ecosystem: Challenges & Opportunities" | IIT Indore | Jointly organized by Incubation Centre – Raja Ramanna Centre for Advanced Technology (RRCAT) and IIT Indore, | IIT Indore (Online) | 14/08/2021 |
| 2 | Dr. Siddhartha Sengupta | E-Faculty Development Program on "Deterioration, Diagnosis and Rehabilitation of RC Structures" | BIT Sindri | BIT Sindri | BIT Sindri (Online) | 25/10/2021 – 29/10/2021 |

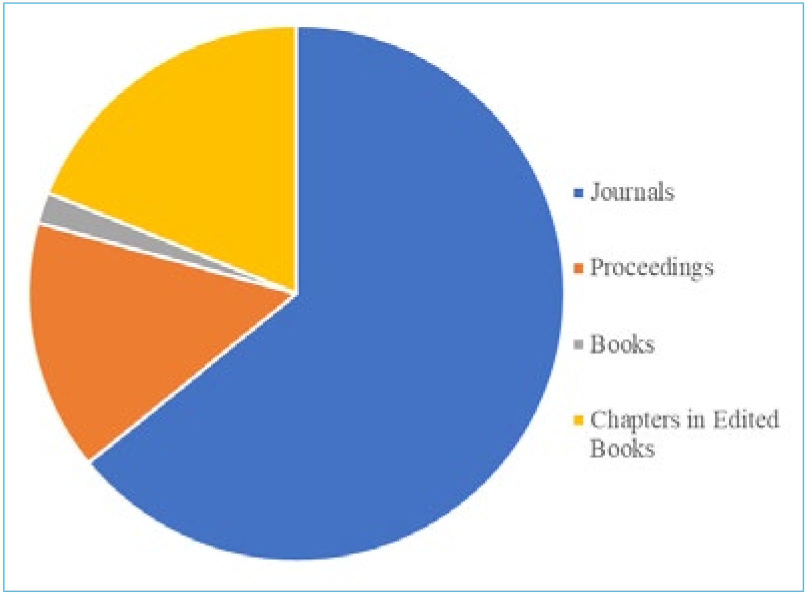
| Sr. No. | Name of the Faculty | Title of the Conference/Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 3 | Dr. Siddhartha Sengupta | AICTE Training And Learning (ATAL) Academic Online FDP on "Design Thinking for Excellence in OBE & Digital Learning" | AICTE | BIT Mesra | BIT Mesra (Online) | 29/11/2021 – 03/12/2021 |
| 4 | All Faculty members of the CEE Department | Case Studies of Civil Engineering Projects in Steel Plants and Mines – Planning, Management of Design and Execution | GOI | BIT Mesra | BIT Mesra | 02/12/2021 |
| 5 | Dr. Siddhartha Sengupta | Workshop on Research Methodology under SERB Scientific Social Responsibility Policy | SERB | NIT Jamshedpur | NIT Jamshdpur (Online) | 04/12/2021 |
| 6 | Dr. Siddhartha Sengupta | AICTE Training And Learning (ATAL) Academic Online FDP on "Experimental Learning in Geotechnical Engineering" | AICTE | NIT Nagpur | NIT Nagpur (Online) | 06/12/2021 – 10/12/2021 |
| 7 | Dr. Siddhartha Sengupta | Short Term Training Programme on "Techniques of Design, Analysis, and Retrofitting of Skyscrapers" | BIT Mesra | BIT Mesra | BIT Mesra (Online) | 13/12/2021 – 17/12/2021 |
| 8 | Dr. Siddhartha Sengupta | AICTE Training And Learning (ATAL) Academic Online FDP on "Aspects of Sustainable Construction Practices" | AICTE | Government College of Engineering, Nagpur, | Government College of Engineering, Nagpur, (Online) | 03/01/2022 – 07/01/2022 |
| 9 | Dr. Siddhartha Sengupta | Two days short training course (Hybrid mode) on "Application of Unsaturated Soil Mechanics on the Analysis of slopes" Under the project theme "Understanding Landslide Susceptibility and Adaptability in South East Asia (SEAL)" | Funded by UKRI-NERC | Jointly organised by IIT Mandi, Durham University, Universiti Kebangsaan Malaysia | IIT Mandi (Online) | 24/02/2022 – 25/02/2022 |

| Sr. No. | Name of the Faculty | Title of the Conference/Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 10 | Dr. Siddhartha Sengupta | Workshop on Gender Sensitization Towards Workplace Etiquettes (GSTWE) | BIT Mesra | BIT Mesra | BIT Mesra | 08/03/2022 |
| 11 | Dr. Siddhartha Sengupta | One day webinar "Waste-2_Wealth" | BIT Mesra | BIT Mesra | BIT Mesra (Online) | 12/03/2022 |
| 12 | Dr. Siddhartha Sengupta | Five Days Online Faculty Development Programme on Industry-Academia Perspective on Civil Engineering Problems (IAPCEP – 2022) | AICTE | NIT Silchar | NIT Silchar (Online) | 19/03/2022 – 23/03/2022 |
| 13 | Dr. Siddhartha Sengupta | Two days international Workshop On Landslide Susceptibility and Adaptability in South-East Asia: Theory to Practice | Funded by UKRI-NERC | Jointly organised by IIT Mandi, Durham University, UKRI – National Environment Research Council, UK Research and Innovation | IIT Mandi (Online) | 29/03/2022 – 30/03/2022 |
| 14 | Dr. Siddhartha Sengupta | Online Short Term Training Programme on Mobility in Sustainable Cities | GOI | Organized by Dept. of Architecture & Planning, BIT Mesra, Ranchi in collaboration with National Institute of Urban Affairs, New Delhi, | BIT Mesra (Online) | 20/06/2022 – 24/06/2022 |
| 15 | Dr. Ashish Kumar Patnaik | QIP short term course on Traffic Flow Modelling | QIP | Organized by Dept. of Civil Engineering, IIT Bhubaneswar | IIT Bhubaneswar (Online) | 26/07/2021 to 30/07/2021 |
| 16 | Dr. Ashish Kumar Patnaik | 6th Conference of Transportation Research group of India | NIT Trichy | TRG India & NIT Trichy | NIT Trichy | 14/12/2021 to 17/12/2021 |
| 17 | Dr. Sukalyan Chakraborty | Online International Symposium on Nanotechnology in Environment | Fujian Normal University, China | Fujian Normal University, China | Online | 11th June 2021 |
| 18 | Dr. Sukalyan Chakraborty | Annual meeting of Institute of Engineers, India, Ranchi Chapter | Institute of Engineers, Ranchi | Institute of Engineers, Ranchi | IEE Ranchi | 19th Sept. 2021 |

| Sr. No. | Name of the Faculty | Title of the Conference/Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 19 | Dr. Sukalyan Chakraborty | International Webinar entitled "Restoration of Ecology, Environmental Benefits and Sustainability" | IQAC, NSS Unit, Basundhara ECO Club of Belda College and IQAC, Women's Study Cell, COP & NSS Unit of Coach Behar college of West Bengal | Institute of Engineers, Ranchi | Online | 8th Aug. 2021 |
| 20 | Dr. Tanushree Bhattacharya | Mobility in Sustainable Cities, 20–24th June 2022. | Department of Architecture and Planning, BIT Mesra and National Institute of Urban Affairs, New Delhi | BIT Mesra and National Institute of Urban Affairs, New Delh | BIT Mesra, online | 20–24th June 2022. |
| 21 | Dr. Tanushree Bhattacharya | International conference on Biotechnological Interventions to Overcome the Challenges of Covid/ Post-Covid Era (BIOCope-2022). | Amity Institute of Biotechnology, Amity University of Rajasthan, Jaipur. | Amity Institute of Biotechnology, Amity University of Rajasthan, Jaipur. | online | 24.3.2022-25.3.2022. |
| 22 | Dr. Tanushree Bhattacharya | State Level Conference on 'Strengthening Research for Just Energy Transition in Jharkhand. | Centre for Environment and Energy Development (CEED). | Centre for Environment and Energy Development (CEED). | Ranchi | 2.4.2022 |
| 23 | Dr. Tanushree Bhattacharya | State Level Conference on 'Just Transition Dialogue. | Centre for Environment and Energy Development (CEED). | Centre for Environment and Energy Development (CEED). | Ranchi | 20.10.2021. |
| 24 | Dr. Tanushree Bhattacharya | Webinar on Completion of 1 year of Transformative Reforms under National Education policy, 2020. | D/o School Education and Literacy/NCTE. | Ministry of Education and BIT Mesra | online | 29.7.21-10.8.21 |

| Sr. No. | Name of the Faculty | Title of the Conference/Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 25 | Dr. Tanushree Bhattacharya | Training on City Action plan and Third-Party Assessment | NEERI, iFOREST | World Bank | online | 28.2.2022 to 4.3.2022 |
| 26 | Dr. Neeta Kumari | UGC-sponsored GURU DAKSHTA 7th Faculty induction programme | UGC | Ranchi University, Ranchi | Online | 03/12/2021 to 30/12/2021 |
| 27 | Dr. Neeta Kumari | International conference on thermo-fluids and system design (ICTFSD 2022) | B.I.T., Mesra | Dept of Mechanical engg. B.I.T., Mesra | Online | 22–23 March, 2022 |
| 28 | Dr. Neeta Kumari | International workshop on advanced statistical data analysis using SPSS | Science-Tech institute, Lucknow, UP | Science-Tech institute, Lucknow, UP | Online | 21–27 January, 2022 |
| 29 | Dr. Indrajit Roy | Monograph on Case Studies of Landslides in Coal and Lignite mines of India | Pennsylvania State university, USA | Pennsylvania State university, USA | Pennsylvania State university, USA | 15.12.2021 |

## SECTION 4 RESEARCH PUBLICATIONS



**Publications in Journals:** (International/National)-34

**Publications in Proceedings:** (International/National) with ISBN numbers only-8

**Book:** (with ISBN details)-1

**Chapter(s) in Edited Book**-10

## 5.1 Award / Recognition Bestowed on Faculties (State / National / International)

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 1 | Dr. Indrajit Roy | Invited lecture to Pennsylvania State University, USA | Pennsylvania State University, USA | International | December, 2021 |
| 2. | Dr. Tanushree Bhattacharya | Nodal Officer for Ranchi, NCAP | SPCB, RMC, GoI | National | 2020–2024 |
| 3 | Dr. Kirti Avishek | Best paper Award under UAV Based RS session | National Symposium on Advances in ReTmote Sensing: Trend, Challenges and Opportunity | National | 2021 |
| 4. | Dr. Kirti Avishek | member of the Monitoring committee under National Green Tribunal (NGT) to evaluate the status of Illegal mining at Garwa | National Green Tribunal | National | |

## 5.2 MoUs / Collaborations:

| Sr. No. | Name of Organisation / University | Purpose / Area/*Short Description* | Year / Duration |
|---|---|---|---|
| 1. | *National Highway Authority of India (NHAI). India* | *Student internship and field visits by departmental faculties* | 5 years |
| 2. | *Jharkhand State Pollution Control Board (JSPC) and Ranchi Municipal Corporation (RMC), Jharkhand, India* | *National Clean Air Programme* | 3 years |
| 3. | *Jharkhand State Pollution Control Board (JSPC) and Jamshedpur notified Area Committee (JNAC), Jamshedpur, Jharkhand, India* | *National Clean Air Programme* | 3 years |

## SECTION 6 ACTIVITIES/ FACULTY MEMBERS / DOS /DAS

## 6.1 Departmental Students' Activities

**(Please arrange in reverse chronological order: Latest first)**

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 1. | Presented research paper at "Nature conference on waste management and valorisation for a sustainable future" | Abhishek Kumar | Dr. Tanusree Bhattacharya | 26/10/21 – 28/10/21 |

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 2. | Presented research paper at "2nd International Conference on Waste Energy and Environment" | Abhishek Kumar | Dr. Tanusree Bhattacharya | 23/09/21 – 24/09/21 |
| 3. | Presented research paper at "2nd International Conference on Waste Energy and Environment" | Arpita Roy | Dr. Tanusree Bhattacharya | 23/09/21 – 24/09/21 |
| 4 | Presented research paper at "1st International Conference on Advances in Water Treatment<br>and Management (ICAWTM-22)" | Aditya Kumar Jha | Dr. Sukalyan Chakraborty | 25–26 March, 2022 |
| 5 | Presented research paper at "2nd International Conference on Waste Energy and Environment" | Aditya Kumar Jha | Dr. Sukalyan Chakraborty | 23/09/21 – 24/09/21 |

## 6.2 List of Faculties

| Sr. No. | Name | Designation |
|---|---|---|
| 1. | Dr. Anand Kumar Sinha | Professor |
| 2 | Dr. Rajiv Ranjan Sahay | Professor |
| 3 | Dr. Sudeshna Chakravarty | Professor |
| 4 | Dr. Bindhu Lal | Professor |
| 5 | Dr. Birendra Kumar Singh | Professor |
| 6 | Dr. Siddhartha Sengupta | Associate Professor |
| 7 | Dr. Kirti Avishek | Associate Professor |
| 8 | Dr. R. Naresh Kumar | Associate Professor |
| 9 | Dr. Sukalyan Chakraborty | Associate Professor |
| 10 | Dr. Tanusree Bhattacharya | Associate Professor |
| 11 | Mr. Mani Mohan | Assistant Professor |
| 12 | Dr. Jawed Iqbal | Assistant Professor |
| 13 | Dr. Neeta Kumari | Assistant Professor |
| 14 | Dr. Ashish Kumar Patnaik | Assistant Professor |
| 15 | Dr. Puja Rajhans | Assistant Professor |
| 16 | Dr. Subhajit Sen | Assistant Professor |

## 6.3 List of Adjunct Faculties

| Sr. No. | Name | Designation | Affiliation |
|---|---|---|---|
| 1. | Dr. Pulak Munshi | Adjunct Professor | M N Dastur & Co (P) Ltd. |
| 2 | Dr. Sunil K. Sinha | Adjunct Professor | Virginia Tech, Blacksburg, USA |
| 3. | Dr. Indrajit Roy | Adjunct Faculty | BIT Mesra |

## 6.4 Board of Studies

| Sr. No. | Name of the Member | Designation (Kindly mention Ex-Officio, where applicable) | Role (Chairman/ Internal or External Member) |
|---|---|---|---|
| 1. | Dr. Sudeshna Chakravarty | Professor & HOD | Chairman |
| 2. | Dr. Anand Kr. Sinha | Professor | Internal |
| 3. | Dr. R. R. Sahay | Professor | Internal |
| 4. | Dr. Bindhu Lal | Professor | Internal |
| 5. | Dr. Birendra Kr. Singh | Professor | Internal |
| 6. | Dr. Indrajit Roy | Associate Professor | Internal |
| 7. | Dr. Kirti Avishek | Associate Professor | Internal |
| 8. | Dr. Manjari Chakraborty | Professor and Head (Architecture) | Internal |
| 9. | Dr. R. P. Sharma | Professor (Mechanical Engineering) | Internal |
| 10. | Dr. S. K. Maity | Professor (ESE), IIT (ISM), Dhanbad | External |
| 11. | Dr. Rajesh Kumar | Professor (CE), IIT (BHU), Varanasi | External |
| 12. | Dr. Rakesh Pratap Singh | Associate Professor (CE), NIT Jamshedpur | External |
| 13. | Mr. Sujib Chatterjee | Chief Manager (Civil), CMPDIL, Ranchi | External |
| 14. | Mr. Rammohon Chatterjee | Retired CGM, CET, SAIL, Durgapur | External |
| 15. | Mr. Suvendu Basu | Head, Redimix, Health and Safety, Lafarge, Kolkata | External |
| 16. | Prof. (Dr.) Balram Singh | HOD, Patna Centre, BIT, Invited Member | External |
| 17. | Miss. Muskan Gupta (BTECH/10051/18) | Student Representative | Internal |
| 18. | Mr. Aditya Singh (BTECH/10503/18) | Student Representative | Internal |

## 7.1 Publication by students if any

**Publications in Journals:** (International/National)

1. Kanchan Lakra, Kirti Avishek (2022). A review of factors influencing fog formation, classification, forecasting, detection and Impacts. Rendi Conti Lenci. Springer.
2. Kannan R. et al. (2021). Assessment of Ground Water Quality Index, Suitability for Irrigation and Domestic Purposes in Krishna-Godavari Delta Region, Southern India. J. Environ. Treat. Tech. V9, I4, 741–750. ISSN-2309–1185.Jul 21.
3. Pandey, S., **Kumari, N.** & Prasad, S.P. Soil quality and pollution assessment around Jumar watershed of Jharkhand, India. *Arab J Geosci* 14, 2784 (2021). https://doi.org/10.1007/s12517-021-09091-y
4. Shweta Kumar, **R. Naresh Kumar** (2022). How effective aerated continuous electrocoagulation can be for tetracycline removal from river water using aluminium electrodes? *Chemosphere*, Vol. 305, 135476
5. Shweta Kumari, **R. Naresh Kumar** (2022). Natural organic matter, acetaminophen and elements removal from river water by continuous electrocoagulation process using aluminium electrodes. *Water Supply*, Vol. 22, 4055–4066.
6. Maheshwarkar, P., Akarsh Ralhan, Ramya Sundar Raman, Kushal Tibrewal, Chandra Venkatraman, Abisheg Dhandapani, **R. Naresh Kumar**, Sauryadeep Mukherjee, Abhijit Chatterjee, Shahadev Rabha, Binoy K. Saikia, Ankur Bhardwaj, Pooja Chaudhary, Baerbel Sinha, Pradnya Lokhande, Harish C. Phuleria, Sayantee Roy, Mohd. Imran, Gazala Habib, M Azharuddin Hashmi, Asif Qureshi, Adnan Mateen Qadri, Tarun Gupta, Yang Lian, G. Pandithurai, Laxmi Prasad, Sadashiva Murthy, Meena Deswal, Jitender S. Laura, Anil Kumar Chhangani, Tanveer Ahmad Najar, Arshid Jehangir (2022). Understanding the influence of meteorology and emission sources on PM2.5 mass concentrations across India: first results from the COALESCE network. *Journal of Geophysical Research: Atmospheres*, Vol. 127, pp. 1–15.
7. Kumar, Abhishek, Tanushree Bhattacharya, Wasim Akram Shaikh, Sukalyan Chakraborty, Gary Owens, and Mu Naushad. "Valorization of fruit waste-based biochar for arsenic removal in soils." *Environmental Research* 213 (2022): 113710.
8. Prathap, W.A. Shaikh, K. Baudhh & S. Chakraborty. Phyto-management potential of naturally thriving plants on the metal contaminated overburden dump of coal mines: a study from Jharkhand, India. Bioremediation Journal. HEAD-OF-PRINT, 2022, 1–11, https://doi.org/10.1080/10889868.2022.2049682 (IF: 2.62)
9. WA Shaikh, S Chakraborty, RU Islam, AA Ghfar, M Naushad, J Bundschuh, JP Maity & NK Mondal (2022) Fabrication of biochar-based hybrid Ag nanocomposite from algal biomass waste for toxic dye-laden wastewater treatment. Chemosphere. 289:133243. https://doi.org/10.1016/j.chemosphere.2021.133243
10. WA Shaikh, A Kumar, S Chakraborty, RU Islam, T Bhattacharya & JK Biswas (2022) Biochar-based nanocomposite from waste tea leaf for toxic dye removal: from facile fabrication to functional fitness. Chemosphere. 132788. https://doi.org/10.1016/j.chemosphere.2021.132788
11. WA Shaikh, S Chakraborty, G Owens & RU Islam, (2021) A review of the phytochemical mediated synthesis of AgNP (silver nanoparticle): The wonder particle of the last decade. Applied Nanoscience. 11:2625–2660

12. D Thakur, AK Jha, S Chattopadhyay & S Chakraborty (2022) A review on opportunities and challenges of nitrogen removal fron wastewater using microalgae. International Journal of Experimental Research and Review. 26:141-157.
13. V Singh, S Chakraborty & P Chaudhuri (2021) Quantification and polymer characterization of sediment microplastics along the Golden beach, Puri, India. Indian Journal of Geo Marine Sciences, 50 (07):574-584.
14. SP Lenka, WA Shaikh, G Owens, LP Padhye, S Chakraborty & T Bhattacharya (2021) Removal of Copper from Water and Wastewater Using Dolochar. Water Air Soil Pollution. 232**,** 167. https://doi.org/10.1007/s11270-021-05135-x
15. A Mondal, S Chowdhury, NK Mondal, WA Shaikh, P Debnath, S Chakraborty (2021) Insecticidal and Fungicidal performance of bio-fabricated silver and gold nano particles. International Journal of Environmental Science and Technology https://doi.org/10.1007/s13762-021-03181-w
16. WA Shaikh, RU Islam, S Chakraborty (2021) Stable Silver nanoparticle doped mesoporous biochar-based nanocomposite for efficient removal of toxic dyes. Journal of Environmental Chemical Engineering. Volume 9, Issue 1, February 2021, 104982. https://oi.org/10.1016/j.jece.2020.104982.
17. R. Naresh Kumar, Mohini Verma, **Jawed Iqbal** and Shubhrasekhar Chakraborty (2022) How much spatial and temporal variations in groundwater microbiology can occur following open dumping of municipal solid waste? Water Practice & Technology, http://doi:10.2166/wpt.2022.066
18. Pandey, S.; Saha, I.; Prakash, O.; Mukherjee, T.; **Iqbal, J.;** Roy, A.K.; Wasilewski, M.; Brar, L.S. CFD Investigations of Cyclone Separators with Different Cone Heights and Shapes. Appl. Sci. **2022**, 12, 4904. (IF: 2.679) SCIE https://doi.org/10.3390/app12104904
19. Navin Prasad and Bindhu Lal, (2021) "Analysis of heat stress in an underground coal mine using computational fluid dynamics",Current Sciences, 121 (2), Pp 264-274, July 2021
20. Sanjoli Gupta, Bindhu lal and Shashwati Ghosh Sachan,(2021) "Improving the strength of sand by MICCP process using seashell", Journal of Geoengineering, 16(3), Pp 091-098, September 2021
21. Abhishek Kumar, **Tanushree Bhattacharya,** Wasim Akram Shaikh, Sukalyan Chakraborty, Gary Owens, Mu Naushad, (2022), Valorization of fruit waste-based biochar for arsenic removal in soils, Environmental Research, 113710, ISSN 0013-9351, https://doi.org/10.1016/j.envres.2022.113710. Impact factor 8.43
22. Abhishek Kumar, **Tanushree Bhattacharya**, Santanu Mukherjee, Binoy Sarkar. A perspective on biochar for repairing damages in the soil-plant system caused by climate change-driven extreme weather events. 4:22. Biochar, Springer Nature. DOI: 10.1007/s42773-022-00148-z. date of acceptance 13.3.22, published online 24th March 2022. Impact factor: 11.452
23. Arpita Roy, **Tanushree Bhattacharya**. Ecological and human health risks from pseudo-total and bio-accessible metals in street dusts. Environmental Monitoring and Assessment. DOI 10.1007/s10661-021-09658-y, accepted on 27.11.2021. Electronic ISSN 1573-2959, Print ISSN 0167-6369. Impact factor 3.307.
24. Tripta Narayan, **Tanushree Bhattacharya**, Soubhik Chakraborty, Swapan Konar. A Survey on Statistical Methods used in Air Quality Prediction. Indian Journal of Environmental Protection. ISSN: 0253 – 7141. Scopus indexed. Vol.42, No.5, 2022, 549-558.
25. Wasim Akram Shaikh, Abhishek Kumar, Sukalyan Chakraborty, Rafique Ul Islam, **Tanushree Bhattacharya**, Jayanta Kumar Biswas, Biochar-based nanocomposite from waste tea leaf for toxic dye removal:

From facile fabrication to functional fitness, Chemosphere, 2021, 132788, ISSN 0045-6535, https://doi.org/10.1016/j.chemosphere.2021.132788. Impact factor:8.943.

26. Abhishek Kumar, **Tanushree Bhattacharya**, Wasim Akram Shaikh, Arpita Roy, Santanu Mukherjee, Manish Kumar, Performance evaluation of crop residue and kitchen waste-derived biochar for eco-efficient removal of arsenic from soils of the Indo-Gangetic plain: A step towards sustainable pollution management, Environmental Research, Volume 200, 2021, 111758, ISSN 0013-9351, https://doi.org/10.1016/j.envres.2021.111758. September 2021. Available online 23 July 2021. Impact factor: 8.43.

27. Swadhina Priyadarshini Lenka, Wasim Akram Shaikh, Gary Owens, Lokesh P. Padhye, Sukalyan Chakraborty & **Tanushree Bhattacharya**. Removal of Copper from Water and Wastewater Using Dolochar. *Water Air Soil Pollut* **232,** 167 (2021). https://doi.org/10.1007/s11270-021-05135-x. SCI. Print ISSN 0049-6979. Impact factor: 2.984

## Publications in Proceedings: (International/National)

1. Bindhu Lal and Karnika Kochel, "Improving the Strength Characteristics of Soil Using Cotton Fibers", Proceedings of International conference on Soil Stabilization Techniques and Technologies, Toronto, Canada, July 19-20, 2021, pp 64-80 ISSN 1307-6892

2. Bindhu Lal and Sukeerti Bansal, "Stabilization of soil using sewage sludge as admixture", Proceedings of XV International conference on Applied Research in Engineering and Management Sciences, August 13, 2021,pp 118-130 ISBN 978-81-953571-3-0

3. Kumar, M., Ekbote, A. G., Singh, P. K., and **Rajhans, P.** (2022). Determination of shear strength of self-compacting treated recycled aggregate concrete beam elements. *Materials Today: Proceedings.*

4. Patnaik, A.K., Gupta, A., Bhuyan, P.K. (2021). Performance assessment of roundabouts under mixed traffic conditions, Transport research procedia, Elsevier.

5. Singh V., Chakraborty S. (2021) **Quantification and Characterization of Microplastics in Kanke Lake, a Freshwater System of Ranchi, Jharkhand, India.** In: Bhuiyan C., Flügel WA., Jain S.K. (eds) Water Security and Sustainability. Lecture Notes in Civil Engineering, vol 115. Springer, Singapore. https://doi.org/10.1007/978-981-15-9805-0_23

6. Basu, S., Lakra, R., Kumari, R., Shaikh, W.A., Chakraborty, S. (2022). Separation of Congo Red Dye from Water Using AgNPs Based Hybrid UF Membrane. In: Ratan, J.K., Sahu, D., Pandhare, N.N., Bhavanam, A. (eds) Advances in Chemical, Bio and Environmental Engineering. CHEMBIOEN 2021. Environmental Science and Engineering. Springer, Cham. https://doi.org/10.1007/978-3-030-96554-9_68

7. Singh, V., Chakraborty, S. (2022). Microplastic Pollution in Freshwater Systems: A Potential Environmental Threat. In: Patra, B.C., Shit, P.K., Bhunia, G.S., Bhattacharya, M. (eds) River Health and Ecology in South Asia. Springer, Cham. https://doi.org/10.1007/978-3-030-83553-8_15

8. Pandey, S., and **Kumari, N**. (2021) Review on environmental impact assessment of food waste and its sustainable management based on circular economy. In Proceedings of Advances in Sustainable Research for Energy and Environmental Management (A. K. Mungray, V. N. Lad, A. Mungray, M. Chakraborty, & J. Singh (eds.); 1(1), pp (96). ISBN:978-81-955724-5-8

## 7.2 Distinguished Visitors from Industry/Academia/Research organizations

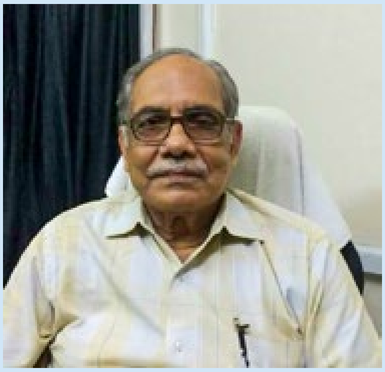
| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture (Insert Picture here. Further send the JPEG file along with the email.) |
|---|---|---|---|
| 1. | Shri Somnath Mukherjee<br>Former Joint General Manager, Mecon (Structural Division) & Consultant to JSPL | 02/12/2021 | |
| 2. | Shri Ram Mohan Chattopadhyay<br>Former Chief General manager<br>(Civil & Structural division), SAIL | 02/12/2021 | |
| 3. | Dr. Susmit Roy<br>Former Head of Academics,<br>MTI, SAIL (Formerly with CET, SAIL and M.N Dastur & Co. Ltd.) | 02/12/2021 | |
| 4. | Dr. Anirban Chakraboty<br>Associate Faculty,<br>Hosei University, Japan | 02/12/2021 | |

| | | | |
|---|---|---|---|
| 5. | Shri Sujeeb Chatterjee<br>General Manager (Civil), CMPDI | 02/12/2021 | |
| 6. | Shri Sushovan Kundu<br>General Manager (Civil), CMPDI | 02/12/2021 | |

## 7.3 List of Distinguished Alumni

| Sr. No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | Ms. Dorji Choden<br>BE, Civil Engg Batch of 1984,<br>Politician,<br>Bhutan's Works and Human Settlement Ministry | <br>Minister<br>Aum Dorji Choden (born 5 December 1960) is a Bhutanese politician. She was appointed minister of Bhutan's Works and Human Settlement Ministry in 2013, making her the first woman to serve as a minister in Bhutan. |

| | | |
|---|---|---|
| 2. | Dr. Niraj Verma<br>BE, Civil Engg. Batch of 1980<br>L. Douglas Wilder School of Government & Public Affairs. | <br>Professor at L. Douglas Wilder School of Government & Public Affairs. Niraj Verma is an expert in urban planning and management. He joined the Wilder School in 2010 and served as its director and first dean until 2016. |
| 3. | Mr. Surinder Chadha<br>Bsc, Civil Engg. Batch of 1963,<br>MetLife | <br>Senior Consultant |
| 4. | Mr. Sharad Jaipuriar<br>BE, Civil Engg. Batch of 1980,<br>MECON Limited | <br>Retired General Manager,<br>I/C Civil and Architecture, MECON Limited. |

| | | |
|---|---|---|
| 5. | Dr. B. K. Rath<br>Bsc, Civil Engg. Batch of 1966 Retired Director, NIT Rourkela | <br>Retired Director, NIT Rourkela |
| 6 | Madan Mohan Mohanka<br>B.Sc Civil (1959 – 1963)<br>Chairman/Executive Director, Tega Industries Ltd | <br>Chairman/Executive Director, Tega Industries Ltd |
| 7 | Dr. Gopal Pathak<br>B.E., Civil Engg. Batch of 1977<br>Vice Chancellor, Sarla Birla University, Ranchi,<br>Former Vice Chancellor Jharkhand Technical University | <br>Vice Chancellor, Sarla Birla University, Ranchi, |
| 8 | Sunil Sinha<br>BE, Civil Engg. Batch of 1986<br>Virginia Tech, Professor & Director at SWIM Center | <br>Virginia Tech, Professor & Director at SWIM Center |

| | | |
|---|---|---|
| 9 | Arup Roy Choudhury<br>BE, Civil Engg.<br>Government Of India – West Bengal Chief commissioner (Ex)Chairman of The Board - NTPC | <br>Government Of India – West Bengal Chief commissioner (Ex) Chairman of The Board – NTPC |

## 7.4 Infrastructure Development

- Renovation work completed for Advanced instrumentation Lab that will support research facilities.
- Several Advanced Instruments and software's have been procured in the Department for academic and research purpose such as
  - Compression & Flexure Testing Machine with accessories,
  - Los Angeles Abrasion Testing Machine,
  - Crack Measurement Microscope,
  - Benchtop Conductivity/TDS/Salinity meter,
  - Chemical Fume Hood, Autoclave (automatic),
  - Chlorophyll meter,
  - Rough ness Coefficient,
  - Ion selective sodium and potassium electrode
  - Design Expert Version 13 etc.

# Department of Computer Science and Engineering

## SECTION 1 PROFILE

### 1.1 About the Departmennt:

The Department of Computer Science & Engineering was established in the year 1983 and is now recognized as one of the leading departments with infrastructure and facilities to match the very best in the country. The department remains committed towards its mission, which is twofold. One is to provide students with the fundamental knowledge and problem-solving skills in Computer Science required for a fulfilling career. The other goal is to create and disseminate knowledge to improve Computer Science research, education and practice.

The department has had academic collaborations with University of New Brunswick, Canada, University of Melbourne, Australia and University of Manitoba, Canada.

#### Vision

The department strives to be recognized for outstanding education and research, leading to excellent professionals and innovators in the field of Computer Science and Engineering, who can positively contribute to the society.

#### Mission

To impart quality education and equip the students with strong foundation that could make them capable of handling challenges of the new century.

To maintain state of the art research facilities and facilitate interaction with world's leading universities, industries and research organization for constant improvement in the quality of education and research.

#### Undergraduate Programmes

The Department offers a four-year B.Tech. programme in Computer Science and Engineering in eight semesters. All programmes are accredited by the All-India Council for Technical Education (AICTE).

**The Undergraduate Programme offered by the Department are:**

B.Tech. in Computer Science and Engineering (4 Years: 8-Semesters, Intake: 120)

B.Tech. in Information Technology (4 Years: 8-Semesters, Intake: 60)

#### Postgraduate Programmes

**The Masters programme offered by the Department are:**

M. Tech in Computer Science (2 Years: 4-Semesters, Intake: 16)

M. Tech in Information Technology (2 Years: 4-Semesters, Intake: 18)

M. Tech in Information Security (2 Years: 4-Semesters, Intake: 18)

Master of Computer Application (2 Years: 4-Semesters, Intake: 60)

#### Doctoral Programmes

The Department of Computer Science and Engineering offers PhD programmes in various branches of the subject.

## Softwares Available

| Sr. No. | Software | Sr. No. | Software |
|---|---|---|---|
| 1. | IBM Rational Suit Enterprise | 14. | Prolog |
| 2. | MATLAB (Mathworks) | 15. | Turbo C 3 |
| 3. | JAVA (1.8), (JAVA djk 1.7) | 16. | LDRA |
| 4. | Eclipse 4.4 | 17. | Turbo C++ 4.5 |
| 5. | NetBeans | 18. | Argo |
| 6. | Code Blocks | 19. | Swi-Prolog |
| 7. | MySQL | 20. | Oracle database 10g express ed. |
| 8. | R Studio | 21. | Open Office |
| 9. | CCS (Code Composer Studio) | 22. | UniFlash |
| 10. | Agro UML | 23. | Jdk 1.8.0.51 |
| 11. | Code Blocks EP | 24. | Rapid Miner Studio |
| 12. | Python Anaconda 3 | 25. | Lingo 17 |
| 13. | TORA | | |

| Sr. No. | Software | Sr. No. | Software |
|---|---|---|---|
| 1. | MS Office | 7. | WinRAR |
| 2. | Acrobat reader | 8. | Putty |
| 3. | Google Chrome | 9. | Internet Explorer |
| 4. | Mozilla Firefox | 10. | ESET Endpoint Security 5.0 (antivirus) |
| 5. | NetSim Academic | 11. | NetSim Standard |
| 6. | Net Beans 8.1 | | |

# SECTION 2 RESEARCH PROJECTS

## 2.1 Sponsored Projects (Research and Consultancy)

### a) Ongoing Projects:

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | Secured Data Analytics for Microgrid Energy Management System through Blockchain Technology | Co-PI (Dr. Shamama Anwar) | SERB (CRG) | January 2022 | 25,21,464/- | 3 Years |
| 2. | Machine Learning-based characterization and grading of minerals and establishment of image-based mineral repository for the state of Jharkhand. | PI (Dr. Subrajit Mohapatra)<br>Co-PI (Dr. Shamama Anwar) | SERB (CRG) | February 2022 | 20,39,400/- | 3 Years |

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 3 | Machine Learning and Deep Learning Based Automatic Lunar Crater Detection using Terrain Mapping Camera-2 Dem Images | PI (Dr. Sanchita Paul) | ISRO | 20 March 2022 | 21,98,520/- | 3 Years |
| 4 | Mitigation of Electromagnetic Interference and Electromagnetic Compatibility issues in Wearable IoT device | Co-PI (Dr. Itu Singdh) | SERB | 20 April 2021 | 29,95,300/- | 3 Years |

**b) Projects Completed:**

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Date of completion of the Project |
|---|---|---|---|---|---|---|
| 1. | Smart Depression Diagnosis System | PI (Dr. Sanchita Paul) | Seed Money, BIT Mesra, Ranchi | 4th JUNE 2019 | 2 Lac | 30th JULY 2021 |

## SECTION 3 SEMINAR / CONFERENCE

### 3.1 Seminar / Conferences / Short – Term Courses Conducted:

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event |
|---|---|---|---|---|
| 1 | IEEE International Conference on IoT and Blockchain Technology ICIBT-2022 | Dr. K. S Patnaik<br>Dr. Itu Snigdh | IEEE | 6th – 8th May 2022 |
| 2 | Deep Learning | Dr. K. K. Senapati | AICTE-ISTE | 24th – 29th May 2021 |

### 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by

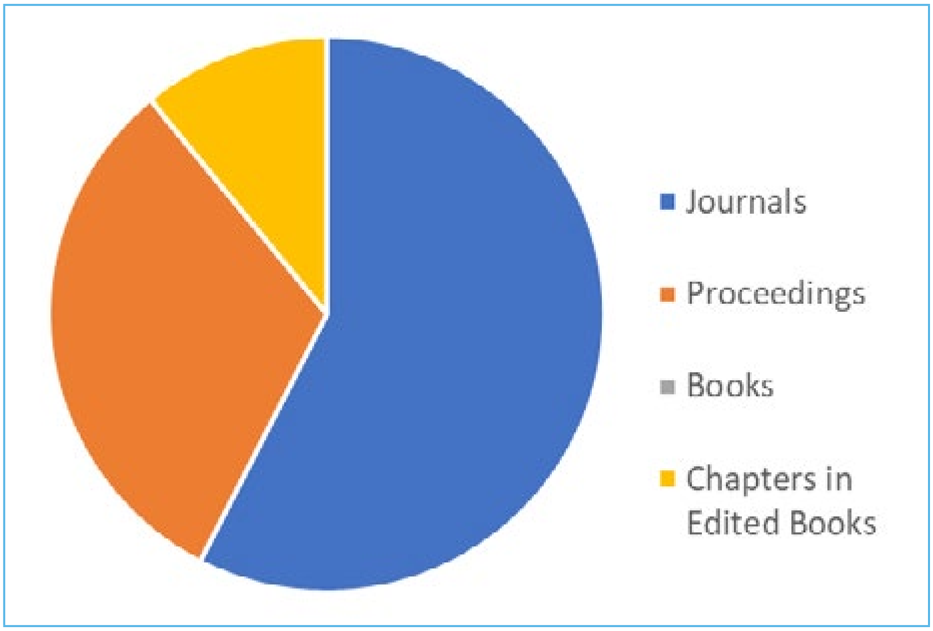
**Faculty Members:**

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 1 | Dr. Sanchita Paul | 2nd International Conference on Nanoelectronics, Machine Learning, Internet of Things & Computing Systems (NMIC-2022) [AS A REVIEWER AND SESSION CHAIR] | ISVE AND IETE RANCHI | ISVE Ranchi | ARTTC BSNL, HAZARIBAG ROAD, RANCHI-835217 | 19th - 20th March 2022 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 2 | Dr. Shashank Pushkar | 7th International Conference on Nanoelectronics, Circuits & Communication Systems | ISVE Ranchi Jharkhand India | ISVE Ranchi Jharkhand India | ARTTC, BSNL, Near Jumar River Bridge, Hazaribag Road, Ranchi-835217, Jharkhand, India | 29th – 30th Jan 2022 |
| 3 | Dr.Supreeti Kamilya | First Asian Symposium on Cellular Automata Technology (ASCAT 2022) | SPARC Project | IIEST Shibpur | Online | 3rd – 5th March 2022 |
| 4 | Dr. Supreeti Kamilya | International Conference on Advances in Data Science and Computing Technologies (ADSC-2022) | Kazi Nazrul University Asansol | Kazi Nazrul University Asansol | Kazi Nazrul University Asansol | 23rd – 24th June 2022 |
| 5 | Dr. Supreeti Kamilya | International Conference on Advances in Data Science and Computing Technologies (ADSC-2022) | Kazi Nazrul University Asansol | Kazi Nazrul University Asansol | Kazi Nazrul University Asansol | 23rd – 24th June 2022 |
| 6 | Dr. Kumar Rajnish | *Thirteenth International Conference on Contemporary Computing (IC3-2021) (IC3'21)* | Jointly organized by Jaypee Institute of Information Technology (JIIT), Noida, India and the University of Florida, Gainesville, USA | Jaypee Institute of Information Technology (JIIT), Noida, | online | 5th – 7th August 2021 |
| 7 | Dr. K. K. Senapati | ATAL workshop on Data Science | IIIT, Pune | IIIT, Pune | Online | 20th – 24th December 2021 |
| 8 | Dr. K. K. Senapati | Summer School on Artificial Intelligence | IIIT Hyderabad | IIIT Hyderabad | IIIT Hyderabad | 02nd – 31st August 2021 |
| 9 | Dr. K. K. Senapati | ATAL workshop on Intelligence and Digital Forensics | SVNIT, Surat | SVNIT, Surat | SVNIT, Surat | 9th – 23rd July 2021 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 10 | Dr. K. K. Senapati | ATAL workshop on Augmented Reality and Virtual Reality on Engineering Applications | Anurag University | Anurag University | Anurag University | 5th – 9th July 2021 |

## SECTION 4 RESEARCH PUBLICATIONS



### 4.1 Publications in Journals: (International/National)-42

### 4.2 Publications in Proceedings: (International/National) with ISBN numbers only-23

### 4.3 Book: (with ISBN details)-0

### 4.4 Chapter(s) in Edited Book-08

## SECTION 5 AWARD / PATENT / COLLABORATIONS

### 5.1 Award / Recognition Bestowed on Faculties (State / National / International)

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 1 | Dr. Jit Mukherjee | IEEE IGARSS Full Travel Grant for Attending Conference | IEEE | International Level | 2022 |
| 2 | Dr. Supreeti Kamilya | Best Paper Award | Kazi Nazrul University Asansol | International Conference (ADSC 2022) | 2022 |

## 5.2 Patents (Applied / Granted)

| Sr. No | Name of the Inventor | Title of the Invention | Application / Patent No. (As applicable) | Year | Short Description about the patent |
|---|---|---|---|---|---|
| 1 | Shalini Mahato,<br>Sanchita Paul | Hybrid Depression Detection System | Application Number:<br>202131031213 | 12 July 2021 | Published,<br>Description<br>Developed An Emotiv Device With 19 Channel Electrodes For Detection Of Depression |
| 2 | Shruti Gedam,<br>Sanchita Paul | Mental Stress Detection Using Iomt Device And Machine Learning | Application Number: 202131045842 | 8 October 2021 | Published<br>Description<br>Develop A Device Using Herat Rate, Tmp., Gsr , Ecg Sensor And Arduino For Detection Of Mental Stress |
| 3 | Sanchita Paul<br>Shruti Gedam | Fatigue Detection In Industry Workers | Application Number: 202231005911. | 3 February 2022. | Published<br>Description<br>Develop Two Devices-One For Detection Of Mental Health (Using Emotiv Epocx) And Physical Fatigue ( Using Ecg ,Gsr And Tmp. Sensors) |
| 4 | Aamir Junaid Ahmad, Sabina Priyadarshini | Social Network Traceability System | Applied For | 2022 | A system (100) For Building Social Network Traceability technique, comprises of an input module (102) for taking atleast a natural language query as input from user; a generation module (104) for generating a token and a condition statement, wherein the tokens are generated from the input, wherein the condition statement is generated upon matching the generated token with a plurality of user defined parameters to trace relevant networks; anda classification module (106) for classifying the generated tokens based on the user defined parameters into a plurality of classes, wherein the generated tokens from the query is optimized by filtering a plurality of records stored in a database into the user defined parameters, wherein the plurality of records are filtered sequentially based on either an increasing or decreasing order of data in the record. |

## 5.3 MoUs / Collaborations

| Sr. No. | Name of Organisation / University | **Purpose / Area**/*Short Description* | Year / Duration |
|---|---|---|---|
| 1. | Collaboration Work Has Been Done with Central Institute Of Psychiatrist, Kanke Road, Ranchi | Collaborative Work Has Been Done on Stress, Depression And Anxiety Patients With The Help Of Dr. Nishant Goyal For Research Purpose. | 2021 To Till Date |
| 2 | Artificial Computing Machines Private Limited Ranchi | 1. Industrial Training & Visits: Industry and Institution interaction to provide an insight into the latest developments / requirements of the industries<br>2 Guest Lectures: To deliver guest lectures to the students of the on the technology trends and in house requirements.<br>3 Placement of trained students: To help the delivery of the training and placement of the students on the technology trends and in house requirements. | February 2022, February 2024 |

## SECTION 6 ACTIVITIES/ FACULTY MEMBERS / DOS /DAS

## 6.1 Departmental Students' Activities

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 1 | IEEE Megaproject, ACM Code-A-BIT | - | - | 5/25/2022 |
| 2 | Code -a- bit | - | - | 5/25/2022 |
| 3 | Network Attacks Prediction | - | - | 5/25/2022 |
| 4 | Ace it up 2.0 | - | - | 5/25/2022 |
| 5 | Code Chef Starter 23 | - | - | 5/25/2022 |
| 6 | The Lost Code | - | - | 5/26/2022 |

## 6.2 List of Faculties

| Sr. No. | Name | Designation |
|---|---|---|
| 1. | Dr. Sandip Dutta | Professor and Head |
| 2. | Dr. (Mrs). V. Bhattacharjee | Professor |
| 3. | Dr. D. K. Mallick | Associate Professor |
| 4. | Dr. (Mrs.) Aruna Jain | Associate Professor |
| 5. | Dr. Bhaskar Karn | Associate Professor |
| 6. | Dr. V. K. Jha | Associate Professor |
| 7. | Dr. K. S. Patnaik | Associate Professor |
| 8. | Dr. K. Rajnish | Associate Professor |

| | | |
|---|---|---|
| 9. | Dr. Abhijit Mustafi | Associate Professor |
| 10 | Dr. Sujan Kumar Saha | Associate Professor |
| 11 | Dr. B. K. Sarkar | Assistant Professor |
| 12 | Dr. I. Mukherjee | Assistant Professor |
| 13 | Dr. (Mrs.) ItuSnigdh | Assistant Professor |
| 14 | Prof. Ritesh Jha | Assistant Professor |
| 15 | Prof. I. D. Ram | Assistant Professor |
| 16 | Dr. Anup Kumar Keshri | Assistant Professor |
| 17 | Dr. K. K. Senapati | Assistant Professor |
| 18 | Dr. (Mrs.) Amritanjali | Assistant Professor |
| 19 | Dr. (Mrs.) Sanchita Paul | Assistant Professor |
| 20 | Dr. (Mrs.) Shruti Garg | Assistant Professor |
| 21 | Dr. Sudip Kumar Sahana | Assistant Professor |
| 22 | Prof. B. K. Chanda | Assistant Professor |
| 23 | Dr. S. Pushkar | Assistant Professor |
| 24 | Dr. S. Priyadarshini | Assistant Professor |
| 25 | Dr. (Mrs.) Shamama Anwar | Assistant Professor |
| 26 | Prof. Kalyan Samanta | Assistant Professor |
| 27 | Dr. S. Mohapatra | Assistant Professor |
| 28 | Dr. (Mrs) Akriti Nigam | Assistant Professor |
| 29 | Dr. Sumit Srivasatava | Assistant Professor |
| 30 | Dr. Niraj Kumar Singh | Assistant Professor |
| 31 | Dr. Mrs. D. Mustafi | Assistant Professor |
| 32 | Dr. S. P. Singh | Assistant Professor |
| 33 | Dr. Satish Chander | Assistant Professor |
| 34 | Dr. Pankaj Gupta | Assistant Professor |
| 35 | Dr. Jit Mukherjee | Assistant Professor |
| 36 | Dr. Prashant Pranav | Assistant Professor |
| 37 | Dr. Suvendu Kanungo | Assistant Professor |
| 38 | Dr. Ranjan Kumar Behera | Assistant Professor |
| 39 | Dr. Supreeti Kamilya | Assistant Professor |

## 6.3 List of Adjunct Faculties

| Sr. No. | Name | Designation | Affiliation |
|---|---|---|---|
| 1. | Dr. (Prof.) Supratim Biswas | Adjunct Faculty | IIT Bombay |
| 2. | Dr. (Prof.) R. K. Ghose | Adjunct Faculty | IIT Kharagpur |

## 6.4 Board of Studies

| Sr. No. | Name of the Member | Designation | Role |
|---|---|---|---|
| 1. | Dr. S. Dutta | Professor & HOD | Chairman |
| 2. | Dr. V. Bhattacharjee | Professor, CSE | Internal Member |
| 3. | Dr. V. K. Jha | Associate Professor, CSE | Internal Member |
| 4. | Dr. K. Rajnish | Associate Professor, CSE | Internal Member |
| 5. | Dr. (Mrs.) Itu Snigdh | Assistant Profes sor, CSE | Internal Member |
| 6. | Dr. (Mrs) Akriti Nigam | Assistant Professor, CSE | Internal Member |
| 7. | Faculty Member CSE, Nominee of Director BIT Jaipur | Nominee of Director | Internal Member |
| 8. | Faculty Member CSE, Nominee of Director BIT Patna | Nominee of Director | Internal Member |
| 9. | Faculty Member CSE, Nominee of Director BIT Deoghar | Nominee of Director | Internal Member |
| 10. | Faculty Member CSE, Nominee of Director BIT Noida | Nominee of Director | Internal Member |
| 11. | Faculty Member CSE, Nominee of Director BIT Lalpur | Nominee of Director | Internal Member |
| 12. | Dr. Sandeep Singh Solanki | Professor & Head, ECE | Member from other Department |
| 13. | Dr. Akhouri Pramod Krishna | Professor & Head, DRS | Member from other Department |
| 14. | Dr. Pabitra Mitra | Professor, IIT Kharagpur | External Member |
| 15. | Dr. Vasudeva Varma | Professor, IIIT Gachibowli Hyderabad | External Member |
| 16. | Prof. Prem Kumar Kalra | Director Dayalbagh Education Institute, IIT Kanpur UP | External Member |
| 17. | Dr. Pramod Kumar Mishra | Mishra Professor & Ex-Head, Senior Member Banaras Hindu University | External Member |
| 18. | Dr. Sriparna Saha | Associate Professor IIT, Patna | External Member |
| 19. | Dr. Jyotsna Kumar Mandal | Professor University of Kalyani, West Bengal | External Member |
| 20. | Dr. Lobiyal | Professor JNU, New Delhi | External Member |
| 21. | Mrs. Mini Rani Sharma | Ex. Chief Technical Officer, Cyber Security Expert, State Project Manager, Rural Development Department, Government of Jharkhand | External Member |
| 22. | Mr. Amit Chaudhary | Co-Founder at Lens kart, South Delhi | External Member |
| 23. | Mr. Vaibhav Kumar Singh | Manager (Operations), Medium Structural Mill, Durgapur Steel Plant, Steel Authority of India Limited | External Member |

## 7.1 Publication by students if any

**Publications in Journals:** (International/National)

1. Adla Sanober, Shamama Anwar (May, 2022). "Crytographical Primitive for Blockchain: A Secure Random DNA encoded Key Generation technique", Accepted in Multimedia and Tools Application: An International Journal, Springer.
2. Nandini Kumari, Shamama Anwar, Vandana Bhattacharjee (Feb, 2022). "Time series dependent feature of EEG signals for improved visually evoked emotion classification using EmotionCapsNet", Neural Computing and Applications, Special Issue for Deep Learning in Time-series data, Vol. 43, Issue 4.
3. Nandini Kumari, Shamama Anwar, Vandana Bhattacharjee (Jan, 2022). "Automated Visual Stimuli Evoked Multi-channel EEG Signal Classification Using EEGCapsNet ", Pattern Recognition Letters, Elsevier, Vol. 153, pp. 29 – 35.
4. Nandini Kumari, Shamama Anwar, Vandana Bhattacharjee (Feb, 2022). "A Deep Learning based approach for accurate diagnosis of Alcohol usage severity using EEG signal", IETE Journal of Research.
5. S. Gedam and **Sanchita Paul**, "A Review on Mental Stress Detection using Wearable Sensors and Machine Learning Techniques," *IEEE Access*, Vol.-9, pp. 84045–84066, DOI: 10.1109/ACCESS.2021.3085502, 2021. **[SCIE, IF-3.367]**
6. P. K. Singh and Sanchita Paul, "Deep Learning Approach for Negation Handling in Sentiment Analysis," *IEEE Access*, vol. 9, pp. 102579–102592, 2021, DOI: 10.1109/ACCESS.2021.3095412. **[SCIE, IF-3.367]**
7. Kanchan Bala, Sanchita Paul, Mili Ghosh, "Heuristic Model to Compute Indices for Classification of Incidence and Non-incidence of Thunderstorms over Ranchi with Atmospheric Parameter," *IEEE Access*, ISSN: 2169–3536, Vol. 9, 19 August 2021, pp. 127086–127101. DOI: 10.1109/ACCESS.2021.3106064 [SCIE, IF-3.367].
8. Kanchan Bala, Sanchita Paul, Mili Ghosh, "Analyzing the Performance of Machine Learning Techniques in Classification of Thunderstorms," Arabian Journal of Geosciences, 19 August 2021, DOI: 10.1007/s12517–021–08230–9 [In press, SCIE, IF-1.827].
9. Kanchan Bala, Sanchita Paul, Sachi Nandan Mohanty, "Improved Prediction Analysis with Hybrid Models for Thunderstorm classification over the Ranchi Region", New Generation Computing, Springer, PUBLISHED IN 2022, DOI: https://doi.org/10.1007/s00354–022–00174–2. [SCIE, IF-1.048].
10. Sanchita Paul, S. N. Mohanty, "Ensemble learning framework with GLCM texture attraction for early detection of lung Cancer on CT images", Computational and Mathematical methods in Medicine, Hindawi, Published IN June 2022. https://doi.org/10.1155/2022/2733965. [SCIE, IF-2.238].
11. Shalini Mahato, **Sanchita Paul, "**Analysis of Region of Interest (RoI) of Brain for Detection of Depression using EEG Signal", MULTIMEDIA TOOLS AND APPLICATIONS, Accepted IN June 2022. [IN PRESS, SCIE, IF-2.757]
12. Prajwal Nimborkar, Richa Anand, Sanchita Paul, "Cloud based task scheduling using enhanced MAXMIN and MINMIN algorithms", International Journal of Communication Systems, Wiley, Accepted IN June 2022. [IN PRESS, SCIE, IF-2.047]
13. Shalini Mahato, Sanchita Paul, "3EDANFIS: Three Channel EEG-Based Depression

Detection Technique with Hybrid Adaptive Mamdani Neuro Fuzzy Inference System", Recent Patents on Engineering, Bentham Science., accepted in June, 2022. (IN PREE, SCOPUS, ESCI)

14. Ravi Prakash, and **Shashank Pushkar, (2022)** An Approach Using Heuristic Pheromones-Based ACO Modeling for Green Vehicle Routing Optimization, International Journal of Ad Hoc and Ubiquitous Computing, Vol. 40, No. 1-3 PP 187–193.

15. Prakash, R., & Pushkar, S. (2022). Green vehicle routing problem: Metaheuristic solution with time window. Expert Systems, e13007. https://doi.org/10.1111/exsy.13007

16. Kumari, R., Nigam, A. & **Pushkar, S. (2022)**. An efficient combination of quadruple biomarkers in binary classification using ensemble machine learning technique for early onset of Alzheimer disease. Neural Comput & Applic https://doi.org/10.1007/s00521-022-07076-w

17. V.K. Saxena and Shashank Pushkar. " Risk Reduction Privacy Preserving Approach for Accessing Electronic Health Records"International Journal of Healthcare Information Systems and Informatics (IJHISI) Vol :16 (3),46-57

18. Gupta A. and Sarkar B.K. (2022): BSN MOT: A Fast and Cost-Efficient Optoelectronic Architecture. – IETE Technical Review (Taylor & Francis, ISSN: 0974-5971, SCIE, I.F. – 1.339), 1-12

19. Raja R., Mukjerjee I. and Sarkar B.K. (2021): A Machine Learning based Prediction Model for Preterm Birth in Rural India. – Journal of Healthcare Engineering (Hindawi, ISSN-20402295,SCIE, I.F.- 2.682), https://doi.org/10.1155/2021/6665573

20. Pandey, R., D., Snigdh, I. Validity as a measure of Data Quality in Internet of Things Systems. Wireless Pers Commun, June 2022 Vol 124, Issue 4 1-16.

21. Gupta, S., Snigdh, I. Leveraging data aggregation algorithm in LoRa networks. J Supercomput (2022). May,2022 Volume 78, Issue 8 1-15.

22. Gupta, S., Snigdh, I. & Sahana, S.K. A Fuzzy Logic Approach for Predicting Efficient LoRa Communication. Int. J. Fuzzy Syst. (2022). Jan2022 16 1-9.

23. Gupta, S., Snigdh, I. Clustering in LoRa Networks, an Energy-Conserving Perspective. Wireless Pers Commun 122, 197–210 (2022).

24. Mohapatro, M., Snigdh, I. An Experimental Study of Distributed Denial of Service and Sink Hole Attacks on IoT based Healthcare Applications. Wireless Pers Commun 121, 707–724 (2021)

25. Supreeti Kamilya, and Jarkko Kari. "Nilpotency and periodic points in non-uniform cellular automata." Acta Informatica 58.4 (2021): 319-333.

26. Supreeti Kamilya, Sukanta Das, and Biplab K. Sikdar. "Simulation of Non-uniform Cellular Automata by Classical Cellular Automata and Its Application in Embedded Systems." Journal of Cellular Automata 16 (2021)

27. Prashant Pranav, Sandip Dutta and Soubhik Chakraborty, "Empirical and Statistical Comparison of Intermediate Steps of AES – 128 and RSA in Terms of Time Consumption", Soft Computing Springer, 2021, Volume – 25, pp. 13127 – 13145 (SCIE, Impact Factor – 3.6)

28. Prashant Pranav, Soubhik Chakraborty and Sandip Dutta, "A New Cipher System using Semi-natural Composition in Indian Raga", Soft Computing Springer, 2020, Volume – 24, pp. 1529 – 1537 (SCIE, Impact Factor – 3.6)

29. Naghma Khatoon, Prashant Pranav, Sharmistha Roy and Amritanjali, "FQ – MEC: Fuzzy – Based Q – Learning Approach for Mobility – Aware Energy – Efficient Clustering in MANET", Wireless Communication and Mobile Computing, Hindawi, 2021 (SCIE, Impact Factor – 2.3)

30. Ray, S., Mishra, K.N. and Sandip Dutta, Susceptible data classification and security reassurance in cloud-IoT based computing environment. S?dhan? 46, 215 (2021) (SCIE)
31. Ray, Soumya; Mishra Kamta N, Sandip Dutta, Big Data Security Issues from the Perspective of IoT and Cloud Computing: A Review, Recent Advances in Computer Science and Communications (Formerly: Recent Patents on Computer Science), Volume 14, Number 7, 2021, pp. 2057-2078(22), Bentham Science Publishers
32. Yadav Dharmveer K, Sandip Dutta, Test Case Prioritization Based on Early Fault Detection Technique, Recent Advances in Computer Science and Communications (Formerly: Recent Patents on Computer Science), Volume 14, Number 1, 2021, pp. 302–316(15), Bentham Science Publishers
33. Prakash A., Singh, N.K., Saha, S.K. (2022). Automated extraction of similar poetry for study of literary texts: An experiment on Hindi poetry, ETRI journal (2022), 1–13. Online ISSN: 2233–7326. http://doi.org/10.4218/etrij.2019–0396. Wiley. Indexing: SCIE [IF 1.347]
34. Singh, N.K., Chakraborty, S., and Roy M, (2021). Analysing the poetic structure of Jana-Gana-Mana in Entirety: A statistical approach. Journal of Applied Mathematics and Computation, Vol. 5, No. 4, pp. 264-272. ISSN online: 2576–0653, ISSN print: 2576–0645.
35. Umang Gupta, Vandana Bhattacharjee, Partha Sarathi Bishnu, StockNet—GRU based stock index prediction, Expert Systems with Applications, 2022, 117986, ISSN 0957–4174, https://doi.org/10.1016/j.eswa.2022.117986. (Available online 30 June 2022, 117986) **[SCIE Indexed].**
36. KamtaNath Mishra, Vandana Bhattacharjee, Shashwat Saket and Shivam P. Mishra (2022) "Cloud and Big Data Security System's Review Principles: A Decisive Investigation", Wireless Personal Communications https://doi.org/10.1007/s11277–022–09781–0 **[SCIE Indexed]**
37. Nandini Kumari, Shamama Anwar, Vandana Bhattacharjee (2022). "Time series dependent feature of EEG signals for improved visually evoked emotion classification using EmotionCapsNet", Neural Computing and Applications, Special Issue for Deep Learning in Time-series data, Vol. 43, Issue 4, Online ISSN: 1433–3058, Print ISSN: 0941–0643 https://doi.org/10.1007/s00521–022–06942-x [**SCIE**, IF:5.606]
38. Nandini Kumari, Shamama Anwar, Vandana Bhattacharjee (2022). "A Deep Learning based approach for accurate diagnosis of Alcohol usage severity using EEG signal", IETE Journal of Research. ISSN: Print ISSN: 0377–2063 Online ISSN: 0974–780X, https://doi.org/10.1080/03772063.2022.2038705 [***SCIE***, IF: 2.333]
39. Nandini Kumari, Shamama Anwar, Vandana Bhattacharjee (2022). "Automated Visual Stimuli Evoked Multi-channel EEG Signal Classification Using EEGCapsNet ", Pattern Recognition Letters, Elsevier, Vol. 153, pp. 29 – 35, ISSN: 0167–8655, doi: https://doi.org/10.1016/j.patrec.2021.11.019 [**SCI, IF: 3.756**]
40. Vandana Bhattacharjee, Raj Sahu, Amit Dutta (2021). "Enhanced graph representations for graph convolutional network models", Multimedia Tools and Applications, Springer (Accepted 23rd December 2021) **[SCIE Indexed]**
41. R. Jha, A. Mustafi and V. Bhattacharjee, Increasing the Prediction Accuracy for Thyroid Disease: A Step Towards Better Health for Society, Wireless Personal Communications, August 2021 **[SCIE Indexed],**
42. Kumar Rajnish and Vandana Bhattacharjee (2022)," A Cognitive and Neural Network Approach for Software Defect Prediction**",** Journal of Intelligent & Fuzzy Systems (Accepted 15 June 2022) **[SCIE Indexed].**

**Publications in Proceedings: (International/National)**

1. R. Prakash and S. Pushkar, "Implementation of GVRP in Reducing Environmental Impacts and GHG Emission," *2021 5th International Conference on Electronics, Communication and Aerospace Technology (ICECA)*, 2021, pp. 172–178, doi: 10.1109/ICECA52323.2021.9676098.
2. R. Prakash and S. Pushkar, "Solution to Multi-Objective GVRP With Genetic Algorithm and Time Window," *2021 2nd International Conference on Smart Electronics and Communication (ICOSEC)*, 2021, pp. 1475–1482, doi: 10.1109/ICOSEC51865.2021.9591675.
3. Bhosale, Tejaswi and Pushkar, S., Tourist spot classification using convolution neural network (July 12, 2021). Proceedings of the International Conference on Innovative Computing & Communication (ICICC) 2021
4. Raja Rakesh, Mukherjee Indrajit and Sarkar Bikash (2021): Healthcare Recommendation System.- Proceedings of the Fourth International Conference on Microelectronics, Computing and Communication Systems (Springer, Singapore), pp 451–458
5. Parween, S., Pal, A., Snigdh, I., Kumar, V. (2021). An IoT and Machine Learning-Based Crop Prediction System for Precision Agriculture. In: Bora, P.K., Nandi, S., Laskar, S. (eds) Emerging Technologies for Smart Cities. Lecture Notes in Electrical Engineering, vol 765. Springer, Singapore. https://doi.org/10.1007/978- 981–16–1550-4_2
6. 3. Sahu, N.K., Snigdh, I. (2021). Applying Machine Learning Algorithms in Network-Based Intrusion Detection Systems. In: Chakraborty, M., Jha, R.K., Balas, V.E., Sur, S.N., Kandar, D. (eds) Trends in Wireless Communication and Information Security. Lecture Notes in Electrical Engineering, vol 740. Springer, Singapore. https://doi.org/10.1007/978–981–33–6393–9_24
7. 4. Manorama, Snigdh, I. (2021). Principal Component Analysis in Body Sensor Networks for Secure Data Transmission. In: Chakraborty, M., Jha, R.K., Balas, V.E., Sur, S.N., Kandar, D. (eds) Trends in Wireless Communication and Information Security. Lecture Notes in Electrical Engineering, vol 740. Springer, Singapore. https://doi.org/10.1007/978–981–33–6393–9_25
8. Jit Mukherjee. "A Study on Automated Detection of Surface and Sub-surface Coal Seam Fires using Isolation Forest from Landsat 8 OLI/TIRS Images" in IGARSS 2022, Kuala Lumpur, Malaysia (Accepted).
9. Jit Mukherjee, Jayanta Mukhopadhyay, and Debashish Chakravarty. "A Study on Performance and Applicability of Coal Mine Index in Different Surface Mining Regions" in IGARSS 2022, Kuala Lumpur, Malaysia (Accepted).
10. Paty, S., Kamilya, S. (2022). Grade Estimation of Mineral Resources: An Application of Cellular Automata. In: Das, S., Martinez, G.J. (eds) Proceedings of First Asian Symposium on Cellular Automata Technology. ASCAT 2022. Advances in Intelligent Systems and Computing, vol 1425. Springer, Singapore. https://doi.org/10.1007/978–981–19–0542-1_4.
11. Soumyadeep Paty and Supreeti Kamilya. "Identification of Rock Images in Mining Industry: An Application of Deep Learning Technique". Accepted in International Conference on Advances in Data Science and Computing Technologies. (ADSC). June 23 – 24, 2022.
12. Supreeti Kamilya and Soumyadeep Paty. "Detection of Chaotic Cellular Automata using Convolution Neural Networks: A Comparative Study." Accepted in International Conference on Advances in Data Science and Computing Technologies. (ADSC). June 23 – 24, 2022.
13. Prashant Pranav, Sandip Dutta and Soubhik

Chakraborty, "An Involution Function-Based Symmetric Stream Cipher", In: Nath V., Mandal J.K. (eds), Proceedings of the Fourth International Conference on Microelectronics, Computing and Communication Systems, Lecture Notes in Electrical Engineering, 2021, Volume – 673, Springer (SCOPUS)

14. Prashant Pranav, Naela Rizvi, Naghma Khatoon and Sharmistha Roy, "A Review on SLA-Based Resource Provisioning in Cloud", In: Swain D., Pattnaik P., Gupta P. (eds), Machine Learning and Information Processing, Advances in Intelligent Systems and Computing, 2021, Volume – 1101, Springer (SCOPUS)
15. Nayancy, Sandip Dutta and Soubhik Chakraborty, IoT Based Secure Communication to Enhance Blockchain Model, In: Nath V., Mandal J.K. (eds), Proceedings of the Fourth International Conference on Microelectronics, Computing and Communication Systems, Lecture Notes in Electrical Engineering, Volume – 673, Springer (SCOPUS), 2021
16. Monalisha and Sandip Dutta, Survey of Lightweight Cryptography Algorithm for Data Security in the Internet of Things, In: Nath V., Mandal J.K. (eds), Proceedings of the Fourth International Conference on Microelectronics, Computing and Communication Systems, Lecture Notes in Electrical Engineering, Volume – 673, Springer (SCOPUS), 2021
17. Dharmveer Kumar Yadav and Sandip Dutta, Study and Analysis of Test Case Prioritization Techniques, In: Nath V., Mandal J. (eds) Nanoelectronics, Circuits and Communication Systems. Lecture Notes in Electrical Engineering, vol 692. Springer, Singapore. https://doi.org/10.1007/978-981-15-7486-3_42, 2021
18. Upadhyay D.K., Mohapatra, S., Singh, N.K., and Bakhla, A.K., 2021. *Stacked SVM model for dysthymia* prediction in undergraduates' students. 8th International Conference on Signal Processing and Integrated Networks (SPIN), pp 1148–1153, doi: 10.1109/SPIN52536.2021.9566004.
19. M. Gupta, K. Rajnish and V. Bhattacharjee, "Effectiveness of Ensemble classifier over State-of-art machine learning classifiers for predicting software faults in software modules", Third International conference on Machine Learning, Image Processing, Network security and Data Science (MIND-2021) to be organized during 11th – 12th December 2021 at NIT Raipur India.
20. K. Rajnish, V. Bhattacharjee and N. Priyadarshini, "A Neural network approach for sentiment Analysis", Accepted in 6th International Conference on Microelectronics, Computing & Communication Systems (MCCS-2021) on 17–18th July 2021 at ARTTC, BSNL near Jumar River Bridge, Hazaribag Road, Ranchi.
21. K. Rajnish, V. Bhattacharjee and V. Chandrabanshi, Applying Cognitive and Neural Network Approach over Control Flow Graph for Software Defect Prediction, *In 2021 Thirteenth International Conference on Contemporary Computing (IC3-2021) (IC3'21)*, August 05–07, pp.13–17, 2021, Noida, India, ACM, Newyork, USA, ISBN: 978-1-4503-8920-4/21/08, https://doi.org/10.1145/3474124.3474127.
22. K. Rajnish, V. Bhattacharjee and M. Gupta, A Novel Convolutional Neural Network model to predict software defects, *published in Book Chapter: Fundamentals and Methods of Machine and Deep Learning: Algorithms, Tools, and Applications*", Chapter 9, pp.211-236, Scopus and web of science, Wiley-Scrivener, January 2022.
23. J. Paul, D. Mustafi, O. Tigga, Hierarchical Fuzzy Rule based System to Predict Software Quality, NMIC2022 (In press), 2022
24. R. Dey, A. Mustafi and D. Mustafi, Language translation with CNN and LSTM using Google Translator, MCCS2022 (In press), 2022.

## 7.2 Achievements of Students:

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Parthiv Sarkar | Third Prize in Mega Project.<br>Fifth Prize in Code-A-Bit. | IEEE Megaproject, ACM Code-A-BIT | 5/25/2022 |
| 2. | Utsav Kumar | 30 | Code -a- bit | 5/25/2022 |
| 3. | Rituraj Seal | 2nd position | Network Attacks Prediction | 5/25/2022 |
| 4. | Manish Kumar Sinha | 2nd rank | Ace it up 2.0 | 5/25/2022 |
| 5. | Rohan Baranwal | Global rank 12401 | Code Chef Starter 23 | 5/25/2022 |
| 6. | Hriday Garg | 2nd | The Lost Code | 5/26/2022 |
| 7. | Ayush Singh | Qualified the first (Internal) round of SIH 2022 | Smart India Hackathon 2022 | 5/26/2022 |
| 8. | Saurabh Gupta | 2366 (Global) | Google Kickstart | 5/27/2022 |
| 9. | Saurabh Gupta | 3rd position at college level | Smart India Hackathon – preliminary | 5/27/2022 |
| 10. | Shivansh Agrawal | 3rd | hackTU 3.0 | 5/28/2022 |
| 11. | Samyak Jain | Achieved rank 8 | Codechef January Long challenge 2022-II | 5/30/2022 |
| 12. | Priyanka Choudhary | Best All Girls Team | Lost Code | 5/31/2022 |
| 13. | Parthiv Sarkar | 30 | IEEE Megaproject, ACM Code-A-BIT | 5/25/2022 |

## 7.3 Distinguished Visitors from Industry/Academia/Research organizations

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture (Insert Picture here. Further send the JPEG file along with the email.) |
|---|---|---|---|
| 1. | Dr. Sudebkumar Prasant Pal<br>Professor, IIT Kharagpur | 2021 | |

## 7.4 List of Distinguished Alumni

| Sr. No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | Akshat Ved, 2020–2022, MCA | Working with Oracle |
| 2. | Ms. Sweta Raj, 2020–2022, MCA | Working with Google |
| 3. | Mr. Jatin Kumar, 2020–2022, MCA | Working with Deloitte |

| Sr. No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 4. | Mr. Vibhu Bhatia, 2018–2022, B. Tech (CSE) | Working with Mind-tickle |
| 5. | Mr. Saksham Arora, 2018–2022, B. Tech (CSE) | Working with Microsoft |
| 6. | Ms. Pratysha Pratik, 2015–2018, MCA | She is working with Walmart in the field of Enterprise application software Development. |
| 7. | Mr. Shibu Ghose, 2017–2020, MCA | He is working as a Jr. Software Engineer, Cognizant Technology Solution in the field CDE Full Stack Developer |
| 8. | Mr. Kumar Gaurav, 2016–2019, MCA | He is working with Tech Mahindra in the field of Data Science and Analytics |
| 9. | Ms. Anne Kedia, 2017–2020, MCA | She is working with Deloitte in the field of Oracle Hyperion Suite |

## 7.5 Infrastructure Development

In the setting of Cloud Computing Lab at BIT Mesra. There are 2 private clouds, first cloud setup has been done through Aneka where 30 high configuration workstations are connected by using containerization process in lab iii and second cloud is hosted on HPC having server virtualisation. Both the private clouds are interconnected in master-slave configuration. Future plan is to connect these private clouds to public clouds like AMAZON. Others details regarding infrastructure are mentioned below:

| Sr. No. | Room Description | Faculty Name | Room Area | Shared/ Exclusive | Capacity | Equipped with |
|---|---|---|---|---|---|---|
| 1. | FG1 | Dr. B.K. Sarkar | 13'4''x 9'4'' | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |
| 2. | FG2 | Dr. S. Paul | 9'7"x 9' | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |
| 3. | FG3 | Dr. G. Sahoo | 10' x 13'7" | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board |
| 4. | FG4 | Dr. B.Karn | 10' x 13'7" | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board.. |
| 5. | FG5 | Dr. A. Jain | 10' x 13'7" | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |
| 6. | FG6 | (a). Prof.B.K. Chanda<br>(b). Prof. R.Jha | 15'x12' | Shared | 2 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |
| 7. | FG7 | Dr. A.Nigam | 8'9" x 9'9" | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |

| Sr. No. | Room Description | Faculty Name | Room Area | Shared/ Exclusive | Capacity | Equipped with |
|---|---|---|---|---|---|---|
| 8. | FG8 | Dr. K.S. Patnaik | 9'3" x 14'9" | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |
| 9. | FG9 | Dr. K.K. Senapati | 9'3" x 14'9" | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |
| 10. | FG10 | Dr. D Mustafi | 8'10"x11'5" | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |
| 11. | FG11 | (a). Dr. S. Garg<br>(b). Dr. S. Anwar | 14'9"x10'<br>10' | Shared | 2 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |
| 12. | FF1 | Dr. S.Dutta | 9'3' x 14'9" | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |
| 13. | FF2 | Dr. V.Bhattacharjee | 9'3' x 14'9" | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |
| 14. | FF3 | Dr. A.Mustafi | 9'3' x 14'9 | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |
| 15. | FF4 | Dr.Itu Snigdh | 9'3"x 9' | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |
| 16. | FF5 | Dr.S.K. Saha | 13'.4'x9'.4' | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |
| 17. | FS1 | (a)Prof. K Samanta<br>(b)Prof. Sumit Srivastava | 13'4"x10' | Shared | 2 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board |
| 18. | FS2 | Dr.S.K. Sahana | 9'7" x 8'8" | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board |
| 19. | FS3 | Dr. D.K. Mallick | 9.3" x 13'5" | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, White Board, Notice Board. |
| 20. | FS4 | Dr. V.K. Jha | 9.3" x 13'5" | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, White Board, Notice Board. |
| 21. | FS5 | Dr. I. Mukherjee | 9.3" x 13'5 | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, White Board, Notice Board. |

| Sr. No. | Room Description | Faculty Name | Room Area | Shared/ Exclusive | Capacity | Equipped with |
|---|---|---|---|---|---|---|
| 22. | FS6 | Dr.K. Rajnish | 9.3" x 13'5 | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, White Board, Notice Board . |
| 23. | FS7 | (a) Dr. N.K. Singh<br>(b) Dr. P. Pranav | 12' x 10'3" | Shared | 2 | Computer/ Laptop, Printer, UPS, Wifi, LAN, White Board, Notice Board. |
| 24. | FS8 | Dr.S.Mohapatra | 12' x 10'3" | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, White Board, Notice Board. |
| 25. | FS9 | Dr.S.Priyadarsini | 11'5" x 10'3" | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |
| 26. | FS10 | Dr.S.Pushkar | 8'1" x 9'3" | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |
| 27. | FS11 | Mr.I. D. Ram | 8' x 9' | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |
| 28. | FS12 | Dr. A.K.Keshri | 8'8" x 9' | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |
| 29. | FS13 | Dr. Amritanjali | 9'3" x 9' | Exclusive | 1 | Computer/ Laptop, Printer, UPS, Wifi, LAN, WhiteBoard, Notice Board. |

## 7.6 Special Covid Initiatives, if any:

- Smooth conducting of online classes by faculty members assisted by lab personnel in sessional courses for achieving quality teaching learning process.
- Providing mentorship/guidance to students affected by COVID-19 by taking up their ease sympathetically to the concerned authorities.
- Placing sanitizers at important locations and ensuring distancing and wearing of mask.

# Centre for Quantitative Economics and Data Science

## SECTION 1 DEPARTMENTAL PROFILE

## 1. About the Department/Off Campus:

**About the Department:**

### Vision

To become a globally recognised centre of excellence in teaching and research by producing academicians, professionals, and innovators to create a better world where a profound understanding of the field of Quantitative Economics and Data Sciences drives positive change in business and society.

### Mission

- To set-up a world-class Quantitative Economics and Data Science centre by producing original & robust research insights, delivering high-quality & evidence-based education and engaging with people & organisations worldwide, across the private & public sectors, who are motivated to transform the world by tackling real world challenges.
- To intellectually transform students for productive and stimulating careers by providing them a strong grasp of fundamentals through a diverse living environment, exposure to new ideas and interaction with people who come from different walks of life and have evolving identities.

## SECTION 2 SEMINAR / CONFERENCE

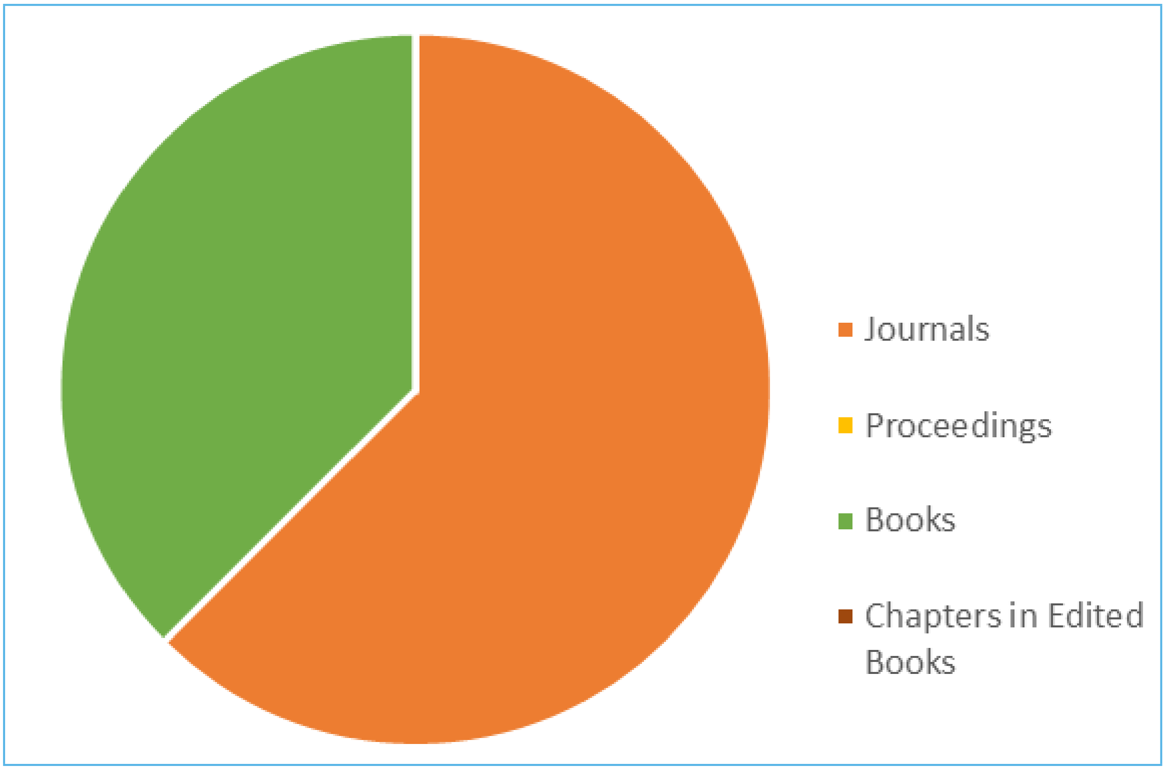
## 2.1 Workshop:

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event |
|---|---|---|---|---|
| 1. | Techniques and Applications of Hyperspectral Data Analytics | Dr. Manish K. Pandey | SERB | 25th July 2022 – 7th August 2022 |

## 2.1 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 1. | Dr. Abhishek Naresh | International Network for Economics Research (INFER) | INFER and Politehnica University of Timisoara | Politehnica University of Timisoara | Politehnica University of Timisoara, Romania (Online) | 9.06.2022 |

## SECTION 3 RESEARCH PUBLICATIONS



**Publications in Journals:** (International/National)-5

**Publications in Proceedings:** (International/National) with ISBN numbers only-0

**Book:** (with ISBN details)-3

**Chapter(s) in Edited Book**-0

## SECTION 4 AWARD / PATENT / COLLABORATIONS

### 4.1 MoUs / Collaborations

| Sr. No. | Name of Organisation / University | Purpose / Area/*Short Description* | Year / Duration |
|---|---|---|---|
| 1. | *Adrosonic* | *Setting up Digital Innovation Lab* | 5 Years |

## SECTION 5 ACTIVITIES/ FACULTY MEMBERS / DOS /DAS

### 5.1 Departmental Students' Activities

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 1. | ANVESHA-2022 | Shreyas<br>Yaagik Maurya | Dr. Abhishek Naresh | 27th June 2022 |

### 5.2 List of Faculties

| Sr. No. | Name | Designation |
|---|---|---|
| 1. | Prof. Kunal Mukhopadhyay | Professor, HOC |
| 2. | Dr. Abhishek Naresh | Assistant Professor of Economics |
| 3. | Dr. Manish K Pandey | Assistant Professor of Data Science |
| 4. | Dr. Tamalika Koley | Assistant Professor of Statistics |
| 5. | Dr. Mrinal Jana | Assistant Professor of Mathematics |

### 5.3 Board of Studies

| Sr. No. | Name of the Member | Designation (Kindly mention Ex-Officio, where applicable) | Role (Chairman/ Internal or External Member) |
|---|---|---|---|
| 1. | Prof. Kunal Mukhopadhyay | Professor, HOC<br>CQEDS, BIT Mesra | Chairman |
| 2. | Dr. Manish Kumar Pandey | Assistant Professor of Data Science<br>CQEDS, BIT Mesra | Internal member |
| 3. | Dr. Abhishek Naresh | Assistant Professor of Economics<br>CQEDS, BIT Mesra | Internal member |
| 4. | Dr. Tamalika Koley | Assistant Professor of Statistics<br>CQEDS, BIT Mesra | Internal member |

| | | | |
|---|---|---|---|
| 5. | Prof. Sujan Kumar Saha | Associate Professor<br>Department of Computer Science & Engineering<br>BIT Mesra | Internal member |
| 6. | Prof. S. Chakraborty | Professor<br>Department of Mathematics<br>BIT Mesra | Internal member |
| 7. | Prof. Abhirup Sarkar | Professor of Economics,<br>Indian Statistical Institute, Kolkata | External member |
| 8. | Prof. Saikat Sinha Roy – | Professor of Economics<br>Jadavpur University, Kolkata | External member |
| 9. | Prof. Mousumi Dutta – | Professor of Economics, Presidency University, Kolkata | External member |
| 10. | Prof. Rahul Mukerjee | Professor of Statistics<br>Indian Institute of Management, Calcutta | External member |
| 11. | Prof. Pabitra Mitra | Professor of Computer Science<br>IIT Kharagpur | External member |

## SECTION 6 OTHER INFORMATION

### 6.1 Achievements of Students:

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Sarvagya Kulshreshtha | Guinness World Record-Fastest time to solve a Rubik's cube on a bi-cycle | Guinness World Record | 30th June 2022<br>Gurgaon, Haryana, India |

### 6.2 Distinguished Visitors from Industry/Academia/Research organizations

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture (Insert Picture here. Further send the JPEG file along with the email.) |
|---|---|---|---|
| 1. | Prof Gopal Basak | 10th June 2022 -12th June 2022 | |

# Department of Electronics and Communication Engineering

## SECTION 1 DEPARTMENTAL PROFILE

### 1.1 About the Department:

The Department of Electronics and Communication Engineering was established in 1960. It is one of the largest departments in the institute having a large number of students. Due to its modern infrastructure and exposure given to the students, it is one of the elite departments in India. Apart from B.Tech. in ECE, the department offers M. Tech. in ECE with different specializations at PG level such as Microwave Engineering, Instrumentation and Control, Wireless Communication and VLSI & Embedded System. Departments also offers Ph.D in different areas of Electronics and Communication Engineering.

The department has well equipped seventeen modern laboratories having various software such as Altair Solid Thinking Embed, Multisim, Vivado, Beam Prop and Opti System, Labview and PLC, Visual TCAD, Cadence, IE3D, HFSS, Fidelity, MD Spice, Sonnet, Advanced Design System, CST and AWR. Some of the hardware equipments in the laboratories are Optical Spectrum Analyzer, Optical Time Domain Reflectometer, Monochromator, Multiplexers, Scalar Network Analyzer with Plotter (22 GHz), Spectrum Analyzer, Sweep Oscillators, Pattern Generator and Signal Generator, Vector Network Analyzer (N5230A, 10 MHz – 20 GHz), R & S Signal Generator (SMR20, 1 GHz – 20 GHz), R & S Spectrum Analyzer (FSP, 9 KHz - 30 GHz) and Anechoic Chamber. Department also has facilities for measurement and fabrication of various RF circuit components.

**Vision**

To become a center of excellence in teaching and research for creating technical manpower to meet the technological, societal and environmental needs of the country in the field of Electronics and Communication Engineering.

**Mission**

1. To offer state of the art education of global standards through innovative methods of teaching and learning with practical orientation aiming to prepare the students for successful career and to provide required technological services.
2. To prepare the students to think independently, take initiative, lead a team in an organization, take responsibility and solve the problems related to industry, society, environmental, health, safety, legal and cultural issues maintaining the professional ethics.
3. To pursue high quality contemporary research through continued interaction with research organizations and industries.

## 2.1 Sponsored Projects (Research and Consultancy)

### a) Ongoing Projects:

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | Pick-to-Light System with Movable Bin Technology | Dr. Sandeep Singh Solanki | DST | 29th Sept 2021 | 9.71 Lacs | 2 years 06 months |
| 2. | Development of VLSI Design Lab | HOD-ECE | MODROBs<br>AICTE<br>New Delhi | 2019 | 6.8 Lacs/ 19.6 Lacs | 3 years |
| 3. | Design of Ultra Low Power CMOS Temperature Sensors for Aerospace Applications | Dr. Vijay Nath | RESPOND ISRO Bangalore | 16th Nov 2015 | 25 Lacs | 2+7 years (Now in Bulk Production after First Phase<br>Fabrication & Testing) |
| 4. | High Speed Two Photon Polymerization based fabrication of hollow microneedles | Dr. Richa Mishra | BIT Mesra | 3rd Jan 2022 | 5 Lacs | 2 years |
| 5. | RF, Noise, and Harmonic Distortion Analysis of Structurally Modified Germanium on Insulator MOSFETS | Kalyan Koley | Department of Science and Technology, Government of India | 2016 | 35 Lacs | 5 years |

### b) Projects Completed

| Sr. No. | Project Title | PI / Co PI / Collaborator if any | Funding Agency | Date of Sanction | Sanctioned Amount | Date of completion of the Project |
|---|---|---|---|---|---|---|
| 1. | Study of HEMT and its performance in amplifier circuit | Dr. Aminul Islam | DRDO | 04/07/2017 | 23.742 Lac | 3+(1 year extension due to COVID) |

C) Consultancy Projects carried out/ongoing :

| Sl. No | Title of Project | Funding Agency | Duration | | Grant mobilized (₹ Lacs) | Principal Investigator / Co- Investigator | Ongoing/ Completed* |
|---|---|---|---|---|---|---|---|
| | | | from | to | | | |
| 1. | Development of Proximity Sensor for Mining Application | RIZITECH PVT LTD (Ranchi) | July 2020 | Onwards | 2,08,000 | Prof. S. K. Ghorai (Coordinator),<br>Dr S S Tripathy ( Co-cordinator) | Ongoing |

## SECTION 3 SEMINAR / CONFERENCE

### 3.1 Seminar / Conferences / Short – Term Courses Conducted

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event |
|---|---|---|---|---|
| 1. | Short term training programme (STTP) of SASI (T) cum RM Grade-I Sr. No. 7 and GO's Technical Course Sr. No. 35 of CTC, CRPF, Ranchi | Dr. Sanjay Kumar | CTC, CRPF | 3rd - 06th Jan 2022<br>14th - 18th Feb 2022<br>21st - 24th Feb 2022 |
| 2. | Machine Learning in Speech and Audio Processing | Dr. S. S. Sahu & Dr. Rupesh Kumar Sinha | BIT Mesra | 21st - 25th Feb 2022 |
| 3. | "Metamaterials, optical MM lens and wireless power transfer" by Dr. Amit Kumar Baghel, PhD (IIT Guwahati) and postdoc fellow in Instituto de Telecomunicacoes, Aveiro, Portugal. | Dr. Vimal Kumar Singh Yadav | NA | 11th March 2022 |

### 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:

| Sr. No. | Name of the Faculty | Title of the Conference/ eminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 1. | Dr. Sanjay Kumar | 6G workshop | NA | Dept. of Business Development and Technology, Aarhus University Herning, Denmark | Online | 12th Oct 2021 |
| 2. | Dr. Sanjay Kumar | How to Conduct the AICTE Student Induction Program (SIP) | NA | AICTE | Online | 21st Sep 2021 |
| 3. | Dr. Sanjay Kumar | self-paced FDP on delivering online course using Canvas LMS | NA | BIT Mesra, Ranchi | Online | 28th June – 9th July 2021 |
| 4. | N. Chattoraj | Gender Equity Towards Achieving Sustainable development Goals of India | NA | GATI PILOT & WISE KIRAN DIVISION of DST, GOI | NIT Rourkela | 2nd – 6th Feb 2022 |

| Sr. No. | Name of the Faculty | Title of the Conference/ eminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 5. | R. Mishra | 1 day IP awareness / training program under National Intellectual Property Awareness Mission | National Intellectual Property Awareness Mission | National Intellectual Property Awareness Mission | Online | 23rd March 2022 |
| 6. | R. Mishra | 10 days Patent Analytics Course | Turnip Innovations Private Limited | Turnip Innovations Private Limited | Online | 27th May – 5th June 2022 |
| 7. | Soumya Sidhishwari | AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Recent Trends in the world of Photonics" | NA | R N S Institute of Technology, Bengaluru | Online | 26th - 30th July 2021 |
| 8. | Soumya Sidhishwari | AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Recent Advances in Photonics" | NA | Birla Institute of Technology and Science Pilani, Pilani | Online | 25th – 30th Nov 2021 |
| 9. | Janardan Sahay | AICTE organized FDP on "Including UHV in Technical Education" | NA | AICTE | Online | 30th May – 3rd June 2022 |
| 10. | Janardan Sahay | QIP organized by EE dept. IIT-Indore "Statistical Modelling and Analysis of Advanced wireless Communication System" | NA | IIT-Indore | Online | 17th - 23th March 2022 |
| 11. | Rupesh Kumar Sinha | AICTE sponsored Advance Faculty Development Program (FDP) on Electronic System Design/ Smart System. | AICTE | Netaji Subhas University of Technology (NSUT), Delhi | Netaji Subhas University of Technology (NSUT), Delhi | 17th - 23th Nov 2021 |
| 12. | Chandreyee Sarkar | 2021 IEEE Indian Conference on Antennas and Propagation (InCAP) | IEEE | IEEE AP Society | Jaipur, India | 13th - 16th Dec 2021 |
| 13. | Santashraya Prasad | FDP on "IoT & Applications (Smart Systems)" | "Scheme of financial assistance for setting up of Electronics and ICT Academies" of the (MeitY), GOI | Organised by Electronics and ICT Academies | Online | 14th – 25th Feb 2022 |

| Sr. No. | Name of the Faculty | Title of the Conference/ eminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 14. | Prajna Parimita Dash | Short-term course on Advances in Signal Processing and VLSI Technologies | SERB | Department of electronics and communication engineering, NIT, Rourkela | Online | 2nd – 6th May 2022 |
| 15. | Prajna Parimita Dash | Short Term Course on Applications of Image Processing, Computer Vision and Intelligent Technologies in Pandemic | AICTE | Department of Computer Science and Engineering, MITS Gwalior | Online | 18th – 23rd Jan 2022 |
| 16. | Sanjeet Kumar | IIT Kanpur Advanced Career School PYTHON-Based Data Science, Machine Learning and Deep Learning | Self | Department of Electrical Engineering, IIT Kanpur | Online | 22nd Jan – 25th Feb 2022 |

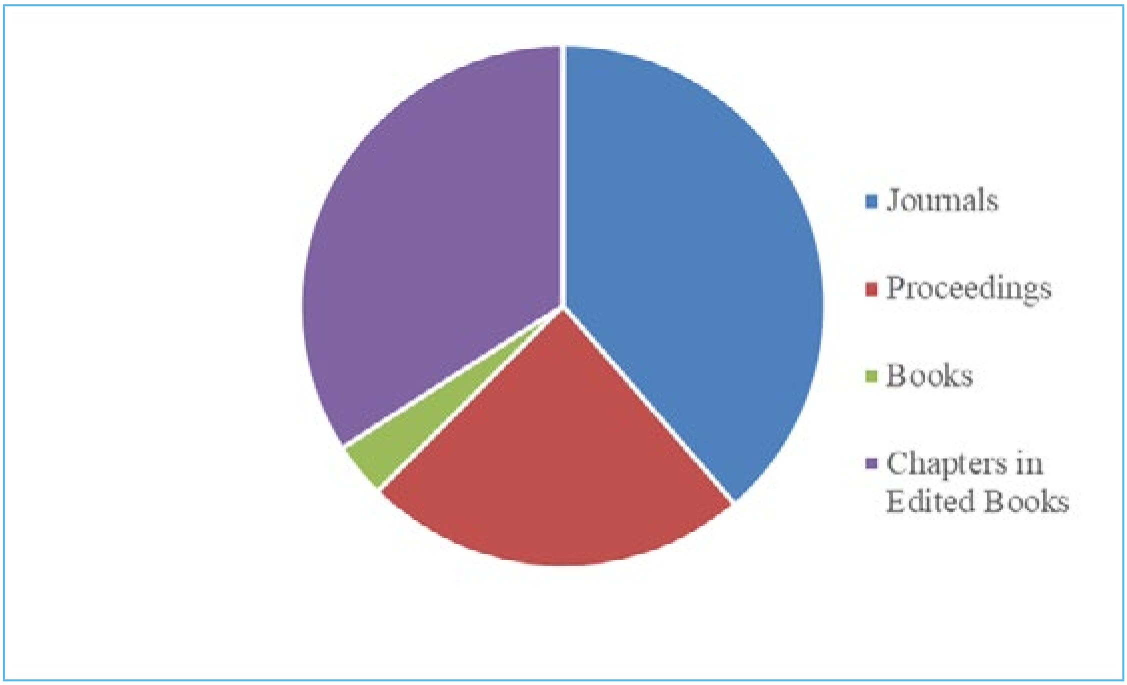
## SECTION 4 RESEARCH PUBLICATIONS

**Publications in Journals:** (International/National) – 34

**Publications in Proceedings:** (International/National) with ISBN numbers only – 21

**Book:** (with ISBN details) – 3

**Chapter(s) in Edited Book –** 30



## 5.1 Award / Recognition Bestowed on Faculties (State / National / International)

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organization | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 1. | Dr. Sanjay Kumar | Chief Guest | Institution of Engineers (India), Jharkhand State center, Ranchi | State | 17th May 2022 |
| 2. | Dr. Sanjay Kumar | Guest of Honor | Galgotias College of Engineering and Technology (GCET), Greater Noida | International Conference on RTPDP-2021<br>Online | 9th July 2021 |
| 3. | Dr. Aminul Islam | The IET Premium Best Paper Awards 2021 (awarded in December 2021). | The Institution of Engineering and Technology (IET), UK. | International | 2021 |
| 4. | Dr. Vijay Nath | Certificate of Appreciation Texas Instrumentation Embedded System Design using MSP430TM MCU MOC for fostering the ecosystem bridging Government, Academia and Industry | Texas Instrumentation & AICTE New Delhi | National | 2021 |
| 5. | Neela Chattoraj | Technical course SL No-7 Antenna Theory (Module 1),A short term training programme (STTP) of SASI(T) cum RM Grade -I,CRPF | TeA short term training programme (STTP) of SASI(T) cum RM grade -I ,CRPF | National | 3rd - 6th Jan 2022 |
| 6. | Gajendra Kant Mishra<br>Resource Person | Technical course SL No.-7 Antenna Theory (Module-I), A short term training programme (STTP) of SASI(T) cum RM Grade-I, CRPF, | A short term training programme (STTP) of SASI(T) cum RM Grade-I, CRPF, | National | 3rd – 6th Jan 2022 |
| 7. | Gajendra Kant Mishra<br>Resource Person | Technical course on Digital and Modern Communication (Module-2), A short term training programme (STTP) of GO's Technical course, CRPF, | A short term training programme (STTP) of GO's Technical course, CRPF | National | 21st – 24th Feb 2022 |
| 8. | Janardan Sahay<br>Resource Person | Technical course on Digital and Modern Communication (Module-2), A short term training programme (STTP) of GO's Technical course, CRPF, | A short term training programme (STTP) of GO's Technical course, CRPF | National | 21st – 24th Feb 2022 |

| | | | | | |
|---|---|---|---|---|---|
| 9. | Dr. Deepti Gola<br>Resource Person | Invited as Resource Person (Expert Lecture) in ATAL-FDP on "DEVICES AND CIRCUITS FOR NEXT-GENERATION COMPUTING ARCHITECTURE" held from 25/10/2021 to 29/10/2021 organized by G.B.Pant Institute of Engineering and Technology Pauri Garhwal Uttarakhand. | G.B.Pant Institute of Engineering and Technology Pauri Garhwal Uttarakhand. | National | 25th - 29th Oct 2021 |

## 5.2 Patents (Applied / Granted)

| Sr. No. | Name of the Inventor | Title of the Invention | Application / Patent No. (As applicable) | Year | Short Description about the patent |
|---|---|---|---|---|---|
| 1. | Aminul Islam, S. S. Solanki, Maherukh | Design of Embedded Radiation Hardened Cache Memory Cell | 202141025985 A | 2021 | Disclosed is a cache memory cell circuit 100, which includes two PMOS access transistors (P8 and P9) which is connected to the word line (WL). A word line (WL) is further connected to VDD. The PMOS access transistors (P8 and P9) are directly controlled by the word line. The PMOS access transistors P8 and P9 are further connected with the world lines BL and BLB respectively. Plurality of NMOS transistors (N0, N1, N2 and N3) are connected to the nodes Q and QB. Furthermore, the PMOS access transistors P8 and P9 are connected with the storage nodes QB and Q respectively. Two redundant nodes, S0 and S1 located at the drain of P1 and P3 transistors respectively. Plurality of PMOS transistors (P0, P1, P2, P3, P4, P5, P6 and P7) are interconnected to VDD, two PMOS access transistors P8 and P9, WL, bit lines, storage nodes (Q and QB) and plurality of redundant nodes (S1 and S0). |
| 2. | Islam, A. Dubey, S.K., Mishra, M | AlGaN/GaN based HEMT for RF and Low Noise Application | 202141025986 A | 2021 | Disclosed is an AlGaN/GaN based HEMT (100) for RF and low noise application, which includes a Silicon Carbide (6-H SiC) substrate (102). The Gallium Nitride channel layer (104) is placed at the top of the Silicon Carbide substrate (102). Furthermore, the AlGaN barrier layer (106) is placed above the gallium nitride channel layer (104) and between two n+ wells. Additionally, the n-GaN cap layer (108) is placed above the AlGaN barrier layer (106). Furthermore, the gate terminal (114) is embedded at the middle of the n-GaN cap layer (108) and between the source terminal (112) and the drain terminal (116). |

| | | | | | |
|---|---|---|---|---|---|
| 3. | Dr. Parikshit Vasisht,<br>Robert Mark,<br>N.Chattoraj,<br>Prof. Sudhakar Ranjan,<br>Dr. Atul Kathait | ULTRAW' IDFBAND RRDA with a Bevel-Shaped Patch and a Method of Development Thereof | 202211021299 A | 15/04/2022 | Abstract : An ultrawideband RRDA with a bevel-shaped patch and the method of development thereof offers a UWB ranging from 2.5 – 16 GHz (measured value) i.e. fractional bandwidth of 142%; wherein the peak gain of 6.2 dBi at 6.3 GHz and radiation efficiency of 90% utmost value at 4.6 GHz is provided by the RRDA. The method of development of ultrawideband RRDA with a bevel-shaped patch comprising steps of a) the isolated RRDRA is designed using alumina ceramic in combination with a rectangular air cavity and vertical asymmetric conducting strips introduced on sidewalls of the RRDRA to stabilize the gain above OdBi across the entire bandwidth. b) a slot is introduced in the partial ground plane to optimize the impedance bandwidth. No. of Pages : 18 No. of Claims : 9 |
| 4. | Parikshit Vasisht, Sudhakar Ranjan, N. Chattoraj, Ravi Chandra, Neha Rajak, Anuranjan Sharma | A COMPACT ULTRA-WIDE-BAND M.SRDRA | 202211021 327A | Publication Date : 15/04/2022 | Abstract : A compact ultra-wide-Band MSRDRA (l) comprising two segments of the rectangular ring (2) and rectangular notch-shaped dielectric resonators (3) including an alumina DR insert fed (4) with 50 0 coaxial probe (5). MSRDRA (l) can be employed in high speed LTE/ wireless applications, vehicular radar application systems, unmanned guided vehicles, UWB short-pulsed radars, robotics, and satellite applications. The invention is disclosing an MSRDRA (Multi-Segment Rectangular Dielectric Resonator Antenna), which is an excellent contender in a congregate of ultra wideband antennas. The antenna attains both X- and Ku bands completely (8 – 21 GHz). No. of Pages : 15 No. of Claims : 10 |
| 5. | Parikshit Vasisht, N.Chattoraj, Sudhakar Ranjan, Anuranjan Sharma, Atul Kathait | Wideband RDRA Covering Dielectric Resonator, Matching dielectric slab, Copper Ground plane, Chamfered Edges | 202211031081A | Publication Date : 10/06/2022 | Abstract :A wideband RDRA with Chamfered external conducting parallel standing strip comprising dielectric resonator matching slab,substrate -FR4,ground plane ,microstrip line, Chamfered Edges,Lext Lint where in wideband RDRA have broad bandwidth ranging from 6.5 to 13.1GHZ having return loss 24.5dB at 7GHZ and impedance bandwidth up to75% where in low value of VSWR suggests that the antenna is broadly lossless. The broad side pattern of the antenna also fulfills the broadside requirements of the FS/ FSS band where in RDRA can be used in fixed wireless on 7GHZ and satellite Television TV Relay system (FS/FSS)system operating in the range of.10.67GHZ.<br>No. of Pages : 23 No. of Claims : 10 |

| | | | | | |
|---|---|---|---|---|---|
| 6. | Dr. Rupesh Kumar Sinha, Prof. Sandeep Singh Solanki, Dr. Rajesh Kumar | Switching System which operate automatically based on the real time light intensity for animals / bird's farm in all weather conditions. | Applied (7115P2) | 2022 | The proposed system is an all-weather automatic lighting system for poultry farms. It should access real-time requirements of the farm and accordingly provide the light. It can work in all-weather condition on 24*7 accessing system. It can be mounted near (above / below) the illumination source |

## 5.3 MoUs / Collaborations:

| Sr. No. | Name of Organisation / University | Purpose / Area/Short Description | Year / Duration |
|---|---|---|---|
| 1. | Drone Baazaar.com | To establish Center of Excellence in Drone-Technology (COE-DT) | 2022/3 Years |

## SECTION 6 ACTIVITIES/ FACULTY MEMBERS / DOS /DAS

## 6.1 Departmental Students' Activities

**(Please arrange in reverse chronological order: Latest first)**

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 1. | Tech-A- Thon | President ECE Society | Dr. S.S. Tripathy | 4/09/2021–09/10/2021 |
| 2. | Online Quiz | President ECE Society | Dr. S.S. Tripathy | 24/07/2021–25/07/2021 |

## 6.2 List of Faculties

| Sr. No. | Name ( Please mention Dr. / Prof./ Mr./ Mrs. / Ms. , as applicable) | Designation | TEQIP Sponsored (Yes / No) |
|---|---|---|---|
| 1. | Dr. Sandeep Singh Solanki | Professor and Head | No |
| 2. | Dr. S. S. Pathak | Retd. Professor (Visiting Faculty) | No |
| 3. | Dr. Nisha Gupta | Professor and Dean | No |
| 4. | Dr.Vibha Rani Gupta | Professor and Dean | No |
| 5. | Dr. S K Ghorai | Professor | No |
| 6. | Dr. Srikanta Pal | Professor | No |
| 7. | Dr. Sanjay Kumar | Associate Professor | No |

| | | | |
|---|---|---|---|
| 8. | Dr. Neela Chattoraj | Associate Professor | No |
| 9. | Dr. Vijay Nath | Associate Professor | No |
| 10. | Dr. Aminul Islam | Associate Professor | No |
| 11. | Dr. Sitanshu Sekhar Sahu | Associate Professor | No |
| 12. | Dr. Kartik Mahto | Assistant Professor | No |
| 13. | Mr. Vishal H. Shah | Assistant Professor | No |
| 14. | Dr. Janardan Sahay | Assistant Professor | No |
| 15. | Dr. Sanjeet Kumar | Assistant Professor | No |
| 16. | Dr. Sanjaya Shankar Tripathy | Assistant Professor | No |
| 17. | Mr. Sukanta Kumar Dash | Assistant Professor | No |
| 18. | Dr. Manoj Kumar Mukul | Assistant Professor | No |
| 19. | Dr. Gajendra Kant Mishra | Assistant Professor | No |
| 20. | Dr. Somnath Sengupta | Assistant Professor | No |
| 21. | Dr. Priyank Saxena | Assistant Professor | No |
| 22. | Dr. Dileep Kumar Upadhyay | Assistant Professor | No |
| 23. | Dr. Anjini Kumar Tiwary | Assistant Professor | No |
| 24. | Dr. Prajna Parimita Dash | Assistant Professor | No |
| 25. | Mr. Santashraya Prasad | Assistant Professor | No |
| 26. | Dr. Soumya Sidhishwari | Assistant Professor | No |
| 27. | Dr. Rupesh Kumar Sinha | Assistant Professor | No |
| 28. | Dr. Vimal Kumar Singh Yadav | Assistant Professor | No |
| 29. | Dr. Richa Mishra | Assistant Professor | No |
| 30. | Dr. Chandreyee Sarkar | Assistant Professor | No |
| 31. | Dr. Kalyan Koley | Assistant Professor | No |
| 32. | Dr. Deepti Gola | Assistant Professor | No |
| 33. | Dr. Nilanjan Biswas | Assistant Professor | No |

## 6.3 List of Adjunct Faculties

| Sr. No. | Name | Designation | Affiliation |
|---|---|---|---|
| 1. | Prof. Debasish Datta | Retd. Professor | IIT-Kharagpur |

## 6.4 Board of Studies

| Sr. No. | Name of the Member | Designation | Role |
|---|---|---|---|
| 1. | Dr. S. S. Solanki | Professor | HOD, ECE, Chairman (Ex-Officio) |
| 2. | Dr. S. K. Ghorai | Professor | Internal member |
| 3. | Dr. N. Gupta | Professor | Internal member |
| 4. | Dr. V. R. Gupta | Professor | Internal member |
| 5. | Dr. S. Pal | Professor | Internal member |
| 6. | Dr. V. Nath | Associate Professor | Internal member |
| 7. | Dr. Kartik Mahto | Assistant Professor | Internal member |
| 8. | Dr. S. K. Rout | Professor | Dept. of Physics, Internal member |
| 9. | Dr. T. Ghosh | Professor | Dept. of EEE, Internal member |
| 10. | Dr. Umesh Chandra Pati | Professor | NIT, Rourkela (External member) |
| 11. | Dr. Bratin Ghosh | Professor | IIT, Kharagpur (External member) |
| 12. | Dr. Goutam Saha | Professor | IIT, Kharagpur (External member) |
| 13. | Dr. Brajesh Kumar Kaushik | Professor | IIT, Roorkee (External member) |
| 14. | Dr. Nandita Dasgupta | Professor | IIT, Madras(External member) |
| 15. | Dr. Suvra Sekhar Das | Associate Professor | G.S Sanyal School of Telecommunication, IIT, Kharagpur (External member) |
| 16. | Mr. Sanjaya Nayak | CEO & MD | Tejas Network (External member) |
| 17. | Mr. Subhas Basu | CEO | Silicon Interfaces Pvt. Ltd. (External member) |
| 18. | Parikhit Dutta | Sr. RF Engineer | Knowles Corporation, Bengaluru |
| 19. | Dr. Shahiruddin | Assistant Professor | In charge, Dept. of ECE, Patna |
| 20. | Dr. Sanjay Kumar | Associate Professor | In charge, Dept. of ECE, Deoghar |
| 21. | Ankur Agarwal | Assistant Professor | In charge, Dept. of ECE, Jaipur |
| 22. | Atharv Kapre | M.Tech 1st Yr. student | Student, Roll no: MT/EC/10002/20 |
| 23. | Shashank Kumar | B.Tech.1st Yr. student | Student, Roll no: BTECH/10056/20 |
| 24. | Dr. P. P. Dash | Assistant Professor | Member Secretary |

## 7.1 Student Entrepreneurship activities/Start-ups if any:

| Sr. No | Name of Student | Source of Funding | Title of Start up | Short Description |
|---|---|---|---|---|
| 1. | Vibhu Bhatia – Founder<br>Tanay Goel – Founder Arpit Falcon – Founder | BIT Nishan | Psyberduck | We provide a one stop solution a person needs to establish an online identity. We offer services such as website development, digital marketing, Graphic designing, content writing, search engine optimization, google ads, social media management and portfolio management. . |
| 2. | Akansha Khedia – Founder<br>Tanish Gupta – Cofounder | BIT Alumni Association | kARds | It is an AR based start-up. We'll provide customized AR cards to our customers. All types of cards will be available for every occasion including business cards/visiting cards, invitation cards, etc. |
| 3. | Shivam Kumar<br>Kartik Kumar | BIT Alumni Association | Jewarat | A digital Platform where you can buy/sell jewellery locally /globally with virtual try-on and get delivery or pick up from the shop |
| 4. | Sandeep Sahoo – CEO | Bootstrapped | KRRNA | Along with creating customer-friendly apparel, our initiative "BUY 1 DONATE 1" is inspired and committed for the upliftment of the underprivileged. From the beliefs of our great Indian mythology, working towards society to rise with rapport and that defines our name KRRNA. We are an apparel start-up with donates equal amount of essentials to the needy as we sell our apparel. |
| 5. | Pranshu Singh<br>Saumya Agrawal<br>Saurav Priyadarshi<br>Ekansh Zhariya<br>Dhananjay Jaiswal<br>Tushar Raj | BIT Nishan | Fincess | A community of students which will increase employability and financial literacy among them along with a platform which will act as market place for start-ups to promote their services among students and hire from the community as well as from Training and Placement cells of universities. |

## 7.2 Publication by students, if any

**Publications in Journals :** (International/National)

1. Manish Mathew Tirkey and Nisha Gupta (2021), "Broadband Polarization-Insensitive Inkjet-Printed Conformal Metamaterial Absorber," IEEE Transactions on Electromagnetic Compatibility, Volume: 63, Issue: 6, Dec. 2021, pp. 1829 – 1836, DOI: 10.1109/TEMC.2021.3089830.
2. Manish Mathew Tirkey and Nisha Gupta (2022), "A Novel Ultrathin Checkerboard Inspired Ultrawideband Metasurface Absorber", in IEEE Transactions on Electromagnetic Compatibility, vol. 64, no. 1, pp. 66–74, Feb. 2022. DOI: 10.1109/TEMC.2021.3091767.

3. Ravi Teja Yekula, Monalisa Pandey and Aminul Islam (2022) , "A Highly Reliable Radiation Tolerant 13T SRAM Cell for Deep Space Applications," in Microelectronics reliability, vol. 1330, pp. 1–14, Jun. 2022. Publisher: Elsevier, DOI: https://doi.org/10.1016/j.microrel.2022.114527
4. Soumitra Pal, Subhankar Bose, and A. Islam (2022), "Design of Memristor Based Low Power and Highly Reliable ReRAM Cell," in Microsystem Technologies-Micro-and Nanosystems-Information Storage and Processing Systems. vol. 28, no. 3, pp. 793 – 807, Mar. 2022, Publisher: Springer. DOI: https://doi.org/10.1007/s00542-019-04582-1
5. Soumitra Pal, Subhankar Bose, and A. Islam (2022), "Design of SRAM Cell for Low Power Portable Healthcare Applications," in Microsystem Technologies-Micro-and Nanosystems-Information Storage and Processing Systems, vol. 28, no. 3, pp. 833–844, Mar. 2022, Publisher: Springer. DOI: https://doi.org/10.1007/s00542-020-04809-6
6. Shashank Kumar Dubey, and Aminul Islam (2022), "Al0.30Ga0.70N /GaN MODFET with triple-teeth metal for RF and high-power applications," in Physica Scripta, vol. 97, No. 3, pp. 034003, Feb. 2022. Publisher: IOP publishing Ltd. DOI:10.1088/1402-4896/ac50c3, url: https://doi.org/10.1088/1402-4896/ac50c3
7. Shashank Kumar Dubey, Meena Mishra, and Aminul Islam (2022), "Characterization of AlGaN/GaN Based HEMT for Low Noise and High Frequency Application" in International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, vol. 35, no. 1, pp. 1–12, Jan-Feb. 2022, Publisher: Wiley. DOI: https://doi.org/10.1002/jnm.2932
8. S. Pal, S. Mohapatra, W. -H. Ki and A. Islam (2021), "Soft-Error-Aware Read-Decoupled SRAM With Multi-Node Recovery for Aerospace Applications," in IEEE Transactions on Circuits and Systems II: Express Briefs, vol. 68, no. 10, pp. 3336–3340, Oct. 2021, doi: 10.1109/TCSII.2021.3073947. https://doi.org/10.1109/TCSII.2021.3073947
9. S. Pal, S. Mohapatra, W. -H. Ki and A. Islam (2021), "Soft-Error-Immune Read-Stability-Improved SRAM for Multi-Node Upset Tolerance in Space Applications," in IEEE Transactions on Circuits and Systems I: Regular Papers, vol. 68, no. 8, pp. 3317–3327, Aug. 2021, doi: 10.1109/TCSI.2021.3085516. https://doi.org/10.1109/TCSI.2021.3085516
10. S. Pal, D. D. Sri, W. -H. Ki and A. Islam (2021), "Radiation-hardened read-decoupled low-power 12T SRAM for space applications," in International Journal of Circuit Theory and Applications, vol. 49, pp. 3583–3596, Jul. 2021. Publisher: Wiley. DOI: 10.1002/cta.3093. https://doi.org/10.1002/cta.3093
11. Satyajit Mahapatra, Sitanshu Sekhar Sahu (2021), "ANOVA-particle swarm optimization-based feature selection and gradient boosting machine classifier for improved protein–protein interaction prediction", Proteins: Structure, Function, and Bioinformatics, Sept. 2021
12. Satyajit Mahapatra, Sitanshu Sekhar Sahu (2021), "Improved prediction of protein-protein interaction using hybrid of functional-link Siamese neural network and gradient boosting machines", Briefings in Bioinformatics, Vol. 22(6), Nov. 2021
13. Biswajit Karan, Sitanshu Sekhar Sahu, Juan Rafael Orozco-Arroyave and Kartik Mahto (2021), " Non-negative matrix factorization-based time-frequency feature extraction of voice signal for Parkinson's disease prediction," Computer Speech and Language, Vol.69, 101216, Sept. 2021
14. Saurabh Srivastava, Prajna Parimita Dash (2021), "Coefficient-scaling based Fair Power Allocation for Multi-user Power-Domain Non-Orthogonal Multiple Access

Network." Journal of Circuits, Systems and Computers, 2021.

**Publications in Proceedings:** (International/ National)

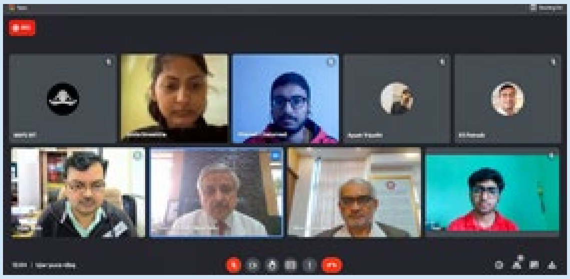
1. Rohith Sai V,Biswajit Karan, Garima Thakur, Ashutosh Rath, Sitanshu Sekhar Sahu (2021), "Heart Sound Abnormality Detection using Wavelet Packet Features and Machine Learning", IEEE International Symposium of Asian Control Association on Intelligent Robotics and Industrial Automation (IRIA), pp:310–314, Sept. 2021
2. Bhardwaj M., Aradhana, Kumar A., Kumar P., Nath V. (2021), " Digital Implementation of Sigmoid Function in Artificial Neural Network Using VHDL" , In: Nath V., Mandal J. (eds) Nanoelectronics, Circuits and Communication Systems. Lecture Notes in Electrical Engineering, vol 692. Springer, Singapore. https://doi.org/10.1007/978-981-15-7486-3_6
3. Sateesh V.A., Surshetty S.K., Goel V., Prasad D., Nath V., Pal S. (2021), " Designing of Low-Noise Amplifier and Voltage-Controlled Oscillator for Satellite Receiver in Ku Band" , In: Nath V., Mandal J. (eds) Nanoelectronics, Circuits and Communication Systems. Lecture Notes in Electrical Engineering, vol 692. Springer, Singapore. https://doi.org/10.1007/978-981-15-7486-3_58
4. Arya A., Shekhar S., Priyam A., Nath V. (2021), " Design of Energy Harvestor Using Piezoelectric Material" , In: Nath V., Mandal J. (eds) Nanoelectronics, Circuits and Communication Systems. Lecture Notes in Electrical Engineering, vol 692. Springer, Singapore. https://doi.org/10.1007/978-981-15-7486-3_60
5. Sarkar S., Kerketta A., Nath V. (2021). " Kisaan Seva—A Web site for Serving the Farmers" , In: Nath V., Mandal J. (eds) Nanoelectronics, Circuits and Communication Systems. Lecture Notes in Electrical Engineering, vol 692. Springer, Singapore. https://doi.org/10.1007/978-981-15-7486-3_61
6. Datta K., Pal S., Nath V. (2021), " Design of a 2–30 GHz Low-Noise Amplifier: A Review" , In: Nath V., Mandal J. (eds) Nanoelectronics, Circuits and Communication Systems. Lecture Notes in Electrical Engineering, vol 692. Springer, Singapore. https://doi.org/10.1007/978-981-15-7486-3_64
7. Sahoo S., Gupta Y., Nath V., Pal S. (2021), " Ad Hoc Network Using UAVs in Indian Farms: A Review", In: Nath V., Mandal J. (eds) Nanoelectronics, Circuits and Communication Syustems. Lecture Notes in Electrical Engineering, vol 692. Springer, Singapore. https://doi.org/10.1007/978-981-15-7486-3_65
8. Ponugoti J.S., Karuturi S.S.T., Nath V. (2021), " Web Application Based on PHP for Farmers" , In: Nath V., Mandal J. (eds) Nanoelectronics, Circuits and Communication Systems. Lecture Notes in Electrical Engineering, vol 692. Springer, Singapore. https://doi.org/10.1007/978-981-15-7486-3_66
9. Asati P., Koushik S., Nath V. (2021), " Website Development for Trading Between Farmers and Government" , In: Nath V., Mandal J. (eds) Nanoelectronics, Circuits and Communication Systems. Lecture Notes in Electrical Engineering, vol 692. Springer, Singapore. https://doi.org/10.1007/978-981-15-7486-3_69
10. Jahagirdar S., Manglani N., Rai S., Nath V. (2021), " Telemetry-Based System for Data Acquisition of Agricultural Practices in Rural Areas" , In: Nath V., Mandal J. (eds) Nanoelectronics, Circuits and Communication Systems. Lecture Notes in Electrical Engineering, vol 692. Springer, Singapore. https://doi.org/10.1007/978-981-15-7486-3_70
11. Prakash O., Ankit K., Kumar R., Nath V. (2021), "Design and Characterization of DC-to-DC Converters Using Active Inductor" , In: Nath V., Mandal J.K. (eds) Proceedings of the Fourth International Conference on Microelectronics, Computing and Communication Systems. Lecture Notes in Electrical Engineering, vol 673. Springer, Singapore. https://doi.org/10.1007/978-981-15-5546-6_73

12. Sanjay Kumar S., Goel V., Prasad D., Nath V. (2021), " A 0.48 mW High Performance 4-Bit Flash ADC for System-on-Chip Applications in 90 nm CMOS Technology" , In: Nath V., Mandal J.K. (eds) Proceedings of the Fourth International Conference on Microelectronics, Computing and Communication Systems. Lecture Notes in Electrical Engineering, vol 673. Springer, Singapore. https://doi.org/10.1007/978-981-15-5546-6_78
13. Ray M.K., Surshetty S.K., Goel V., Prasad D., Nath V. (2021), " Design of 4-Bit Multiplexer-Based Encoder for Analog to Digital Converter" , In: Nath V., Mandal J.K. (eds) Proceedings of the Fourth International Conference on Microelectronics, Computing and Communication Systems. Lecture Notes in Electrical Engineering, vol 673. Springer, Singapore. https://doi.org/10.1007/978-981-15-5546-6_79
14. Datta K., Prasad D., Surshetty S.K., Goel V., Nath V. (2021), " Design of a 4-Bit Wallace Tree Encoder for Flash ADC in 90 Nm CMOS Technology" , In: Nath V., Mandal J.K. (eds) Proceedings of the Fourth International Conference on Microelectronics, Computing and Communication Systems. Lecture Notes in Electrical Engineering, vol 673. Springer, Singapore. https://doi.org/10.1007/978-981-15-5546-6_80
15. Sateesh V.A., Kumar A., Priyadarshi R., Nath V. (2021), " A Novel Deployment Scheme to Enhance the Coverage in Wireless Sensor Network" , In: Nath V., Mandal J.K. (eds) Proceedings of the Fourth International Conference on Microelectronics, Computing and Communication Systems. Lecture Notes in Electrical Engineering, vol 673. Springer, Singapore. https://doi.org/10.1007/978-981-15-5546-6_82
16. HimHimadri Nirjhar Mandal, Soumya Sidhishwari (2021), "Investigation of Gaussian Apodized FBG Properties for the Analysis of Building Materials", International Conference on Circuits, Controls and Communications (CCUBE), at RNSIT on December 23-24, 2021. (IEEE). ISBN No:978-1-6654-0203-3, DOI: 10.1109/CCUBE53681.2021.9702729
17. Himadri Nirjhar Mandal, Soumya Sidhishwari (2021), "Design of a Gaussian Apodized Uniform FBG Sensor for Multi-parameter Sensing and Predictive Analysis using Machine Learning", Third International Conference on Innovative Trends in Electronics Engineering (ICITEE), 14 December 2021. Royal Book Publishing, pp 173-182. ISBN: 9789391131753
18. Anisha Kiran and Gajendra Kant Misha (2021),".Flexible Broadband Dielectric Resonator Antenna for Wearable Applications", IEEE Second International Conference on Electronics and Sustainable Communication Systems (ICESC). Coimbatore, 4-6 August 2021. Doi: 10.1109/ICESC51422.2021.9532960
19. Anisha Kiran and Gajendra Kant Misha (2022)," Wearable Dielectric Resonator Antenna for Bluetooth Applications", IEEE First International Conference on Electrical, Electronics, Information and Communication Technologies (ICEEICT).: Trichy, India, 16-18 February 2022, Doi :10.1109/ICEEICT53079.2022.9768502
20. P. Nath Suman and G. Kant Mishra (2022), "An Aperture Fed Frequency Reconfigurable Patch Antenna For X-Band Applications," 2022 Second International Conference on Advances in Electrical, Computing, Communication and Sustainable Technologies (ICAECT), 2022, pp. 1-3, doi: 10.1109/ICAECT54875.2022.9808075.
21. Pammi Kumari and Priyank Saxena (2022), "Automated Detection and Multistage Classification of Diabetic Retinopathy through CNN" International Conference on Applied Computational Intelligence and Analytics (ACIA-2022), February 26-27, 2022, NIT, Raipur. (Conference)
22. Saurabh Srivastava, Prajna Parimita Dash (2021), "Non orthogonal multiple access: Procession towards B5G and 6G", 2ND IEEE International Conference on Applied Electromagnetics, Signal Processing and Communication, KIIT, Bhubaneswar, 26-28 November 2021.

## 7.3 Achievements of Students:

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Shashank Kumar Dubey | Best paper award | Applied Computer Technology, Kolkata, in association with International Association of Science, Technology and Management | 30–31 Dec 2021 Hotel The Maureen, VIP Road, Kolkata, India |
| 2. | Rohith Sai V and Garima Thakur | Best paper award | IIT Goa | 7–8 Sept. 2021<br>IIT Goa |

## 7.4 Distinguished Visitors from Industry/Academia/Research organizations

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture (Insert Picture here. Further send the JPEG file along with the email.) |
|---|---|---|---|
| 1. | Dr. Randeep Guleria (Padama Shri)<br>Director AIIMS, Delhi | 18/01/2022 |  |
| 2. | Prof. Samit Kumar Ray<br>IIT-KGP | 21/03/2022 | |
| 3. | CRPF Personnel | 25/02/2022 | |

## 7.5 List of Distinguished Alumni

| Sr. No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | Abhishek Sinha, 1999, Eko India Financial Services | Co-founder & CEO |
| 2. | Ashutosh Pande, 1987, Arogya mHealth Pvt. Ltd. | Founder |

| | | |
|---|---|---|
| 3. | Niraj Sharan, 1980, Aura Inc | Chairman & CEO |
| 4. | Rohit Prasad, 1997, Amazon Inc. | Senior Vice President and Head Scientist for Alexa |
| 5. | Subhas Basu, 1985, Silicon Interfaces | CEO |
| 6. | Akshay Jalan, 2013, Brainsmith | Co-founder |

## 7.6 Infrastructure Development

1. Microprocessor and Signal Processing Lab are renovated with modern facilities.
2. Department has developed the infrastructure of the seminar hall with modern amenities.
3. Silvaco TCAD has been procured from DRDO project fund for Device Design
4. Synopsys TCAD and university bundle has been procured from institute fund for circuit and Device Design.
5. Nanoedge AI studio has been procured from Institute fund for Embedded AI applications
6. TruIOT set up has been procured from Institute fund for IoT applications
7. VLSI Design lab with Cadence Software

## 7.7 Any other relevant information

Invited Talk on the topic of "Technological Developments and the Amiss" in the International Symposium on the theme of "6G: Technology towards Human Mind and Body" during 38th GISFI Standardization Series Meeting (GSSM) organized by Vishwaniketan, Kumbhivali, Maharashtra, 04 March, 2022. (online)

Resource person delivered talks on the topics of "Introduction to cellular technology, evolution of mobile communication 1G, 2G, 2.5G (GSM, GPRS, EDGE). Introduction to smartphone, 3G and 4G mobiles and cellular technologies" and "Introduction to 5G technology, NOMA, MIMO, Millimeter wave technologies" during STTP on Digital and Modem Communication for CTC, CRPF, Ranchi, at BIT Mesra, Ranchi on 24 Feb, 2022.

## 7.8 Special Covid Initiatives, if any

1. Ongoing research on Low-Cost Painless microneedles based vaccine delivery

Signature of HOD

# Department of Electrical and Electronics Engineering

## SECTION 1 DEPARTMENTAL PROFILE

### 1. About the Department:

The Department of Electrical and Electronics offers B.Tech. in Electrical and Electronics Engineering, M. Tech. in Electrical Engineering and Ph.D. in Electrical Engineering. CBCS Course Structure has been implemented from MO/2018. All the UG and PG programmes are accredited by NBA. Thirty-four research scholars are currently pursuing their doctoral degree on different concepts related to Micro grid, Reliability, Hybrid Electric Vehicles, Multi-level Inverters, Robotics, Fault Tolerant Multi Phase Drives, Image Processing, Magneto-optic Sensors, Power System Voltage Stability, System Identifications, Brain signal analysis, Applications of Soft Computing Techniques etc. Department is presently utilizing the grants received from DST (FIST), UGC (SAP), MODROB, TEQIP and Institute grant to strengthen the research and postgraduate lab facility. The department is continuously working in the direction of elevating the standards of 13 laboratories for research and teaching purpose. Many major equipment, Twin Rotor MIMO System, Magnetic Levitation System, DC Servo fundamental trainer kit, Temperature, Pressure, Level and flow controller (both manual and PLC based), ACB, SVC, Relay Testing System, Generator Protection System, several numbers of DSO, Programmable Function Generator, Harmonic Analyser, NI Power Measurement System, Variable DC Power Supply, LCQ Meter, different ratings of DC and AC Motors, M-G Set, BLDC Motor, Single Phase And Three Phase Transformers, NI Data Acquisition Card CRIO, LabVIEW, 5kW Solar Photovoltaic System, Smart Energy Meter and NAO Humanoid Robot, Machine Fault Simulator, Typhoon Hill, Micro Lab box, DSO 1000 MHZ, DSPACE Kit, Data Acquisition system Integrated with Sensor, 3 Phase Multilevel Inverter based Induction Motor Drive, NI ELVIS Rotary Inverted Pendulum, ETAP Software are available in the key laboratories like Control System, Power System, Power Electronics, Measurement and Process Control and Machines, Power Electronic, Smart Grid, Measurement, and Drive labs. In the financial year 2019–20, Department has procured Rotary Inverted Pendulum and Coupled Tank System from Quanser for Control Lab, DSO in Power System Lab, AC/DC current prob, DSPace ACE Kit, NI Data Acquisition Card for Drives Lab and DC Motor + AC Three Phase Alternator for Smart Grid Lab.

TEQIP-II
FIST

**Vision**

- To become an internationally recognized centre of excellence in academics, research and technological services in the area of Electrical and Electronics Engineering and related inter-disciplinary fields.

**Mission**

- Imparting strong fundamental concepts to students and motivate them to find innovative solutions to engineering problems independently.

- Developing engineers with managerial attributes capable of applying appropriate technology with responsibility.
- Creation of congenial atmosphere and ample research facilities for undertaking quality research to achieve national and international recognition by faculty and students.
- To strive for internationally recognized publication of research papers, books and to obtain patent and copyrights.
- To provide excellent technological services to industry for the benefit of society.

## SECTION 2 RESEARCH PROJECTS

### 2.1 Sponsored Projects (Research and Consultancy)

**a) Ongoing Projects:**

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | Brain Signal Controlled Wheelchair | 1. Dr. P.K. Upadhyay<br>2. Dr. Yogender Aggarwal | Indian Council of Medical Research (ICMR) | Approved. Sanction letter yet to be received. | 31.016 Lacs | 3 Years |
| 2. | Analysis, Design and verification of coordinated control for laboratory prototype hybrid AC-DC microgrid with IoT based cloud computation platform | 1. Dr. Tirthadip Ghose | All India Council for Technical Education (AICTE) | 28th January 2022 | 10.50 Lacs | 3 Years |
| 3. | Secured Data Analysis for Microgrid Energy Management System Through Block Chain Technology. | 1. Dr. Deepak Kumar<br>2. Prof. T Ghose<br>3. Dr. Shamama Anwar (CSE) | DST- SERV-CRG | 24th january 2022 | 25.21 Lacs | 3 Years |

## SECTION 3 CONFERENCES/WORKSHOPS

### 3.1 Seminar / Conferences / Short – Term Courses Conducted:

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event |
|---|---|---|---|---|
| 1. | ATAL FDP on Trends in Measurement and control for System Automation | Dr. Vijaya Laxmi | AICTE | 28.06.21–02.07.21 |

## 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:)

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 1. | Prabhat Kumar Upadhyay | Inculcating Universal Human Values in Technical Education | NA | AICTE | Online | 06.06.22 to 10.06.22 |
| 2. | Prem Prakash | Electric Vehicle and Smart Grid: A Path Towards Sustainable Energy | AICTE-ISTE | KIIT, Bhubaneswar | | 17.12.21to 23.12.21 |
| 3. | Sudhanshu Kumar Mishra | Applications of Image Processing, Computer Vision and Intelligent Technologies in Pandemic | AICTE Sponsored Online Short-Term Course | MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR | Online | 18.01.22 to 23.01.22 |
| 4. | Vijaya Laxmi | Remote Sensing for Space and Atmosphere | AICTE | IIT, Indore | Online | 25.04.22-30.04.22 |
| 5. | Vijaya Laxmi | IoT based condition Monitoring | ATAL Academy, AICTE | Veermata Jijabai Technological Institute VJTI Mumbai | Online | 06.12.21–10.12.21 |
| 6. | Vijaya Laxmi | Robotics and Artificial Intelligence | ATAL Academy, AICTE | LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING, MYLAVARAM | Online | 07.02.22–11.02.22 |
| 7. | Vijaya Laxmi | Industrial Internet of Things using LabVIEW | ATAL Academy, AICTE | KLE Dr. M.S. Sheshgiri College of Engineering & Technology, Belagavi | Online | 03.01.22–07.01.22 |
| 8. | Vijaya Laxmi | Internet of Things(IoT) in Smart Cities | ATAL Academy, AICTE | Kongunadu College of Engineering and Technology | Online | 20.09.21–24.09.21 |
| 9. | Vijaya Laxmi | Controller Design and Implementation For Renewable Power Generation Systems (Hydro, Wind, Solar System) | AICTE | NIT Meghalaya | Online | 07.03.22–11.03.22 |
| 10. | Pankaj Mishra | Power System Design Simulation and Analysis using DIgSILENT PowerFactory Software | NA | DIgSILENT GmbH, Germany | Online | 21.09.21 – 22.09.21 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 11. | Pankaj Mishra | Inculcating Universal Human Values in Technical Education | AICTE | AICTE | Online | 18.10.2021-22.10.2021 |
| 12. | Debomita Ghosh | Integration of Renewable Energy & EV to Microgrid: Prospects and Challenges | N/A | NIT Tiruchirapalli | Online | 21-02-2022-25-02-2022 |
| 13. | Debomita Ghosh | Green Technology and Sustainability Management | AICTE | AICTE | Online | 01.07.2021-05.07.2021 |

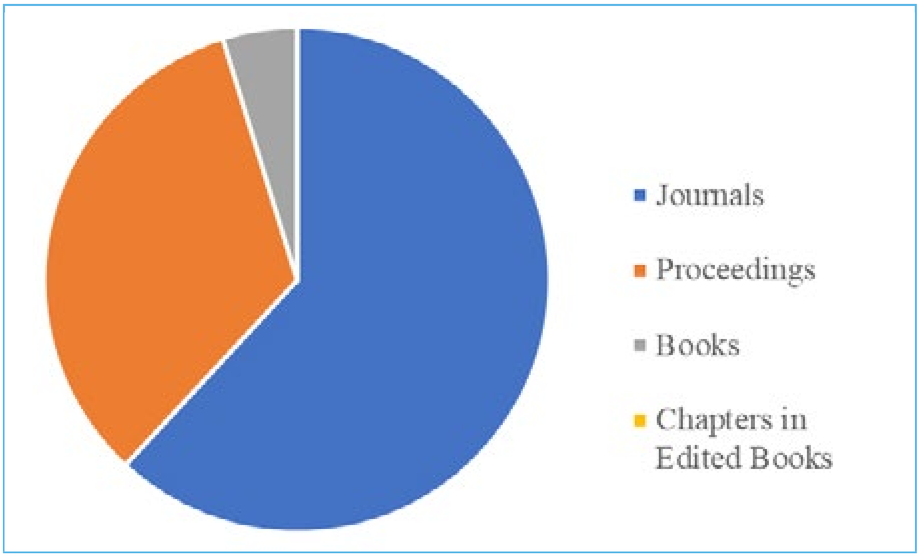
## SECTION 4 RESEARCH PUBLICATIONS

**Publications in Journals:** (International/National) – 39

**Publications in Proceedings:** (International/National) with ISBN numbers only – 21

**Book:** (with ISBN details) – 3

**Chapter(s) in Edited Book –** 0



## SECTION 5 AWARD / PATENT / COLLABORATIONS

### 5.1 Award / Recognition Bestowed on Faculties (State / National / International)

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 1. | Tirthadip Ghose | Invited Lecture- Smart Grid: Implementation, Challenges and avenues | IIIT, Bhagalpur | National | 14th-18th April,2022 |

| | | | | | |
|---|---|---|---|---|---|
| 2. | Ajay Kumar | Invited Lecture-Power Electronics Interfacing for Renewable Energy Sources | Graphic Era university | National | 7th -11th March 2022 |
| 3. | Ajay Kumar | Invited Lecture-Recent Research in Power Converter and Control-I | Rajkiya Engineering College Ambedkar nagar | National | 25th February 2022 |

## SECTION 6 ACTIVITIES/ FACULTY MEMBERS / DOS /DAS

### 6.1. List of Faculties

| Sr. No. | Name | Designation |
|---|---|---|
| 1. | Dr. (Mrs.) S. Chakraborty | Professor & Head |
| 2 | Dr. T. Ghose | Professor |
| 3. | Dr. D. K. Mohanta | Professor |
| 4. | Dr. (Mrs.) Vijaya Laxmi | Professor |
| 5. | Mr. Prem Prakash | Assistant Professor |
| 6. | Dr. Surendra Kumar | Assistant Professor |
| 7. | Dr. Sudhansu Kr. Mishra | Assistant Professor |
| 8. | Dr. Gauri Shanker Gupta | Assistant Professor |
| 9. | Dr. (Mrs.) Debomita Ghosh | Assistant Professor |
| 10. | Mr. B. M. Prasad | Assistant Professor |
| 11. | Mrs. Sushma S. Kamlu | Assistant Professor |
| 12. | Mr. Subrat Kuamr Swain | Assistant Professor |
| 13. | Dr. Deepak Kuamr | Assistant Professor |
| 14. | Md. Aftab Alam | Assistant Professor |
| 15. | Dr. S. Shiva Kumar | Assistant Professor |
| 16. | Dr. P.K. Upadhayay | Assistant Professor |
| 17. | Dr.Pankaj Mishra | Assistant Professor |
| 18. | Dr. Ajay Kumar | Assistant Professor |
| 19. | Dr. Soumya Chatterjee | Assistant Professor |
| 20. | Dr. Debasmita Mondal | Assistant Professor |

### 6.2 List of Adjunct Faculties

| Sr. No. | Name | Designation | Affiliation |
|---|---|---|---|
| 1. | Dr. Subhasis Chaudhuri | Visiting Faculty | |
| 2. | Dr. Goshaidas Ray | Visiting Faculty | |

## 6.3 Board of Studies

| Sr. No. | Name of the Member | Designation (Kindly mention Ex-Officio, where applicable) | Role (Chairman/ Internal or External Member) |
|---|---|---|---|
| 1. | HoD, EEE | Chairman BOS | Internal |
| 2. | Dr. T. Ghose | Professor | Internal |
| 3. | Dr. D. K. Mohanta | Professor | Internal |
| 4. | Dr. (Mrs.) Vijaya Laxmi | Professor | Internal |
| 5. | Dr. (Mrs.) Sarbani Chakraborty | Professor | Internal |
| 6. | Dr. Sudhansu Kumar Mishra | Assistant Professor | Internal |
| 7. | Dr. Deepak Kumar | Assistant Professor | Internal |
| 8. | Dr. S.S. Solanki | Professor, ECE<br>& Dean (DUGS) | Internal |
| 9. | Dr. Aruna Jain | Associate Professor, CSE | Internal |
| 10. | Dr. Pankaj Mishra | Assistant Professor | Internal |
| 11. | Mr. Sanjay Kumar | Assistant Professor | Internal |
| 12. | Dr. (Mrs.) Aparajita Pandey | Assistant Professor | Internal |
| 13. | Mr. Prem Prakash | Assistant Professor | Internal |
| 14. | Mr. Avinash Priyam<br>(BTech/10487/18) | Member | Internal |
| 15. | Mr.SwagataBanerjee<br>(MTech/10013/20) | Member | Internal |
| 16. | Mr.R.Bhargava<br>(MT/EE/10009/20) | Member | Internal |
| 17. | Ms.Anamika<br>(MT/EE/10037/20) | Member | Internal |
| 18. | Mr. Vijay Kr. Karan, Ph.D. Scholar | Member | Internal |
| 19. | Prof. S.A. Soman | Professor | External |
| 20. | Prof. Sunit kumar Sen | Professor | External |
| 21. | Prof. Anup Kumar Panda | Professor | External |
| 22. | Prof. Nilanjan Senroy | Professor | External |
| 23. | Mr. Partha Pratim Sen | Industry | External |
| 24. | Mr. Tapan Dasgupta | Industry | External |
| 25. | Mr. Deepak Kumar | Industry | External |

## 7.1 Publication by students, if any

**Publications in Journals:** (International/National)

1. Abhinandan Kumar and Tirthadip Ghose (2021). A Newton □Raphson □based unified load flow of grid□connected and islanded AC–DC microgrids. ITEES, Wiley. Vol 31.
2. Sandip Gupta, Tirthadip Ghose and Kalyan Chatterjee (2022). Coordinated control of Incentive-Based Demand Response Program and BESS for frequency regulation in low inertia isolated grid. Electric Power Systems Research. Vol 209. 108037.
3. Abhinandan Kumar and Tirthadip Ghose (2022). An algorithm for contingency analysis of the AC-DC networks using modified Z-bus technique. Electric Power Systems Research. Vol 210. 108138.
4. Prabhat Ranjan Tripathi, Vijaya Laxmi, Ritesh Kumar Keshri, Amitkumar Vidyakant Jha, Bhargav Appasani, Nicu Bizon and Phatiphat Thounthong, (2021). A Three-Phase Resonant Boost Inverter Fed Brushless DC Motor Drive for Electric Vehicles. Electronics. Vol. 10(15). 1799. doi:10.3390/electronics10151799.
5. Prabhat R. Tripathi, V. Laxmi, Ritesh K. Keshri, Bhargav Appasani and Taha Selim Ustun (2021). A Novel Fundamental Frequency Switching Operation for Conventional VSI to Enable Single-Stage High-Gain Boost Inversion with ANN Tuned QWS Controller. Electronics. Vol 10(20). 2499. https://doi.org/10.3390/electronics10202499
6. SK Singh, CS Matwankar, M Jee, A Alam (2022). MRAS-based current estimator for DC–DC converters considering time-variant load impedance. Journal of Power Electronics. Vol 22. 210–221. https://doi.org/10.1007/s43236-021-00353-2
7. Bhargav Appasani , Amitkumar V. Jha, Kunjabihari swain, Murthy cherukuri and Dusmanta kumar Mohanta (2022). Resiliency Estimation of Synchrophasor Communication Networks in a Wide Area Measurement System. Frontiers in Energy Research. Vol 10. doi: 10.3389/fenrg.2022.854676
8. AM Khalkho, B Rapada, G Majumdar, M Cherukuri, DK Mohanta (2022). Impact Assessment of Solar Power Generation Uncertainty on Smart Grid Reliability and Carbon Neutrality. Frontiers in Energy Research. Vol 10.
9. AM Khalkho, DK Mohanta (2022). RBFNN assisted transient instability-based risk assessment of cyber-physical power. Electrical Power and Energy System. Vol 137. https://doi.org/10.1016/j.ijepes.2021.107787
10. AM Khalkho, DK Mohanta (2022). Reliability evaluation of non dispatchable energy resources in Generation Planning: A Wind Electrical System Case Study. International Transactions on Electrical Energy Systems. Vol. 2022. https://doi.org/10.1155/2022/2669061
11. S.K Jha, Deepak kumar, M. Lehtonen (2021). Modified V-I Droop Based Adaptive Vector Control Scheme for Demand side Management in a Stand alone Microgrid. International Journal of Electrical Power and Energy System. Vol 130. https://doi.org/10.1016/j.ijepes.2021.106950
12. Sonal, Debomita Ghosh (2021). Novel Trends in Resilience Assessment of a Distribution System using Synchrophasor Application: A Literature Review. International Transaction on Electrical Energy Systems. Wiley. Vol. 31 (8). 1–48. https://doi.org/10.1002/2050-7038.12934
13. Sourav Kumar Sahu, Debomita Ghosh (2021). Operational Hosting Capacity Based Sustainable Energy Management and Enhancement. International Journal of Energy Research. Wiley, Vol 46 (3) 2418-2437. https://doi.org/10.1002/er.7317

14. Rajesh Saikrishna, Nilesh Kumar Rajalwal, Debomita Ghosh (2022). Adaptive relay co-ordination using a busbar splitting approach for a system integrity protection scheme. Protection and control of modern power systems. Springer, Vol. 7(14). 1–12. https://doi.org/10.1186/s41601-022-00235-0

15. Sonal, Debomita Ghosh (2022). Hybrid Data-driven Resilience Assessment and Enhancement of Distribution System for Cyclone Susceptible Zones. Scientific Reports. Nature, Vol. 12(9492). June 2022. https://doi.org/10.1038/s41598-022-13311-0

16. Rajdip Debnath, G.S. Gupta, Deepak Kumar (2022). Lyapunov-Krasovskii passivity-based stability analysis of grid-tied inverters. International Journal of Electrical Power & Energy Systems. Vol. 143, 108460.

**Publications in Proceedings:** (International/National)

1. Ayanangshu Chakrabarty, Abdullah Umar, Deepak Kumar and Tirthadip Ghose (2022). Energy Management and Trading of a Community Microgrid using Blockchain Approach. 2022 International Conference on IoT and Blockchain Technology (ICIBT)

2. Ayanangshu Chakrabarty, Abdullah Umar, Deepak Kumar and Tirthadip Ghose (2022). Energy Management and Trading of a Community Microgrid using Blockchain Approach. 2022 International Conference on IoT and Blockchain Technology (ICIBT)

3. Abdullah Umar, Deepak Kumar and Tirthadip Ghose (2022). Peer-to-Peer Energy Trading in a Self-Sustained Microgrid System Using Blockchain Technology. IEEE. 1–6.

4. Eeshan Amiy, Prabhat Kumar Upadhyay, Rishabh Raj (2022). An IOT based Smart Irrigation System Using Sugeno's Fuzzy Inference & Solar Power. IEEE Xplore Accession Number: 21764359, DOI: 10.1109/ICRTCST54752.2022.9781942.

5. R.Kundu, S.Das, S.K.Mishra (2022). A Comprehensive Review of Single and Double Stage Object Detection Algorithms in Self Driving. IEEE 7th International conference for Convergence in Technology (I2CT) Pune, India.

6. Anamika, Soumya Samanta, Sudhansu Mishra, T.Ghosh (2022). Control of DC microgrid using Interconnection and Damping Assignment Passivity Based Control method. IEEE 7th International Conference for Convergence in Technology, Pune, India.

7. Shantnu Sharma, Nitin Gupta, Ajay Kumar, Man Mohan Garg (2022). Comparative Analysis of PI and PR Controller for Grid-tied Solar Photovoltaic System. 4th International Conference on Energy, Power and Environment (ICEPE), NIT Meghalaya, Shilong, India.

8. Nilima Gadkar, Subhranil Das,Sarabani Chakraborty, Sudhansu Kumar Mishra (2022). Static obstacle avoidance for Rover vehicle using Model Predictive controller. IEEE International Conference on IoT and Blockchain Technology.

9. Ashish Kumar, Sudhanshu Kumar Mishra, Ayush Kejriwal (2022). Prediction of Happiness Score of Countries by considering Maximum Infection Rate of people by COVID-19 using Random Forest Algorithm. IEEE Bengaluru.

10. Mukur Gupta, Nitin Gupta, Man Mohan Garg, Ajay Kumar (2022). Analysis and Design of PI-Lead Compensator for DC-DC Boost Converter. 4th International Conference on Energy, Power and Environment (ICEPE), NIT Meghalaya, Shilong, India.

11. Ayyagari Sai Lalitha, S. Chakraborty, S. Shiva Kumar (2022). A Zero Voltage Switching Based Soft Switching Boost DC-DC Converter for Vehicle to Grid Applications with Enhanced Energy Efficiency. IEEE International Conference of Emerging Technologies (INCET).

12. M. Mahato, S Shiva Kumar, P K Ojha, Aftab Alam, Ajay Kumar (2022). Solar Fed Boost Inverter with Closed Loop Proportional

Resonant Controller for Grid Application. IEEE conference on IOT and Block chain Technology.

13. Jatin Pratap Singh, S. Shiva Kumar, Deepak Kumar and Ayyagari Sai Lalitha (2022). A Soft Switching Boost DC-DC Converter Based on ZVS for Vehicle to Grid Applications with Enhanced Efficiency. IEEE Region 10 Symposium (TENSYMP) – Power Electronics and Systems.

14. Vineet Kumar, Vijaya Laxmi (2022). Pests Detection Using Artificial Neural Network and Image Processing. A Review International Conference on Sustainable Computing and Data Communication Systems ICSCDS.

15. Shubham Banerjee, S. Shiva Kumar, A. Alam (2022). Whale Optimization Algorithm Based Speed Control of BLDC Motor. Sustainable Energy and Future Electric Transportation.

16. Soumita Ghosh, Siddhardha Kedarisetty, Debomita Ghosh, Dusmanta Kumar Mohanta (2021). Failure scenarios of power system protection. 5th International Conference on System Reliability and Safety. Palemro, Italy, IEEE.

17. Sourav Kumar Sahu, Shubham Kumar, Debomita Ghosh, Sudipto Poddar (2021). Modelling and Analysis of Distribution System Performance with Integration of Electric Vehicle Charging Station in Real-time Environment. INDICON-2021. Guwahati, India, IEEE.

## 7.2 Achievements of Students:

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Manvi Ridhi | CAT-2021 (99.62 Percentile) | IIM, Ahmedabad | 28/12/2021 |
| 2. | Sahil Malhan | Internship | ETG Online Centre For Innovation | 1 Month |
| 3. | Aditya Pathak | Internship | Electric Fish Energy | 7 Weeks |
| 4. | Rohit Prashant Sharma | Internship | Electric Fish Energy | 7 Weeks |
| 5. | Badal Kumar Jha | Internship | Tata Steel Ltd | 6 Weeks |
| 6. | Gaurav Agarwal | Internship | Tata Steel Long Products Limited | 2 Months |
| 7. | Devansh Baldwa | Internship | BNR Capital Services Pvt Ltd | 6 Weeks |
| 8. | Shradha Shekhar | Internship | WM Global Technology Services India Pvt. Ltd | 2 Months |
| 9. | Dheeravath Vijay Nayak | Internship | National Instruments innovation Centre | 6 Weeks |
| 10. | Abhishek Keshri | Internship | Intershala Training | 2 Months |
| 11. | Parth Prasun | Internship | SAMSUNG R&D Institute India- Bangalore Pvt.Ltd. | 2 Months |
| 12. | Narendra Manglani | Internship | Games 24 Seven | 2 Months |
| 13. | Vivek Dubey | Internship | WELLS FARGO International Solutions Pvt. Ltd | 8 Weeks |

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 14. | Mayank Gupta | Internship | Worldwide Machinery Solutions Pvt. Ltd. | 6 Weeks |
| 15. | Aditya Azad | Internship | Linde Engineering India Pvt. Ltd | 61 Days |
| 16. | Manvi Ridhi | Internship | Price water house Coopers Services LLP | 61 Days |
| 17. | Ankita Toppo | Internship | NETCAMP Solutions Private Limited | 2 Months |
| 18. | Avinash Priyam | Internship | Central Coalfields Limited | 8 Weeks |
| 19. | Tanvirul Haque | Internship | Innovaccer Analytics Private Limited | 2 Months |
| 20. | Satyam Kumar | Internship | Worldwide Machinery Solutions Pvt. Ltd. | 6 Weeks |
| 21. | Gaurav Singh | Internship | Technolabs Indore | 7 Weeks |
| 22. | Anupam Baanwal | Internship | IIT Indore | 2 Months |
| 23. | Atulya Arya | Internship | Goldman Sachs Services Private Limited | 8 Weeks |
| 24. | Mona | Internship | Doormonk Services Tech Pvt.Ltd | 2 Months |
| 25. | Gotika Ramya Reddy | Internship | Tech Vedika Software Pvt Ltd | 7 Weeks |
| 26. | Guneet Singh Oberai | Internship | Worldwide Machinery Solutions Pvt. Ltd. | 6 Weeks |
| 27. | Shantanu Dhananjay Jahangirdar | Internship | Lassonde School of Engineering, York University | 10 Weeks |
| 28. | Naman Mawandia | Internship | AXIS Bank | 7 Weeks |
| 29. | Suryansh Singh | Internship | Indus Valley Partners (India) | 8 Weeks |
| 30. | Rishav Raj | Internship | VBUILD | 8 Weeks |
| 31. | Saurav Kumar Gupta | Internship | Worldwide Machinery Solutions Pvt. Ltd. | 6 Weeks |
| 32. | Divya Kumari | Internship | PVUN Ltd., Patratu | 6 Weeks |
| 33. | Harsh Agarwal | Internship | Worldwide Machinery Solutions Pvt. Ltd. | 6 Weeks |
| 34. | Adarsh Kumar | Internship | Central Coalfields Limited | 8 Weeks |
| 35. | Arunesh Ankur | Internship | Central Coalfields Limited | 8 Weeks |

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 36. | Devesh Parashar Aman | Internship | Central Coalfields Limited | 8 Weeks |
| 37. | Ashutosh Singh | Internship | KPMG | 1 Month |
| 38. | Aditya Pathak | Internship | Logic Fruit Technologies Private Limited | 6 Months |
| 39. | Badal Kumar Jha | Internship | SAMSUNG India Electronics Pvt. Ltd | 6 Months |
| 40. | Shuvam Adhikary | Internship | KPMG | 6 Months |
| 41. | Shradha Shekhar | Internship | Walmart Global Technology Services India | 6 Months |
| 42. | Abhishek Keshri | Internship | Deloitte Support Services India Pvt.Ltd | 21 Weeks |
| 43. | Parth Prasun | Internship | One 97 Communications Ltd. | 23 Weeks |
| 44. | Narendra Manglani | Internship | Walmart Global Technology Services India | 6 Months |
| 45. | Vivek Dubey | Internship | WELLS FARGO International Solutions Pvt.Ltd | 6 Months |
| 46. | Mayank Gupta | Internship | KPMG | 6 Months |
| 47. | Aditya Azad | Internship | SMART SERV | 6 Months |
| 48. | Tanvirul Haque | Internship | Walmart Global Technology Services India | 6 Months |
| 49. | Satyam Kumar | Internship | ZS Associates India Pvt. Ltd | 6 Months |
| 50. | Gaurav Singh | Internship | SAMSUNG India Electronics Pvt. Ltd | 6 Months |
| 51. | Anupam Baranwal | Internship | One 97 Communications Ltd. | 23 Weeks |
| 52. | Harsh Agarwal | Internship | One 97 Communications Ltd. | 23 Weeks |
| 53. | Guneet | Internship | KPMG | 6 Months |
| 54. | Atulya Arya | Internship | Goldman Sachs Services Private Limited | 6 Months |
| 55. | Mona | Internship | American Express (India) Private Limited | 6 Months |
| 56. | Shantanu Dhananjay Jahangirdar | Internship | Bain Capability Centre India Pvt Ltd | 6 Months |

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 57. | Naman Mawandia | Internship | Samsung R&D Institute India | 5 Months |
| 58. | Suryansh Singh | Internship | Microland | 6 Months |
| 59. | Saurav Kumar Gupta | Internship | SYNOPSIS | 6 Months |
| 60. | Soumya Srivastava | Internship | Deloitte Support Services India Pvt.Ltd | 21 Weeks |
| 61. | Siddhartha Deo | Secured Global Rank 88 in Codechef June long Challenge | Codechef | 14/06/2021 |
| 62. | Siddhartha Deo | Secured Global rank 121 in Codechef January Cook Off challenge | Codechef | 23/01/22 |
| 63. | Siddhartha Deo | Achieved 5 stars in c++ and Problem Solving certificate on HackerRank | HackerRank | 30/09/2021 |
| 64. | Siddhartha Deo | Among top 5% in Code-Gladiators participants | Tech Gig | July 2021 |
| 65. | Ayushman Dutta | Student Mentorship Programme | Electrical & Electronics Engineering Society (EEESoc) | 08/06/2022 |

## 7.3 List of Distinguished Alumni

| Sr. No. | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | Anjan Lahiri, 1987, Birlasoft | CEO |
| 2. | Arun Nathan, 1969, GERB Vibration Control Systems Pvt. Ltd. | Director |
| 3. | Madhavan Nayar, 1963, E-Prairie, LLC | Founder |
| 4. | Shree Nayar,1984, Columbia University | Computer Science |

## 7.4 Infrastructure Development: Modernization of Basic Electrical Laboratory and Faculty rooms.

# Department of Hotel Management and Catering Technology

## SECTION 1 DEPARTMENTAL PROFILE

### 1. About the Department :

Department of Hotel Management & Catering Technology of BIT MESRA was established in January-2003. Department offers 4 years (8 Semester) Bachelor's Degree in Hotel Management & Catering Technology (BHMCT). The program lays emphasis on practical application of theoretical lessons through training, laboratory work, hands on workshops, theme parties, project and study tour. The department has a well-qualified team of faculty members with a blend of sound industry experience in India and overseas, and academic excellence, who are consistently involved in various training, consultancy and research activities. The faculty members put in immense effort for both academic and practical training of the students.

Department is well equipped with training kitchen and bakery, training restaurant, housekeeping laboratory, laundry laboratory, front office laboratory etc. which ensure practical training in a professional environment to students.

Department has biannual double blind refereed, research journal JOHAR- Journal of Hospitality Application and Research published in association with Publishing India Group which is indexed in ProQuest, i-scholar and Sci-Archives.

Department has its own departmental club 'Hospitality Club' solely managed by students which hones their managerial and entrepreneurial skills required in the hospitality industry. As a regular feature department organizes various workshops, theme parties, food festivals and outdoor caterings to cultivate skill among the students.

Among the branded and luxurious hotels in India our department has gained a very good image and students go on "Industrial Exposure Training" in India and abroad for 18 weeks in various star Hotels such as Taj group of hotels, Oberoi group of hotels, ITC group of hotels, The Park hotels, Marriott group of hotels, etc.

#### VISION

To become a globally recognized hospitality institution for creating skilled human resource to meet the professional Hospitality Industry needs across the globe.

#### MISSION

- To create salubrious environment to provide excellent state of the art facilities meeting the hospitality industry requirement.

- To provide excellent technological support to bridge the gap between academic and industry to fulfill the overall academic need of the society.
- To ensure all round development of the students and to create a platform for turning out hospitality professional who can assume leadership position in society.
- To provide high quality course structure to enable qualified professionals to meet the hospitality needs globally.
- To develop effective teaching skill and research potentials of the faculty members.

## SECTION 2 RESEARCH PROJECTS

### 2.1 Sponsored Projects (Research and Consultancy)

**a) Ongoing Projects :**

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | Possibilities of Inclusion of Tribal Languages in the Curriculum of DoW-run Residential Schools for STs and Assessment of Learning Aptitude of Students | **CO- PI**: Dr. Praveen Srivastava | Dr. Ramdayal Munda Tribal Welfare Research Institute, Ranchi, Jharkhand | 28.02.22 | 9,00,000/- | 4 months |

## SECTION 3 SEMINAR / CONFERENCE

### 3.1 Seminar / Conferences / Short – Term Courses Conducted :

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event (dd.mm.year) |
|---|---|---|---|---|
| 1. | One-week Science and Technology Festival | Gautam Shandilya<br>Coordinator (Hospitality) | Office of PSA and Ministry of Culture, Government of India in association with Vigyan Prasar. | 22.02.22 – 28.02.22 |
| 2. | One-week online ATAL FDP "Design Thinking for Excellence in Outcome Based Education & Digital Learning" | Praveen Srivastava Co-Coordinator | AICTE | 29.11.2021 – 3.12.2021 |

### 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:

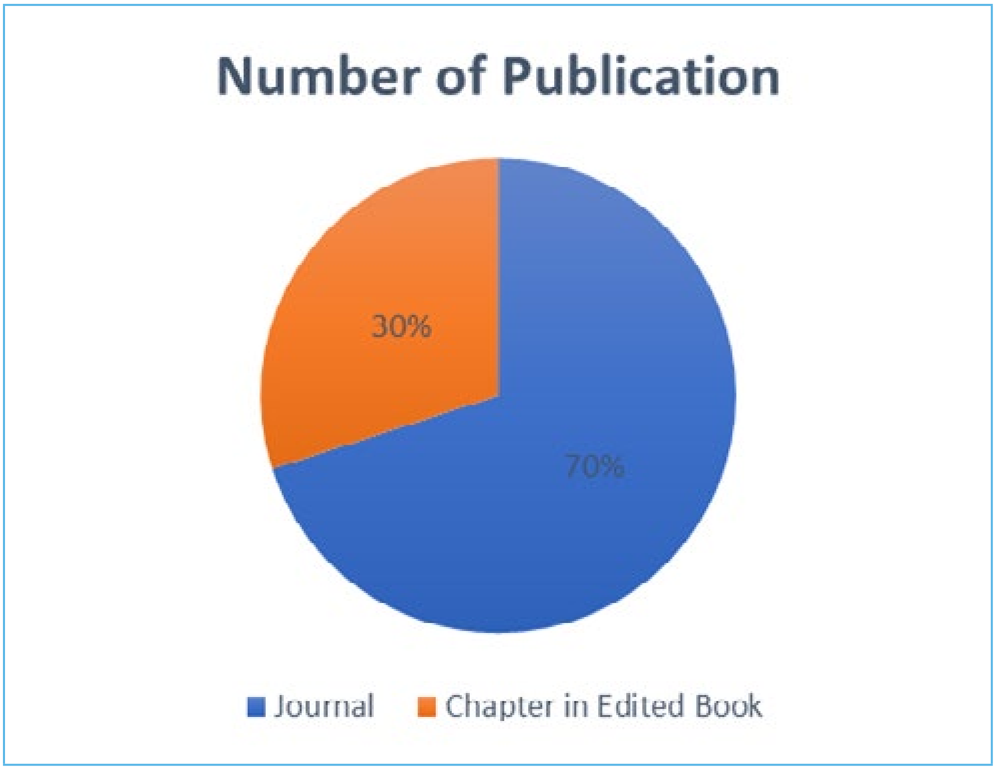
| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date (dd.mm.year) |
|---|---|---|---|---|---|---|
| 1. | Abhisek Jana | Revamping Hospitality and Tourism Industry through Innovation | N/A | CT University, Ludhiana, Punjab | Online | 30.10.2021 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date (dd.mm.year) |
|---|---|---|---|---|---|---|
| 2. | Nishikant Kumar | Emerging Trends in Teaching, Learning and Research (07 days FDP) | Baba Ghulam Shah Badshah University, Rajouri, J & K | Centre for Hospitality and Tourism, J & K | Online | 23.05.2022 to 29.05.2022 |
| 3. | Nishikant Kumar | International Conference on Reflections on : New Tourism" and "New Normal" in Post Covid'19 World | Central University of Jammu | Department of Tourism and Travel Management | Online | 26.05.2022 to 27.05.2022 |
| 4. | Nishikant Kumar | International Conference on Travel, Tourism , Hospitality & Culture<br>(Chaired the Session) | Institute of Hotel Management Catering Technology & Applied Nutrition, Ranchi | IHM, Ranchi | IHM Ranchi | 11.03.2022 to 12.03.2022 |
| 5. | Nishikant Kumar | Emerging trends in Hospitality and Tourism Research and Fata Analysis (05 days FDP) | SGT University, Gurugram. | Faculty of Hotel and Tourism Management | Online | 01.02.2022 to 05.02.2022 |
| 6. | Gautam Shandilya | ATAL FDP on "Design Thinking for Excellence in Outcome Based Education & Digital Learning" | AICTE | BIT Mesra | Online | 29.11.21 to 03.12.21 |
| 7. | Gautam Shandilya | E-Faculty Development Program on "Intellectual Property rights and its application" | Self | Jharkhand Rai University, Ranchi in association with Institution Innovation Council. | Online | 19.07.21 to 24.07.21 |
| 8. | Gautam Shandilya | Workshop on "Research Methodology" | Self | Jharkhand Rai University, Ranchi | Online | 17.06.22 to 19.06.22 |
| 9. | Praveen Srivastava | NPTEL Awareness E-Workshop | Self | Sanjay Ghodawat University, Kolhapur in association with NPTEL, IIT Madras | Online | 15.12.21 |
| 10. | Praveen Srivastava | One-week online Faculty Development Program on Analytics | BIT | Indian Institute of Management (IIM), Vishakhapatnam. | Online | 30.08.21 to 03.09.21 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date (dd.mm.year) |
|---|---|---|---|---|---|---|
| 11. | Abhinav K Shandilya | Revamping Hospitality and Tourism Industry through Innovation | N/A | CT University, Ludhiana, Punjab | Online | 30.10.2021 |
| 12. | Abhinav K Shandilya | Digital Learning Methodologies: Transformation of Business, Management and Education Practices | N/A | Parul University, Gujarat | Online | 23.10.2021 |
| 13. | Abhinav K Shandilya | 3rd Conference on Hospitality and Tourism Sectors: Hospitality 2.0 - Reimaging the Hospitality and Tourism space | N/A | Auro University, Gujarat | online | 06.05.2022 |

## SECTION 4 RESEARCH PUBLICATIONS

| Sr. No. | Publication Type | Number |
|---|---|---|
| 1. | Journal | 07 |
| 2. | Chapter in Edited Book | 03 |



## SECTION 5 AWARD / PATENT / COLLABORATIONS

### 5.1 Award / Recognition Bestowed on Faculties (State / National / International)

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 1. | Dr. Praveen Srivastava | Gold Award in BLM2-ICAM4, International Joint E-Conference | Taylor University, Malaysia, and University of Kelaniya, Srilanka | International | 11.09.21 |
| 2. | Dr. Praveen Srivastava | Resource Person in a one-day National Workshop on "Research Methodology for Hospitality" | Ajeenkya D Y Patil University, Pune | National | 29.06.22 |

## SECTION 6 ACTIVITIES/ FACULTY MEMBERS / BOS /DAS

### 6.1 List of Faculties

| Sr. No. | Name ( Please mention Dr. / Prof./ Mr./ Mrs. / Ms. , as applicable) | Designation | TEQIP Sponsored (Yes / No) |
|---|---|---|---|
| 1. | Dr. Praveen Srivastava | Assistant Professor | No |
| 2. | Dr. Abhinav Kr. Shandilya | Assistant Professor | No |
| 3. | Dr. Nishikant Kumar | Assistant Professor | No |
| 4. | Dr. Abhisek Jana | Assistant Professor | No |
| 5. | Dr. Rajeshwari Chateerjee | Assistant Professor | No |
| 6. | Mr. Sanjiv Kr. Srivastava | Assistant Professor | No |
| 7. | Dr. Amit Saran | Assistant Professor | No |
| 8. | Mr. Gautam Shandilya | Assistant Professor | No |
| 9. | Ms. Pratima Ekka | Assistant Professor | No |
| 10. | Dr. Pranjal Kumar | Assistant Professor | No |

### 6.2 Board of Studies

| Sr. No. | Name of the Member | Designation (Kindly mention Ex-Officio, where applicable) | Role (Chairman/ Internal or External Member) |
|---|---|---|---|
| 1. | Dr. S K Jain | HOD – (Ex-Officio) | Chairman |
| 2. | Dr. Praveen Srivastava | Asst. Professor, Dept. of HMCT | Internal Member |
| 3. | Dr. Abhinav Kr. Shandilya | Asst. Professor, Dept. of HMCT | Internal Member |
| 4. | Dr. Nishikant Kumar | Asst. Professor, Dept. of HMCT | Internal Member |
| 5. | Dr. Abhisek Jana | Asst. Professor, Dept. of HMCT | Internal Member |
| 6. | Mr. Sanjiv Kr. Srivastava | Asst. Professor, Dept. of HMCT | Internal Member |

| Sr. No. | Name of the Member | Designation (Kindly mention Ex-Officio, where applicable) | Role (Chairman/ Internal or External Member) |
|---|---|---|---|
| 7. | Dr. Amit Saran | Asst. Professor, Dept. of HMCT | Internal Member |
| 8. | Mr. Gautam Shandilya | Asst. Professor, Dept. of HMCT | Internal Member |
| 9. | Dr. Rajeshwari Chateerjee | Asst. Professor, Dept. of HMCT | Internal Member |
| 10. | Dr. B. N. Sinha | Professor, Dept. of Pharmaceutical Sciences and Technology | Internal Member |
| 11. | Prof. Shradha Shivani | Professor, Dept. of Management | Internal Member |
| 12. | Dr. Saswati Ghosh Sachen | Asst. Professor, Dept. of Bioengineering | Internal Member |
| 13. | General Manager, Hotel Radisson Blu, Ranchi | (Ex-Officio) | External Member |
| 14. | General Manager, JTDC, Ranchi | (Ex-Officio) | External Member |

## SECTION 7 OTHER INFORMATION

### 7.1 List of Distinguished Alumni

| Sr. No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | Manas Pandey<br>Batch: 2K4<br>Affiliation: National General Insurace Co., Dubai, UAE | Sr. Business development manger. Responsible to develop new corporate account. |
| 2. | Govind Mishra<br>Batch: 2K5<br>Affiliation: Nour Arjaan by Rotana, UAE | Manager – Sales & Marketing. |
| 3. | Subhadra Saxena<br>Batch: 2K5<br>Affiliation: Bank of New York, Pune | People analyist, Operations and Technical. |
| 4. | Anik Anand<br>Batch: 2K6<br>Affiliation: Sheraton Hotels, Ethopia (East Africa) | Director of room operation in Sheraton by Luxury collection. |
| 5. | Parth Chopra<br>Batch: 2K8<br>Affiliation: Carnival Cruise Line, USA | Demi Chef. |

### 7.2 Infrastructure Development

Development of Labs (Finishing kitchen lab, Training Bar, Simulation laboratory)

# DEPARTMENT OF MANAGEMENT

## SECTION 1 DEPARTMENTAL PROFILE

### 1.1 About the Department :

The Department of Management was established in the year 1979 with the aim of serving the growing need for qualified professionals who could harness the resources of the country to achieve its development goals. The department has continuously strived to achieve this aim by maintaining the highest standards in the Post Graduate (MBA) and Doctoral Programmes offered by it since its inception. The vision of the department today is to be recognized as a frontrunner in Management education in the country in consonance with the social, economic and ecological environment while striving to contribute to nation building through excellence in research and developmentactivities. The department follows the philosophy of Outcome Based Education. Therefore, the teaching-learning process is student centric. The pedagogy is practical, hands on and real time. Case studies, Problem Solving Exercises, Role-Plays, Management Games and Presentations are extensively used. The curriculum is planned to facilitate learning in theory and practice of all aspects of the discipline of management ensuring the achievement of predefined learning outcomes.

**Vision**

To be recognized as a frontrunner in Management education in the country in consonance with the social, economic and ecological environment while striving to contribute to nation building through excellence in research and development activities.

**Mission**

- To educate students at Postgraduate and Doctoral level to perform better in challenging environment.
- To nurture first generation entrepreneurs with innovative mindset.
- To provide excellent Consulting, and Research & Development facilities for faculty and students.
- To uphold the values of Personal Integrity and Social Responsibility in all our decesions.

## SECTION 2 RESEARCH PROJECTS

### 2.1 Sponsored Projects (Research and Consultancy)

**a) Ongoing Projects :**

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | Institute Technology Business Incubator Under Nidhi-DST Gov. of India Program. | Dr. Supriyo Roy | DST New Delhi | 10 June 2022 | 5 Cr. | 3 Yrs |
| 2. | Possibilities of Inclusion of Tribal Languages in run Residential Curriculum of DOW-run Residential School for STs and assessment of learning aptitude of students. | Prof. Shradha Shivani & Dr Niraj Mishra, Dr Anand Kumar & Dr Praveen Srivastav | Dr. Ram Dayal Munda Tribal Welfare Research Institute, Dept. of Scheduled Tribe, Scheduled Cast & Welfare dept. Morabadi Ranchi | 2nd March 2022 | 9 Lacs | 4 months |

**b) Consultancy Projects carried out:**

| Sr. No. | Title of Project | Funding Agency | Duration | | Grant mobilized (₹ Lacs) | Principal Investigator / Co- Investigator | Ongoing/ Completed* |
|---|---|---|---|---|---|---|---|
| | | | from | to | | | |
| 1. | MDP on Excellence in Public Service. | Department of Labour, Govt of Jharkhand. | 4th March 2022 | 9th March 2022 | 7.5 Lacs | Prof. Shradha Shivani and Dr. Niraj Mishra | Completed |
| 2. | MDP on Business Innovation | Indian Oil Corporation | 7th December, 2021 | 9th December, 2021 | 30,000 | Prof. Shradha Shivani and Dr Niraj Mishra | Completed |

## SECTION 3 SEMINAR / CONFERENCE

### 3.1 Seminar / Conferences / Short – Term Courses Conducted :

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding oySponsoring Agency | Date of Event (dd.mm.year) |
|---|---|---|---|---|
| 1. | "International Conference on Sustainability: Research, Education and Practice" | Dr. Shradha Shivani | From Participant Registration | 30th May to 31st May, 2022 |
| 2 | National Research Development Workshop on 'Statistical Technique and Data Analytics' | Dr. Supriyo Roy & Dr. Anand Pd Sinha | From Participant Registration | 10th June to 14th June 2022 in Online mode. |
| 3 | One week "ATAL Faculty Development Program" | Dr. Shradha Shivani | AICTE New Delhi | November 29th, 2021 – 3rd Dec 21. |
| 4. | Doctoral Colloquium | Dr Anupam Ghosh & Dr. Rohini Jha | Department of Management, BIT Mesra Ranchi | 11th Feb 2022 |

### 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date (dd.mm.year) |
|---|---|---|---|---|---|---|
| 1. | Kumari,N., Shivani,S. & Mishra, N. (2022) | International Conference on Sustainability: Research, Education and Practice<br>Title:The Study of Post Purchase Regret on Health Insurance Products in India | | Department of Management, Birla Institute of Technology, Mesra | Online | 30th - 31st May 2022 |
| 2. | Mishra,S., Kumar, S. & Mishra, N. (2022) | International Conference on Sustainability: Research, Education and Practice<br>Title: Impact of Social Media Marketing Activities on Brand Equity and Brand Commitment in OTT Platform (Disney+ Hotstar) | | Department of Management, Birla Institute of Technology, Mesra | Online | 30th - 31st May 2022 |

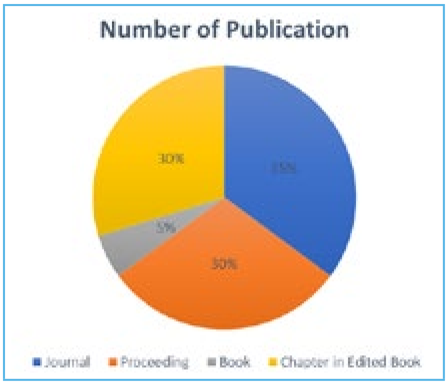
| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date (dd.mm.year) |
|---|---|---|---|---|---|---|
| 3. | Choudhary, N., Sinha, A. P., & Chatterjee, S. (2022) | International Conference on Sustainability: Research, Education and Practice<br>Title:Role of Service Innovation in Fostering Customer Satisfaction and Loyalty: A Critical Review | | Department of Management, Birla Institute of Technology, Mesra | Online | 30th - 31st May 2022 |
| 4. | Prasad, S., Jha, R.& Jha, A.N (2022) | International Conference on Sustainability: Research, Education and Practice<br>Title:A Study of Capital Structure of Indian Small and Medium Consumer Goods Enterprises-Sustainability Perspective | | Department of Management, Birla Institute of Technology, Mesra | Online | 30th - 31st May 2022 |
| 5. | Kumari, S., Jha, R. & Roy, S. (2022) | International Conference on Sustainability: Research, Education and Practice<br>Title:A Critical Review of Bank's Performance: Traditional vs. Frontier Approach | | Department of Management, Birla Institute of Technology, Mesra | Online | 30th - 31st May 2022 |
| 6. | Srivastava, M., Shivani, S. & Dutta, S. (2022) | International Conference on Sustainability: Research, Education and Practice<br>Title:A Systematic Literature Review on Sustainable Entrepreneurship | | Department of Management, Birla Institute of Technology, Mesra | Online | 30th - 31st May 2022 |
| 7. | Jha, N., Shekhar, M. & Mishra, N. (2022) | International Conference on Sustainability: Research, Education and Practice<br>Title:Impact of Sexual Harassment on Working Women | | Department of Management, Birla Institute of Technology, Mesra | Online | 30th - 31st May 2022 |
| 8. | Srivastava, P. & Srivastava, S. (2021) | ICT Acceptance in education during COVID 19: Analyzing the mediation role of Social Influence: paper presented in BLM2_ICAM4 An International Joint e-Conference | | Organized by CIRI in collaboration with Taylor University, Malaysia, and University of Kelaniya. | Online | 11th Sept 2021 |
| 9. | Fatima, S. and Ghosh, A. (2021). | An empirical investigation of consumer expectations<br>from the online service providers during Covid-19 pandemic: Study from India". Paper presented in the theme "Changing Paradigms in Management and Social Sciences: A Global Perspective", | | Organized by Amity University, Jharkhand. | Amity University, Jharkhand | 27th – 28th Aug 2021 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date (dd.mm.year) |
|---|---|---|---|---|---|---|
| 10. | Sujata Dash (2021) | Participated and completed successfully AICTE Training and Learning (ATAL) Academy Online Elementary FDP on 'Data Analytics in Business Research-Open Source'. | | Babasaheb Bhimrao Ambedkar University. | Online | 9th – 13th December 2021 |
| 11. | Sujata Dash (2021). | Participated and completed successfully AICTE Training and Learning (ATAL) Academy Online Elementary FDP on 'Design Thinking for Excellence in OBE & Digital Learning'. | | BIT Mesra, Ranchi. | Online | 29th November 2021 to 3rd December 2021 |
| 12. | Sujata Dash (2021). | Participated and completed successfully AICTE Training and Learning (ATAL) Academy Online Advanced FDP on 'Application of Blockchain Technology and Artificial Intelligence in Service Sector'. | | Acharya Bangalore B School. | Online | 15th – 19th November 2021 |
| 13. | Sujata Dash (2021). | Participated and completed successfully AICTE Training and Learning (ATAL) Academy Online Elementary FDP on 'Application of Blockchain Technology and Artificial Intelligence in Service Sector' | | Acharya Bangalore B School. | Online | 20th – 24th September 2021 |
| 14. | Sujata Dash (2021). | Participated in the Faculty Development Programme on 'Challenges and Opportunities in Cyber Security with Current Tools and Techniques: A Research Perspective'. | | Organized by Department of Computer Science and Engineering sponsored by CMR Engineering College, Hyderabad, India | Online | 5th – 9th July 2021 |
| 15. | Rohini Jha (2021). | Participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Advanced FDP on "Applications of Blockchain Technology and AI in Services Sector". | | Organized by Acharya Bangalore B School | Online | 15th – 19th Nov 2021 |
| 16. | Rohini Jha (2021). | Five days FDP (Online mode) "Challenges and Opportunities in Cyber Security With Current Tools and Techniques"<br>. | | Department of CSE, CMR Engineering College, Hyderabad , | Online | 5th – 9th July 2021 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date (dd.mm.year) |
|---|---|---|---|---|---|---|
| 17. | Rohini Jha (2021). | IPR Strategy and Cleantech Innovation | | "Turnip Innovations | Online | 16th July 2021 |
| 18. | Rohini Jha (2021) | Participated in 2 hrs webinar on " Business Education Innovations in the YUCA World " | | Organized by Globsyn Buiness School | Online | 7th August 2021 |
| 19. | Rohini Jha (2021) | Participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Advanced FDP on "Design Thinking" | | Organized by National Institute of Technical Teachers Training and Research, Chandigarh | Online | 3rd – 4th Dec 2021 |
| 20. | Sujata Dash (2021). | Attended an Independence Day Webinar on IPR: Key to India's Future Journey facilitated by Mr. Munish Sudan, Head IP and ResearchCollaboration,Tata Steel, | | Organized by Turnip Innovations Pvt. Ltd. | | 14th August 2021 |
| 21. | Sujata Dash (2022). | Participated in the Gender Sensitization Towards Workplace Etiquettes (GSTWE) | | Birla Institute of Technology | BIT Mesra | 8th March 2022 |
| 22. | Anand Pd Sinha | IP Awarness Training Programe on Natonal Intellectual Property Awarness Mission | | Intellectual Property Office, Govt. of India. | Online | 28th April 2022 |
| 23. | Rohini Jha (2022). | Participated in 2hrs webinar on "Default is Digital: Trends & Opportunities" | | Organized by BVICAM-New Delhi. | Online | 4th June 2022 |

## SECTION 4 RESEARCH PUBLICATIONS

| Sr. No. | Publication Type | Number |
|---|---|---|
| 1. | Journal | 13 |
| 2. | Proceeding | 11 |
| 3. | Book | 02 |
| 4. | Chapter in Edited Book | 11 |



## 5.1 Award / Recognition Bestowed on Faculties

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 1. | Dr. Supriyo Roy | D. Litt. Supply Chain Modelling / Supply Chain Intelligence. | DEPT. of Business Administration, Sambalpur University | National | May 2022 |
| 2. | Dr. Anupam Ghosh | Invited as Guest Speaker in 3-Day Training Program on "CSR and Communication:Planning, Implementation and Impact Evaluation". | Organized by Administrative Staff College of India (ASCI), Hyderabad. | National | 22nd – 24th Sep 2021 |
| 3. | Dr. Anupam Ghosh | As a speaker at "Glasgow Convention: Sustainable Pathways for Future Ready Jharkhand" | Organized by Department of Forest, Environment and Climate Change, at Hotel Chanakya BNR, Ranchi | National | 9th May 2022 |
| 4. | Dr. Sujata Priyambada Dash | Delivered a Talk as Resource Person titled 'Blockchain in HR' in 5-Day (One Week) Online Faculty Development Programme on "Advancements in Blockchain Technology", Hyderabad | Organized by IcfaiTech(FST), ICFAI Foundation for Higher Education(IFHE), | National | 7th – 11th March 2022 |
| 5. | Dr. Sujata Priyambada Dash | Recognition bestowed for dedication and valuable contribution as Organizer in Science and Tech Festival EXPO Team | Organized by Birla Institute of Technology, Mesra, Ranchi in collaboration with the Office of PSA and Ministry of Culture, Government of India in association of Vigyan Prasar | National | 22nd – 28th Feb 2022 |
| 6. | Mrs. Shelly Srivastava | Recipient of Gold Award in BLM2-ICAM4, international Joint E-conference for the paper titled "ICT acceptance in education during COVID -19: Analysing the mediation role of Social Influence ". Conference | Organised by CIRI in association with Taylor University, Malaysia and University of Kelaniya | National | 11th Sept 2021 |

## 6.1 Departmental Students' Activities

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Co-ordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 1. | BTrix 22 | Himanshu Shekhar, Siddharth Roshan, Sanket Ghosh | Dr. Satyajit Kr Mahto | 27th February 2022 |
| 2. | DAKSHAM: 22 | Shivani Agrawal, Sumeet Raj | Mr. S.K.Singh | 27th March 2022 |
| 3. | EVOLUTION'22 | Ricky Mahto, Nikita jha , Himanshu Shekhar | Mrs. Shelly Srivastav. | 19th June 2022 |
| 4. | SANSHRAY | Sumeet Raj , Shivani Agarwal | Mr. S.K.Singh | June 2022 |
| 5. | ABHYUDAYA 21 | Pramit Basu, Raj Vardhan | Dr. S. Dutta | July 2021 |
| 6. | Quizzard'21 | Diksha, Sanket Ghosh, Siddharth Roshan | Dr. S P Dash, Ms Shelly Shrivastava | 26th Sep 2021 |
| 7. | INTERNICO 2021 | Siddharth Roshan, Aditya Kr Singh, Vishal . | Dr. S P Dash, Ms Shelly Shrivastava | 7th Nov 2021 |

## 6.2 List of Faculties

| Sr. No. | Name ( Please mention Dr. / Prof./ Mr./ Mrs. / Ms. , as applicable) (Yes / No) | Designation | TEQIP Sponsored |
|---|---|---|---|
| 1. | Dr. Shradha Shivani | Professor & Head | No |
| 2. | Dr. Utpal Baul | Dean (A&IR) & Professor | No |
| 3. | Dr. Manju Bhagat | Professor | No |
| 4. | Dr. Ravindra Nath Bhagat | Professor | No |
| 5. | Dr. A. N. Jha | Professor | No |
| 6. | Dr. Supriyo Roy | Associate Professor | No |
| 7. | Dr. Anupam Ghosh | Assistant Professor | No |
| 8. | Dr. Dharmendra Kumar Chand | Assistant Professor | No |
| 9. | Dr. Praveen Chandra Jha | Assistant Professor | No |
| 10. | Dr. Rohit Kumar Pandey | Assistant Professor | No |
| 11. | Dr. Anand Kumar | Assistant Professor | No |
| 12. | Dr. Shailendra Kumar Singh | Assistant Professor | No |
| 13. | Dr. Mrs Rohini Jha | Assistant Professor | No |
| 14. | Mrs. Shelly Srivastava | Assistant Professor | No |
| 15. | Dr. Anand Prasad Sinha | Assistant Professor | No |
| 16. | Dr. Sujata Priyambada Dash | Assistant Professor | No |
| 17. | Dr. Niraj Mishra | Assistant Professor | No |
| 18. | Dr. Satyajit Kr Mahto | Assistant Professor | No |

## 6.3 List of Adjunct Faculties

| Sr. No. | Name | Designation | Affiliation |
|---|---|---|---|
| 1. | Dr. Kripa Shanker | Professor (Retd.), | Industrial and Management Engineering Department, Indian Institute of Technology Kanpur, 208016 (UP), India |
| 2. | Dr. Purusottam Sen | Professor (Retd) | IIM Calcutta |
| 3. | Ms. Bishwajit Choudhary | General Manager (Finance) | RDCIS SAIL, Ranchi |

## 6.4 Board of Studies

| Sr. No. | Name of the Member | Designation (Kindly mention Ex-Officio, where applicable) | Role (Chairman/ Internal or External Member) |
|---|---|---|---|
| 1. | HOD/In charge- | Chairman (Ex-Officio) | |
| 2. | Dr. Shradha Shivani | Professor | Internal Member |
| 3. | Dr. Utpal Baul | Professor | Internal Member |
| 4. | Dr. Manju Bhagat | Professor | Internal Member |
| 5. | Dr. R.N. Bhagat | Professor | Internal Member |
| 6. | Dr. Supriyo Roy | Associate Professor | Internal Member |
| 7. | Dr. Rohini Jha | Assistant Professor | Internal Member |
| 8. | Dr. Vandana Bhattacharjee | HOD &Professor | Internal Member |
| 9. | Dr. Ritesh Kumar Singh | Associate Professor | Internal Member |
| 10. | Dr. Tannushri Dutta | Associate Professor | External Member |
| 11. | Mr. Shiva Botchu | Executive from Industry | External Member |
| 12. | Dr. Rohit Kumar Pandey | Assistant Professor | Special Invitee |

## SECTION 7 OTHER INFORMATION

## 7.1 Student Entrepreneurship activities/Start-ups if any

| Sr. No | Name of Student | Source of Funding | Title of Start up | Short Description |
|---|---|---|---|---|
| 1. | Himanshu Shekhar MBA/10113/20 | From Business Market | Wing your Think.com | Wing your Think.combusiness, have ambitious growth goals, and are looking for an extravagant partner to help you wing your online presence. Starting from making an amazing website, mobile application to measurably improve marketing performance, manage social media presence, and leads generation via overall research & consulting, Wing Your Think has it all. |
| 2. | Himanshu Shekhar MBA/10113/20 | BIT Mesra | SHEO BIKES | Himanshu Shekhar under the guidance of Dr. Anand Pd Sinha has developed SHEO BIKES -(Hybrid EV Cycle-Retro Fitting Model)), a Battery Innovation Technology Services & Mobility "Smart Hybrid Electric Optimistic Bikes" (SHEO BIKES – (Hybrid EV Cycle-Retro Fitting Model)), which |

| Sr. No | Name of Student | Source of Funding | Title of Start up | Short Description |
|---|---|---|---|---|
| | | | | supports carbon-free hybrid cycle in the environment. EV cycles will be beneficial to BIT students in our university as well as tribal people and design will be 100% eco-friendly because being electrically powered, they will contribute to a healthy and green climate. Some features are<br>1. Carbon free hybrid cycle.<br>2. 100% eco-friendly, electrically powered.<br>3. Load capacity up to 220kg.<br>4.Online Presence to penetrate global market and faster order processing.<br>5. As an economical option to be a right fit in the Indian logistics industry. |
| 3. | Weesam Fatima MBA/10048/20 | Instragram | Little_ Dreamer | Little dreamer presents a Native American legacy called "Dreamcatcher " with an intention to spread love , positivity and bridging specially handicrafted. At Little Dreamer " Dreams turn into reality" |
| 4. | Utsav Kumar MBA/10074/20 | Sponsorship | Foodies of Patna | Online food reviewing across hotels,restaurants and food outlets across all social platforms. |

## 7.2 Publication by students

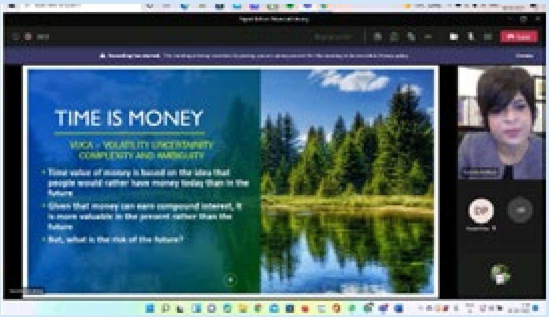
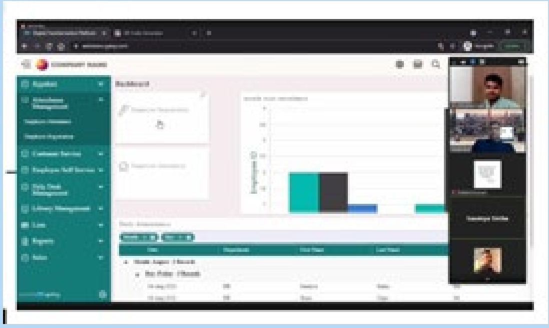
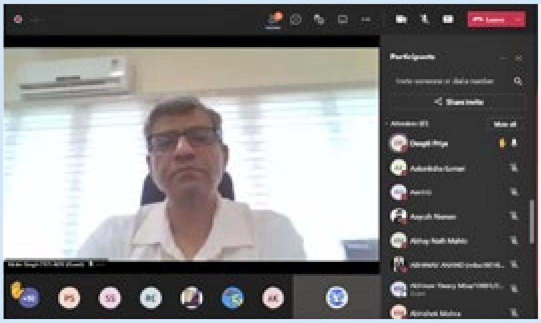
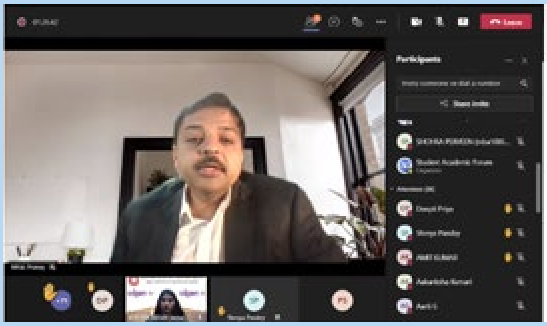
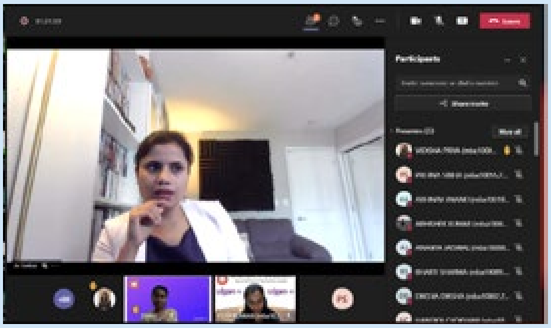
**Publications in Proceedings:** 01.

## 7.3 Achievements of Students :

| Sr. No | Name of Student | Achievement/Position/Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Mayank Shekhar MBA/10020/20 | GP Birla Scholarship for SP 2022. | BIT Mesra | June 2022 |
| 2. | Nikita Jha<br>MBA/10059/20 | GP Birla Scholarship for SP 2022. | BIT Mesra | June 2022 |
| 3. | Vidit Mishra<br>MBA/10037/20 | GP Birla Scholarship for SP 2022. | BIT Mesra | June 2022 |

## 7.4 Distinguished Visitors from Industry/Academia/Research organizations

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture (Insert Picture here. Further send the JPEG file along with the email.) |
|---|---|---|---|
| 1. | Mr. Raj Vardhan, Independent Director of Mcleod Russel India Ltd. | 4th July 2021 | |

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture (Insert Picture here. Further send the JPEG file along with the email.) |
|---|---|---|---|
| 2. | Ms. Sanchita Mukherji, Co-Founder and Partner of Blue Edge | 8th February 2022 | <br>TIME IS MONEY |
| 3. | Mr. Vivek Goel | 27th June 2021 |  |
| 4. | Mr. Aloke Singh, CEO of Air India Express | Sep 2021 |  |
| 5. | Mr. Pranay Mital, Chief Operating Officer, Global Midmarket & SME Business at SAP | Oct 2021 |  |
| 6. | Miss Jayita Sarkar, HR Director at PayPal. | 8th July 2021 |  |

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture (Insert Picture here. Further send the JPEG file along with the email.) |
|---|---|---|---|
| 7. | Ms. Mridula Sekhar, Chief Marketing Officer at Tata AIA Life Insurance | 25th July 2021 | |

## 7.5 List of Distinguished Alumni

| Sr.No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | Mr. Sanjay Singh<br>MBA Batch 1987–89 | Founder, Strategic Concepts (I) Pvt. Ltd · Freelance |
| 2. | Mr. Ripudaman Magon<br>MBA Batch 1989–1991 | Director at Natural Group and ConServe Infotech (P) Ltd.<br>Former Associate Vice President, HCL Infosystems Ltd.(2008-2013) |
| 3. | Mr. Pranay Mittal MBA Batch 1991-1993 | Chief Operating Officer, Global Midmarket & SME Business at SAP Global Vice President, SAP SE (2015–2020) |
| 4. | Mr. Aloke Singh MBA Batch 1985–1987 | CEO Air India Express |
| 5. | Mr. Nirmal Dayani MBA Batch 1989-1991 | CO-Founder Expereal India Former senior director Marketing, ESPN Star sports |

# Department of Mathematics

## SECTION 1 DEPARTMENTAL PROFILE

### 1. About the Department:

The Department of Mathematics was founded in 1956, under the name Department of Applied Mathematics. It started with only an undergraduate program offering all mathematics courses to engineering students. At Present Department runs Ph.D programme, 2-year M.Sc programme in Mathematics and 5-year Integrated M.Sc programme in Mathematics and Computing. The department started its own programme IMSc in mathematics and computing in the year 2011. Our IMSc Mathematics and Computing program is one of the high prioritized chosen courses among the young students in the country due to the increasing interest in computing on mathematical studies and its demand in different software industries. Our students are placed in ADROSONIC IT Consultancy Services Pvt. Ltd, Byhus, Byjus-BDA, Cognizant, Crisil, Delloitte Consulting India Pvt. Ltd., Fastenal, Fastenal India Sourcing, IT & Procurement Pvt. Ltd., Infosys, Lowes India Ltd., Novarties, PWC and many more. The course content of our IMSc programme helped our students to pursue their summer internships at various Research Institutions, universities and industries. Students pursued their internships European Organization for Nuclear Research (CERN), Julia program in MIT and many more.

The Department is equipped with a modern computer laboratory with latest scientific software such as Matlab, Mathematica, Systat, LINGO, TORA, SPSS, Code Blocks etc.

There are currently, 17 faculties in the department comprising of three professors, two Associate Professors,

eleven Assistant Professors and two Adjunct Professors. Many faculties have been working as Editorial Board members of different journals of international repute and engaged in writing many research and text books. . Faculties of the department visit different Institutes of International repute to deliver lectures on their research. The research areas that are focused in the department are Algorithm Analysis, Statistical Computing, Computational Solid Mechanics, Differential Equations, Difference Equations, Fractional Calculus, Theoretical Seismology, Optimization, Complex Analysis, Functional Analysis, Operator Theory, Mathematical Modelling and Simulation, Multiple Criteria Decision Making, Multiple Objective Decision Making, Numerical Analysis, Nonlocal Singular Boundary Value Problems,

Mathematical Modelling of Environmental, Biological and Ecological Systems and Cryptography.

## SECTION 2 SEMINAR / CONFERENCE

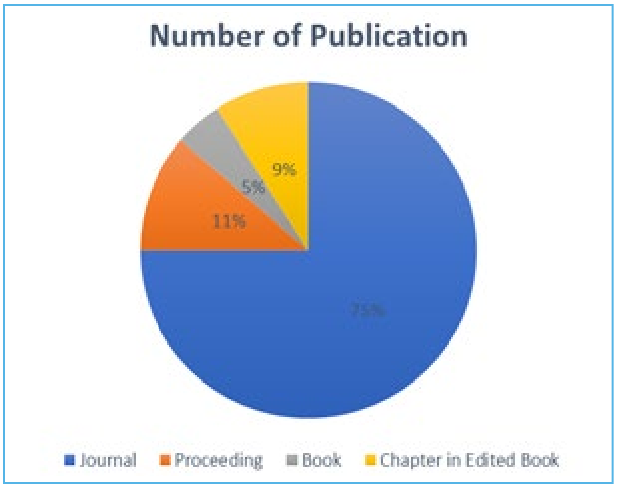
### 2.1 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by

**Faculty Members:**

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date (dd.mm.year) |
|---|---|---|---|---|---|---|
| 1. | Dinesh Kumar | On geometric complexity of Julia sets-III | | IMPAN, Polish Academy of Sciences, Banach Center | Bedlewo, Poland | 26.09.2021-01.10.2021 |
| 2. | PRABAL DATTA | NUMERICAL LINEAR ALGEBRA IN APPLICATIONS TO DATA SCIENCES | No Funding Was Required | Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram<br>Chennai 600127 | Online | 07.03.2022 to 12.03.2022 |
| 3. | Seshadev Padhi | 87th Annual Conference of the Indian Mathematical Society | No Funding Was Required | Indian Mathematical Society | Online | December 05-08, 2021 |

## SECTION 3 RESEARCH PUBLICATIONS

| Sr. No. | Publication Type | Number |
|---|---|---|
| 1. | Journal | 33 |
| 2. | Proceeding | 05 |
| 3. | Book | 2 |
| 4. | Chapter in Edited Book | 4 |



## SECTION 4 AWARD / PATENT / COLLABORATIONS

### 4.1 Award / Recognition Bestowed on Faculties

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 1. | Seshadev Padhi | Adrosonic Golden Apple Award | Adrosonic | ----- | 2022 |

### 4.2 Patents (Applied / Granted)

| Sr. No. | Name of the Inventor | Title of the Invention | Application / Patent No. (As applicable) | Year | Short Description about the patent |
|---|---|---|---|---|---|
| 1. | Tewari, Peeyush; Sharma, Abhay Kumar; Chhimwal, Nitin; Mishra, Prashant; Bhatt, Kaushal; Sharma, Sudhir and Tripathi, Sandesh | IMLS-Weed Recognition/ Classification: Intelligent Weed Recognition /Classification using Machine Learning System | 2020103332 | 2021 | |

## SECTION 5 ACTIVITIES/ FACULTY MEMBERS / BOS /DAS

### 5.1 Departmental Students' Activities

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 1. | Student Research Seminar | Sudarsan Das IPH/10009/21 | Dinesh Kumar | April 2022-till date |

### 5.2. List of Faculties

| Sr. No. | Name | Designation |
|---|---|---|
| 1. | Prof. S. K. Jain | Professor and Head |
| 2. | Prof. S. Chakraborty | Professor |
| 3. | Prof. S. Padhi | Professor |
| 4. | Dr. Peeeyush Tewari | Associate Professor |
| 5. | Dr. A. P. Ghorai | Associate Professor |
| 6. | Dr. Prabal Datta | Assistant Professor |
| 7. | Dr. A. Tandon | Assistant Professor |
| 8. | Dr. P. Kaur | Assistant Professor |

| | | |
|---|---|---|
| 9. | Dr. R. Singh | Assistant Professor |
| 10. | Dr. S. D. Jabeen | Assistant Professor |
| 11. | Dr. Vandana | Assistant Professor |
| 12. | Dr. Dinesh Kumar | Assistant Professor |
| 13. | Dr. Gautam Singh | Assistant Professor |
| 14. | Dr. Subha Sarkar | Assistant Professor |
| 15. | Dr. Upasana Samanta | Assistant Professor |

## 5.3 List of Adjunct Faculties

| Sr. No. | Name | Designation | Affiliation |
|---|---|---|---|
| 1. | Prof. Akrur Behera | Professor | NIT, Rourkela |
| 2. | Prof. D. K. Gupta | Professor | IIT, Kharagpur |

## 5.4 Board of Studies

| Sr. No. | Name of the Member | Designation | Role |
|---|---|---|---|
| 1. | Prof. S. K. Jain | Professor | Chairman, BOS |
| 2. | Prof. S. Chakraborty | Professor | Internal Member |
| 3. | Prof. S. Padhi | Professor | Internal Member |
| 4. | Dr. A. P. Ghorai | Associate Professor | Internal Member |
| 5. | Dr. A. tandon | Assistant Professor | Internal Member |
| 6. | Dr. P. Kaur | Assistant Professor | Internal Member |
| 7. | Dr. A. Mustaffi | Associate Professor | Internal Member |
| 8. | Dr. S. B. Singh | Assistant Professor, RIMS, Ranchi | External Member |
| 9. | Prof. G. K. Panda | Professor, NIT, Rourkela | External Member |
| 10. | Nishith Mohan | Alumni | External Member |
| 11. | Kumar Shivam | Alumni | External Member |
| 12. | Nimish Tewari | Alumni | External member |
| 13. | Swapnil Kant | Alumni | External Member |
| 14. | Kishan Kumar | Alumni | External Member |

## SECTION 6 OTHER INFORMATION

### 6.1 Any other relevant information

One of faculty from the department, Dr. Peeyush Tewari has been selected as Coordinator of Science and Technology Festival under Azadi ka amrit Mahotsav program, DST Govt of India.

# Department of Mechanical Engineering

## SECTION 1 DEPARTMENTAL PROFILE

### 1.1 About the Department:

Since its inception in 1955, the Department of Mechanical Engineering has a wide reputation for the quality of teaching and research it offers. It has been awarded top grades for both teaching and research activities from independent and government bodies. The excellent laboratory facilities, modern computer clusters, systematically designed curriculum, and dedicated faculty members make this Department a dynamic place to study.

MECHANICAL ENGINEERING LABORATORIES

**Programmes Offered**

**Under Graduate Programme (4 years):**

- B. Tech. in Mechanical Engineering

**Post Graduate Programmes: (2 Years)**

- M.Tech. Heat Power Engineering
- M.Tech. Design of Mechanical Equipments
- M.Tech. Computer Aided Analysis and Design
- M.Tech. Energy Technology

**PhD. Programme:**

**Laboratory Facilities:**

- Drawing Office
- Mechanics of Solids Lab
- Fluid Mechanics and Hydraulic Machines Lab
- Renewable Energy Lab
- Central CAD Lab
- Theory of Machines Lab
- Autonomous Systems Lab
- Computational Lab (For Research)
- Heat Transfer and RAC Lab
- I.C Engines Lab

## About the Department :

**Vision:**

The Mechanical Engineering Department of Birla Institute of Technology, Mesra, Ranchi strives to be globally recognised for quality engineering education and research leading to well qualified engineers, academicians and researchers who are innovative, entrepreneurial and successful in achieving excellence in their field of study.

**Mission:**

1. To impart quality education to the students and enhancing their knowledge and skills to be globally competitive Mechanical Engineers.
2. To maintain state of the art research facilities to provide its students and faculty to create, interpret, apply and disseminate knowledge with an understanding of the limitations.
3. To develop linkages and interaction with industry, R & D organization and educational institution for excellence in consultancy practices, research and teaching.
4. To provide conducive environment for learning, creativity and problem-solving skill.

## SECTION 2 RESEARCH PROJECTS

### 2.1 Sponsored Projects (Research and Consultancy)

**a) Ongoing Projects:**

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | Investigation of Stones as Sensible Thermal Heat Storage Materials for Concentrated Solar Power Applications | Dr. Omprakash (PI) & Dr. L.S. Brar (Co-PI) & Dr. D.P Mishra (Co-PI) | SERB-DST | 03.03.2021 | 25 Lacs | 3 Years |
| 2. | Role of Hybrid Nanofillers on The Physio-Mechanical and Tribological Behaviour of Polymer Nanocomposites for Load Bearing Advanced Mechanical Component Applications | Dr. K.Kumar (PI) | SERB-DST | 03.03.2021 | 45.84 Lacs | 3 Years |
| 3. | Development, testing, calibration and validation of Sterling Engine for Decentralise power generation using Bio gas produced from stubble waste and Agricultural waste | Dr. Rajeev Kumar (PI) | DST | 29.09.2021 | 79.17 Lacs | 3 Year |
| 4. | Design and fabrication of bellow type Biogas plant | Dr. Richa Pandey (PI) | Unnat Bharat Abhiyan (Ministry of Education) | 01.06.2022 | 1 Lac | 1 Year |

## 3.1 Seminar / Conferences / Short – Term Courses Conducted

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event (dd.mm.year) |
|---|---|---|---|---|
| 1. | International Conference on Thermo-Fluids and System Design 2022 (ICTFSD 2022) | **Conveners:**<br>Dr. D.P. Mishra, HOD and Professor<br>Dr. R.P. Sharma, Professor<br>**Conference Chair**:<br>Dr. D.P. Mishra, HOD and Professor<br>**Organizing Secretary**<br>Dr. Om Prakash, Asst. Prof.<br>Dr. Lacbir Singh Brar, Asst. Prof.<br>Dr. Saurav Chakraborty, Asst. Prof. | BIT Mesra | 22nd – 23rd March 2022 |

## 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by

**Faculty Members:( between 1st July 2021 to 30th June 2022)**

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date (dd. mm.year) |
|---|---|---|---|---|---|---|
| 1. | Dr. Anil C Mahato | International Conference on Thermo-Fluids and System Design 2022 (ICTFSD 2022) | BIT Mesra | BIT Mesra | BIT Mesra | 22nd – 23rd March 2022 |
| 2. | Dr. Paritosh Mahata | International Conference on Thermo-Fluids and System Design 2022 (ICTFSD 2022) | BIT Mesra | BIT Mesra | BIT Mesra | 22nd – 23rd March 2022 |
| 3. | Dr. Arkadeb **Mukhopadhyay** | International Conference on Thermo-Fluids and System Design 2022 (ICTFSD 2022) | BIT Mesra | BIT Mesra | BIT Mesra | 22–23 March 2022 |
| 4. | Dr. Sujit Kumar Mishra | International Conference on Thermo-Fluids and System Design 2022 (ICTFSD 2022) | BIT Mesra | BIT Mesra | BIT Mesra | 22nd – 23rd March 2022 |
| 5. | Dr. Mukesh Sharma | International Conference on Thermo-Fluids and System Design 2022 (ICTFSD 2022) | BIT Mesra | BIT Mesra | BIT Mesra | 22nd – 23rd March 2022 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date (dd. mm.year) |
|---|---|---|---|---|---|---|
| 6. | Dr. Lacbir Singh Brar | International Conference on Thermo-Fluids and System Design 2022 (ICTFSD 2022) | BIT Mesra | BIT Mesra | BIT Mesra | 22nd – 23rd March 2022 |
| 7. | Dr. Sushil Kumar Dhiman | International Conference on Thermo-Fluids and System Design 2022 (ICTFSD 2022) | BIT Mesra | BIT Mesra | BIT Mesra | 22nd – 23rd March 2022 |
| 8. | Dr. Om Prakash | International Conference on Thermo-Fluids and System Design 2022 (ICTFSD 2022) | BIT Mesra | BIT Mesra | BIT Mesra | 22nd – 23rd March 2022 |
| 9. | Dr. Saurav Chakrabarty | International Conference on Thermo-Fluids and System Design 2022 (ICTFSD 2022) | BIT Mesra | BIT Mesra | BIT Mesra | 22nd – 23rd March 2022 |

## SECTION 4 RESEARCH PUBLICATIONS

| Sr. No. | Publication Type | Number |
|---|---|---|
| 1. | Journal | 67 |
| 2. | Proceeding | 35 |
| 3. | Book | 13 |
| 4. | Chapter in Edited Book | 22 |

## SECTION 5 AWARD / PATENT / COLLABORATIONS

### 5.1 Award / Recognition Bestowed on Faculties (State / National / International)

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 1. | Dr. Sarurav Chakraborty | ASME Best Reviewer award for the Journal of Thermal Science and Engineering Progress | American Society of Mechanical Engineers | International | 2021 |
| 2. | Dr. Kaushik Kumar | Best Research Paper Award | ICARAE | International | 2021 |
| 3. | Dr. Kaushik Kumar | Best Paper Presentation Award | ICARAE | International | 2021 |

## 5.2 Patents (Applied / Granted)

| Sr. No. | Name of the Inventor | Title of the Invention | Application / Patent No. (As applicable) | Year | Short Description about the patent |
|---|---|---|---|---|---|
| 1. | Dr. K. Kumar | A Portable Footbridge Apparatus to Support Transverse Loading | Australian Innovation Patent 2021103989 Dated 09.07.2021 | 2021 | --- |

## 5.3 MoUs / Collaborations :

| Sr. No. | Name of Organisation / University | Purpose / Area/*Short Description* | Year / Duration |
|---|---|---|---|
| 1. | *Ms. Sabita Engineering Works* | *UG and PG Projects and Internships* | 2021 |
| 2. | *Delhi Technological University* | *SERB-DST Project* | 2021 |

## SECTION 6 ACTIVITIES/ FACULTY MEMBERS / BOS /DAS

## 6.1. List of Faculties

| Sr. No. | Name ( Please mention Dr. / Prof./ Mr./ Mrs. / Ms., as applicable) | Designation | TEQIP Sponsored (Yes / No) |
|---|---|---|---|
| 1. | Prof. R. P. Sharma | Professor | No |
| 2. | Prof. Dipti Prasad Mishra | Professor | No |
| 3. | Dr. Kaushik Kumar | Associate Professor | No |
| 4. | Dr. Apurba Kumar Roy | Associate Professor | No |
| 5. | Dr. Rajeev Kumar | Associate Professor | No |
| 6. | Mr. Praveen James Sanga | Assistant Professor | No |
| 7. | Dr. Lacbir Singh Brar | Assistant Professor | No |
| 8. | Dr. Sushil Kumar Dhiman | Assistant Professor | No |
| 9. | Dr. Sujeet Kumar Mishra | Assistant Professor | No |
| 10. | Dr. Praveen Mishra | Assistant Professor | No |
| 11. | Dr. Abhijit Nag | Assistant Professor | No |
| 12. | Dr. Om Prakash Pandey | Assistant Professor | No |
| 13. | Dr. Om Prakash | Assistant Professor | No |
| 14. | Dr. ParitoshMahata | Assistant Professor | No |
| 15. | Dr. Nirmal Kumar | Assistant Professor | No |
| 16. | Dr. Anil Chandra Mahato | Assistant Professor | No |
| 17. | Dr. Arun Kumar Kadian | Assistant Professor | No |
| 18. | Dr. Arkadeb Mukhopadhyay | Assistant Professor | No |

| Sr. No. | Name ( Please mention Dr. / Prof./ Mr./ Mrs. / Ms., as applicable) | Designation | TEQIP Sponsored (Yes / No) |
|---|---|---|---|
| 19. | Dr. Mukesh Sharma | Assistant Professor | No |
| 20. | Dr. Saurav Chakraborty | Assistant Professor | No |
| 21. | Dr. Ritik Maiti | Assistant Professor | No |
| 22. | Dr. Arun Kumar Sharma | Assistant Professor | No |
| 23. | Dr. Faisal Rahmani | Assistant Professor | No |
| 24. | Dr. Richa Pandey | Assistant Professor | No |

## 6.2 Board of Studies

| Sr. No. | Name of the Member | Designation | Role |
|---|---|---|---|
| 1. | Dr. D.P.Mishra | Professor | Chairman |
| 2. | Dr. R.P.Sharma | Professor | Internal Member |
| 3. | Dr. Kaushik Kumar | Assoc. Professor | Internal Member |
| 4. | Dr. A.K.Roy | Assoc. Professor | Internal Member |
| 5. | Dr. Rajeev Kumar | Assoc. Professor | Internal Member |
| 6. | Dr. Praveen Mishra | Asst. Professor | Internal Member |
| 7. | Dr. Arun Kumar Kadian | Asst. Professor | Internal Member |
| 8. | Dr. Gautam Sarkhel | Professor | Internal Member (Allied Department) |
| 9. | Dr. Joyjeet Ghose | Assoc. Professor | Internal Member (Allied Department) |
| 10. | Dr. S.K. Dash | Professor, IIT Kharagpur | External Member |
| 11. | Dr. Swarup Kumar Mahapatra | Professor, IIT Bhubaneswar | External Member |
| 12. | Dr. Dayal Ramakrishna Parhi | Professor, NIT Rourkela | External Member |
| 13. | Dr. M.K. Sinha | Professor, NIT Jamshedpur | External Member |
| 14. | Mr. Deepak Mishra | Head – Project Procurement Tata Steel Limited, Jamshedpur | External Member |
| 15. | Mr. Amit Kumar Pandey | G.M., USHA MARTIN<br>TATI SILAWAI, RANCHI | External Member |
| 16. | Dr. Bharat Bhushan | Chief Digital Officer, GM- Project IT, Tata Metaliks Ltd. | External Member |
| 17. | Mr. Prabhas Kumar | DGM (HOD, Energy Conservation), RDCIS, SAIL, Ranchi | External Member |

## 7.1 Publication by students : 20

## 7.2 Achievements of Students :

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Trian Pal Arora<br>Roshan Agarwal<br>Anuj Pandey<br>Sanskar Zode<br>Prakhar Shah | Sales Presentation Event – First<br>2nd position in Raftaar Award (making 2nd lightest ATV in the country)<br>3rd position in Acceleration event | BAJA SAE India | 6/04/2022 – 10/04/2022 at NATRAX facility in Pithampur, Madhya Pradesh |

## 7.3 List of Distinguished Alumni

| Sr. No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | **Mr. Derek Michael Shah**, 1986, BIT Mesra | Executive Vice President & Head – Power Plant Business |
| 2. | **Dr. Ramesh Singh** | Professor, Mechanical Engineering Department,<br>IIT, Bombay |
| 3. | **Mr. T. Venkatesh** | An Indian administrative Service Officer,<br>Members of Board of Directors of NTPC Ltd. |
| 4. | **Mr. Pawan Bhageria** | Gold Medalist, Currently part of GM International Operations as Director, Ex Head of IT for Tata Motors Ltd. |
| 5. | **Mr. Amitava Bakshi** | Chief Procurement Officer, Tata Steel Ltd. |
| 6. | **Mr. Avinash P. Gandhi** | Former Special Advisor to Asia Automotive Acquisition Corp. |

## 7.4 Infrastructure Development

**Facilities created for research and teaching**

- Scratch Tester (Ducom TR 101): Experiments to be carried out by UG and PG students for scratch hardness and first critical load of failure of coated specimens respectively. UG and PG students may also undertake their final year project. Research scholars pursuing their research work related to scratch hardness and critical loads of failure of electroless coated specimens.
- Magnetic heater cum stirrer (seed money scheme): For electroless coating deposition by UG, PG and Ph.D. students.
- Weighing Balance (seed money scheme): For precise measurement of weights of chemicals for electroless bath formulation.
- I.C.E Lab: A Biodiesel production unit has been installed in the laboratory for experimental use for U.G., P.G. and for carrying out research for research scholars. The unit is capable for biodiesel production with different blends of oil.
- Automobile Lab: An electric two-wheeler is purchased for the study of the electric vehicle for U.G. students.

- One Tribology Trainer Basic Module (TM260) with Experimental module for stick-slip and friction-induced vibration (TM260.04) and pressure distribution in journal bearing (TM260.06) is installed in Vibration and Dynamics Lab for performing UG and PG level experiments. Recently, one B.Tech project group have performed their experiments with this experimental set up in the academic session 2021 – 22 under the project title "Theoretical and Experimental Investigation of Friction-induced Self-excited Vibration".
- Universal Vibration Apparatus: 10 numbers of experiments for UG and PG students related to vibration.

## 7.5 Entrepreneurship Activity

| Sr. No | Name of Student | Source of Funding | Title of Start up | Short Description |
|---|---|---|---|---|
| 1. | Utkarsh Mishra – CEO<br>Hritik Shubham – COO<br>Nagendra Kumar – CTO<br>Ashok Priyadarshi - CIO | Private Investor | FLOXUS | Floxus is basically an online learning platform dedicated for technical stuffs. In association with Microsoft, we provide international industrial certificates (MTA) (not like simple e-learning certificates). Furthermore, we provide project-based learning to increase your practical knowledge also. Projects are also of giant companies, so, you can build your CV also. At last, we provide Internship opportunities also. MTA (Microsoft Technology Associate) certificates are internationally recognised i.e., certificates recognised by every industry in the world. |

# Department of Pharmaceutical Sciences & Technology

SECTION 1 DEPARTMENTAL PROFILE

## 1.1 About the Department :

The Department of Pharmaceutical Sciences and Technology was established in 1972. It boasts of a robust scientific community comprising of qualified and competent faculties, technical staffs, undergraduate & postgraduate students and research fellows.

» ***Vision:***

To become a Centre of Excellence in teaching and research for creating technical manpower to meet the technological needs in the area of healthcare system contributing towards socio-economic development of the country

» ***Mission***

1. To develop state of the art education and research at undergraduate, post graduate and doctoral levels in different areas of pharmaceutical sciences and technology.
2. To provide excellent infrastructural facilities to strengthen research and development activities.
3. To extend proper academic guidance and career counseling to students in order to bridge the gap between academia and industry as per needs of the society.
4. To develop effective pedagogical and research potential among the faculties.
5. To create pharmaceutical knowledge pool with innovative, ethical and leadership qualities to serve the cause of the society
6. To promote collaboration with academia, industries and research organizations at national and international levels in the areas of mutual interests.

» ***Highlights of the Department:***

1. B. Pharm. and M. Pharm. courses are recognized by both Pharmacy Council of India and AICTE.
2. Ranked 26th in Overall by National Institutional Ranking Framework (NIRF) 2021, Ministry of HRD, GOI in category of Pharmacy.
3. B. Pharm. Programme is accredited by NBA for Five Years (2017–2022).
4. Recognized amongst the 10 centres in the country for AICTE- Quality Improvement Program (QIP) in Pharmacy, since 2007.
5. One of the Nodal Centre for the award of prestigious AICTE- National Doctoral Fellowship.
6. Average Teaching Experience of the faculty is 19 Years

» ***Facilities:***

Total Built up area : 36000 Sq. ft.
Total number of Labs : 17
Central Instrumentation Laboratory : 02
Library/ Reading room : 01
Animal House : 01
Medicinal Plant Garden : 01

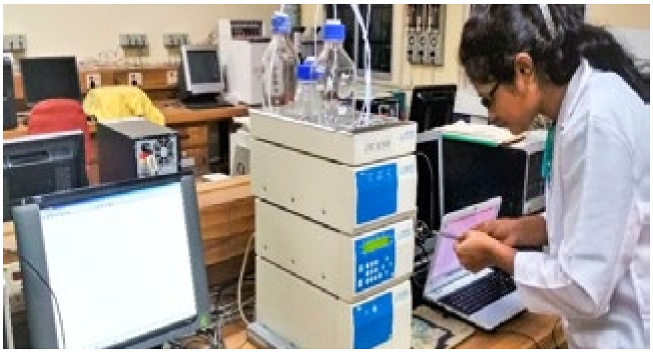
- ***Academics:***

**The department offers following UG, PG courses:**

1. B. Pharm (Seats: 60; Duration: 4-year; 8-semester)
2. M. Pharm (Seats: 15/ Specialization; Duration: 2-year, 4-semester)
   - a) Pharmaceutical Chemistry
   - b) Pharmaceutics
   - c) Pharmacology
   - d) Pharmaceutical Quality Assurance
   - e) Pharmacognosy
3. M. Pharm. Programme under AICTE Q.I.P (offered to academia sponsored candidates only).
4. Ph. D. (in Pharmaceutical Sciences and allied research applications).

- ***Research:***
  - ***An array of research strategies is being encouraged in the field of:***
    - a) Novel Drug Delivery Systems
    - b) Natural Products Chemistry
    - c) Development of Synthetic Medicinal Agents
    - d) Biochemical Pharmacology & Toxicology
    - e) Computer Aided Drug Design
- Total Research Grants of **262.684 Lacs** during **2019-2022,** from National and International funding agencies like DST-SERB, DBT, UGC, AICTE, DRDO, CSIR, ICAR, ICMR, BMBF (Germany), UGC-UKIERI etc.
- Contemporary state of the art laboratories for Instrumental Analysis, Molecular Biology and Molecular Modelling supporting high end research.
- **Major recruiters:** Dr. Reddy's Lab, Strides Pharma Ltd., Biocon Biologics, Sun Pharma, Torrent Pharma Ltd.,Mylan Labs, MacLeods Pharma Ltd.,Leiutis Pharma Ltd., Associated Capsules Group Ltd., Cipla etc.

DEPARTMENT OF PHARMACEUTICAL SCIENCES & TECHNOLOGY
(UGC-SAP & DST-FIST Supported Department)
Estd. 1972



## 2.1 Sponsored Projects (Research and Consultancy)

### a) Ongoing Projects

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount (Lacs) | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | QbD based approaches and mechanistic studies towards development of verbascoside loaded topical formulations to treat diabetic wound | Dr. Biswatrish Sarkar (PI) | DST-SERB-EMEQ | 10.03.2022 | 40.537 | 3 Years |
| 2. | Development of Novel Antileukemics Through the Structural and Functional Studies of Engineered and Chimeric Plant -Type Asparaginases | Dr. K. K. Pradhan<br>(PI) | DST-SERB-CRG | 10.02.2022 | 33.66 | 3 Years |
| 3. | Development of non-destructive process technology for simultaneous micronutrient fortification and bioavailability enhancement in Dal through selective binding of phytic acid | Dr. Biswatrish Sarkar (Co-PI)<br>Dr. Anupam Roy, Food Tech (PI) | Department of Biotechnology, GOI | 04.03.2021 | 57.90 | 3 Years |
| 4. | Aptamer-based Rapid Diagnostic Kit for Detection of Corona Virus Infection (CoVapt) | Dr. Abhimanyu Dev (PI)<br>Dr. Venkatesan J. (Co-PI) | DST-SERB | 17.07.2020 | 15.74762 | 1 Year |
| 5. | Development of multi-functional nano-HAP bone substitute for effective bone regeneration in critical defects | Dr. Abhimanyu Dev (Co-PI) | DST-Nanomission | 10.7.2019 | 51.15 | 3 Years |
| 6. | To modulate the aqueous solubility of poorly water soluble pharmaceuticals by crystal engineering technique and understand that mechanistic approach of solubilisation | Dr.Animesh Ghosh<br>(PI) | AICTE-RPS | 4.1.2019 | 24.12 | 3 Years |

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount (Lacs) | Duration of the Project |
|---|---|---|---|---|---|---|
| 7. | Biopolymer based nano-layer fortification of self-assembled micronutrients over pre-conditioned rice – Retention of fortified nutrients and scale-up studies | Dr.Animesh Ghosh (Co-PI)<br>&<br>Dr. Anupam Roy, Chemical Engineering (PI) | ICMR | 26.11.2019 | 39.57 | 3 Years |

## b) Projects Completed

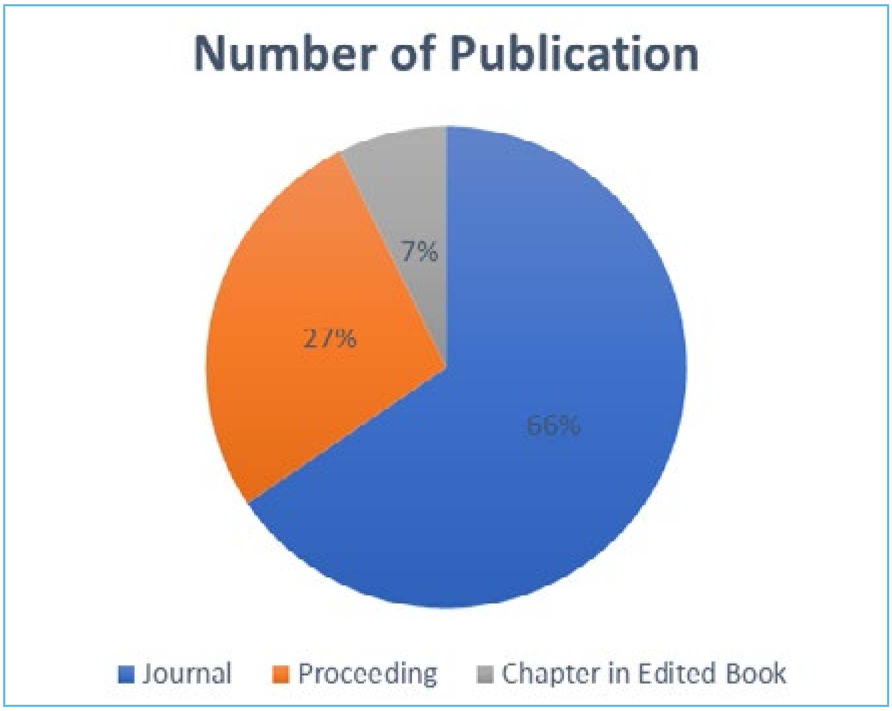
| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount (Lacs) | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | Phyto-chemicalcharacterizationof polyphenols in *Ocimumtenuiflorum* and investigation on its protective potentials against oxidative stress and DNA damage | Dr. Biswatrish Sarkar (PI) | DST-SERB | 15.03.2018 | 34.232 | 3 Years |
| 2. | Packaging design and some clinical study of hair dyes | Dr. K. Jayaram Kumar (PI) | TRIFED, GOI. | 4.1.2019 | 6.3 | 7 months |
| 3. | Prophylactic Transdermal Patch Against Neurotoxin Poisoning Biological Warfare Situations | Dr.Animesh Ghosh | BIRAC-SRISTI (PMU) (Society for Research) | 11.03.2017 | 15 | 2 years |
| 4. | Design & development of inhibitors of DENV methyl transferase for the treatment of dengue viral infection | Dr. Venkatesan J. (PI) | AICTE-RPS | 04.08.2017 | 17.38 | 3 Years |
| 5. | Design and Synthesis of Substrate Based Peptide Inhibitors of DENV Protease for the treatment of dengue viral infection | Dr. B. N. Sinha (PI)<br>Dr. Biswatrish Sarkar (Co PI)<br>Dr. Venkatesan J. (Co PI) | DST-SERB | 07.08.2017 | 45.6 | 3 Years |
| 6. | Evaluation of Anticancer Potential of few Coumarin Derivatives with Plasmonic up Conversion Luminescent Nanomaterials; A Non-Invasive Theranostic Approach for Breast Cancer | Dr. Shakti Prasad Pattanayak (PI) | AICTE-RPS | 04.08.2017 | 23.47 | 3 Years |
| 7. | Phenyloxazoline Synthetase Inhibitors as Antitubercular Agents (POSIAA) | Dr. Venkatesan J. (PI)<br>Dr. Abhimanyu Dev (Co-PI) | DST-SERB | 29.11.2016 | 53.73 | 3 years |

## 3.1 Seminar / Conferences / Short – Term Courses Conducted

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event |
|---|---|---|---|---|
| 1. | One-week Hands-on Training Workshop on "Preparation and Characterization of Oral Solid Dosage Form" | Dr.Animesh Ghosh | DST-STUTI Programme of Indian Institute of Technology (ISM) Dhanbad, funded by DST-Govt. of India | 10.06.22-16.06.22 |
| 2. | One Day Workshop on Gender Sensitization Towards Work Place Etiquettes | Convenor: Dr.P. Mitra Mazumder<br>Co-Convenor: Dr.S. Ganguly<br>Org. Secretary: Dr.ItuSnigdh&Dr. T. Bal. | Internal Complaints Committee (ICC) in association with Dept. of Pharm. Sci. & Tech | 08.03.22 |
| 3. | International Conference on Emerging Trends in Drug Discovery and Development ICETD3–2022 | Convenor: Dr. Venkatesan J<br>Co-Convenor: Dr.Animesh Gosh<br>Coordinator: Dr. B. Sarkar | Dept. of Pharm. Sci. & Tech | 20.01.22-21.01.22 |

## SECTION 4 RESEARCH PUBLICATIONS

| Sr. No. | Publication Type | Number |
|---|---|---|
| 1. | Journal | 36 |
| 2. | Proceeding | 15 |
| 3. | Chapter in Edited Book | 4 |



## 5.1 Patents (Applied / Granted)

| Sr. No. | Name of the Inventor | Title of the Invention | Application / Patent No. (As applicable) | Year | Short Description about the patent |
|---|---|---|---|---|---|
| 1. | Abhimanyu Dev, Sayanti Halder & Venkatesan Jayaprakash | An aptamer-based diagnosis of COVID 19 infection and method thereof | 202231027666 | 2022 | Patent is about development of aptamer based Diagnostic material for diagnosis of Covid 19. The developed biotin tagged aptamer has shown selective binding during in vitro SARS CoV2 viral culture. |

## 5.2 MoUs / Collaborations

| Sr. No. | Name of Organisation / University | Purpose / Area | Year / Duration |
|---|---|---|---|
| 1. | National Institute of Pharmaceutical Education Research, Kolkata | Academic and Research | 2021–2026 |

## SECTION 6 ACTIVITIES/ FACULTY MEMBERS / BOS /DAS

## 6.1. List of Faculties

| Sr. No. | Name (Please mention Dr. / Prof./ Mr./ Mrs. / Ms.as applicable) | Designation | TEQIP Sponsored (Yes / No) |
|---|---|---|---|
| 1. | Dr. (Ms.) Swastika Ganguly | Professor& Head | No |
| 2. | Dr. Barij Nayan Sinha | Professor | No |
| 3. | Dr. Priya Ranjan Prasad Verma | Professor | No |
| 4. | Dr. Sivesh Jha | Professor | No |
| 5. | Dr. (Mrs.) PapiyaMitraMazumder | Professor | No |
| 6. | Dr. K. Jayaram Kumar | Professor | No |
| 7. | Dr.SaurabhManaswitaVerma | Professor | No |
| 8. | Dr.Venkatesan J. | Associate Professor | No |
| 9. | Dr. Ashok Kumar Pattnaik | Associate Professor | No |
| 10. | Dr.Manik Ghosh | Assistant Professor | No |
| 11. | Dr. Abhimanyu Dev | Assistant Professor | No |
| 12. | Dr. Biswatrish Sarkar | Assistant Professor | No |
| 13. | Dr.TrishnaBal | Assistant Professor | No |
| 14. | Dr. Anima Pandey | Assistant Professor | No |
| 15. | Dr.Neelima Sharma | Assistant Professor | No |

| Sr. No. | Name (Please mention Dr. / Prof./ Mr./ Mrs. / Ms.as applicable) | Designation | TEQIP Sponsored (Yes / No) |
|---|---|---|---|
| 16. | Dr. Sandeep Kumar Singh | Assistant Professor | No |
| 17. | Dr.AnimeshGhosh | Assistant Professor | No |
| 18. | Dr.Kishanta Kumar Pradhan | Assistant Professor | No |
| 19. | Dr.Mahendra Pratap Chopra | Assistant Professor | No |
| 20. | Dr.BapiGorain | Assistant Professor | No |
| 21. | Dr. Monika Dwivedi | Assistant Professor | No |

## 6.2 List of Adjunct Faculties

| Sr. No. | Name | Designation | Affiliation |
|---|---|---|---|
| 1. | Mr. Raweesh Chaudhari | Director – Strategy | Medical Excellence. Biogen. USA. |

## 6.3 Board of Studies

| Sr. No. | Name of the Member | Designation (Kindly mention Ex-Officio, where applicable) | Role (Chairman/ Internal or External Member) |
|---|---|---|---|
| 1. | Dr. Swastika Ganguly (HOD) | Ex-Officio | Chairman |
| 2. | Dr. P. R. P. Verma | Professor | Internal Member |
| 3. | Dr. B. N. Sinha | Professor | Internal Member |
| 4. | Dr. S. Jha | Professor | Internal Member |
| 5. | Dr. (Mrs.) Papiya Mitra Mazumder | Professor | Internal Member |
| 6. | Dr. K. Jayaram Kumar | Professor | Internal Member |
| 7. | Dr. (Mrs.) S. M. Verma | Professor | Internal Member |
| 8. | Dr.Animesh Ghosh | Associate Professor | Internal Member |
| 9. | Dr.M. P. Chopra | Assistant Professor | Internal Member |
| 10. | Dr.ManikGhosh | Assistant Professor | Internal Member |
| 11. | Dr.Rakesh Kumar Sinha | Professor& Head<br>(Dept. of Bioengg. & Biotech) | External Member |
| 12. | Dr.Sumit Mishra | Associate Professor<br>(Dept. of Chemistry) | External Member |
| 13. | Dr.S. Murugesan | Associate Professor, Dept. of Pharmacy, BITS Pilani | External Member |
| 14. | Dr.Tarun Jha | Professor, Dept. Pharm. Technology, Jadavpur University | External Member |
| 15. | Dr. Ajay Kumar Handa | Executive Vice President<br>Dr. Reddy's Lab. Ltd., Hyderabda | External Member |

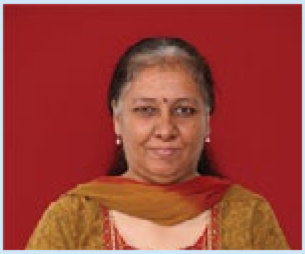
## 7.1 Publication by students : 15

## 7.2 Achievements of Students

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Prashanta Kumar Deb<br>(Research Scholar) | Received "Travel Grant" to present paper during XXX International Conference on Polyphenols" | Univesrsity of Turku, Finland | 13–15 July, 2021<br>(Online) |
| 2. | Snigdha Chakraborty<br>(B. Pharm, 2021 batch) | Won 2nd prize in case study presentation conducted by IPGA-SF | Indian Pharmacy Graduate's Association | 25thSeptember, 2021<br>(Online) |

## 7.3 Distinguished Visitors from Industry/Academia/Research organizations

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture |
|---|---|---|---|
| 1. | Prof. Kunal Roy<br>Jadavpur University, India | Delivered online lecture during ICETD3 (January 20–21, 2022) | |
| 2. | Dr. Sushama Talegaonkar<br>Delhi Pharmaceutical Sciences Research University, India | Delivered online lecture during ICETD3 (January 20–21, 2022) | |
| 3. | Prof. Vinod D Rangari<br>Guru Ghasidas University<br>India | Delivered online lecture during ICETD3 (January 20–21, 2022) | |

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture |
|---|---|---|---|
| 4. | Prof. Vandana B Patravale<br>Institute of Chemical Technology India | Delivered online lecture during ICETD3 (January 20–21, 2022) |  |
| 5. | Prof. Velmurugan Devadasan. University of Madras, India | Delivered online lecture during ICETD3 (January 20–21, 2022) | |
| 6. | Dr. Jaydeep Sinha<br>University of North Carolina at Chapel Hill, USA | Delivered online lecture during ICETD3 (January 20–21, 2022) | |
| 7. | Dr. K. Choowongkomon<br>Kasetsart University, Bangkok | Delivered online lecture during ICETD3 (January 20–21, 2022) | |
| 8. | Prof. Satyajit D Sarker<br>Liverpool John Moores University, UK | Delivered online lecture during ICETD3 (January 20–21, 2022) | |

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture |
|---|---|---|---|
| 9. | Prof. Sanjib Bhakta<br>Birkbeck University of London, UK | Delivered online lecture during ICETD3 (January 20–21, 2022) | |

## 7.4 List of Distinguished Alumni

| Sr. No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | Dr. C. Veeresham<br>Professor, Kakatiya University, Warrangal<br>(1984 Batch, M. Pharm) | Ex-Principal & Head, Dept. of Pharmacy, Kaktiya University, Warrangal |
| 2. | Ms. Ritu Sahay<br>Drug Controller<br>Jharkhand State<br>(1984 batch B. Pharm) | She is serving as Director, Drugs Control Administration, Ministry of Health, Govt. of Jharkhand since February 2015 |
| 3. | Mr. Raweesh Chaudhary, Director – Strategy, Medical Excellence. Biogen. USA(1992 batch B. Pharm) | He has 23 years of wide-ranging experience and stellar track record in Medical Affairs, Product management and commercial roles spread across countries like India, Canada and USA |
| 4. | Dr. Dharmendra Singhal<br>Vice President / Global Head Small Molecules CMC Dev at Roche-GenentechPharma Group<br>(1992 batch B. Pharm) | He is leading a global organization responsible for CMC (API/Chemistry, drug product and analytics) development to advance NCEs from preclinical stage through clinical development to commercial manufacturing and ensuring marketed support/ technical life-cycle management of Roche SM commercial products. |
| 5. | Mr. Naveen Sharma<br>President, Cliantha Research Ltd., Ahmedabad<br>(1989 batch B. Pharm, 1993 batch M. Pharm.) | Expert in Bioavailability and bioequivalence, he has more than 25 years experience in the industry. With his strong business acumen and strategic planning he heads the Cliantha Research Ltd an leading CRO in the country. |

# Department of Physics

SECTION 1 DEPARTMENTAL PROFILE

## 1. About the Department :

The Department of Physics was established in 1955. The Department offers Ph.D. in various areas of Physics, M.Sc. in Physics, Integrated M.Sc. in Physics and B.E. Physics course. The Department has a strong pool of highly qualified and motivated faculty members, and excellent laboratory facilities. It is well supported financially through the "Fund for Improvement in Science & Technology Infrastructure" (FIST) Programme of the Department of Science and Technology, New Delhi and "Special Assistance Programme" (SAP) of the UGC. The Department has also received significant funds under TEQIP Phases – I, II & III. At present, the Department has many ongoing research projects sponsored by UGC, DST, BRNS, ARDB, ISRO, DRDO and CSIR. Some faculty members have also participated in several international (Indo-German, Indo-Russian, Indo-Israel) collaborative projects.

Other than BTech Courses, the important thrust of the Department of Physics is the 5-year Integrated M. Sc. Programme which has been offering since 2011. The course aims to train the young students with the following objectives:

» To impart high quality Science education in a vibrant academic ambience.
» To prepare students to take up challenges as a researcher in diverse areas of theoretical and experimental physics.
» Excellent lab, library, and internet facilities.
» Opportunity of pursuing high end research as project work.
» During 9th and 10th semester, students may opt special papers for the following areas:

Theoretical and Computational Physics, Condensed Matter Physics, Electronics, Photonics, and Plasma Sciences.

**Vision**

The vision of the department is to achieve excellence in undergraduate, postgraduate education and research for scholarly inquiry and development of new knowledge.

**Mission**

» To train the students to be lifelong learners who will contribute to the creation of new knowledge, new technology, and innovation through excellence in research in emerging areas. To educate students to be the future leaders in science, technology, industry, education and other professions and succeed in a globally competitive environment
» To create national and international collaborations for research engagement in strategic areas of research
» To provide beneficial service to local, state, national and international communities

## SECTION 2 RESEARCH PROJECTS

## 2.1 Sponsored Projects (Research and Consultancy)

**a) Ongoing Projects:**

| Sr. No. | Name of Faculty Member (PI/Co-PI/CI) | Project Title | Data of Sanction | Funding Agency | Amount (Rs) | Duration |
|---|---|---|---|---|---|---|
| 1. | Prof. S. K. Sinha (Co-PI) | • Biocompatibility and mechanical studies of nanostructured HAP, metal doped nanostructured HAP on alumina by RF Magnetron Sputtering | 23.02.22 | SERB | ₹27,71,000/- | 03 |
| 2. | Dr. Rishi Sharma (PI) | • Development of super-lubricated Nano-crystalline Diamond film on bearing materials for aerospace applications | 18.12.19 | AR&DB, DRDO | ₹26,78,000/- | 03 |
| | | • Development of self-lubricating coating for bearing applications | | UGC-DAE CSR | ₹1,35,000/- | 03 |
| 3. | Dr. Rishi Sharma (Co-PI) | • Synthesis of Reduced Graphene Oxide-metal nanoparticles for early detection of Hepatocellular Carcinoma through Surface Enhanced Raman Spectroscopy | | UGC-DAE CSR | ₹1,35,000/- | 03 |
| 4. | Dr. Madhu Priya (Co-PI) | • Source Apportionment, Hydrodynamic Study and Environmental Fate Assessment of Micro-Plastics in Drinking Water Supplying Reservoirs of Ranchi, Jharkhand | 11.05.22 | CRG, DST-SERB | ₹38,10,240/- | 03 |
| 5. | Dr. Sourabh Lahiri (PI) | • Study of Stochastic Heat Engines using Active Particles | 25.10.18 | DST-SERB | ₹21,49,000/- | 03 |
| 6. | Dr. Anupam Roy (PI) | • Exploring Resistive Random Access Memory Devices based on Two-Dimensional Materials for Non-Volatile Memory Applications. | 23.08.22 | SERB | ₹30,00,000/- | 03 |

**b) Projects Completed (Completed between 1st July 2021 to 30th June 2022):**

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Date of completion of the Project |
|---|---|---|---|---|---|---|
| 1. | Nonlinear Rheology of Dense Colloidal Suspensions | Madhu Priya (PI) | DST-SERB | 14–09–2018 | ₹ 22.45 Lacs | 13–09–2021 |

## SECTION 3 SEMINAR / CONFERENCE

## 3.1 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by

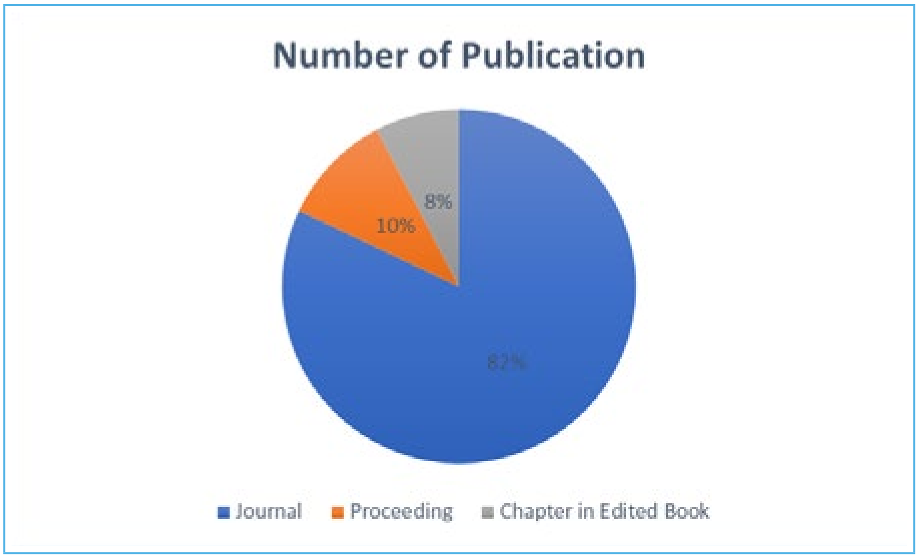
**a) Faculty Members:**

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date (dd. mm.year) |
|---|---|---|---|---|---|---|
| 1. | Dr. Nishi Srivastava | National Symposium on Advances in Remote Sensing: Trends, Challenges and Opportunities for Development (Ns-Ars21), | | Department of Remote Sensing, Birla Institute of Technology, Mesra, Ranchi | Department of Remote Sensing, Birla Institute of Technology, Mesra, Ranchi | 9th – 11th Dec 2021 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2. | Dr. Nishi Srivastava | International Symposium on Tropical Meteorology (INTROMET-2021 | | Cochin Chapter of the Indian Meteorological Society (IMS) | Cochin University of Science and Technology, Cochin | 23rd - 26th Nov 2021 |
| 3. | Dr. Madhu Priya | DAE-SSPS 2021: 65th DAE Solid State Physics Symposium 2021 | | Bhabha Atomic Research Centre, Mumbai | DAE Convention Centre, Anushaktinagar, Mumbai | 15th – 19th Dec 2021 |

## SECTION 4 RESEARCH PUBLICATIONS

| Sr. No. | Publication Type | Number |
|---|---|---|
| 1. | Journal | 32 |
| 2. | Proceeding | 04 |
| 3. | Chapter in Edited Book | 03 |



## SECTION 5 ACTIVITIES/ FACULTY MEMBERS / BOS /DAS

### 5.1. List of Faculties

| Sl. No. | Name | Designation |
|---|---|---|
| 1. | Prof. S. K. Sinha | Professor and Head |
| 2. | Prof. S. Keshri | Professor |
| 3. | Prof. S. K. Rout | Professor |
| 4. | Dr. R. K. Paul | Associate Professor |
| 5. | Dr. Rajeev Kumar | Asstt. Professor |
| 6. | Dr. Ela Rout | Asstt. Professor |
| 7. | Dr. Nishi Srivastava | Asstt. Professor |
| 8. | Dr. K. Bose | Asstt. Professor |
| 9. | Dr. Rishi Sharma | Asstt. Professor |

| | | |
|---|---|---|
| 10. | Dr. S. K. Mukherjee | Asstt. Professor |
| 11. | Dr. D. K. Singh | Asstt. Professor |
| 12. | Dr. Madhu Priya | Asstt. Professor |
| 13. | Dr. Sourabh Lahiri | Asstt. Professor |
| 14. | Dr. Anupam Roy | Asstt. Professor |
| 15 | Dr. Suman Ghosh | Asstt. Professor |
| 16. | Dr. P. K. Tiwari | Asstt. Professor |
| 17. | Dr. Rajyavardhan Ray | Asstt. Professor |
| 18. | Dr. R. K. Dewanjee | Asstt. Professor |

## 5.2 List of Adjunct Faculties

| Sr. No. | Name | Designation | Affiliation |
|---|---|---|---|
| 1. | Dr. Amitava Mitra | Adjunct Faculty | Department of Physics, IIT Jodhpur |

## 5.2 *Board of Studies*

**Internal Member**

| Sl. No. | Name | |
|---|---|---|
| 1. | HOD/In-Charge | Chairman (Ex-Officio) |
| 2. | Dr. (Mrs.) S. Keshri, Professor<br>s_keshri@bitmesra.ac.in | Member |
| 3. | Dr. S. K. Rout, Professor<br>skrout@bitmesra.ac.in | Member |
| 4. | Dr. S. K. Sinha, Professor<br>sksinha@bitmesra.ac.in | Member |
| 5. | Dr. R. K. Paul, Associate Professor<br>ratan_bit1@rediffmail.com | Member |
| 6. | Dr. Rajeev Kumar, Assistant Professor<br>rajeev1312@gmail.com | Member |
| 7. | Dr. Sourabh Lahiri, Assistant Professor<br>sourabhlahiri@gmail.com | Member |
| 8. | Dr. Tirthadip Ghose, Professor, Dept. of EEE<br>tghose@bitmesra.ac.in | Member |
| 9. | Dr. Sandeep Singh Solanki, Professor, Dept. of ECE<br>sssolanki@bitmesra.ac.in | Member |

**External Member**

| Sl. No. | Name of Member, Designation, Institute/Company, Full Address | |
|---|---|---|
| 1. | Dr. Dilip Kr. Ghosh<br>Senior Professor, School of Physical Science<br>Indian Association of Cultivation of Science, Kolkata<br>Tel: +91 33 2473 4971 (Ext 282) Cell: 9432877068<br>Email: tpdkg@iacs.res.in dilipghoshjal@gmail.com | External Member |

| | | |
|---|---|---|
| 2. | Prof. Dr. Dalip Singh Mehta<br>Department of Physics<br>Indian Institute of Technology Delhi, Hauz-Khas, New Delhi-110016.<br>mehtads@physics.iitd.ac.in dalipsingh.mehta@gmail.com<br>Tel. Fax: 91-11-2659-1455 (Off.) 2659-1865 (Res.), Mobile: 9818769924. | External Member |
| 3. | Prof. Yashowanta Narayan Mohapatra<br>Professor of Physics and Materials Science, S.L 105 I.I.T<br>Kanpur, U.P, India- 20801<br>Phone: +91-512-259-7033, 6675<br>E-mail: ynm@iitk.ac.in | External Member |
| 4. | Prof. Alok Shukla<br>Department of Physics<br>Indian Institute of Technology, Bombay, Powai, Mumbai 400076, India<br>E-mail: shukla@phy.iitb.ac.in<br>Tel: +91-22-2576-7576 (Office) Fax: +91-22-2572-3480 (Office) | External Member |
| 5. | Prof. Sreerup Raichoudhury<br>Department of Theoretical Physics, Tata Institute of Fundamental Research, 1 Homi Bhabha Road, Mumbai-400005, India.<br>Phone: 22 2278 3432 Cell: +91 98 1997 1834<br>Email: sreerup@theory.tifr.res.in | External Member |

| Sr. No. | Name of the Member | Designation | Role |
|---|---|---|---|
| 1. | Prof. S. K.Sinha | H.O.D, Deptt. of Physics, BIT Mesra | Chairman |
| 2. | Prof.A. K. Nirala | Prof.and Head, Dept. of Physics, ISM , Dhanbad | External Member |
| 3. | Prof. S. K. Ghorai | Professor , Deptt. of ECE, BIT Mesra | Member |
| 4. | Prof. S. K Sinha | Deptt. of Physics, BIT Mesra | Member |
| 5. | Prof. S. Keshri | Deptt. of Physics, BIT Mesra | Member |
| 6. | Prof. S. K. Rout | Deptt. of Physics, BIT Mesra | Member |

## SECTION 6 OTHER INFORMATION

### 6.1 *Publication by students,*

***Journals : 02***

***Proceedings : 01***

### 6.2 *Achievements of Students :*

| Sr. No | Name of Student | Achievement/ Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Manisha Kumari | Best Poster Presentation Award | International E-Conference on PHYSICS OF MATERIALS & NANOTECHNOLOGY (ICPN-2021), MANGALORE UNIVERSITY | October 28-30, 2021, DEPARTMENT OF STUDIES IN PHYSICS MANGALAGANGOTHRI-574199 MANGALORE, INDIA |
| 2. | Manish Kumar Singh | Best Poster Presentation Award | Centre for Nanotechnology, IIT Guwahati | 4th to 6th April, 2022, IIT Guwahati |

# Department of Production and Industrial Engineering

## SECTION 1 DEPARTMENTAL PROFILE

### 1.1 About the Department

Department of Production Engineering has been renamed as Production and Industrial Engineering. Since its inception in 1964, the department has been trying to impart quality education to undergraduates and train them to meet the demands of the manufacturing industry. The main objective of production engineering is integration of technology with management in planning and controlling the design, development and operation of manufacturing system. The department offers two courses: B.Tech. in Production Engineering and M.Tech. in Automated Manufacturing Systems. Rapid advances in manufacturing technology, e.g., computer controlled processes and management information systems, ERP and new manufacturing concepts like lean manufacturing, agile manufacturing, sustainable manufacturing etc., are reinforcing the recognition of technological, organizational, economic and human factors. Furthermore, specialized training in manufacturing technology is necessary for industries in India and abroad. Central workshop and laboratories have been established to impart the state of art knowledge to the students in the field of production engineering. number of sophisticated equipment are available in these laboratories/ shops, which not only being utilized for the training of undergraduate and postgraduate students but also utilized for the Research work of the department and giving support to the other research work going in the institute.

STATE OF THE ART LABS

## SECTION 2 RESEARCH PROJECTS

### 2.1 Sponsored Projects

**a) Ongoing Projects :**

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | Manufacturing and characterization of aluminium alloy hybrid nanocomposite produced by stir-ultrasonic-squeeze casting method for automotive application | PI: Dr. Joyjeet Ghose<br>Co-PI: Dr. Bappa Acherjee | DST SERB | Jan 2022 | 40L | 3 years |

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 2. | Synthesis, Characterization and Application of Nano lubricants for Minimum Quantity Lubrication | PI: Dr. Gayatri Paul | BIT Mesra | Jan 2022 | 5 L | 2 years |

## SECTION 3 SEMINAR / CONFERENCE

### 3.1 Seminar / Conferences / Short – Term Courses Conducted :

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event (dd.mm.year) |
|---|---|---|---|---|
| 1. | WEBINAR SERIES-<br>PIE CONNOISSEUR | Dr. Vinay Sharma (Convenor)<br>Dr. Bappa Acerjee<br>Dr. Binar Kumar<br>Dr. S.K. Tiwari | PIE Dept.<br>IIC | 15.9.21–17.12.21 |

### 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by

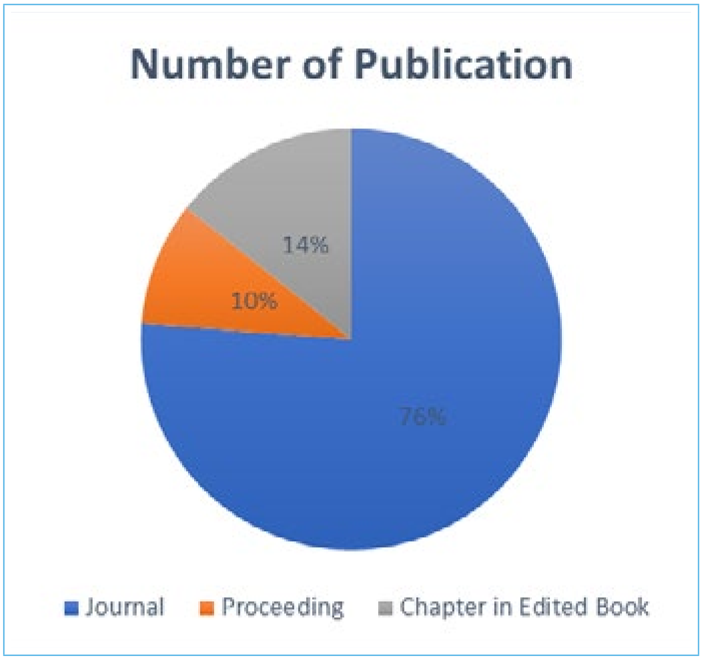
**Faculty Members:**

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date (dd.mm.year) |
|---|---|---|---|---|---|---|
| 1. | Dr. L. N. Pattanaik | State Level Workshop on Implementation of National Education Policy 2020 | Govt. of Jharkhand | Department of Higher and Technical Education, Government of Jharkhand | BNR Hotel, Ranchi | 09/12/2021 |
| 2. | Dr. A.K. Singh | International Conference of Industrial Engineering and Management (ICIEM) 2021 | | Department of Mechanical Engineering and Department of Management Studies in Association with Indian Institute of Industrial Engineering (IIIE). | Malaviya National Institute of Technology Jaipur-India (302017)<br>Online Mode | 17th-19th December, 2021 |
| 3. | Dr. A.K. Singh | International Conference on Advancements in Interdisciplinary Research (AIR-2022) | | Department of Applied Mechanics | Motilal Nehru National Institute of Technology Allahabad, Prayagraj (U.P.), India.<br>Online Mode | 6th- 7th May 2022 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date (dd.mm.year) |
|---|---|---|---|---|---|---|
| 4. | Dr. Gayatri Paul | 26th National and 4th International ISHMT-ASTFE Heat and Mass Transfer Conference | | IIT Madras | IIT Madras (conducted in online mode) | December 17–20, 2021 |
| 5. | Dr. Gayatri Paul | Online 2nd International Conference on Materials Science & Engineering (ICMSE-2022) | | NIT Jalandhar | NIT Jalandhar (Online mode) | June 11–12, 2022 |
| 6. | Dr. Gayatri Paul | Incorporating Universal Human Values in Education | AICTE | AICTE | Online | November 22–26, 2021 |
| 7. | Dr. Sanjiv Kumar Tiwari | International Conference on Thermo Fluids and System Design (ICTFSD 2022) | | Department of Mechanical Engineering,<br>Birla Institute of Technology<br>Mesra, Ranchi-835215, Jharkhand | Online | 22–23 March 2022 |
| 8. | Dr. Sanjiv Kumar Tiwari | 2nd International Conference on Materials Science & Engineering (ICMSE-2022) | | Department of Mechanical Engineering, Dr BR Ambedkar National Institute of Technology Jalandhar, India | Online | 11–12 June, 2022 |
| 9. | Dr. Suman Samanta | Incorporating Universal Human Values in Education | AICTE | AICTE | Online | November 22–26, 2021 |

## SECTION 4 RESEARCH PUBLICATIONS

| Sr. No. | Publication Type | Number |
|---|---|---|
| 1. | Journal | 16 |
| 2. | Proceeding | 02 |
| 3. | Chapter in Edited Book | 03 |



## 5.1. List of Faculties

| Sr. No. | Name | Designation |
|---|---|---|
| 1. | Dr. Vinay Sharma | Professor |
| 2. | Dr. Joyjeet Ghose | Associate Professor, Head |
| 3. | Dr. Sanjay Kumar Jha | Associate Professor |
| 4. | Dr. Ritesh Kumar Singh | Associate Professor |
| 5. | Dr. L.N. Pattanaik | Associate Professor |
| 6. | Dr. Binay Kumar | Assistant Professor |
| 7. | Dr. Somak Datta | Assistant Professor |
| 8. | Dr. Bappa Acharjee | Assistant Professor |
| 9. | Dr. Abhishek Kumar Singh | Assistant Professor |
| 10. | Dr. Randhir Kumar | Assistant Professor |
| 11. | Dr. Sanjiv Kumar Tiwari | Assistant Professor |
| 12. | Dr. Gayatri Paul | Assistant Professor |
| 13. | Dr. Suman Samanta | Assistant Professor |

## 5.2 List of Adjunct Faculties

| Sr. No. | Name | Designation | Affiliation |
|---|---|---|---|
| 1. | Prof. (Dr.) Kripa Shanker | Senior Adjunct Professor | Ex Professor, IIT Kanpur |

## 5.3 Board of Studies

| Sr. No. | Name of the Member | Designation (Kindly mention Ex-Officio, where applicable) | Role (Chairman/ Internal or External Member) |
|---|---|---|---|
| 1. | Dr. Joyjeet Ghose | Head- Production Engineering (Ex-officio) | Chairman |
| 2. | Dr. R. K. Singh | Associate Professor, Department of Production Engineering | Internal Member |
| 3. | Dr. L. N. Pattanaik | Associate Professor, Department of Production Engineering | Internal Member |
| 4. | Dr. Somak Datta | Assistant Professor, Department of Production Engineering | Internal Member |
| 5. | Dr. Utpal Baul | Dean (A&IR) and Professor, Department of Management | Internal Member |
| 6. | Dr. D.P. Mishra | Professor & Head, Mechanical Engineering | Internal Member |
| 7. | Mr. Kapildeo Prasad | BIT Patna off Campus | Internal Member |
| 8. | Dr. Vinay Sharma | BIT Deoghar off Campus | Internal Member |
| 9. | One UG Student Representative | | Internal Member |
| 10. | One PG Student Representative | | Internal Member |
| 11. | Dr. Govind Sharan Dangayach<br>Professor & Head | Department of Mechanical Engineering, Malaviya National Institute of Technology, J l Nehru Marg, Jaipur – 302017<br>Mobile: +91–9950344500<br>Email: dangayach@gmail.com | External Member |
| 12. | Dr. Saroj Kumar Patel<br>Professor | Department of Mechanical Engineering, National Institute of Technology Rourkela, Odisha, India – 769008<br>Mobile: +91 9437484951<br>E-mail: skpatel@nitrkl.ac.in | External Member |
| 13. | Mr. Vishwajit Kumar<br>Senior Manager | Iron Making Division, MECON Ltd, Doranda, Ranchi-834002<br>Mobile: 09431186722<br>Email: vishwajit@mecon.co.in | External Member |
| 14. | Mr. P.Pathak<br>DGM | Rolling Technology<br>R&D SAIL, Ranchi<br>Mobile: +91–8986880223<br>Email: ppathak@sail-rdcis.com | External Member |

## 6.1 Achievements of Students :

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Mr Soumil Dutta Roll No (BE/10318/16) | Qualified GRE in 2022. | | |
| 2. | Mr Madhukant Prince Roll No (BE/10622/17) | Qualified GATE 2022 with AIR 224 from Production engineering | | |
| 3. | Mr Utkarsh Roll No (BTech/10667/18) | Qualified GATE 2022 with AIR 211 from Mechanical Engineering | | |
| 4. | Mr. Amit Kumar Roll No-BE/10704/2014 | Secured AIR 179 (PI) in GATE 2021 | | |

## 6.2 Distinguished SPEAKERs from Industry/Academia/Research organizations

| Sr. No | Name of Speaker with Affiliation | Date of Online Seminar | Picture *(If any)* |
|---|---|---|---|
| 1. | Shri Sanjay Chawla<br>Director General, Aeronautical Quality Assurance, Department of Defence Production, Ministry of Defence, Govt. of India, New Delhi, India | 15.09.21 | |
| 2. | Shri Roopesh Kaushik<br>Dy. Director, Aeronautical Quality Assurance, Dehradun, Uttarakhand, India | 15.09.21 | |
| 3. | Prof. Ashok K. Pundir<br>Professor (Operations Management),<br>National Institute of Industrial Engineering (NITIE)<br>Mumbai, India | 15.09.21 | |
| 4. | Shri Sameer Jindal<br>Director- Engineering, MG Motor India | 21.10.21 | |
| 5. | Shri Saurabh Vatsa Director- Business Development Cloud Business, Oracle<br>Gurgaon, Haryana, India | 29.10.21 | |
| 6. | Shri Alok Kumar<br>Lead Mechanical Engineer-rotating<br>Project (DAS & ZI RKU) Division<br>Abu Dhabi, UAE | 18.11.21 | |
| 7. | Dr. Nagahanumaiah<br>Director<br>Central Manufacturing Technology Institute<br>Bengaluru, India | 3.12.21 | |
| 8. | Dr. Yuvraj Gajpal<br>Assistant Professor,<br>Department of Supply Chain Management,<br>Asper School of Business,<br>University of Manitoba,<br>Winnipeg, Canada | 17.12.21 | |

# Department of Remote Sensing

*National Symposium on Advances in Remote Sensing-Trends, Challenges and Opportunities for Development (**NS-ARS21**)*, December 9–11, 2021

Ground Penetrating RADAR (GPR)

SOLAR LIGHT
MICROTOPS II
Sun Target

MICROTOP-II Sun-Photometer

Newly acquired Instrument facilities (above) and Field demonstration (below)

SECTION 1 DEPARTMENTAL PROFILE

## 1.1 About the Department:

This Department has been imparting specialised education of geo-spatial technology in various application areas using advanced tools like remote sensing, geographical information system and global positioning system etc. at the Postgraduate and Doctoral research levels. This has become more significant in light of the recently implemented Indian Geo-spatial Policy with lot of emphasis to this emerging area. As a department, state-of-the-art equipment facilities have been developed with latest hardware and software technologies. As also, the department has well-accomplished faculty members with high academic/research credentials. Timely updating of needed infrastructure and research capacities through UGC-SAP, DST-FIST and collaboration with other national and international level apex organisations has kept us motivated to do challenging research and outreach. We have been part of many national mission projects of ISRO and other agencies of Govt. of India and through those programs, the department is striving to serve the nation and contribute to building national capabilities in this advancing field of geoinformatics. The Department has developed state-of-the-art capabilities and facilities in research and our experience is shared with students and end-users. Apart from being a leading department in the country in the field of remote sensing, our department also has International recognition which can be seen through our sponsored research activities from the International Centre for Integrated Mountain Development (ICIMOD, Kathmandu, Nepal), Goddard Space flight Centre (GSFC), NASA, USA, International Water Management Institute (IWMI), Sri Lanka, and collaborative research with University of Southampton (UK), University of Lancaster (UK), University of California Santa Barbara (UCSB, USA), Shastri Indo-Canadian Institute/ University of Calgary, Canada etc. Strength of our educational quality and outreach can be seen through our students serving in reputed national/international organisations. In addition, they are also opting for higher education by getting selected for Doctoral Research in reputed national and international level institutions viz. IITs/NITs/Central Universities as well as Universities abroad such as Durham University, UK, James Cook University, Australia, University of Manitoba, Canada, Western University, Canada, Delft University of Technology, Netherlands, University of Chinese Academy of Sciences etc. Hence, our departmental activities are coherently in phase with our Institutional vision and mission.

Vision and Mission are being communicated regularly to the stakeholders by prominently displaying in the Department, as well as through Institute website, admission brochure, through social-media and e-mails to various universities/ colleges/institutions.

**Department Vision**: – Be a centre of excellence in the field of Geospatial Technology education and research in the areas of Earth Resources, Environment & Climate to meet the needs of ever-increasing requirement of human resources in these fields and to cater to the larger interest of the Society and Nation.

**Department Mission**: – Impart quality education and equip the students with strong foundation that could make them capable of handling challenges of the ever-advancing geo-spatial technologies. Maintain state-of-the-art in research and outreach facilities in phase with the premier institutions for sustained improvement in the quality of education and research.

## SECTION 2 RESEARCH PROJECTS

## 2.1 Sponsored Projects

**a) Ongoing Projects:**

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | Machine Learning and Deep Learning based Automatic Lunar Crater Detecting using Terrain Mapping Camera-2 DEM Images | Co-PI: Dr. Mili Ghosh Nee Lala and Dr. C. Jeganathan<br>PI: Dr. Sanchita Paul of Dept.of Comp. Sc., BIT Mesra | SSPO, ISRO (Fund yet to be released) | 24th June 2022<br>(Approval 10th March 2022) | ₹21.98 Lacs | 3 Years |
| 2. | Source Apportionment, Hydrodynamic Study and Environmental Fate Assessment of Micro-Plastics in Drinking Water Supplying Reservoirs of Ranchi, Jharkhand | Co-PI: Dr. Mili Ghosh Nee Lala and Dr. Madhu Priya of Dept. of Physics<br>PI: Dr. Sukalyan Chakraborty, Dept. CEE | Science & Engineering Research Board (SERB), New Delhi | 11th May 2022 | ₹38.10 Lacs | 3 Years |

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 3. | Mapping and morphological characterization of craters in the south polar region of the lunar surface using Chandrayaan-2 Dual Frequency SAR (DFSAR), High resolution OHRC and TMC-2 data | PI: Dr. V.S. Rathore<br>Co-PI: Dr. A.P. Krishna | ISRO, DoS, GoI | 10th March 2022 | ₹19.98 Lacs | 3 Years |
| 4. | Modelling Forest Phenological Parameters from Time Series Remote Sensing Data | PI: Dr. C. Jeganathan<br>Co-PIs: Dr. A.P. Krishna, Dr. Mili Ghosh Nee Lala, Mr. Nitish K. Sinha | Space Application Center, ISRO, Ahmedabad | February 2021 | ₹30.23 Lacs | 3 Years |
| 5. | Prediction of ground-level particulate matter concentrations from Multi-Satellite AOD over the Indian Subcontinent | Co-PI: Dr. Swagata Payra<br>(PI: Dr. Sunita Verma, BHU Varanasi) | Indian Space Research Organization (ISRO | November 2020 | ₹22.08 Lacs | 2.5 Years |
| 6. | Remote Sensing based Hydrologic budget of the Subarnarekha River Basin | PI: Dr. A.P. Krishna<br>Co-PIs: Dr. C. Jeganathan, Dr. V.S. Rathore | DST-Science & Engineering Research Board (SERB), New Delhi | January 2020 | ₹27.39 Lacs | 3 Years |
| 7. | Quantifying the Spatio-Temporal rhythm of vegetation growth, health and its vulnerability due to climate change in different forest ecosystem in North-Eastern India using time-series satellite data | Dr. C. Jeganathan | ISRO-RESPOND,<br>ISRO, HQ,<br>Bangalore | October 2019 | ₹29.45 Lacs | 3 Years |
| 8. | National Wetland Inventory and Assessment (Phase II). | PI: Dr. C. Jeganathan<br>Co-PIS: Dr. A.P. Krishna, Dr. V.S. Rathore, Mr. Nitish K. Sinha | Space Application Center (SAC), ISRO, Ahmedabad | July 2019 | ₹20.50 Lacs | 2 Years |
| 9. | Lightning impact on ozone precursor over Indian region and its implications on tropospheric ozone | PI: Dr. Swagata Payra<br>Co-PI: Dr. Sunita Verma, BHU Varanasi | Ministry of Earth Sciences (MoES), Govt of India | October 2017 | ₹34.64 Lacs | Till 31st March 2023 |
| 10. | AERONET Observations at Jaipur | Dr. Swagata Payra<br>(Collaborator) | MoU with GSFC, NASA, USA | October 2009 | ₹10 Lacs | October 2029 |

## 3.1 Seminar / Conferences / Short – Term Courses Conducted:

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event (dd.mm.year) |
|---|---|---|---|---|
| 1. | AICTE ATAL FDP during 16–20 August 2021 | Dr V.S. Rathore | AICTE | 16th – 20th August 2021 |
| 2. | First Innovation Contest NISHAN – (Neoteric, Intelligent, Scientific, Hopeful, Adaptive and Novel) | Dr. C. Jeganathan | Institute supported | 23rd – 24th October 2021 |
| 3. | National Symposium on Advances in Remote Sensing-Trends, Challenges and Opportunities for Development (NS-ARS21) | Dr. A.P. Krishna,<br>Dr. C. Jeganathan,<br>Dr. V.S. Rathore,<br>Dr. Mili Ghosh nee Lala | Institute supported | 9th – 11th December 2021 |
| 4. | Workshop on Hydrological Modelling of Watershed with Geospatial techniques | Dr. A.P. Krishna,<br>Dr. C. Jeganathan,<br>Dr. V.S. Rathore | Under SSR of DST-SERB Project | 10th – 11th March 2022 |
| 5. | National Innovation Foundation (NIF) Mentor Workshop | Dr. C. Jeganathan | Institute supported | 22nd March 2022 |
| 6. | Faculty Development programme on "Design Thinking" | Dr. C. Jeganathan | Innovation & Research Foundation Pvt. Ltd., Ahmedabad. | April 2022 |

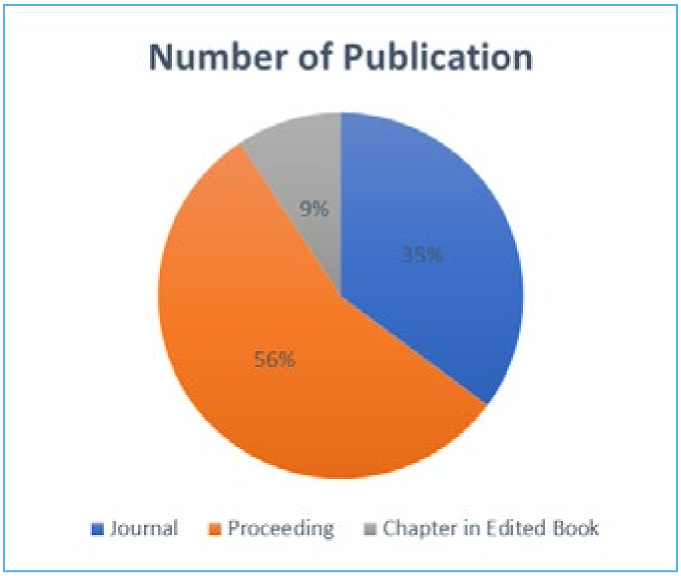
## 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by

**Faculty Members:**

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date (dd.mm.year) |
|---|---|---|---|---|---|---|
| 1. | Dr Swagata Payra | FDP on Recent Trends in Geospatial Data Modelling Applications and Policies" | AICTE ATAL | DRS, BIT Mesra | BIT Mesra, Ranchi | 16th - 20th August 2021 |
| 2. | Dr.A.P.Krishna, Dr.C.Jeganathan, Dr.N.Patel, Dr. V. S. Rathore, Dr.Swagata Payra Dr.Richa Sharma, Dr.Mili Ghosh Nee Lala (as Chair/ Co-Chair) | National Symposium on Advances in Remote Sensing: Trends, Challenges and Opportunities for Development (NS-ARS21) | Institute | DRS, BIT Mesra | BIT Mesra | 9th – 11th December 2021 |
| 3. | Dr. Richa Sharma | 21 days Refresher Course: on "Geospatial Technologies Level-2". | NA | NRDMS_DST IIT Madras | (online) | 3rd – 23rd January 2022 |

## SECTION 4 RESEARCH PUBLICATIONS

| Sr. No. | Publication Type | Number |
|---|---|---|
| 1. | Journal | 19 |
| 2. | Proceeding | 30 |
| 3. | Chapter in Edited Book | 05 |



## SECTION 5 AWARD / PATENT / COLLABORATIONS

### 5.1 Award / Recognition Bestowed on Faculties :

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 1. | Dr. A.P. Krishna | Invited lecture on Remote Sensing in Climate Change Studies | AICTE sponsored ATAL Faculty Development Program (FDP) online mode Org. Department of Remote Sensing, Birla Institute of Technology, Mesra | National | 16th – 20th August 2021 |
| 2. | Dr. A.P. Krishna | Invited lecture on Hyperspectral Remote Sensing for Geoscientific Applications | AICTE sponsored ATAL Faculty Development Program (FDP) online mode Org. Department of ECE, CMR Institute of Technology, Bengaluru | National | 6th - 10th September 2021 |
| 3. | Dr. A.P. Krishna | Invited expert talk on Climate Change Studies using Space Technology | 1st National Seminar-cum-Workshop on Application of Space Technology & Artificial Intelligence for Climate Resilient Agriculture and Disaster Management', online mode Org. Leads Connect India Pvt. Ltd. & BIT Mesra | National | 29th – 30th October 2021 |

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 4. | Dr. A.P. Krishna, Dr. C. Jeganathan, Dr. V. S. Rathore | Guest Editors, Environmental Monitoring and Assessment<br>Special Issue: Terrestrial and Ocean Dynamics – India Perspective II | Springer Nature | International | Since December 2021 |
| 5. | Dr. A.P. Krishna | Invited to Chair the Technical Session on *Advanced Remote Sensing* (TU4.H3 & TU5.H3) | IEEE International InGARSS-2021 | International | 6th – 10th December 2021 |
| 6. | Dr. A.P. Krishna | Invited as a Manuscript reviewer | *i Forests, MDPI*<br>*ii Sensors, MDPI*<br>*iii Applied Sciences, MDPI*<br>*iv Geocarto International, Springer*<br>*v Environmental Monitoring and Assessment, Springer*<br>*vi Cogent Engineering, Taylor & Francis* | International | 2021–22 |
| 7. | Dr. A.P. Krishna | Associate Editor,<br>*Frontiers in Water*<br>(Section: Water Resource Management) | *Frontiers Media SA*,<br>Switzerland/UK/<br>USA | International | Since February 2022 |
| 8 | Dr Swagata Payra | Invited as a Manuscript reviewer | *i Advances in Atmospheric Science, Springer;*<br>*ii Natural Hazards, Springer;*<br>*iii Journal of Earth System Science, Springer;*<br>*iv Theoretical and Applied Climatology, Springer;*<br>*v Environmental Monitoring and Assessment* | International | 2021–22 |
| 9. | Dr. C. Jeganathan | Editors of the Special Issue titled "Identifying the climate and human impacts on vegetation dynamics and their sustainability using Earth observation data" | *Journal of Science of Remote Sensing* published by Elsevier BV | International | 2021–22 |

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 10. | Dr. C. Jeganathan | Editors of the Special Issue titled "Geostatistics and Spatial Data Mining for Ecological Climatology" | *Journal of Remote Sensing* published by MDPI | International | 2021–22 |
| 11. | Dr. C. Jeganathan | Invited as External Examiner for evaluating PhD thesis | Sikkim Manipal University | National | 2021–22 |
| 12. | Dr. C. Jeganathan | Invited as External Examiner for evaluating PhD thesis | Symbiosis International University, Pune | National | 2021–22 |
| 13. | Dr. Nilanchal Patel | Designated as Editor of Special Issue | *Big Earth Data Journal* Taylor & Francis | International | Since 2020 |
| 14. | Dr. Nilanchal Patel | Designated as Guest Editor | MDPI *LAND Journal* | International | Since 2022 |
| 15. | Dr. Nilanchal Patel | Designated as Member of Editorial board | *Journal of Environmental Geology*, Pulsus Journals | International | Since 2018 |
| 16. | Dr. Nilanchal Patel | Designated as Associate Editor | *Journal of Forestry Research*, Springer | International | Since 2010 |
| 17. | Dr. Nilanchal Patel | Designated as Associate Editor | *Arabian Journal of Geosciences*, Springer, SCIE, Scopus | International | Since 2016 |
| 18. | Dr. Nilanchal Patel | Editor | *Journal of Mountain Science*, Springer, SCIE, Scopus | International | Since 2019 |
| 19. | Dr. Nilanchal Patel | Editor | *International Journal of Sustainable Development and World Ecology*, Taylor and Francis, Scopus | International | Since 2018 |
| 20. | Dr. Nilanchal Patel | Editor | *Journal of Ecology and Sustainable Development*, Sweden | International | Since 2018 |
| 21. | Dr. Swagata Payra | Elected as Treasurer | South Asian Meteorological Association (SAMA) | International | 2022–24 |

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 22. | Dr. Swagata Payra | Elected as Secretary | Indian Meteorological Society, Jaipur Chapter | National | 2022–24 |
| 23 | Dr. Swagata Payra | Designated as Associate Editor | *International Journal of Earth and Atmospheric Sciences* | International | Since 2016 |
| 23. | Dr. Swagata Payra | Invited lecture on<br>Fog Prediction: Challenges in Numerical Modelling | Poornima University, Jaipur | National | 19th February 2022 |
| 24. | Dr. Swagata Payra | Session Chair | National<br>Conference on Emerging Trends in Water Quantity and Quality Management – IV<br>at Poornima University, Jaipur | National | 22nd – 23rd March 2022 |
| 25. | Dr. Richa Sharma | Invited Talk on<br>"Ecological Restoration for Biodiversity conservation in the<br>Human Landscape" | Govt. PG College Jhalawar, Rajasthan | State | 26th March 2022 |
| 26. | Dr. V. S. Rathore | Invited as a Manuscript reviewer | i *Frontiers in Water*<br>ii *Journal of Indian Society of Remote Sensing*<br>iii *Wetlands, Ecology & Management* | International | 2021–22 |
| 27. | Dr. Mili Ghosh nee Lala | Invited as a Manuscript reviewer | i *Arabian Journal of Geosciences*<br>ii *Journal of Indian Society of Remote Sensing* | International | 2021–22 |
| 28. | Dr. Richa Sharma | Invited as a Manuscript reviewer | i *Journal of Indian Society of Remote Sensing*<br>ii *Environmental Monitoring and Assessment*<br>ii *SN Applied Sciences* | International | 2021–22 |
| 29. | Dr. Richa Sharma | UGC nominated Observer | State Eligibility Test (SET), Karnataka State | National | 25th July 2021 |

## 5.2 MoUs /Collaborations

| Sr. No. | Name of Organisation / University | Purpose / Area/*Short Description* | Year / Duration |
|---|---|---|---|
| 1. | Leads Connect India Pvt. Ltd. | 1st National Seminar-cum-Workshop on Application of Space Technology & Artificial Intelligence for Climate Resilient Agriculture and Disaster Management | 29th - 30th October 2021 |
| 2 | Department of Earth Science and Remote Sensing, JIS University, W. Bengal Kolkata 700 109. | Joint research for Masters Dissertation | 1 year (Aug 2021-2022) |

## SECTION 6 ACTIVITIES/ FACULTY MEMBERS / BOS /DAS

### 6.1 Departmental Students' Activities

Department of Remote Sensing has conducted the student's field trip to Netarhat, known as Queen of Chotanagpur under the mentorship of Dr. Richa Sharma. The Netarhat is located 156 km west of Ranchi. This field trip was organized during March 09–12, 2022. As a part of this field trip, the student visited several locations nearby for the purpose of ground measurements and ground truthing. Several instruments i.e., Juno-SB, Handheld Mobile GPS device (By Trimble), Infrared Thermometer, Clinometer, compass etc were carried to conduct the field study.

Trimble
TerraSync
Status
Skyplot
23°28'26.909"N
84°16'43.116"E
1,091.62m MSL
PDOP: 2.52
WGS 1984
GPS Settings:
Min Elevation = 5°
Max PDOP = 99.0
Min SNR = 12.0
Juno SB
CAUTION

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 1. | **Field visit/ educational trip**<br>M.Sc. Geoinformatics (2021-23 batch) students visited Netarhat | Shreyas Chandrashekhar | Dr. Richa Sharma | 9th - 12th March 2022 |

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 2. | Yajnavalkya Bandyopadhyay has done internship at Malaviya National Institute of Technology, Jaipur and Indian Institute of Remote Sensing, ISRO, Dehradun | | | 16th June – 30th July 2021 |
| 4. | Ms. Damini Sarma<br>Selected for IASc-INSA-NASI Summer Research Fellowship in 2022. | | | May – July 2022 |
| 8. | Mr. Shreyas R. C selected for Internship at Regional Remote Sensing Centre (RRSC) – South | | | May – July 2022 |
| 9. | Ms. Pantula Chandana<br>selected for Internship at Wadia Institute of Himalayan Geology, Dehradun | | | May – July 2022 |
| 12. | Ms. Apoorva Shanthkumar selected for Internship at Regional Remote Sensing Centre (RRSC) – South | | | May – July 2022 |

## 6.2. List of Faculties

| Sr. No. | Name | Designation |
|---|---|---|
| 1. | Dr. A.P. Krishna | Professor |
| 2. | Dr. C. Jeganathan | Professor |
| 3. | Dr. N. Patel | Professor |
| 4. | Dr. V.S. Rathore | Associate Professor |
| 5. | Dr. Mili Ghosh nee Lala | Associate Professor |
| 6. | Dr. Swagata Payra | Associate Professor |
| 7. | Dr. Richa Sharma | Assistant Professor |

## 6.3 Board of Studies

| Sr. No. | Name of the Member | Designation (Kindly mention Ex-Officio, where applicable) | Role (Chairman/ Internal or External Member) |
|---|---|---|---|
| 1. | HoD, DRS | Ex-Officio | Chairman |
| 2. | Dr A P Krishna | Professor | Internal Member |

| Sr. No. | Name of the Member | Designation (Kindly mention Ex-Officio, where applicable) | Role (Chairman/ Internal or External Member) |
|---|---|---|---|
| 3. | Dr C Jeganathan | Professor | Internal Member |
| 4. | Dr N Patel | Professor | Internal Member |
| 5. | Dr V S Rathore | Associate Professor | Internal Member |
| 6. | Dr Mili Ghosh Nee Lala | Associate Professor | Internal Member |
| 7. | Dr. Swagata Payra | Associate Professor | Internal Member (Invitee) |
| 8. | Dr Richa Sharma | Assistant Professor | Internal Member |
| 11. | Dr Bindhu Lal | Professor | Internal Member |
| 12. | Dr Satyaki Sarkar | Associate Professor | Internal Member |
| 13. | Dr Dheeraj Kumar | Professor (IIT,ISM) | External Member |
| 14. | Dr Y S Rao | Professor (IIT,Bombay) | External Member |
| 15. | Dr Rajneesh Kumar | Head, (Geomatics Division) CMPDI, Ranchi | External Member |
| 16. | Dr Milap Punia | Professor, JNU, N. Delhi | External Member |
| 17. | Dr Mukund D. Behera | Associate Professor (IIT-Kharagpur) | External Member |

## SECTION 7 OTHER INFORMATION

### 7.1 Publication by students, if any

**Journals : 08**

**Proceeding : 21**

### 7.2 Achievements of Students:

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | i. Swadhina Koley (PhD scholar)<br>ii. Sumedha S. Singh (PhD scholar)<br>iii. Apoorva Shantakumar (M.Tech student)<br>iv. Swastik Mohanta (M.Tech Student) | 1st GATE in Geomatics Engineering | IIT Kharagpur | March 2022 |
| 2. | Avinas Das | Got offer for MSc Geo-Energy with Machine Learning and Data Science in Imperial College of London | Imperial College of London | April 2022 |

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 3. | Satyam Suman | Got offer for M.Sc in Business Analytics from top Business school, UK | The University of Warwick<br>Coventry<br>CV4 8UW<br>United Kingdom | June 2022 |
| 5. | Pranata Hazra | PhD Awarded | BIT Mesra | 2nd July 2021 |

## 7.3 Distinguished Visitors from Industry/Academia/Research organizations

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture (Insert Picture here. Further send the JPEG file along with the email.) |
|---|---|---|---|
| 1. | Dr. A.K. Saraf, Professor, Department of Earth Science, IIT Roorkee | Dec,2021<br>(offline) | |
| 2. | Dr. Harish Karnataka,<br>Head & Scientist/Engineer SG, GIT&DL Department, Indian Institute Of Remote Sensing(IIRS),ISRO | April, 8-9,2022<br>(Online) | |
| 3. | Dr. R.S. Chatterjee, Head & SG<br>Indian Institute of Remote Sensing (IIRS), Dehradun | Nov,2021<br>(Online) | |

## 7.4 List of Distinguished Alumni

| Sr. No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | Dr. M. V. RAVIBABU | Professor<br>National Institute of Rural Development and Panchayti Raj Hyderabad |
| 2. | Mr. ASHUTOSH KUMAR JHA | Scientist/Engineer- SE<br>Geoinformatics Department<br>IIRS, Dehradun |
| 3. | Mr. ABHISHEK VERMA | RSGIS Head,<br>Reliance India Limited,<br>Ranchi |
| 4 | Mr NAVEEN SHUKLA | State Resource Person<br>UP Jal Nigam(Rural)<br>Rana Pratap Marg<br>Lucknow 226001 |

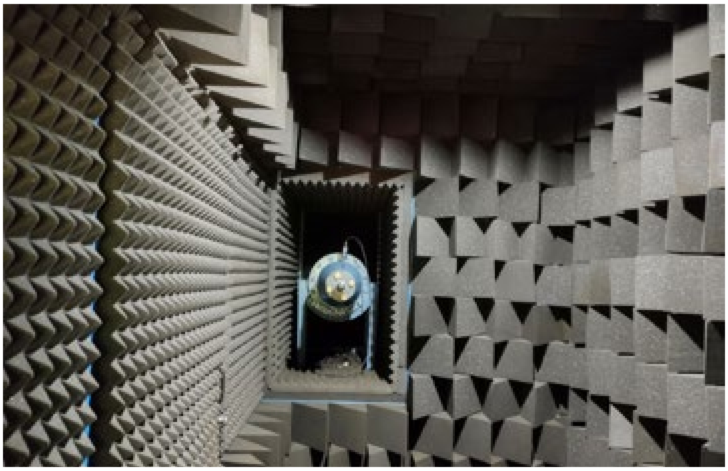
## 7.5 Infrastructure Development

- Advanced instrument facilities were added for teaching and research this year
- These include Sun-photometer and Ground Penetrating Radar (GPR)
- Sun-photometer is perceived to greatly add to the academic and research works involving to study of aerosols, radiative forcing etc in atmosphere
- GPR is a very advanced level equipment which shall aid academic and research activities centred around sub-surface information derivation of geo parameters of considerable depth
- As also, DIP/GIS system hosting facilities were upgraded with addition of high-end configuration desktop systems to match with latest processing software

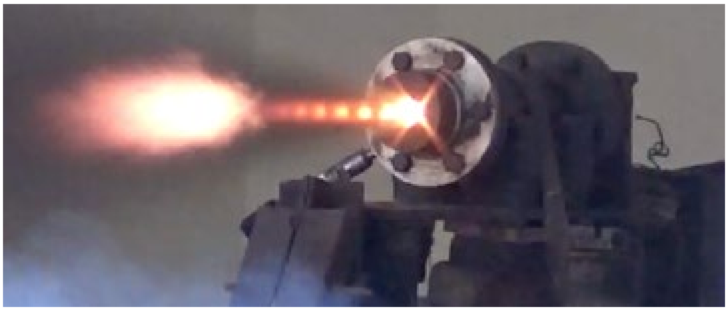
# Department of Space Engineering and Rocketry

## SECTION 1 DEPARTMENTAL PROFILE

### 1.1 About the Department



**Anechoic Chamber Instrumented to Investigate Acoustics of Free Jet**



**PVC-AP Composite Solid Propellant (Thrust = 750 N at 60 bar)**

**Motorized Traverse**

**About the Department :**

- The Department of Space Engineering and Rocketry was established in 1964 at Main campus. It offers two-year postgraduate degree programs, leading to M. Tech. degree in Space Engineering and Rocketry with two specializations, Aerodynamics and Rocket Propulsion.
- The departmental facilities consist of laboratories housing equipment for training, research and curriculum development in the related areas. The facilities for Aerodynamics include subsonic and supersonic wind tunnels, water tunnel, calibration rig, supersonic free jet facility a new anechoic chamber facility, Shock Tube, Hypersonic Tunnel and Acoustic facility. The associated instrumentation include, Schlieren system, high-speed data acquisition system, 2-channel hot wire CTA System, dynamic pressure transducers, strain gage, pressure calibrators, high speed camera etc. Rocket propulsion laboratories consist of static test firing stands for solid, liquid and hybrid rockets, pulveriser, mixers and vacuum casting units for solid and hybrid propellant preparation and propellant characterization facilities. Combustion laboratory is equipped with pressure-controlled combustion set-ups for burn rate determination of solid propellants at high and sub-atmospheric pressure ranges and optical pyrometer to study flame

morphology. A separate instrumentation laboratory is equipped with simultaneous thermal analyzer (DSC+TGA+DTG), UV-Vis spectrophotometer, bomb calorimeter, and Brookfield viscometers. All major data acquisition tasks are done via dedicated software and computers. Computing needs are fulfilled by a dedicated computational fluid dynamics laboratory housing ten terminals. It includes research grade software including ANSYS suite and MatLab.

### VISION

To effectively integrate teaching, research and innovation for significant contribution towards National Aerospace Programmes and related activities.

### MISSION

- To impart quality education and advanced research training leading to postgraduate and doctoral degree.
- To generate modern infrastructure and conducive research atmosphere for carrying out innovative sponsored research projects
- To nurture spirit of excellence and professional leadership in students and faculty members through exposure to leading academic/ research organisations and external experts.
- To create attractive opportunities for sustained interaction and collaboration with academia and industry.

## SECTION 2 RESEARCH PROJECTS

## 2.1 Sponsored Projects

### a) Ongoing Projects :

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | Supersonic Flow Studies over spike blunt body with different nose bluntness ratio | Dr. Sudip Das (PI)<br>Dr. Priyank Kumar (CoPI) | AR&DB | 17.06.2020 | 22.3 Lacs | 2 Years |
| 2. | Aerodynamic Characterization of Reusable Launch Vehicles at Low Speeds | Priyank Kumar (PI)<br>Sudip Das (CoPI) | RESPOND<br>ISRO | 03.12.2019 | 22.39 Lacs | 3 Years |
| 3. | Development of catalyst system for stable combustion of HAN green propellants | Dr. Shelly Biswas (PI) Dr. Rajiv Kumar (Co-PI) | ARDB | 27.05.2021 | 30.207 Lacs | 3 Years |
| 4. | AICTE -IDEA LAB | Dr. Priyank Kumar Coordinator<br>Dr. Sudip Das<br>Co- Coordinator | AICTE and Industry | 17.06.2021 | 106.79 Lacs | 2 Years |
| 5. | Use of multi-location swirl injection as a performance enhancer for the hybrid rocket system | Dr. Rajiv Kumar (PI)<br>Dr. Shelly Biswas (Co- PI) | Core Research Grant<br>SERB, DST | 21.12.2021 | 39.78 Lacs | 3 Years |

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 6. | Catalyst Development for Hydrogen Peroxide Monopropellant Thrusters | Dr. Shelly Biswas (PI)<br>Dr. Rajiv Kumar (Co-PI) | SERB-POWER | 08.06.2022 | 29.86 Lacs | 3 Years |
| 7. | Scheme for Promoting Interests, Creativity and Ethics among Students (**SPICES**) | Dr. Priyank Kumar (PI) Dr. Sudip Das (Co-PI) | AICTE | April 2021 | 2.00 Lacs | 2 Years |

**b) Projects Completed**

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Date of completion of the Project |
|---|---|---|---|---|---|---|
| 1. | Steady & Unsteady investigation on Slender Body at High Angles of Attack | Dr. Priyank Kumar (PI)<br>Dr. Sudip Das (CoPI) | AR&DB | 23.05. 2018 | 26.86 Lacs | 3 years |

## SECTION 3 SEMINAR / CONFERENCE

### 3.1 Seminar / Conferences / Short – Term Courses Conducted :

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event |
|---|---|---|---|---|
| 1. | 1-day Symposium on "Transformations in Space Technology" | Dr. Priyank Kumar | BIT, MESRA | 15th March 2022 |
| 2. | National level exhibition and project competition | Dr. Rajiv Kumar | National Innovation Foundation (NIF) | 22nd – 23rd March 2022 |

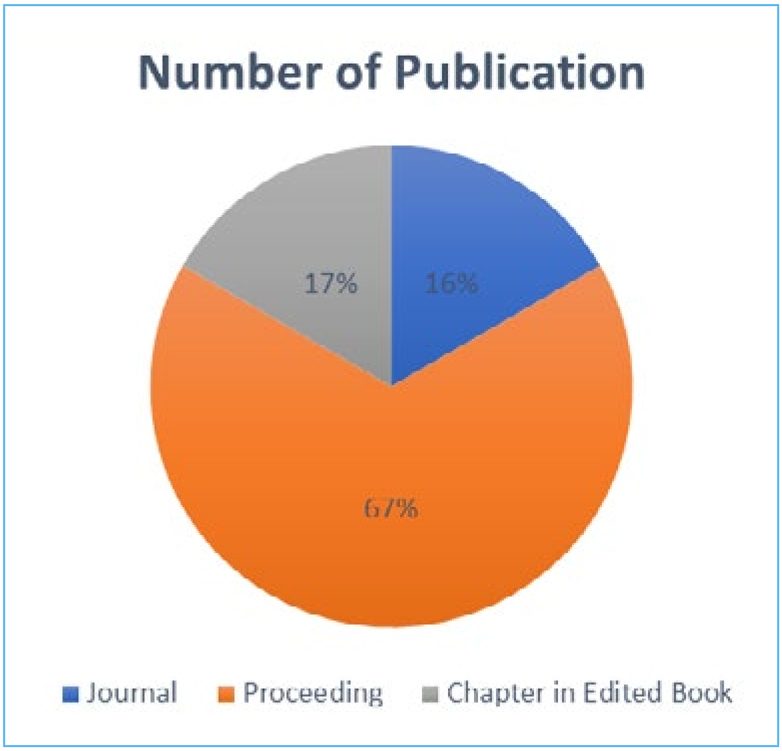
### 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by

**Faculty Members:**

| Sr. No. | Name of the Faculty | Title of the Conference/Seminar | Funding Agency | Organizers | Venue | Date (dd.mm.year) |
|---|---|---|---|---|---|---|
| 1. | Dr. Rajiv Kumar | National Intellectual Property Awareness Mission | Intellectual Property Office, India | Intellectual Property Office, India | Online | 28th April 2022 |
| 2. | Dr. Rajiv Kumar | Waste-2-Wealth one day Webinar | BIT Mesra, Ranchi | Department of Chemical Engineering, BIT Mesra, Ranchi | Online | 12th March 2022 |

## SECTION 4 RESEARCH PUBLICATIONS

| Sr. No. | Publication Type | Number |
|---|---|---|
| 1. | Journal | 02 |
| 2. | Proceeding | 08 |
| 3. | Chapters in Edited Book | 02 |



## SECTION 5 AWARD / PATENT / COLLABORATIONS

### 5.1 Award / Recognition Bestowed on Faculties (State / National / International)

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 1. | Dr. Rajiv Kumar | Reviewers under the INSPIRE Awards-MANAK for the year 2021–2022 | National Innovation Foundation (NIF) | National | 2021–2022 |
| 2. | Dr. Rajiv Kumar | Motivational speech on the Design Concept for Innovation in the national level exhibition and project competition organized at BIT Mesra, Ranchi | BIT Mesra & National Innovation Foundation (NIF) | National | 22nd – 23rd March 2022 |

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 3. | Dr. Rajiv Kumar | External Question Paper setter for Introduction to Aircraft Engineering and Design of Nitte Meenakshi Institute of Technology | Nitte Meenakshi Institute of Technology, Bangalore | National | 2021–2022 |
| 4. | Dr. Rajiv Kumar | External Examiner for the MTech 3rd Semester of Mechanical Engineering Department | BIT Mesra, Ranchi | National | 2021–2022 |

## SECTION 6 ACTIVITIES/ FACULTY MEMBERS / DOS /DAS

### 6.1. List of Faculties

| Sr. No. | Name ( Please mention Dr. / Prof./ Mr./ Mrs. / Ms. , as applicable) | Designation |
|---|---|---|
| 1. | Dr. Sudip Das | Professor |
| 2. | Dr. Priyank Kumar | Assistant Professor |
| 3. | Dr. Partha Mondal | Assistant Professor |
| 4. | Dr. Rajiv Kumar | Assistant Professor |
| 5. | Dr. Shelly Biswas | Assistant Professor |
| 6. | Dr. Swarupkumar Y. Jejurkar | Assistant Professor |

### 6.2 List of Adjunct Faculties

| Sr. No. | Name | Designation | Affiliation |
|---|---|---|---|
| 1. | Padmashri Prof. R. M. Vasagam | Chancellor | Dr. MGR Educational and Research Institute, Chennai |

### 6.3 Board of Studies

| Sr. No. | Name of the Member | Designation (Kindly mention Ex-Officio, where applicable) | Role (Chairman/ Internal or External Member) |
|---|---|---|---|
| 1. | HOD/In-Charge | (Ex-officio) | Chairman |
| 2. | Dr. Sudip Das | Professor | Internal Member |
| 3. | Dr. Priyank Kumar | Asst. Professor | Internal Member |
| 4. | Dr. Rajiv Kumar | Asst. Professor | Internal Member |
| 5. | Dr. D. P. Mishra | Professor | Internal Member |
| 6. | Dr. Gautam Sarkhel | Professor | Internal Member |

| Sr. No. | Name of the Member | Designation (Kindly mention Ex-Officio, where applicable) | Role (Chairman/ Internal or External Member) |
|---|---|---|---|
| Any two of the following | | | |
| 8. | Dr. M. K. Laha | Professor, Deptt. of Aerospace Engg., IIT, Kharagpur | External Member |
| 9. | Dr. D. P. Mishra | Director<br>NITTTR, Kolkata | External Member |
| 10. | Dr. Debopam Das | Professor, Deptt. of Aerospace Engg., IIT, Kanpur | External Member |
| 11. | Dr. S. R. Chakravarthy | Professor,Deptt. of Aerospace Engg., IIT Madras, Chennai | External Member |
| 12. | Dr. S. B. Verma | Dy. Head, Experimental Aerodynamics Division, NAL, Bangalore | External Member |
| 13. | Shri P. Pathak | GM, R&D Centre of Steel Authority of India Ltd. Shyamli Colony, Doranda, Ranchi – 834002 | External Member |

## SECTION 7 OTHER INFORMATION

### 7.1 Publication by students

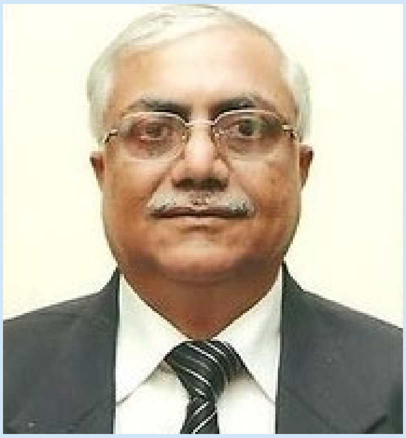
**Journal : 01**

**Proceeding : 06**

### 7.2 Achievements of Students:

| Sr. No. | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Mr. Arpit Dubey<br>(MT/SER/10013/20) | Best Paper award in 13th International High Energy Materials Conference & Exhibits, HEMCE – 2022 | High Energy materials society of India, | 26th – 28th May 2022 TBRL, Chandigarh, India |
| 2. | Ms. P. Lakshmi<br>(MT/SER/10020/20) | Best Paper award in 13th International High Energy Materials Conference & Exhibits, HEMCE – 2022 | High Energy materials society of India, TBRL, Chandigarh | 26th – 28th May 2022 TBRL, Chandigarh, India |
| 3. | Samanyu Raina<br>MT/SER/10024/20 | 2nd Prize in weightlifting in 66–74 Kg group | B.I.T. Mesra, Ranchi | 25th March 2022<br>B.I.T. Mesra |
| 4. | Tathagat Sarangi<br>MT/SER/10018/20 | 1st Prize in weightlifting in 120–150 Kg group | B.I.T. Mesra, Ranchi | 25th March 2022<br>B.I.T. Mesra |
| 5. | Kumari Ambika<br>(MT/SER/10020/21) | 1st Prize in weightlifting in 60 Kg group | B.I.T. Mesra, Ranchi | 25th March 2022<br>B.I.T. Mesra |

## 7.3 Distinguished Visitors from Industry/Academia/Research Organizations

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture (Insert Picture here. Further send the JPEG file along with the email.) |
|---|---|---|---|
| 1. | Dr. L. V. M. Reddy<br>President ICTA and ISRO Council Member | 15/03/2022 | |
| 2. | Dr. K. Gopalakrishnan<br>Secretary, ICTA | 15/03/2022 | |
| 3. | Shri A. K. Saxena<br>Former Chairman, IEI (India) | 15/03/2022 |  |

## 7.4 List of Distinguished Alumni

| Sr. No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | Padma Shri M. C. Dathan<br>Batch : 1984–1986 | Scientific Advisor to Chief Minister of Kerala<br>Former Director, Vikram Sarabhai Space Centre (2014)<br>Former Director, Satish Dhawan Space Centre (2008) |
| 2. | Dr. Ramakant Singh<br>Batch : 1987–1989 | Dy. Director General<br>Civil Aviation Department, Bangalore Region |
| 3. | Dr. D. Narayan<br>Batch : 1989–1991 | Scientist 'G' Group Director<br>Aeronautical Development Agency (ADA) |

| Sr. No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 4. | Shri Rajeev Sharma<br>Batch : 1989–1991 | Chief Technical Officer<br>Grid Dynamics<br>New Jersey, USA<br>Former Dy. Project Director 'AGNI', DRDL |
| 5. | Lt. Col. Maryada Sinha<br>M.E. Aerodynamics<br>Batch : 2005–2007 | Lieutenant Colonel<br>Arm/Corps: Corps of EME<br>Indian Army |

## 7.5 Infrastructure Development

i) Data Acquisition System, Workstation, Seed Generator, Hypersonic Tunnel, and Acoustic facility are added in the Aerodynamics Lab of the Department.

ii) Nozzle performance Analysis Set-up, H2O2 preparation of Rocket Grade and its Performance analysis set up and Liquid Fuelled Detonation Engine Testing Setup are added in the Propulsion Laboratory.

## 8. Any other relevant information

- Dr. Priyank Kumar delivered a Webinar on Vehicle Aerodynamics, Wind Tunnel Testing and its importance on May 27, 2022.
- Dr. Shelly Biswas has given Invited lecture in Six-Days Online Faculty Development Programme on "An Insight into Futuristic Aerospace Propulsion" from 15th to 20th October, 2021, Department of Aerospace Engineering, College of Engineering and Technology, SRM Institute of Science and Technology, Kattankulathur, Chennai.
- Dr. Shelly Biswas has given Invited lecture in Workshop entitled "Advanced Skills in Research and protection of IPR", 7 to 11 June 2021, Amity Institute of Applied Sciences, Amity University.

Dr. Shelly Biswas is delivered an Invited lecture in a Workshop entitled "Advanced Skills in Research and protection of IPR", 7 to 11 June 2021, Amity Institute of Applied Sciences, Amity University.

Dr. Shelly Biswas is delivered in Six-Days Online Faculty Development Programme On "An Insight into Futuristic Aerospace Propulsion" from 15th to 20th October, 2021, Department of Aerospace Engineering, College of Engineering and Technology, SRM Institute of Science and Technology, Kattankulathur, Chennai.

## 9. Special Covid Initiatives, if any:

All Covid related protocols issued by the Institute and Govt. of Jharkhand as well were followed and accordingly new initiatives in preparation of online lectures and laboratory classes were taken by faculty members including videography and technical content sharing with the students.

# BIT Off Campus Deoghar

## SECTION 1 CAMPUS PROFILE

### 1.1 About the Off Campus:

BIRLA INSTITUTE OF TECHNOLOGY MESRA
(DEEMED TO BE A UNIVERSITY U/S 3 OF UGC ACT 1956)
OFF-CAMPUS DEOGHAR

BIT Mesra, Off-Campus Deoghar was established in 2007 with the financial and infrastructural supports from the Govt. of Jharkhand and has entered into the 14th year of its successful operation. Over the years, the institute has established itself as an important, fully residential, AICTE approved educational hub in Santhan Parganas, Jharkhand. The campus is well equipped with modern instruments and software facilities for the undergraduate engineering courses in CSE, ECE, EEE and Mechanical Engineering with a total intake capacity of 300. From the year 2020, the lateral entry to the engineering branches has also been initiated as per the AICTE norms. Also from the year 2020, BBA and BCA courses have been started with 40 seats in each of them.

| Programmes Offered | Intake |
|---|---|
| B.Tech. in Computer Science & Engineering | 90 |
| B.Tech. in Electronics & Communication Engineering | 60 |
| B.Tech. in Electrical & Electronics Engineering | 60 |
| B.Tech. in Mechanical Engineering | 60 |
| B.Tech. in Production Engineering (till 2020) | 30 |
| BBA | 40 |
| BCA | 40 |

The campus is spread over an area of 25 acres, has its staff quarters, library (having more than 28,900 volumes), language lab, gymnasium, health centre, ambulance facility, ATM, canteen, playground, two basketball courts, entrepreneur development cell, training and placement cell and is under CC TV surveillance. Most of the faculty members of this campus are engaged in R&D activities; organize conferences, workshops & seminars and regularly publish quality research articles in journals of international repute. The NSS members of the campus regularly arrange for blood donation camps and literacy drives in nearby villages as a part of the institute's social responsibilities. Over the years, the institute has encouraged its students to take part in various inter-college affairs including athletic and sports events and literary activities. The institute has witnessed its students well placed not only in Govt. sectors, like defence, ONGC, IOCL, power plants, renewable energy, electricity distribution, etc. the alumni of this campus are efficiently working in multi-national companies, like Sigmpid Analytics, Yellow Class, TCS, CTZ, Wipro, Amdocs, NPCI, Docquity, Adani Group, Vodafone, Eshopbox, BYJU's, Transrail Lighting, Docquity. For Batch 2018–2022, the highest package obtained has been ₹ 15.23 LPA. In the placement session 2021–2022, the institute has witnessed student placements over 80% with an average annual CTC between ₹ 5 lacs to 6 lacs. The institute has also produced many entrepreneurs, who are successfully running their own companies and business ventures. Apart from giving quality education and healthy lifestyles, the institute is also very keen on developing the moral characters of its students and thus regularly arranges for spiritual events in association with Art of Living, Ram Krishna Math and Mission, International Society for Krishna Consciousness, etc.

**Vision:**

To become a recognized academic institution striving continuously for excellence in education, research and technological service to the Nation.

**Mission:**

1. To equip students with the requisite skills to perform challenging engineering and managerial jobs in industry.
2. To augment the teaching-learning skills and research potential of the faculty.
3. To provide excellent technological services satisfying industrial requirements and academic needs of the society in general, and especially the deprived society of Santhal Pargana, Jharkhand.

## SECTION 2 RESEARCH PROJECTS

### 2.1 Sponsored Projects (Research and Consultancy)

**a) Ongoing Projects :**

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | Reconstruction and digitization of PATAH Art, a perishing culture heritage of eastern India with special reference to Sathan Parganas | Dr. Manoj Kumar Dutta | INSA | 27/10/2020 | 7,15,440 | 2 Yrs 4 Months |

## SECTION 3 SEMINAR / CONFERENCE

### 3.1 Seminar / Conferences / Short – Term Courses Conducted:

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event |
|---|---|---|---|---|
| 1. | Webinar on<br>'The Entrepreneurial Journey behind building the Incredible Indian Start Up Ecosystem Platform-YNOS'<br>by **Mr. Ramesh Kuruva**, CEO of YNOS Venture Engine CC Pvt. Ltd. | Dr. Mohammad Junaid Akhtar<br>And Mr. Srihari Gude | -- | 30th January 2022 |

## 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 1. | Dr. Ashish Chandra Singh | Computational Chemistry, Molecular Modelling, Drug Design, And Biologics | Schrödinger | Schrödinger and BIT Mesra, Ranchi | Dept. Of Chemistry BIT Mesra | 21st – 23rd Dec 2021 |
| 2. | Mr. Vikas Sharma | 30 days Innovation Ambassador Training Program (Advanced Level) | NA | AICTE | Online | 30th June – 30th July 2021 |
| 3. | Dr. Soumen Karmakar | 30 days Innovation Ambassador Training Program (Basic Level) | NA | AICTE | Online | 30th June – 30th July 2021 |
| 4. | Akash Kr Gupta | Int. Conference on 4th Industrial Revolution and Beyond (IC4IR) | - | Conference Secretariat UGC Bhaban, UGC, Bangladesh | Online | 10th – 11th Dec 2021 |
| 5. | Akash Kr Gupta | Int. Conference of International Academy of Physical Sciences (CONIAPS XXVII) on Mathematical Modelling in Biological Sciences | - | NIT Silchar | Online | 26th – 28th Oct 2021 |
| 6. | Sridhar Chintala | One-week online faculty development programme on Machine learning in speech and audio processing | - | BIT Mesra | Online | 21st - 25th Feb 2022 |
| 7. | Sridhar Chintala | One week training program on "Sophisticated instruments in Electronics Engineering" | IIT (ISM) Dhanbad | IIT (ISM) Dhanbad | Off-line | 23rd – 29th May 2022 |
| 8. | Ashok Kumar Singh | Faculty Development Program. | AICTE | Dept. of Physical Education & Sports N.B.K.R.I. St Institute Of Technology Nellore, | Ashok Kumar Singh | Faculty Development Program. |
| 9. | Ashok Kumar Singh | Research Methodology | | Post Graduate Department | Ashok Kumar Singh | Research Methodology |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 10. | Ashok Kumar Singh | Faculty Development Program. | AICTE | Dept. of Physical Education & Sports N.B.K.R.I. St Institute of Technology Nellore, | Ashok Kumar Singh | Faculty Development Program. |
| 11. | Mr. P. K. Ranjan | Five-day FDP in Controller Design and Implementation for Renewable Power Generation Systems | AICTE | Dept. of MECH,<br>NIT Meghalaya | Online | March 2022 |
| 12. | Mr. P. K. Ranjan | Electric Transportation Infrastructure for e-Mobility in India | AICTE | Dept. of EE,<br>NIT Warangal | Online | August 2021 |
| 13. | Mr. N.K. Rajalwal | Inculcating Universal Human Values in Technical Education | AICTE | AICTE | Online | 26th - 30th July 2021 |
| 14. | Mr. N.K. Rajalwal | Module-I Orientation towards Technical Education and Curriculum Aspects | AICTE | NITTT, Chennai | Online | Sept 2021 |
| 15. | Mr. N.K. Rajalwal | Module-II Professional Ethics and Sustainability | AICTE | NITTT, Chennai | Online | Sept 2021 |
| 16. | Mr. N.K. Rajalwal | Module-III Communication Skills, Modes and Knowledge Dissemination | AICTE | NITTT, Chennai | Online | Sept 2021 |
| 17. | Mr. N.K. Rajalwal | Module-IV Instruction Planning and Delivery | AICTE | NITTT, Chennai |  | Sept 2021 |
| 18. | Dr. P.K. Ojha | Inculcating Universal Human Values in Technical Education | AICTE | AICTE | Online | 03rd – 07th January 2022 |
| 19. | Dr. P.K. Ojha | Electric Vehicle and Smart Grid: A Path Towards Sustainable Energy | AICTE-ISTE | AICTE-ISTE Sponsored Induction/Refresher Programme | Online | 17th – 23rd Dec 2021 |
| 20. | Dr. Ranjan Chattaraj | Faculty Development Programme | - | National Institute of Technical Teachers Training (AICTE) | Online | 01st April – 31st May 2022 |
| 21. | Dr. Bishnu Kumar | Faculty Development Programme | - | National Institute of Technical Teachers Training (AICTE) | Online | 01st April – 31st May 2022 |
| 22. | Dr. Amit Kumar | Modelling & Simulation in MATLAB for Mechanical Engineering (FDP) |  | AICTE | Online | 06th – 10th Dec 2021 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 23. | Dr. Sandip Ghosh Hazra | 5 Day Online workshop<br>" Short Term Training Program on Research Methodology-Basics" | | BIT Mesra, Off-campus Lalpur | Online | 23rd – 27th May 2022 |

## SECTION 4 RESEARCH PUBLICATIONS

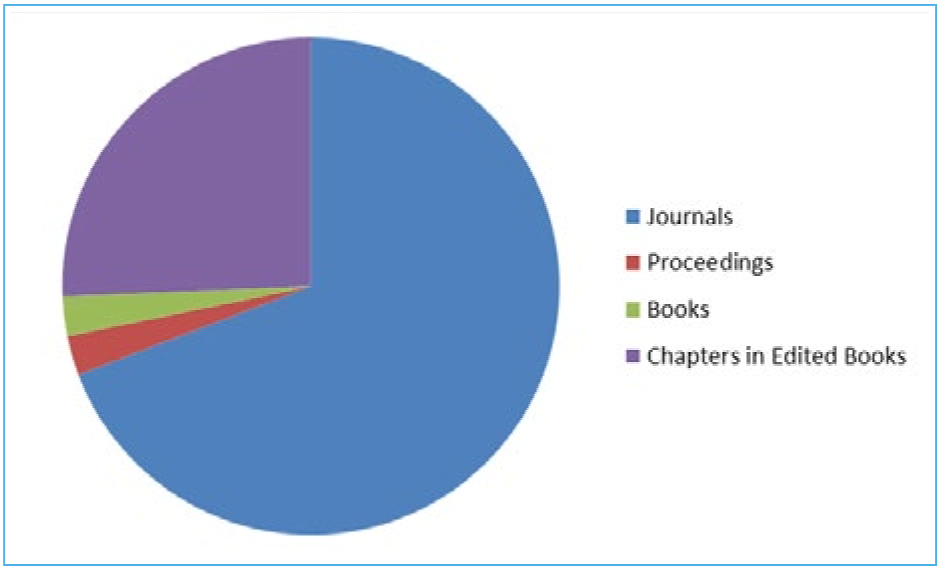
### 4.1 Publications in Journals: (International/National) :27

https://www.bitmesra.ac.in/BIT_News?cid=4&nid=1339

### 4.2 Publications in Proceedings : 1

### 4.3 Books Co-Authored : 1

### 4.3 Chapter(s) in Edited Book : 10



## SECTION 5 AWARD / PATENT / COLLABORATIONS

### 5.1 Patents (Applied / Granted)

| Sr. No. | Name of the Inventor | Title of the Invention | Application / Patent No. | Year | Short Description about the patent |
|---|---|---|---|---|---|
| 1. | Dr. Nishi Kant Kumar | Electronic Device for Physically Challenged People | 357841-001 | 2022 | Designing of RF enabled device for the welfare of physically challenged people |

| | | | | | |
|---|---|---|---|---|---|
| 2. | Dr. Nishi Kant Kumar | Blockchain Enabled Portable Device for Public Distribution Centres. | 20 2022 101 609.7 | 2022 | This invention is related to blockchain powered RFID, useful to enable households to access public distribution centres |

## 5.2 MoUs / Collaborations:

| Sr. No. | Name of Organisation / University | Purpose / Area/*Short Description* | Year / Duration |
|---|---|---|---|
| 1. | Dr. Nidhi Mishra, Asst. Professor<br>Dept. of EEE, BIT Off-Campus Patna | Joint research work with Dr. M. J. Akhtar, Asst. Prof. Dept. of EEE, BIT Deoghar | 2022 |

## SECTION 6 ACTIVITIES/ FACULTY MEMBERS / DOS /DAS

## 4.1 Departmental Students' Activities

| Sr. No. | Name of the Activity | Students' Co-Ordinator | Faculty Coordinator | Date / Duration |
|---|---|---|---|---|
| 1. | Talk on<br>The Entrepreneurial Journey behind building the Incredible Indian Start Up Ecosystem Platform-YNOS<br>By Mr. Ramesh Kuruva, CEO of YNOS Venture Engine CC Pvt. Ltd. | Pushkar Upadhyay<br>(BTECH/60006/18)<br>Sarthak Agarwal<br>(BTECH/60131/19)<br>Archie Pandey<br>(BTECH/60109/19)<br>Milee Kumari<br>(BTECH/60065/20) | Dr. Mohammad Junaid Akhtar<br>and<br>Mr. Srihari Gude | 30th January 2022<br>Duration:<br>60 minutes |

## 6.2 List of Faculties

| Sr. No. | Name | Designation |
|---|---|---|
| 1. | Prof. R. C. Jha | Professor & Director |
| | **DEPARTMENT OF PHYSICS** | |
| 2. | Dr. Ram Krishna Sarkar | Asst. Prof. & In Charge |
| 3. | Dr. Soumen Karmakar | Asst. Prof. |
| 4. | Dr. Manoj Kumar Dutta | Asst. Prof. |
| | **DEPARTMENT OF CHEMISTRY** | |
| 5. | Dr. S. S. Majhi | Asst. Prof. & In Charge |
| 6. | Dr. A. C. Singh | Asst. Prof. |

| Sr. No. | Name | Designation |
|---|---|---|
| **DEPARTMENT OF MATHEMATICS** | | |
| 7. | Dr. Ranjan Chattaraj | Asst. Prof. & In Charge |
| 8. | Dr. Amit Kumar | Asst. Prof. |
| 9. | Dr. Bishnu Kumar | Asst. Prof. |
| **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING** | | |
| 10. | Dr. Kamta Nath Mishra | Asst. Prof. & In Charge |
| 11. | Mrs. Anita Kushwaha | Asst. Prof. |
| 12. | Dr. Sounak Paul | Asst. Prof. |
| 13. | Mr. Rayees Ahamad | Asst. Prof. |
| 14. | Mr. Arbind Kr. Choudhary | Asst. Prof. |
| 15. | Mr. Balaram Mandal | Asst. Prof. |
| 16. | Mr. Raja Ram Dutta | Asst. Prof. |
| 17. | Mr. Soumya Ray | Asst. Prof. |
| 18. | Mr. Swapan Kr. Borat | Associate Lecturer |
| 19. | Mr. Saswata Mukherjee | Associate Lecturer |
| 20. | Dr. Nishi Kant Kumar | Associate Lecturer |
| 21. | Mrs. Neena Jha | Associate Lecturer |
| **DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING** | | |
| 22. | Dr. Rajesh Kumar Lal | Assoc. Prof. & In Charge |
| 23. | Dr. Mainak Mukhopadhyay | Assoc. Prof. |
| 24. | Dr Chinmay Chakraborty | Asst. Prof. |
| 25. | Mr. Sridhar Chintala | Asst. Prof. |
| 26. | Mr. Akash Gupta | Asst. Prof. |
| 27. | Mr. Vikash Sharma | Asst. Prof. |
| 28. | Mr. Akhilesh Kr. Roy | Asst. Prof. |
| 29. | Ms. Payal Bharadwaj | Asst. Prof. |
| 30. | Mrs. Sutapa Mandal | Asst. Prof. |
| 31. | Mr. Mahendra Kumar Das | Associate Lecturer |
| **DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING** | | |
| 32. | Dr. Deep Shekhar Acharya | Asst. Prof. & In Charge |
| 33. | Dr. Md. Junaid Akhtar | Asst. Prof. |
| 34. | Mr. Piyush Kumar Ojha | Asst. Prof. |
| 35. | Mr. Srihari Gude | Asst. Prof. |
| 36. | Mr. Prabhat Kumar Ranjan | Asst. Prof. |
| 37. | Mr. Nilesh Kumar Rajalwal | Asst. Prof. |

| Sr. No. | Name | Designation |
|---|---|---|
| 38. | Mr. Surendra Kumar Mahto | Assoc. Lecturer |
| **DEPARTMENT OF MECHANICAL ENGINEERING** | | |
| 39. | Prof. Arbind Kumar | Professor & In Charge |
| 40. | Dr. Ashish Kumar Chakraborty | Assoc. Professor |
| 41. | Mr. Bibhanshu Sekhar Choudhary | Asst. Prof. |
| 42. | Dr. Ritesh Kumar Upadhyay | Asst. Prof. |
| 43. | Mr. Gopisetti Srinivasarao | Asst. Prof. |
| 44. | Mr. Ashutosh Kumar | Asst. Prof. |
| **DEPARTMENT OF PRODUCTION ENGINEERING** | | |
| 45. | Dr. Anil Sharma | Asst. Prof. & In Charge |
| 46. | Mr. P. K. Manoharan | Asst. Prof. |
| **DEPARTMENT OF HUMANITIES & MANAGEMENT** | | |
| 47. | Dr. Sandip Ghosh Hazra | Asst. Prof. & In Charge |
| 48. | Dr. Sandeep Kumar Sengupta | Asst. Prof. |

## 7.1 Student Entrepreneurship activities/Start-ups :

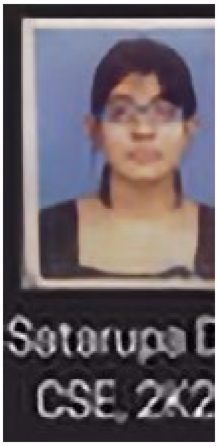
| Sr. No | Name of Student | Source of Funding | Title of Start up | Short Description |
|---|---|---|---|---|
| 1. | Vishal Kumar BTECH/60069/18 and Aditya Raj<br>BTECH/60068/18 | Self + (Seed Fund granted by BIT Mesra)<br>By Honorable, Vice Chancellor, BIT Mesra, Provided seed money of ₹ 1.25 Lacs as a pre-incubation financial support | INSTICONNECT PRIVATE LIMITED | Social Media Platform Development |

## 7.2 Achievements of Students :

| Sr. No | Name of Student | Achievement/Position/ Award etc. | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Ms. Pratyasha Kumar, ECE, BTECH/60096/20<br>Ms. Satrupa Deb – CSE, BTECH/60115/20<br>Mr. Ravi Kant Jha – ECE, BTECH/60097/20<br>Mr. Abhinav Kumar – CSE, BTECH/60137/20 | Covid Gameathon'21<br>Second Prize (₹ 75,000.00 + Certificates + Revenue from the game developed by the team) | AngelHack in association with HEART Hyderabad and St. Fransis College for Women Hyderabad<br>(Through a grant from the U.S. Consulate General Hyderabad)<br>[Supported by Stumagz] | Start Date – 12th February 2021<br>Submission Date – 12th March 2021<br>Results Announced – 17th March 2021/ Online Mode |

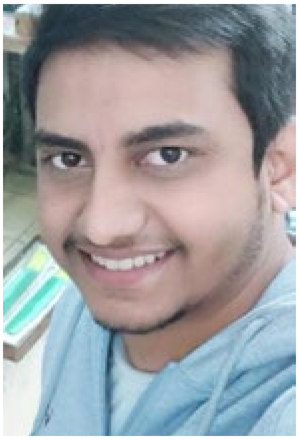
| Sr. No | Name of Student | Achievement/Position/ Award etc. | Organised by | Date and Venue |
|---|---|---|---|---|
| 2. | Vishal Kumar BTECH/60069/18 and<br>Aditya Raj<br>BTECH/60068/18 | Self + (Seed Fund granted by BIT Mesra)<br>By Honorable, Vice Chancellor, BIT Mesra, Provided seed money of ₹ 1.25 Lacs as a pre-incubation financial support | INSTICONNECT PRIVATE LIMITED | Social Media Platform Development |

Pratyasha Kuma
ECE, 2K20


Satarupa D
CSE, 2K2

Ravi Kant Jha
ECE, 2K20

Abhinav Kumar
CSE, 2K20



Vishal Kumar

Aditya Raj

## 7.3 Vishal Kumar Aditya Raj

| Sr. No. | Name of the Activity | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|
| 1. | International Day of Yoga | Ashok Kumar Singh | 15th June to 21st June 2022 |
| 2. | Annual Sports Meet | Ashok Kumar Singh | 1st April to 2nd April 2022 |
| 3. | Fit India Challenge | Ashok Kumar Singh | 15th Nov 2021 |
| 4. | FIT India Freedom Run 2.0 | Ashok Kumar Singh | 15th Aug to 2nd Oct 2021 |

## 7.4 Distinguished Visitors from Industry/Academia/Research organizations

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture (Insert Picture here. Further send the JPEG file along with the email.) |
|---|---|---|---|
| 1. | Mr. Ramesh Kuruva,<br>CEO of YNOS Venture Engine CC Pvt. Ltd. | 30th January 2022 | |

## 7.5 List of Distinguished Alumni

| Sr. No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | Mr. Atul Kumar Gupta<br>2013 batch<br>MBA, IIM Bangalore<br>Manager, Alvarez and Marsal | |
| 2. | Md. Shahbaz<br>2013 batch<br>Asst. Electro Technical Officer<br>Mediterranean Shipping Company, Switzerland | |
| 3. | Mr. Smit Shukla<br>2014 batch<br>Electrical Power Engineer<br>Energy Solutions B.V., Delft, Holland | |

## 7.5 Infrastructure Development:

Quarter Name: Senior Faculty Quarter (G+2).

Newly constructed.

# 8. Any other relevant information

## 8.1 Activities by IEEE Student Branch BIT Mesra Off Campus Deoghar (STB – 10208) School Code – 60098808

| Sr. No. | Date | Activity |
|---|---|---|
| 1. | 9th July 2021 | Trial – By – Trivia, Pre – Margdrshan Event Quiz on Dare2Compete Platform. |
| 2. | 17th and 18th July 2021 | Margdarshan – A two days Start Up Conclave. The Guest Speakers were:<br>17th July 2021- Mr. Sougata Basu, Founder of CashRich.<br>17th July 2021 – Mr. Anoop Garg, Co-Founder at Programming Pathshala.<br>18th July 2021 – Mr. Niraj Sharan, Chairman & CEO of Aura Inc which is a Global Engineering and Manufacturing Company.<br>18th July 2021 – Mr. Shubhanshu Shekhar Shukla, the Co-Founder of Dristi National NGO |

| Sr. No. | Date | Activity |
|---|---|---|
| 3. | 17th and 18th July 2021 | Quiz – M – A post event quiz on Margdarshan. |
| 4. | 21st August 2021 | Seventh Talk in the Series "Gyan Ganga – Talk with Professor/Professional". Mr. Gopal Prashad Joshi, Superintendent Central GST, Government of India. Topic – General Awareness on GST. |
| 5. | 5th September to 26th September (only Sundays) | Four Stages Inter College Competition IEEE 360. |
| 6. | 25th September 2021 | Eighth Talk in the Gyan Ganga Series – Ms. Nishigandha Kelkar, System Engineer at Collins Aerospace, USA.<br>Topic – Bridging College in Industry |
| 7. | 19th October 2021 | AICTE Impact Lecture Series – 1, jointly hosted by IEEE and IIC3.0.<br>4.00 PM to 7.00 PM<br>Speaker 1 – Mr. Satyam Kumar, Branch Manager SBI, Patna<br>Speaker 2 – Dr. Pravash Dave , IP Moments , Delhi |
| 8. | 30th October 2021 | AICTE Impact Lecture Series – 2, jointly hosted by IEEE and IIC3.0.<br>4.00 PM to 7.00 PM<br>Speaker 1 – Mr. Nitin Nagar, who is the Assistant Territory Manager at Scientech Technologies Pvt. Ltd. Indore.<br>Speaker 2 – Mr. Anurag Gupta. He, along with his colleague Rajesh Tiwari first founded Tevatron technologies. He has also founded two more successful ventures, STEMROBO Technologies and ticker coders. |
| 9. | 21st December 2021 to 8th January 2022. | Workshop on Data Structure and Algorithms and Interview Preparation – Placement++. The event was organized with mentors from "Programming Pathshala". Total 82 students registered and attended the event.<br>Tutors:<br>a) Vivekanand Vikek, Teaching at Programming Pathshala, Ex-Amazon, IIT BHU. LinkedIn: https://www.linkedin.com/in/vivekanand-vivek-7a4ab388/<br>b) Bharat Khanna, Co-founder at Programming Pathshala, IIT BHU, Candidate Master at Codeforces, Former SDE-II at Tower Research Capital. LinkedIn: https://www.linkedin.com/in/bharat-khanna-10717b4817b/ |
| 10. | 8th and 9th January 2022 | TechGenix – three thrillings and mind-boggling rounds- Brainwaves, Enthusia and Code-X. Brainwaves was the eliminator quiz round for Enthusia. An excellent buzzer round was accomplished in Enthusia. Code-X was the coding round. |
| 11. | 29th January 2022 | 9th Talk in the Gyan Ganga Series – Mr. Arun Pandit – the co-founder of Hyphen SCS, Topic "The Brand called "You ": How to Build a Powerful Personal Brand!" |
| 12. | 12th February 2022 | IEEE Student Branch with IIC4.0- My Journey as an Entrepreneur – An invited talk by – Mr. Sohung Swarup Mahapatra – Vice President – Benignant Power |
| 13. | 3rd March – 28th March 2022 | Student Activity – Codeflow along with the IEEE Student Branch of BIT Deoghar is back with Openforce 2022; aiming to connect OpenSource Contributors with Opensource Organisations with a motto to "OpenSource meets its Contributor Force!" |

| Sr. No. | Date | Activity |
|---|---|---|
| 14. | 11th March 2022 | Talk by Dr. Vandana Bhattacharjee, Director, BIT Lalpur on Writing Research Paper – Inaugural Talk to launch – Praudyog – Research Paper Writing Competition. |
| 15. | 15th March 2022 | IEEE Student Branch with IIC4.0 invited Mr. Bedadyuti Chakraborty – Director of RxCella (A Pharma & Biopharma Learning Academy) – to deliver talk on – "How to Become Industry Ready?" |
| 16. | 2nd April 2022 | Code Wars 2.0 to showcase coding skill. |
| 17. | 10th April 2022 | The IEEE Student's Branch BITD in association with GFG, the most go-to platform for budding and aspiring Engineers, brought to its student community a power-packed session on Interview Preparation that covered everything from basics to the advanced topics of Data Structure and Algorithms. The session was presided over by Mr. Siddartha Hazra, a Software Development Engineer and mentor at GFG along with being a 5-star coder at CodeChef. |
| 18. | 27th May 2022 | Blockchain Training & Placement Program from IEEE SB BIT Deoghar in collaboration with Polkadot India and Hack2skill. |
| 19. | 14th June 2022 | 10th Talk in the Gyan Ganga Series – Cyber Security – Mr. Udit Mathur, Senior Manager Cyber Security Practice, EY Singapore |
| 20. | 24th June 2022 | dotfriday – Advanced Games and P2E – Blockchain Training & Placement Program from IEEE SB BIT Deoghar in collaboration with Polkadot India and Hack2skill. |

## 8.2 Activities by IIC 4.0:

| Sr. No. | Date and time | Topic | Speaker | Mode |
|---|---|---|---|---|
| 1. | 11-06-2022 | Entrepreneurship, Startup in conjunction with National Education Policy 2018 | Dr. Rajesh Kumar Lal and Mr. Ashutosh Kumar | Off Line |
| 2. | 15-03-2022 | How to Become Industry Ready? | Mr. Bedadyuti Chakraborty – Director of RxCella (A Pharma & Biopharma Learning Academy) | Off Line |
| 3. | 19-02-2022<br>Saturday<br>11.00 AM to 12.00 Noon | Orientation Session on IIC4.0 | Mr. Ashutosh Kumar<br>Assistant Professor in Mech Engg.<br>BIT Mesra Off Campus Deoghar | Off Line |
| 4. | 13 – 02 – 2022<br>Sunday<br>12.00 Noon to 1.00 PM | My Journey as an Entrepreneur | Mr. Nitin Kamal, Co- Founder Data Monk | Online |
| 5. | 12-02-2022<br>Saturday<br>6.00 PM to 7.00 PM | My Journey as an Entrepreneur | Mr. Sohung Swarup Mahapatra, Vice President, Benignant Power | Online |

| Sr. No. | Date and time | Topic | Speaker | Mode |
|---|---|---|---|---|
| 6. | 09–02–2022<br>Wednesday<br>2.00 PM to 3.00 PM | Workshop on Intellectual Property Rights and Issues Related to Patent Filing | Ms. Tanu Singh, Intellect Vidhya Ltd, Bangalore | Online |
| 7. | 08–02–2022<br>Tuesday<br>7.00 PM to8.00 PM | What an entrepreneur should know about taxes? | Mr. Sunil Kumar Sultania, CA, Deoghar | Online |
| 8. | 30.01.2022<br>(Sunday)<br>3.00 PM to 4.00 PM | The Entrepreneurial Journey behind building the Incredible Indian Start-up Ecosystem Platform -YNOS | Ramesh Kuruva **is the CEO and a founding team member of YNOS Venture Engine,** | Online |
| 9. | To<br>31.10.2021 | Innovation Idea Contest | | Online |
| 10. | 30.10.2021<br>(Saturday)<br>4.00 PM to 7.00 PM | AICTE Impact Lecture Series – 2, jointly hosted by IEEE and IIC3.0. | Speaker 1 – Mr. Nitin Nagar, who is the Assistant Territory Manager at Scientech Technologies Pvt. Ltd. Indore.<br>Speaker 2 – Mr. Anurag Gupta. He, along with his colleague Rajesh Tiwari first founded Tevatron technologies. He has also founded two more successful ventures, STEMROBO Technologies and ticker coders. | Online |
| 11. | 19.10.2021<br>(Tuesday)<br>4.00 PM to 7.00 PM | AICTE Impact Lecture Series – 1, jointly hosted by IEEE and IIC3.0. | Speaker 1 – Mr. Satyam Kumar, Branch Manager SBI, Patna<br>Speaker 2 – Dr. Pravash Dave , IP Moments , Delhi | Online |
| 12. | 17th and 18th July 2021 | Margdarshan – A two days Start Up Conclave. | The Guest Speakers were:<br>17th July 2021- Mr. Sougata Basu, Founder of CashRich.<br>17th July 2021 – Mr. Anoop Garg, Co-Founder at Programming Pathshala.<br>18th July 2021 – Mr. Niraj Sharan, Chairman & CEO of Aura Inc which is a Global Engineering and Manufacturing Company.<br>18th July 2021 – Mr. Shubhanshu Shekhar Shukla, the Co-Founder of Dristi National NGO | Online |

## 8.3 Activities by ED Cell:

| Sr. No. | Seminars/ Particulars | Topic | Date | Number of participants | Expert's Brief | Remarks |
|---|---|---|---|---|---|---|
| 1. | INNOVATOR IDEA CONTEST 2021 | Start Up Idea Presentation and Poster Competition | 15-07-2021 to 15-10-2021 | 52 | 1. P K Choudhary, VSM, Air Commodore-(Retired). 2. Ms. Rachna Bhardwaj, Segment Head -KhadiIndia | Online |
| 2. | NATIONAL SEMINAR – ATTENDED | Transforming Business Through Uncertain Times in the Era of Covid – 19 | 08-12-2021 | 1 | Dr. Satyendra Singh, University of Winnipeg, Canada | Online |
| 3. | WEBINAR | Start-up issues in India | 24-08-2021 | 35 | Mr. Satish Kumar, CEO and Founder | Online |
| 4. | SEMINAR | Business Leadership Skills | 30-06-2021 | 45 | Air Commodore, P K Choudhary,<br>Former Air Commodore, VSM | Online |
| 5. | National Webinar | National Education Policy and its impact on Entrepreneurship – A way forward to future | 14-08-2021 | 01 | Served as KEY NOTE SPEAKER<br>(Prof.Ashutosh Kumar, EDC I/C, BIT Deoghar) | Online |
| 6. | Workshop | INTELLECTUAL PROPERTY RIGHTS AND ISSUES RELATED TO PATENT FILING | 24-03-2022 | 5 | Ms. Tanu Singh<br>CEO Intellect Vidhya Solutions<br>Bangalore | Online |
| 7. | Webinar | ACHIEVING PROBLEM SOLUTION FIT & PRODUCT MARKET FIT | 25-03-2022 | 52 | Mr. Mehul Aggrawal<br>Founder and CEO – Taluin.com<br>Silicon valley, USA | Online |
| 8. | Webinar | Digital Transformation & Service Transition | 19-03-2022 | 01 (Attended by Prof. Ashutosh Kumar) | Mr. Aashish Singh, Program Director in Digital Transformation & Services Transition at HCL America Inc | Online |
| 9. | BIT NISHAN Innovation Contest | Team – Mr. Rupesh Kumar Suman<br>Roll No: BTECH/60126/20 of BIT Deoghar. Has won this contest and got a seed money of ₹ 1.25 Lacks being mentored by Prof. Ashutosh Kumar – EDC I/C – BIT Deoghar | | | | |

## 8.4 ARIIA RANKING 2021: BIT Mesra Off Campus Deoghar got a certificate of appreciation from ARIIA Team for achieving rank under "PROMISING BAND" among all the private/ self financing institutions and colleges in India.

## 8.5 Library:

### Central Library:

The BIT Deoghar Central Library serves as a central facility of the Institute to support the study, teaching, research and development programmes of the Institute since 2007. The library has a collection of more than 31535 volumes which includes Text Books, Reference Books, various types of competition books and story books etc. The Library subscribes to about 32 current print Journals. The Library also subscribes numbers of e-journals as per AICTE norms. Library operations have been automated with the help of an integrated library software package, LIBSYS. The book database is accessible through OPAC (Online Public Access Catalogue). Circulation Services are executed through Barcode System. Library has a well-equipped Xerox facility & computerized printout (black & white as well as colour). The users can avail this facility on payment of a nominal charge.

### Mission:

The mission of our central Library is to provide comprehensive information to fulfil the needs of the BIT community and to support the Institute's mission to contribute to society through the pursuit of education, teaching, learning and research at premier levels of excellence.

### Vision:

In this preferred future, Library makes certain that its collections remain forward-looking, diverse in girth and form. Through promotion, the Library makes its users aware of the resources available to them, and through innovation, it makes access to these resources easier. To serve potential users, the Library conserves information across all formats and ensures effectual storage and deliverance scheme. The Library's cooperation with expanding circles of associates yields unified access, broadening knowledge, and enhanced services.

### New achievements during last one year (2021-22):

1. Added more than 1000 new books.
2. Upgrade the Library management software
3. Students can search status of the availability of books through on-line public access catalogue (within the campus network)
4. Renewal of subscription of on-line journals like IEEE, Science Direct etc.
5. Generate License of Ithenticate software to every faculty members of Institute to facilitate to improve research work.
6. Renewal of 30 print journals.
7. New arrival services started for books
8. On-line reminder facility for due books to the members
9. Fully air-conditioned Reading Room
10. Became a member of NDLI.

## 8.6 Activities by Clubs/Societies

| S. No. | Activity/Event | Date |
|---|---|---|
| | **Fine Arts Society** | |
| 1. | Cupid's Work | 24/12/2021 |
| 2. | Creo | 12/01/2022 |
| 3. | Calligraphy quotes | 12/01/2022 |
| 4. | Aquatint | 12/01/2022 |
| 5. | Sarang | 26/01/2022 |
| | **Dance Club** | |
| 1. | Taal Se Taal Mila | 26/01/2022 |
| | **Dramatic Society** | |
| 1. | Drama on patriotic theme | 26/01/2022 |
| 2. | Carpe Diem | |
| | **Photographic Society** | |
| 1. | Ignite | 15/11/2021 |
| 2. | Click Hind | 26/12/2021 |
| | **Music Club** | |
| 1. | Swar Sangam | 26/01/2022 |
| | **Literary Society and NAPS** | |
| 1. | Umang | 26/01/2022 |
| 2. | International Mother Language Day Celebration | 21/02/2022 |
| 3. | Fable Mic | 28/05/2022 |
| | **Automobile Society** | |
| 1. | Battle Wheel (Automobile Quiz) | 29/01/2022 |
| 2. | Final Round | 05/02/2022 |
| | **Coding Society (CodeSoc)** | |
| 1. | Programming 101 | May-June 2022 |
| | **Google Developer Student Clubs BIT Deoghar (GDSC BITD) [Under CodeSoc, BITD]** | |
| 1. | Orientation Ceremony DSC-BITD | 28/08/2021 |
| 2. | Webinar on GSoC, GSoD and open-source | 17/09/2021 |
| 3. | See you in the Cloud! | 25/09/2021 |
| 4. | HacktoberFest | October 2021 |
| 5. | Winter of Code 2.0 – Info Session | 30/10/2021 |
| 6. | Create-A-thon | Nov-Dec 2021 |
| 7. | Android Study Jams \| Session 1 | 02/12/2021 |
| 8. | Android Study Jams \| Session 2 | 06/12/2021 |
| 9. | Android Study Jams \| Session 3 | 11/12/2021 |

| S. No. | Activity/Event | Date |
|---|---|---|
| 10. | Android Study Jams \| Session 4 | 27/12/2021 |
| 11. | Flutter Festival \| Session 1 | 05/03/2022 |
| 12. | Flutter Festival \| Session 2 | 06/03/2022 |
| 13. | Android Study Jam | 27/12/2021 |
| 14. | Hands-on-Workshop on Introduction to Mern Stack Development | 30/01/2022 |
| 15. | DSA with Mr. Abdul Bari | 10/02/2022 |
| 16. | Imacathon: All Wrapped In One | 11/06/2022 |
| **Geeks for Geeks Student Chapter BIT Deoghar (GFG) [Under CodeSoc, BITD]** | | |
| 1. | Webinar on Web Development by Mr. Soutik Nandy, CIT Spacenova | 03/08/2021 |
| 2. | Nirman – A clash of sites | 14/08/2021 |
| 3. | AmA with #Placed 01 Mr. Swapnil Sinha | 09/10/2021 |
| 4. | AmA with #Placed 02 Mr. Ayush Singh | 30/10/2021 |
| 5. | AmA with #Placed 03 Ms. Ankita Priya | 04/12/2021 |
| 6. | Recruitment Drive 2k22 | 06/01/2022 |
| 7. | AmA with #Placed 04 Mr. Aavesh Kumar Sinha | 29/01/2022 |
| 8. | Recruitment Drive 2k21 | 09/01/2022 |
| 9. | Talking Tech With 01 | 13/03/2022 |
| 10. | Battle Brains | 29/03/2022 |
| 11. | Talking Tech With 02 | 08/06/2022 |
| 12. | Talking Tech With 03 | 22/06/2022 |
| **Association of Computing Machinary (ACM BITD) [Under CodeSoc, BITD]** | | |
| 1. | Introduction to BlockChain | 21/06/2022 |
| 2. | Quiz Night on Introduction to BlockChain | 23/06/2022 |
| **IEEE Student Branch BIT Deohghar** | | |
| 1. | Trial – By – Trivia, Pre – Margdrshan Event Quiz on Dare2Compete Platform. | 09/07/2021 |
| 2. | Margdarshan – A two days Start Up Conclave. | 17–18 July 2021 |
| 3. | Seventh Talk in the Series "Gyan Ganga – Talk with Professor/Professional". Mr. Gopal Prashad Joshi, Superintendent Central GST, Government of India. Topic – General Awareness on GST. | 21/08/2021 |
| 4. | Four Stages Inter College Competition IEEE 360. | 5–26 Sept. 2021 |
| 5. | Eighth Talk in the Gyan Ganga Series – Ms. Nishigandha Kelkar, System Engineer at Collins Aerospace, USA.<br>Topic – Bridging College in Industry | 25/09/2021 |
| 6. | AICTE Impact Lecture Series – 1, jointly hosted by IEEE and IIC3.0.<br>4.00 PM to 7.00 PM<br>Speaker 1 – Mr. Satyam Kumar, Branch Manager SBI, Patna<br>Speaker 2 – Dr. Pravash Dave , IP Moments , Delhi | 19/10/2021 |

| S. No. | Activity/Event | Date |
|---|---|---|
| 7. | AICTE Impact Lecture Series – 2, jointly hosted by IEEE and IIC3.0.<br>4.00 PM to 7.00 PM | 30/10/2021 |
| 8. | Placement++ – Workshop on Data Structure and Algorithms and Interview Preparation. | 21/12/2021 to 08/01/2022 |
| 9. | TechGenix – three thrillings and mind-boggling rounds- Brainwaves, Enthusia and Code-X | 8–9 Jan 2022 |
| 10. | 9th Talk in the Gyan Ganga Series – Mr. Arun Pandit – the co-founder of Hyphen SCS, Topic "The Brand called "You ": How to Build a Powerful Personal Brand!" | 29/01/2022 |
| 11. | IEEE Student Branch with IIC4.0- My Journey as an Entrepreneur – An invited talk by – Mr. Sohung Swarup Mahapatra – Vice President – Benignant Power | 12/02/2022 |
| 12. | Openforce 2022 – aiming to connect OpenSource Contributors with Opensource Organisations with a motto to "OpenSource meets its Contributor Force!" | 03/03/2022 to 28/03/2022 |
| 13. | Talk by Dr. Vandana Bhattacharjee, Director, BIT Lalpur on Writing Resarch Paper – Inaugural Talk to launch – Praudyog – Research Paper Writing Competition. | 11/03/2022 |
| 14. | IEEE Student Branch with IIC4.0 invited Mr. Bedadyuti Chakraborty – Director of RxCella (A Pharma & Biopharma Learning Academy) – to deliver talk on – " How to Become Industry Ready?" | 15/03/2022 |
| 15. | Code Wars 2.0 to showcase coding skill. | 02/04/2022 |
| 16. | A discussion and interaction session by Mr. Siddartha Hazra, a Software Development Engineer and mentor at GFG along with being a 5-star coder at CodeChef. | 10/04/2022 |
| 17. | Blockchain Training & Placement Program in collaboration with Polkadot India and Hack2skill | 27/05/2022 |
| 18. | 10th Talk in the Gyan Ganga Series – Cyber Security – Mr. Udit Mathur, Senior Manager Cyber Security Practice, EY Singapore | 14/06/2022 |
| 19. | dotfriday – Advanced Games and P2E – Blockchain Training & Placement Program from IEEE SB BIT Deoghar in collaboration with Polkadot India and Hack2skill. | 24/06/2022 |

## 9 Special Covid Initiatives, if any:

11. Formation of COVID task force for prevention of COVID-19.
12. All health advisories issued by the Ministry of Health, from time to time, were followed.

# BIT Off Campus Jaipur

## SECTION 1 CAMPUS PROFILE

### 1.1 About the BIT Jaipur Campus:

BIT Jaipur Campus was established in 1995. The focus of the institute is to provide quality education in Engineering, Applied Sciences and Management with technology and professional exposure through innovative programmes & practices. Driven by the mission that the technology and innovative management practices will be the gateway to the future growth, it is today one of the leading institutes of Rajasthan in the field of Engineering, Applied Sciences, Management and Animation and Multimedia.

**Vision**

To become a Globally Recognised Academic Institution in consonance with the social, economic, and ecological environment, striving continuously for excellence in education, research and technological service to the national needs.

**Mission**

- To educate students at Under-Graduate, Post-Graduate and Doctoral levels to perform challenging engineering and managerial jobs in industry.
- To provide excellent research and development facilities to take up Ph.D. programmes and research projects.
- To develop effective teaching, learning skills and state-of-the-art research potential of the faculty.
- To build national capabilities in technology, education, and research in emerging areas.
- To provide excellent technological service to satisfy the requirements of the industry and overall academic needs of the society.

### Academic Programmes:

**Undergraduate:**

B. Tech in following branches of Engineering:

i) Computer Science & Engineering (CSE)

ii) Electronics and Communication Engineering (ECE)

iii) Electrical & Electronics Engineering (EEE)

BBA, BCA & B.Sc. (Animation & Multimedia)

**Postgraduate:**

Master of Computer Application (MCA), Master of Business Administration (MBA) and M.Sc. in Animation Design

**Doctoral:**

Ph.D. Programme in Computer Science Engineering, Electrical & Electronics Engineering, Management, Physics, Chemistry, Mathematics and Bioengineering and Biotechnology

**Main Facilities and Equipment:**

**Building & Campus**: The institute is built up in about 5 Acre land (20000 Sq M). The built up area is about 6000 Sq M consisting of 12 Class Rooms, 15 Lab Halls, Mechanical Workshop, Seminar Hall (175 seat Capacity), Common Computer/ Internet Access Centre (50 Computers), Library Hall, T& P Cell, Indoor Sports & Gymnasium Hall, Student Activity Room, Music Room, Canteen Hall and Administrative Block. All Classrooms & and computer labs are air conditioned.

**Equipment:** All required lab equipment's are available in the institute to conduct the various courses along with equipment required for Mechanical Workshop and Animation courses. The institute has three Dell Power Edge servers and 473 Computers for lab, internet, faculty, and administrative requirement.

**Software/Simulation Tools:**

**Electronics & Electrical Labs:** CADENCE VLSI simulation tool, ANSYS- HFSS RF Design Software, Maxwell-ANSYS, TCAD Design tool, MATLAB, Xilinx ISE Foundation Tool, ComSim, MultiSim, Code Composer Studio, PCB Design Util Board, System View, Open IT Guru, SUSE-V10, Ethernal Network Analyzer, Network Simulator, Lab View with ELVIS Hardware kit, ETAP Software, Infoletica MAGNET 2D, ANSYS Academic Research EM 1 Task, Electromagnet Suite

**Computer Science Labs:** AutoCAD, Rational Rose, Oracle, and Visual Prolog

**Animation Lab:** Coral Graphics, Maya, Adobe suit, Sound Forge, Toon Boom, Macro Media Flash and 3D Studio

**Management Studies:** SYSTAT Data Analysis Software and TALLY Accounting Software

**English Communication:** Language lab

**Online e-Journals & e-books:** IEEE, Science Direct, PROQUEST, ASTM Digital Library, Koha Library Management Software

## SECTION 2 RESEARCH PROJECTS

### 1.1 Sponsored Projects (Research and Consultancy)

**a) Ongoing Projects**

| Sr. No. | Project Title | PI / Co PI / Collaborator if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration/ Completion |
|---|---|---|---|---|---|---|
| 1. | Development of Distributed Deep Learning Dynamic Causality Analysis Model for Predicting Epilepsy and Simulation of Epileptic Brain | Dr Vishwambhar Pathak (PI),<br>Dr. Vivek Gaur (Co-PI) | DST, Govt of India | 12.03.2020 | 16.8 Lacs | 2 years |
| 2. | Space based information support for decentralized planning – update for Gujarat state<br>(BISR) | Dr. M. P. Punia (PI), | National Remote Sensing Centre, ISRO, Hyderabad | 19.04.2021 | 196 Lacs | 31.03.2023 |
| 3. | GIS Mapping of Microbial Population for their Geographical Position, Geological and Geochemical Habitats to Explore Oil and Gas Reservoirs in Jaisalmer Sub-Basins of Thar Desert. (BISR) | Dr. M. P. Punia(PI), | Department of science and Technology, government of India. | 03.03.2021 | 26.95 Lacs | 31.07.2024 |

| Sr. No. | Project Title | PI / Co PI / Collaborator if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration/ Completion |
|---|---|---|---|---|---|---|
| 4. | Integrated Watershed Management Programme, Gujarat State (BISR) | Dr. M. P. Punia(PI), | National Remote Sensing Centre, ISRO, Hyderabad | 03.03.2017 | 130 Lacs | 31.03.2023 |
| 5. | Exploring possibilities of micro irrigation in Chambal and Mahi command area of Rajasthan (BISR) | Dr. M. P. Punia(PI), | DST, GoI. | 18.10.2019 | 43.60 Lacs | 18.10.2022 |
| 6. | Design Innovation Centre under National Initiative for Design innovation 3.0 | Dr. Krishna Mohan Medicherla (P.I)<br>Dr. Pooran Singh Solanki (Co-PI)<br>Dr. K V R Rao (collaborator, University of Rajasthan, Jaipur) | Dept. of Higher Education, GoI | 30.09.2021 | 100 Lacs | 5 years |
| 7. | Registry of Genetic Polymorphisms associated with hormonal and Metabolic Disorders in Asian Indians | Dr. Krishna Mohan Medicherla (P.I)<br>Dr. Pooran Singh Solanki (Co-PI)<br>Dr. Sandeep K Mathur (collaborator, SMS Medical College, Jaipur) | Metabolism and Molecular Research Society, Rajasthan | 27.03.2022 | 22.00 Lacs | 3 years |
| 8. | Dissecting Vitamin K pathways | Dr. Krishna Mohan Medicherla (Co -P.I)<br>Dr. Prashant S. (PI, Amrita University, Kerala) | DST-DNAxperts<br>(Industry sponsored) | 30.09.2019 | 89.25 Lacs | 3 years |
| 9. | Development of salivary biomarker in Oral Squamous Cell<br>Carcinoma in regional population | Dr. Krishna Mohan Medicherla (Co – P.I)<br>Dr. Jyoti Paliwal (collaborator, RUHS, Jaipur) | State Govt of Rajasthan | 2020 | 9.358 Lacs | 1 year |
| 10. | Rapidmultiplex PCR based detection of water borne human<br>bacterial pathogens | Dr. P S Solanki (PI)<br>Dr. R K Gothwal (Co-PI) | DST-Rajasthan | 27.03.2017 | 12.12 Lacs | 3 years |
| 11. | GIS Mapping of Microbial Population for their Geographical Position, Geological and Geochemical Habitats to Explore Oil and Gas Reservoirs in Jaisalmer Sub-Basins of Thar Desert | Dr. R K Gothwal (Co-PI) | DST,<br>Govt. Of<br>India | 03.03.2021 | 48.46 Lacs | 3 years |

## 3.1 Seminar / Conferences / Short – Term Courses Conducted:

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Faculty Coordinator | Funding / Sponsoring Agency | Date of Event |
|---|---|---|---|---|
| 1. | Webinar On "Edge Computing and Enabling Technologies" | Dr. Madhavi Sinha | BIT, Jaipur | 11.05. 2022 |
| 2. | Trust EV: Awareness Oath-Empowering Women | Mrs. Jyoti Sharma | BIT, Jaipur | 25.05.2022 |
| 3. | Fourier decomposition method for nonlinear and non-stationary time series analysis and applications | Mr. Ankur Agarwal | BIT, Jaipur | 29.06.2022 |
| 4. | Seminar 'Trust EV: Awareness Oath-Empowering Women". | Dr. Deepak Verma, Dr. Aparajita Pandey, Dr. P.S Rathore | BIT, Jaipur | 25.05.2022 |
| 5. | Awareness and Training on Intellectual Property Rights | Dr. Deepak Verma | Ministry of Commerce and Industry, Government of India | 28.04.2022 |
| 6. | Applications of Engineering Concepts in Defence | Dr. Aparajita Pandey | BIT, Jaipur | 24.03.2022 |
| 7. | Accelerating Innovation through WIN | Dr. G.P. Mishra | SRCI, BIT Mesra | 06.04.2022 |
| 8. | Outcome based education: NBA approach | Dr. G.P. Mishra | Gitarattan International Business School | 04–10.01.2022 |
| 9. | Development of corporate leadership for Atmanirbhar Bharat-A quasi-experimental study | Dr. G.P. Mishra | Indian Institute of Public Administration, New Delhi | 28–29.12.2021 |
| 10. | Computer Aided Drug Design, under DIC Project | Dr. P S Solanki,<br>Dr. Krishna Mohan Medicherla | Dept of Higher Education | 03.09.2021-19.02.2022 |
| 11. | Summer Training "Bioinformatics and drug design" | Dr. P S Solanki | BISR, Jaipur | 21.06.2021-26.06.2021 |
| 12. | Summer Training "Bioinformatics and drug design" | Dr. P S Solanki | --- do --- | 28.06.2021-03.07.2021 |
| 13. | Summer Training "Bioinformatics and drug design" | Dr. P S Solanki | --- do --- | 04.07.2021-08.07.2021 |
| 14. | 6-Months Project Training Programme | Dr. R K Gothwal | --- do --- | 01.07.2021-31.12.2021 |
| 15. | 6-Months Project Training Programme | Dr. R K Gothwal | --- do --- | 01.01.2022-30.06.2022 |
| 16. | 6 Weeks Summer Training Programme | Dr. R K Gothwal | --- do --- | 01.06.2022-05.07.2022 |
| 17. | 36th National Symposium on Plasma Science and Technology (PLASMA-2021) | Dr. Anand Kumar Srivastava | BIT Mesra & PSSI | 03.12.2021-15.12.2021 |
| 18. | Webinar "Solar thermal Engineering for Sustainable Future" | Dr. Ranjana Agrawal | BIT, Jaipur | 07.06.2022 |

## 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 1. | Anju Sharma | Inculcating Universal Human Values in Technical Education | AICTE | AICTE | online | 06.06.2022 – 10.06.2022 |
| 2. | Seema Gaur | Inculcating Universal Human Values in Technical Education | --- do --- | --- do --- | online | 06.06.2022 – 10.06.2022 |
| 3. | Archana Bhatnagar | Inculcating Universal Human Values in Technical Education | --- do --- | --- do --- | online | 06.06.2022 – 10.06.2022 |
| 4. | Seema Gaur | AICTE Sponsored Six Days Short Term Training Program (STTP) On "Machine Learning and Computer Vision"<br>Phase 1 | TIT, Agartala, Tripura, India | TIT, Agartala, Tripura, India | online | 07.03.2022-12.03.2022 |
| 5. | Archana Bhatnagar | AICTE Sponsored Six Days Short Term Training Program (STTP) On "Machine Learning and Computer Vision"<br>Phase 1 | --- do --- | --- do --- | online | 07.03.2022-12.03.2022 |
| 6. | Anju Sharma | AICTE Sponsored Six Days Short Term Training Program (STTP) On "Machine Learning and Computer Vision"<br>Phase 1 | --- do --- | --- do --- | online | 07.03.2022-12.03.2022 |
| 7. | Anju Sharma | AICTE Sponsored Six Days Short Term Training Program (STTP) On "Machine Learning and Computer Vision" (Phase -II) | --- do --- | --- do --- | online | 21.03.2022-26.03.2022 |
| 8. | Seema Gaur | AICTE Sponsored Six Days Short Term Training Program (STTP) On "Machine Learning and Computer Vision" (Phase -II) | --- do --- | --- do --- | online | 21.03.2022-26.03.2022 |
| 9. | Archana Bhatnagar | AICTE Sponsored Six Days Short Term Training Program (STTP) On "Machine Learning and Computer Vision" (Phase -II) | --- do --- | --- do --- | online | 21.03.2022-26.03.2022 |
| 10. | Anju Sharma | AICTE Sponsored Six Days Short Term Training Program (STTP) On "Machine Learning and Computer Vision" (Phase -III) | --- do --- | --- do --- | online | 11.04.2022-16.04.2022 |
| 11. | Seema Gaur | AICTE Sponsored Six Days Short Term Training Program (STTP) On "Machine Learning and Computer Vision" (Phase -III) | --- do --- | --- do --- | online | 11.04.2022-16.04.2022 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 12. | Bimalendu Pathak | AICTE Sponsored Six Days Short Term Training Program (STTP) On "Machine Learning and Computer Vision" (Phase -II) | --- do --- | --- do --- | online | 21.03.2022-26.03.2022 |
| 13. | Subhash Chand Gupta | Awareness and Training on Intellectual Property Rights | National Intellectual Property Awareness Mission. | Intellectual Property Office, India | online | 28.04.2022 |
| 14. | Subhash Chand Gupta | Faculty Development Workshop | BIT, Mesra | BIT, Mesra | offline | 23.05.2022-28.05.2022 |
| 15. | Vivek Gaur | AICTE Sponsored Six Days Short Term Training Program (STTP) On "Machine Learning and Computer Vision"<br>Phase 1 | TIT, Agartala, Tripura, India | TIT, Agartala, Tripura, India | online | 07.03.2022-12.03.2022 |
| 16. | Vivek Gaur | AICTE Sponsored Six Days Short Term Training Program (STTP) On "Machine Learning and Computer Vision" (Phase -II) | --- do --- | --- do --- | online | 21.03.2022-26.03.2022 |
| 17. | Vivek Gaur | Machine Learning and It's Applications | Ministry of Education, India | NITTTR, Kolkata | online | 27.12.2021 -31.12.2021 |
| 18. | Vivek Gaur | Smart Farming: Application of AI, Robotics, IoT, & Cloud Computing | AAU, Anand University | Anand Agriculture University | online | 28.02.2022-04.03.2022 |
| 19. | Vivek Gaur | Practicing Cloud Computing with AWS | AICTE | Koneru Lakshmaiah Education Foundation | online | 13.09.2021 -18.09.2021 |
| 20. | Seema Gaur | Computational Chemistry, Molecular Modeling, Drug Design, And Biologics | Schrödinger | Schrödinger and BIT, Mesra | online | 21.12.2021-23.12.2021 |
| 21. | Archana Bhatnagar | Base Camp India- Opportunities for Women and Girls in Entrepreneurship | BIT Jaipur | Watson Institute, Colarado<br>and BIT Jaipur | offline | 01.06.2022-12.06.2022 |
| 22. | Alok Pandey | Electric Mobility and Charging Infrastructure | Self | Indian Smart Grid Foundation,<br>Niti Ayog and association of State Road Transport Undertakings | Online | 02.07.2021-05.08.2021 |
| 23. | Alok Pandey | Design Aspects and IoT Applications in Electric Vehicles | Electronics & ICT Academy | NIT Warangal | Online | 28.02.2022-09.03.2022 |
| 24. | Alok Pandey | Faculty Development Workshop | BIT, Mesra | BIT, Mesra | Offline | 23.05.2022-28.05.2022 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 25. | Piyush Gupta | Awareness and Training on Intellectual Property Rights | National Intellectual Property Awareness Mission. | Intellectual Property Office, India | Online | 28.04.2022 |
| 26. | Piyush Gupta | Seminar on "Kick Start your Business Startup" | BIT, Noida | Ch. Charan Singh National Institute of Marketing, GOI | Online | 17.01.2022 |
| 27. | Deepak Chaturvedi | Short term training program on research methodology-Basics | Self | BIT, Mesra Off Campus Lalpur | Online | 23.05.2022 -27.05.2022 |
| 28. | Gaurav Jain | 2021 IEEE International Symposium on Smart Electronic Systems (iSES) | IEEE | IEEE, MNIT | MNIT, JAIPUR | 19.12.2021-21.12.2021 |
| 29. | Jyoti Sharma | Emerging Tools and Techniques in VLSI, MEMS & MOEMS | SKIT, Jaipur | SKIT, Jaipur | SKIT, Jaipur | 25.01.22 – 29.01.22 |
| 30. | Snehanshu Shekhar | Type-1 and Type-2 Fuzzy Logic and Its Applications | AICTE ATAL | AICTE ATAL | Online | 06.12.2021 -10.12.2021 |
| 31. | Aparajita Pandey | India Smart Utility Week (ISUW) | Ministry of Power, Ministry of Telecom, Ministry of Jalshakti, Smart City, Niti Ayog | India Smart Grid Forum (ISGF), New Delhi | Online | 02–04.03 2022 |
| 32. | Aparajita Pandey | Seamless Transition of Microgrids-From Grid Connected to Islanded Mode | Self | Electrical Transient Analyzer Program (ETAP) Software, Irvine, California | Online | 10.02. 2022 |
| 33. | Aparajita Pandey | Certified Hyperledger Fundamentals Program | Self | Kerela Blockchain Academy | Online | 15.12. 2021–11.01.2022 |
| 34. | Aparajita Pandey | Blockhash Live | Self | Digital University Kerela | Online | 29.12.2021 |
| 35. | Aparajita Pandey | Blockchain Foundation Program | Self | Kerela Blockchain Academy | Online | 04.12. 2021–03.01.2022 |
| 36. | Aparajita Pandey | IoT Applications in Renewable Energy | AICTE ATAL | NSS College of Engineering | Online | 22.11. 2021–26.11.2021 |
| 37. | Aparajita Pandey | ETAP Power System Analysis for Electrical Engineers | Self | UDEMY, Electrik Power Academy | Online | 01.09. 2021–05.09.2021 |
| 38. | Aparajita Pandey | IoT Applications on Blockchain Techniques | AICTE ATAL | NIT, Meghalaya | Online | 17.07.2021-21.07.2021 |
| 39. | Roopali Sharma | Sustainability: Research, Education and Practice (SREP-2022) | BIT Jaipur | Department of Management, Birla Institute of Technology, Mesra, | Online | 30-31.05.2022 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 40. | G. P. Mishra | Inclusive growth and affirmative action in India – A road map | Ministry of Personnel, Government of India | Indian Institute of Public Administration, New Delhi | IIPA, ITO, New Delhi | 28-29.12.2021 |
| 41. | G. P. Mishra | National Intellectual Property Awareness Mission | The Office of the Controller General of Patents, Designs and Trademarks, Ministry of Commerce and Industry, Government of India | BIT Jaipur | Online | 28.04.2022 |
| 42. | Purvi Mathur | Operations Management (ICOM-2022) | The ICFAI Foundation for Higher Education | ICFAI, Hyderabad | Online | 13-14.05.2022 |
| 43. | Purvi Mathur | Excellence in Research and Education (CERE-2022) | - | IIM, Indore | IIM, Indore. | 03-05.06.2022 |
| 44. | Purvi Mathur | Online National Research Development Workshop on Statistical Techniques & Data Analytics | - | Department of Management, Birla Institute of Technology, Mesra, 10–14 June, 2022. | Online | 10-14.06.2022 |
| 45. | Purvi Mathur | Personal and Professional Effectiveness- For Academic Professionals | ICFAI Business School | ICFAI Business School, Jaipur | Online | 06.09.2021–10.09.2021 |
| 46. | Purvi Mathur | Inculcating Universal Human Values in Technical Education | AICTE | AICTE | Online | 06-10.06.2022 |
| 47. | Priyanshu Sharma | Inculcating Universal Human Values in Technical Education | AICTE | AICTE | Online | 06-10.06.2022 |
| 48. | Gautam Goswami | International Conference on "Innovation in Visual Arts" (ICIVA'21) | Self | Amity School of Fine Art, Amity University, Noida | Amity School of Fine Art, Amity University, Noida | 18.11.2021 |
| 49. | Gaurav Choudhary | International Conference on "Innovation in Visual Arts" (ICIVA'21) | Self | Amity University, Noida | Amity University, Noida | 18.11.2021 |
| 50. | Vibhuti Pandya | Jaipur International Film Festival 2022 | Self | JIFF India Trust | Maharana Pratap Auditorium, JLN Marg, Jaipur | 07.01.2022-11.01.2022 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 51. | Vibhuti Pandya | Kala Mela 2022 (on Contemporary Arts of Rajasthan) | BIT Jaipur | Rajasthan Lalit Kala Academy, Jaipur | Ravindra Kala Manch, Jaipur | 09.03.2022-14.03.2022 |
| 52. | Gautam Goswami | Kala Mela 2022 (on Contemporary Arts of Rajasthan) | BIT Jaipur | -- do -- | -- do -- | 09.03.2022-14.03.2022 |
| 53. | Gaurav Choudhary | Kala Mela 2022 (on Contemporary Arts of Rajasthan) | BIT Jaipur | -- do -- | -- do -- | 09.03.2022-14.03.2022 |
| 54. | Manish Kumar | Kala Mela 2022 (on Contemporary Arts of Rajasthan) | BIT Jaipur | -- do -- | -- do -- | 09.03.2022-14.03.2022 |
| 55. | Rishika Sharma | Kala Mela 2022 (on Contemporary Arts of Rajasthan) | BIT Jaipur | -- do -- | -- do -- | 09.03.2022-14.03.2022 |
| 56. | Rishika Sharma | UHV FDP | AICTE | AICTE | Online | 06.06.2022-10.06.2022 |
| 57. | Rishika Sharma | Opportunities for Women & Girls in Entrepreneurship | Watson Base camp India & BIT Jaipur | Watson Base Camp India &<br>BIT Jaipur | BIT Jaipur | 11.06.2022-12.06.2022 |
| 58. | Gurminder Singh Malhotra | Two week "Refresher course in Mathematics" | PMMMNMTT | Ramanujan College, New Delhi | Online | 31.08.21-14.09.21 |
| 59. | Indra Kumar Dadheech | Two week "Refresher course in Mathematics" | PMMMNMTT | -- do -- | Online | 31.08–21 – 14.09.21 |
| 60. | Bhawna Agarwal | Two week "Refresher course in Mathematics" | PMMMNMTT | -- do -- | Online | 31.08.21-14.09.21 |
| 61. | Anand Kumar Srivastava | 2nd International Conference on Plasma Theory and Simulation (PTS-2022) | Lucknow University | Department of Physics, Lucknow University | Online | 20-22.06.2022 |
| 62. | Dheeraj Bhardwaj | Recent Trends in Emerging Technologies [iNCRTET-2022] | CSIR-Institute of Minerals and Materials Technology (IMMT) | Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur | SKIT, Jaipur | 16-17.03.2022 |
| 63. | Anand Kumar Srivastava | 36th National Symposium on Plasma Science & Technology (PLASMA-2021) | Plasma Science Society of India | BIT, Mesra Off Campus Jaipur and PSSI | BIT, Jaipur | 13-15.12.2021 |
| 64. | Ravindra Kumar | 36th National Symposium on Plasma Science & Technology (PLASMA-2021) | Plasma Science Society of India | BIT, Mesra Off Campus Jaipur and PSSI | BIT, Jaipur | 13-15.12.2021 |

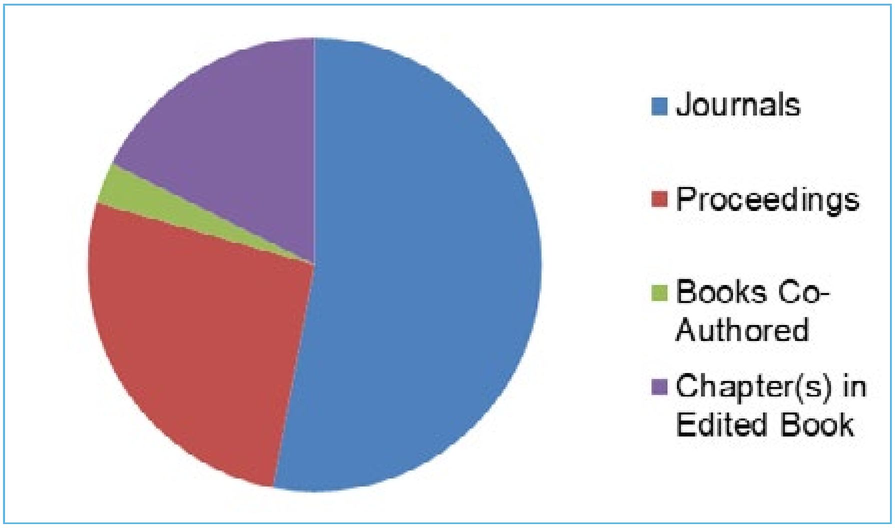
## SECTION 4 RESEARCH PUBLICATIONS

**Publications in Journals** : 18

**Publications in Proceedings :** 9

**Books Co-Authored : 1**

**Chapter(s) in Edited Book : 6**



## SECTION 5 AWARD / PATENT / COLLABORATIONS

### 5.1 Award / Recognition Bestowed on Faculties (State / National / International):

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 1. | Dr. Anand Kumar Srivastava | Invited Talk at 2nd International Conference on Plasma Theory and Simulation (PTS-2022) | Department of Physics, Lucknow University | International | 20–22 June, 2022 |
| 2. | Dr. Anand Kumar Srivastava | Invited Expert lecture on Plasma Science and Technology | St. Anselm's Pink City School, Malviya Nagar, Jaipur | State | 30 April 2022 |
| 3. | Dr. Anand Kumar Srivastava | Reviewed and evaluated Indo-Korean project as technical expert in Plasma Physics | GITA, DST, Govt. of India | International | 2022 |
| 4. | Dr. Dheeraj Bhardwaj | Session Chair in International Conference | SKIT Jagatpura Jaipur | International Level | 2021 |
| 5. | Dr. Dheeraj Bhardwaj | Review of the paper for SCI Journal published by DRDO New Delhi | DRDO New Delhi | International Level | 2021 |

## 5.2 Patents (Applied / Granted)

| Sr. No. | Name of the Inventor | Title of the Invention | Application / Patent No. (As applicable) | Year | Short Description about the patent |
|---|---|---|---|---|---|
| 1. | Dr. Saroj Kumar, Shehab Mohamed Beram, Dr. Kirti Khanna, Dr. Anurag Srivastava. Dr. Sumira Mallik, Dr. Jayasri Murali Iyengar, Santosh Kumar Sharma, Dr. Sumanta Bhattacharya | Bitcoin Price prediction technique using Artificial Intelligence and Machine Learning | 202111061406 | 2021 | Published |
| 2. | Deepak Verma,<br>Snehanshu Shekhar, Rakeshwari Agrawal | System on Chip Controller for Battery Charging for Electric Vehicle Applications | Application No 202211028719<br>Publication Number & Date<br>21/2022<br>27/05/2022 | 2022 | A novel Battery Management System (BMS) is proposed for charging of EV |

## 5.3 MoUs / Collaborations:

| Sr. No | Industry Name | Area of Work | |
|---|---|---|---|
| 1. | Continental Engineers | The company is engaged in manufacturing of Low Tension Current Transformers, Combined CT – PT Metering sets. Outdoor oil-cooled CT / VT / PT. Indoor and Outdoor Resin Cast CT / PT, Bushing Current transformers and Control Transformers. | CONTINENTAL ENGINEERS ALFA<br>Your Reliable Partners for Instrument Transformers! |
| 2. | Danish Private Limited | The Company is engaged in manufacturing of Power and Distribution Transformers up to 30 MVA rating and 33 KV class and control Relay Panels up to 400 KV including substation automation. | danish<br>a unit of trust |
| 3. | Genus Power Infrastructures Ltd | The company is engaged in manufacturing of Energy Metering products and Power Back-up products such as inverters, batteries and solar panels. | Genus<br>energizing lives |
| 4. | Omega Electronics | The company is engaged in manufacturing educational products for higher education to do lab practical in field of Physics , Electrical and Electronics since 1962. | OMEGA ® |

| Sr. No | Industry Name | Area of Work | |
|---|---|---|---|
| 5. | Prime Telelink Pvt. Ltd | The company is engaged in Telecommunication Products, GSM Modem, GSM Emergency Telephones for Road Highways, Electronic Weighing Scales, Weighing Bridges, LED/RGB LED displays. | Prime Telelink<br>Pvt Ltd. |

## SECTION 6 ACTIVITIES/ FACULTY MEMBERS / DOS /DAS

### 6.1 Departmental Students' Activities

| Sr. No. | Name of the Activity | Students' Co-Ordinator | Faculty Coordinator | Date / Duration |
|---|---|---|---|---|
| 1. | Flutter Festival:<br>(5 sessions on flutter ) | Aashish Kumar | S. Vijayvargiya | Feb 14, 2022 |
| 2. | Introduction to Web development (React Stack) | Aashish Kumar | S. Vijayvargiya | Feb 12, 2022 |
| 3. | 7 Days of Bootcamp C++ | Aashish Kumar | S. Vijayvargiya | Feb 1 – 7, 2022 |
| 4. | Workshop on Android App development | Abhijeet Choudhary, Arin Arora, Pranjal Agarwal, Divya Bhatia | Anju Sharma | Jun 22–23, 2022 |
| 5. | Webinar on "Overview of higher Education opportunities in the U.S." | Adheeshri Rathi B.Tech | Santosh Kumar Sharma | Oct 9,2021 |
| 6. | Webinar on "HOW TO CRACK GATE\| IES\| PSUs" | Adheeshri Rathi, Aryan Pareek | Santosh Kumar Sharma | Feb 12, 2022 |
| 7. | Webinar on "Experience the benefits of machine learning" | Adheeshri Rathi, Aryan Pareek | Santosh Kumar Sharma | Dec 04, 2021 |
| 8. | Webinar on<br>"Setting - How to Set SMART Goals & Resume Building - Creating Impactful Resume" | Adheeshri Rathi | Santosh Kumar Sharma | Sept 11, 2021 |
| 9. | Webinar On<br>"Social Network Analysis – Big Data Analysis" | Adheeshri Rathi | Santosh Kumar Sharma | Feb 27, 2022 |
| 10. | IETE Foundation Day-Workshop on "Smart Instrumentation-Advancing Skill Development to the Next Level" at IETE Rajasthan Centre, IETE Bhawan, Jaipur | B. Tech ECE | Snehanshu Shekhar | Nov 13, 2021 |

| Sr. No. | Name of the Activity | Students' Co-Ordinator | Faculty Coordinator | Date / Duration |
|---|---|---|---|---|
| 11. | A student event on "Tintinnabulation" Rephrasing of the Advertising Jingles | Anmol Agarwal | Purvi Mathur, J K Chandel | Mar 23, 2022 |
| 12. | A Webinar on "Digital Transformation and Service Transition" was conducted by Mr. Aashish Singh, The Program Director, HCL America Inc | Bhavika Vaswani<br>(BBA Semester VI) | Purvi Mathur | Mar 19, 2022 |
| 13. | A student event on **"**Decoding Union Budget 2022: Impact and Analysis**"** | Bhavika Vaswani<br>(BBA Semester VI) | Pankaj Sharma, Roopali Sharma | Feb 10, 2022 |
| 14. | Guest Lecture on Marketing of Financial Services by Ms. Shubhi Kirti Saksena, Senior Channel Manager in Tata AIG General Insurance Co. Ltd. | Siddhi Khandelwal (BBA Semester VI) | Roopali Sharma | Jan 29, 2022 |
| 15. | Business Quiz -2022 | Surmai Sharma & Bhavika Vaswani<br>(BBA Semester VI) | Purvi Mathur, Pankaj Sharma,<br>Priyanshu Sharma | Jan 18, 2022 |
| 16. | Guest Lecture on Requisites for a happy & successful personal and professional life:<br>by Prof. Kusum Jain, Professor, University of Rajasthan | Part of Induction Program for B.Tech, BBA, BSc (A&M), BCA | Ritu Pareek | Aug 2, 2021 |
| 17. | An Interactive Session on Extracurricular Activities, Academic Achievement and Skills Development for the sustainable growth in corporate world. By Mr. Garvit Bothra, a Senior Data Analyst in Nielson IQ in Vadodara, Gujarat. | Anmol Agarwal (BBA Semester IV) | Roopali Sharma | Jul 24, 2021 |
| 18. | Typographic Slogan Designing Competition | Ishween Kaur Baluja<br>(M.Sc. Animation Design) | Rishika Sharma | Apr 09, 2022 |

## 6.2 List of Faculties

| S. No. | Name | Designation |
|---|---|---|
| 1 | Dr. Peeyush Tewari | Director (Actg.) |

| Sr. No. | Name | Designation | |
|---|---|---|---|
| **Department of Computer Science & Engineering** | | | |
| 1. | Dr. Madhavi Sinha | Associate Professor | |
| 2. | Dr. Shripal Vijayvargiya | Associate Professor | |
| 3. | Mr. P. K. Sharma | Assistant Professor | |
| 4. | Dr. Piyush Gupta | Assistant Professor | |
| 5. | Dr. M.M. Agarwal | Assistant Professor | |
| 6. | Dr. Seema Gaur | Assistant Professor | |
| 7. | Dr. Vivek Gaur | Assistant Professor | |
| 8. | Dr. Vishwambhar Pathak | Assistant Professor | |
| 9. | Dr. ArchanaBhatnagar | Assistant Professor | |
| 10. | Mr. Subhash Gupta | Assistant Professor | |
| 11. | Mr. Santosh K. Sharma | Assistant Professor | |
| 12. | Dr. Alok Pandey | Assistant Professor | |
| 13. | Mr. B. Pathak | Assistant Professor | |
| 14. | Mrs. Anju Sharma | Assistant Professor | |
| 15. | Mr. Vikas Sangwan | Assistant Professor | |
| 16. | Mr. Santosh Agarwal | Associate Lecturer | |
| | | | |
| **Department of Electronics & Communication Engineering** | | | |
| 1. | Mr. Ankur Agarwal | Assistant Professor | |
| 2. | Mr. Deepak Chaturvedi | Assistant Professor | |
| 3. | Mrs. Jyoti Sharma | Assistant Professor | |
| 4. | Mr. Gaurav Jain | Assistant Professor | |
| 5. | Mr. Snehanshu Shekhar | Assistant Professor | |
| 6. | Mr. Puneet Sharma | Assistant Professor | |
| **Department of Electrical & Electronics Engineering** | | | |
| 1. | Dr. Prashant Singh Rathore | Assistant Professor | |
| 2. | Dr. (Mrs.) Aparajita Pandey | Assistant Professor | |
| 3. | Dr. Deepak Verma | Assistant Professor | |
| **Department of Management** | | | |
| 1. | Dr. Roopali Sharma | Professor | |

| Sr. No. | Name | Designation | |
|---|---|---|---|
| 2. | Dr. G.P Mishra | Professor | |
| 3. | Mr. S.C Mishra | Associate Professor | |
| 4. | Mrs. Pankaj Sharma | Assistant Professor | |
| 5. | Dr. J. K. Chandel | Assistant Professor | |
| 6. | Dr. Priyanshu Sharma | Associate Lecturer | |
| 7. | Mrs. Purvi Mathur | Associate Lecturer | |
| 8. | Dr. Kusum Lata Mishra | Associate Lecturer | |
| **Department of Animation & Multimedia** | | | |
| 1. | Dr.Vibhuti Pandya | Assistant Professor | |
| 2. | Mr.Gautam Kumar Goswami | Assistant Professor | |
| 3. | Mr. Gaurav Choudhary | Assistant Professor | |
| 4. | Mr. Manish Kumar | Assistant Professor | |
| 5. | Dr. (Mrs.) Rishika Sharma | Associate Lecturer | |
| **Department of Chemistry** | | | |
| 1. | Dr. (Mrs) Ranjana Agarwal | Assistant Professor | |
| 2. | Mrs. Nidhi Singh | Associate Lecturer | |
| **Department of Physics** | | | |
| 1. | Dr.Dheeraj Bhardwaj | Assistant Professor | |
| 2. | Dr.Anand Kumar Srivastava | Assistant Professor | |
| 3. | Dr.Ravindra Kumar | Associate Lecturer | |
| **Department of Mathematics** | | | |
| 1. | Dr.Gurminder Singh Malhotra | Associate Professor | |
| 2. | Dr.Indra Kumar Dadheech | Assistant Professor | |
| 3. | Dr. (Mrs.) Bhawna Agarwal | Assistant Professor | |
| **Department of Humanities** | | | |
| 1. | Dr. (Mrs.) Ritu Pareek | Assistant Professor (English Language) | |
| **Department of Bio-Technology** | | | |
| 1. | Dr. M. Krishna Mohan | Professor<br>(Presently Deputed to BISR, Jaipur) | |
| 2. | Mr.P.S.Solanki | Asst. Professor<br>(Presently Deputed to BISR, Jaipur) | |
| 3. | Dr. R.K. Gothwal | Asst. Professor<br>(Presently Deputed to BISR, Jaipur) | |

## 6.3 Board of Studies

| Sr. No. | Name of the Member | Designation | Role |
|---|---|---|---|
| 1. | Dr. Madhavi Sinha | Associate Professor, Computer Science & Engineering | Internal Member of BOS for B.Tech. Programme in CSE, MCA, BCA and B.Sc. (A&M) |
| 2. | Dr P. S. Rathore | Assistant Professor, Electrical & Electronics Engineering | Internal Member of BOS for B.Tech. Programme in EEE |
| 3. | Mr. Ankur Agarwal | Assistant Professor, Electronics & Communication Engineering | Internal Member of BOS for B.Tech. Programme in ECE |
| 4. | Dr. Vibhuti Pandya | Assistant Professor, Animation & Multimedia | Internal Member of BOS for B.Sc Animation & Multimedia and M.Sc. Animation Design Programmes |
| 5. | Mr Gautam Goswami | Assistant Professor, Animation & Multimedia | Internal Member of BOS for B.Sc Animation & Multimedia and M.Sc. Animation Design Programmes |
| 6. | Dr. Roopali Sharma | Professor, Department of Management | Invited Internal Member<br>BOS, Department of Management, BIT Mesra |

## SECTION 7 OTHER INFORMATION

## 7.1 Publication by students, if any

**Publications in Proceedings:(International/National)**

1. N. Gupta and Deepak Verma (2021), "A Review and Analysis of Topologies of Light Emitting Diode (LED) Drivers," 2021 IEEE 2nd International Conference On Electrical Power and Energy Systems (ICEPES), 2021, pp. 1–6, doi: 10.1109/ICEPES52894.2021.9699637.

## 7.2 Achievements of Students:

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Pranjal Agarwal<br>B.Tech. (CSE)<br>2019–2023 | Grace Hopper Scholarship for GHC Celebration | *AnitaB.org in collaboration with Association for Computing Machinary, USA.* | *Awarded for 2021, Online* |
| 2. | Komal Devnani<br>B.Tech. (CSE)<br>2019–2023 | Grace Hopper Scholarship for GHC Celebration | *AnitaB.org in collaboration with Association for Computing Machinary, USA.* | *Awarded for 2021, Online* |
| 3. | Gurleen Kaur | Winner of Beginner Track in defHacks Worlwide 3.0 Hackathon | Devpost | 25th- 27th June, 2021<br>Online |

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 4. | Aastha Mathur | 3rd position in Kavyapath Veethika | Maharani College, University of Rajasthan , Jaipur | 18th - 20th March, 2021<br>Online |
| 5. | Gurleen Kaur | Recipient of Ethereum India Fellowship with 2000$ | Ethereum Foundation and Devfolio | Feb – April, 2021<br>Online |
| 6. | Gurleen Kaur | Best Hardware Hack | HackCBS 3.0 and Major League Hacking | 6th -8th November, 2020<br>Online |
| 7. | Parkhi Jain | 2nd Position all over Jaipur in classical dance- Kathak | Bhatkhande Sangit Vidyapith, Lucknow | 6th June, 2020<br>Online |
| 8. | Gurleen Kaur | Winner of Beginner Track in defHacks Worlwide 3.0 Hackathon | Devpost | 25th-27th June, 2021<br>Online |
| 9. | Elvira Mishra | II Runner-up Prizes in Script Writing & Painting Competitions during during National Youth Festival- MOOD INDIGO-20, Organized Online by IIT Bombay | IIT Bombay | Dec. 2020<br>Online |
| 10. | Kartik Sharma, Tanishq Sharma and Shubham Kumar Sain | Won Second Prize in Think and Bring Idea Competition for project titled "Pollution Control of the metro city by DBD Plasma Filter". | Institute of Advanced Research, Gandhinagar | 25th June, 2022<br>Gandhinagar, Gujarat |

## 7.3 Distinguished Visitors from Industry/Academia/Research organizations:

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Image |
|---|---|---|---|
| 1. | Mr. Himanshu Ajmera,<br>Visual Effects Supervisor,<br>Double Negative Studios<br>Mumbai & Mohali<br>Mr. Himanshu visited Animation & Multimedia Dept. to discuss about the opportunities in the field of Visual Effects & Animation. | 22.04.2022 | |

## 7.4 List of Distinguished Alumni

| Sr. No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | Mr. Sai Kiran, CSE 2012 | Software Development engineer , Microsoft USA |
| 2. | Dr. Shruti Mehrotra, ECE 2011 | Device Modelling Engineer at Global Foundries (MNC) |
| 3. | Anshul Vyas, EEE, 2015 | Microsoft, Site Reliability Engineer |
| 4. | Mr. Garvit Bothra , MBA 2014 | Nielsen India Ltd, Senior Research Executive |
| 5. | Ankit Vajpeyee, B.Sc. (A &M) 2009 | Senior Executive, Mathod Studios, Canada |
| 6. | Gaurangi Gupta, ECE 2012 | RF/Microwave Antenna Engineer, Postdoc at NASA JPL |
| 7. | Sheenu Jain, ECE 2013 | Account Executive, Google |
| 8. | Gamini Singh Udawat, 2016 EEE | Applied Scientist II at Amazon, MS from University of Minnesota, USA |
| 9. | Varun Varindani, 2017 EEE | Senior Engineer at Qualcomm, MTech from Indian Institute of Science (IISC) |
| 10. | Bipasha Parul, 2014 EEE | IFS officer, Government of India |
| 11. | Rajat Sinha, 2015 EEE | ESD Modeling Engineer, Global Foundries<br>(Ph.D from IISC Bengaluru) |
| 12. | Shivam Agarwal, 2014 EEE, NITIE Mumbai | IT Manager, Global Order to cash |
| 13. | Lakshya Gupta, 2016 EEE | Engineer , IOCL |
| 14. | Samar Singh, 2016 EEE | Doctoral Researcher at Mercedes Benz, Stiuttgart, Germany |
| 15. | Prateek Gupta, 2015 EEE | Engineer at Mercedes Benz, Stiuttgart, Germany |
| 16. | Vilas Rarotra, 2016 EEE | MBA from INSEAD Business School |
| 17. | Sanat Talwar, 2016 EEE | MS From University of Maryland, Information System Security Engineer at Tesla |
| 18. | Mudit Sahai, 2017 EEE | MBA from IMT Ghaziabad, Assistant Product Manager at Adani Wilmar Ltd. |
| 19. | Anshul Vyas, 2015 EEE | Site reliability Engineer at Microsoft |
| 20. | Pranjal Bhown, 2014, EEE | UX Design Engineer at Microsoft |
| 21. | Rahul Khatri, 2017 EEE | Category Manager at Flipkart |
| 22. | Joshita Sharma, 2018<br>M.Sc. Animation Design | Asst. Professor in Amity University, Jaipur |

## 7.5 Infrastructure / Equipment added during the year:

Lab Equipmement, Computers & peripherals, Software, Machinery and Furniture & Fixtures of about ₹ 79.19 Lacs were purchase and installed during the year. Following is the category wise break up;

| | |
|---|---|
| Lab Equipment: | ₹ 34.45 Lacs |
| Computers & Peripherals: | ₹ 13.32 Lacs |
| Software: | ₹ 8.00 Lacs |

Plant & Machinery: ₹ 31.37 Lacs

Furniture & Fixtures: ₹ 2.05 Lacs

## 7.6 Any other relevant information

**Other Achievements:**

1. Mr. Snehanshu Shekhar Assistant professor Deptt. Of ECE, is appointed as IETE EC member, IETE Rajasthan Local centre for the session 2020–2022.

**Ph.D. Awarded:**

1. Mr. Saurabh Singh (PHD/CS/10052/2012) awarded Ph.D. in CSE discipline dated on 16/08/2021 thesis entitled "Enhancement of Dimensionality Reduction Techniques for Pattern Construction of Biometric Authentication Systems" under the supervision of Guide Dr. Madhavi Sinha.
2. Ms. Rinkey (PHD/CS/10016/2012) awarded Ph.D. in CSE discipline dated on 05/10/2021 thesis entitled "Development of Cloud Based Architecture for Performance Enhancement of E-Learning Systems" under the supervision of Guide Dr. Piyush Gupta & Co-guide Dr. Archana Bhatnagar.
3. Mr. Dharmendra Kumawat (PHD/MB/10017/2012) awarded Ph.D. in Management discipline dated on 11/03/2022 thesis entitled "A Study of Public-Private Partnership in Operation and Maintenance of Urban Drinking Water Supply System" under the supervision of Guide Dr. Roopali Sharma.
4. Mr. Mukesh Kumar Singh (PHD/MB/10016/2012) awarded Ph.D. in Management discipline dated on 26/05/2022 thesis entitled "A study to Analyse the impact of emerging managerial practices on performance of the Hotel Industry in Jaipur Region" under the supervision of Guide Dr. Roopali Sharma and Co-guide Dr. Ritu Arora.

## 7.7 Special COVID Initiatives, if any

The institute organized various online and off lines sessions to spread awareness about the safety measures to be taken during the COVID 19 pandemic.

We have established the First COVID diagnostic Facility at JNU Medical Hospital, Jaipur, inaugurated by the Hon'ble CM Shri Ashok Gehlot, Govt of Rajasthan.

# BIT Off Campus Lalpur

SECTION 1 PROFILE

## 1.1 About the Off Campus :

With a vision to inspire young minds and professionals, BIT Lalpur Campus Ranchi, was started initially with part-time courses in 1998. Currently, Master of Business Administration (MBA), Master of Computer Application (MCA), Bachelor of Business Administration (BBA), Bachelor of Computer Application (BCA) programs, and Ph.D. are being offered by the institute.

**About the Department of Computer Science:**

**Vision**

Strive relentlessly to develop and maintain its recognition as a frontrunner in contemporary IT and management education in the country and contribute strongly towards nation-building through excellence in education, research and development activities.

**Mission**

1. To impart quality education tuned to the present times and empowering students with a strong foundation ensuring their development as complete professionals who can handle challenges of the modern era with full confidence.
2. To provide excellent research and development facilities for faculty and students to undertake contemporary theoretical and applied research with mutually beneficial collaborations with leading universities, industries and research bodies across the globe to continually improve the quality of education and research.

## SECTION 2 SEMINAR / CONFERENCE

### 2.1 Seminar / Conferences / Short – Term Courses Conducted:

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event |
|---|---|---|---|---|
| 1. | Workshop on "Developing Leadership Skill among budding Entrepreneur" | Ms Anupma Sahai/<br>Dr Mili Dutta | BIT, Mesra | 12–03–2022 &13–03–2022 |
| 2. | Five days online Workshop on "Research Methodology". | | BIT, Mesra | 23–05–2022 to 27–05- 2022 |

### 2.1 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by

**Faculty Members**

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 1. | Amitabh Chandan | "Short Term Training Program on Research Methodology- Basics" | BIT Lalpur | Dr. Anis Haider,<br>Dr. Satrajeet Choudhary | Online (BIT Lalpur) | 23rd-27th May,2022 |
| 2. | Dr. Binod Kumar Sharma | National Intellectual Property Awareness Mission (NIPAM)" | NA | Intellectual Property Office, India | Online | 28/04/2022 |
| 3. | Dr Mili Dutta | 5-day online FDP on "Inculcating Universal Human Values in Technical Education" | All India Council for Technical Education (AICTE) | All India Council for Technical Education (AICTE) | Online | 8th -12th November,2021 |
| 4. | Dr Mili Dutta | Online Advanced FDP "Sustainable Business Eco-system" | National Institute of Technology, Roukela | AICTE Training and Learning(ATAL) Academy | Online | 10th-14th January,2022. |

| | | | | | | |
|---|---|---|---|---|---|---|
| 5. | Dr Mili Dutta | Participated in IP Awareness/Training program under National Intellectual Property Awareness Mission | BIT,Jaipur | Intellectual Property Office ,India (Ministry of commerce and Industry ) | Online | 8th April,2022 |
| 6. | Dr Mili Dutta | Heavy Engineering Corporation -A 65 year old history of Operations and massive history of milestone :both positive and negative | Ancient Indian Wisdom: Panacea for sustainable Well-being | International Conference organized by SMS Varanasi | Online | 26–27th June,2021 |
| 7. | Dr Mili Dutta | The rising affluence of social media promotion: An emerging Perspective to rise above the clutter | Emerging Issues on contemporary business practices in the era of Intelligence sustainable Economic Development through Technological Transformation | International Conference organized by SRMS college of Engineering and Technology, Bareilly | Online | 26th February,2022 |
| 8. | Dr. P S Bishnu | Faculty Development Programme on Artificial Intelligence, Robotics and Automation | CURIE-AI, DST, Govt. of India | Centre for School of Automation, Banasthali Vidyapith | Banasthali Vidyapith | 9/3/2022 to 14/3/2022 |
| 9. | Dr. T.K. Banerjee | Waste-2-Wealth | | Dept of Chemical Engineering, BIT Mesra | Online Webinar | 12/3/2022 |
| 10. | Dr. T.K. Banerjee | Awareness and Training on Intellectual Property | | Intellectual Property Office, India | Online Webinar | 28/4/2022 |

## SECTION 3 RESEARCH PUBLICATIONS

### 3.1 Publications in Journals : 25

### 3.2 Publications in Proceedings : 13

### 3.3 Book : 1

### 3.4 Chapter(s) in Edited Book : 11

## 4.1 Patents (Applied / Granted)

| Sr. No. | Name of the Inventor | Title of the Invention | Application / Patent No. (As applicable) | Year | Short Description about the patent |
|---|---|---|---|---|---|
| 1. | Umesh Prasad,<br>Soumitro Chakravarty | IoT enabled tool for online education system in the developing trend of smart education | 202211029708 | 2022 | When a student requests a variety of educational materials, the invention can be used to link those materials to a smart education application to fulfil the student's request. In other words, the invention can help fulfil the student's request. This issue needs to be fixed using some kind of technical methodology. Students will now have access to a wide variety of instructional materials, such as video, still images, live broadcasts, and problem banks, as a direct result of this modification. Because of this, a presentation to the general public has been given regarding an intelligent education system. A smart education server that is enabled by the Internet of Things is one of the components of the smart education system. Other components of the smart education system include a student terminal that is preloaded with a learning application, a service that provides a service for learning content such as video clips, images, a live broadcast, and learning materials. |
| 2. | Soumitro Chakravarty,<br>Umesh Prasad | Internet of Things for Home safety Applications | 202241032207 | 2022 | The present invention involves a home device interface, a data transfer unit (DTU) equipment, a platform, a control node, and a network server composing an intelligent home program based on Internet of things technology. In comparison to prior art,, the smart household system has the benefit of using Internet of Things technologies to create an intelligent home communications network. In home wireless transmission, a wireless network protocol for a home device is used, and the effects of minimal complexity, self-organization, low energy consumption, and cheap cost are accomplished. Under the assistance of lot technology, the network server is constructed, and effective information from various home components in the system may be transmitted to the network server. Sensing information from the devices canbe transmitted using data from a cloud service network, the gadgets can also be in continuous communication, and consumers can examine what's going on at any time from any location. |

## 4.2 MoUs / Collaborations

| Sr. No. | Name of Organisation / University | Purpose / Area/Short Description | Year / Duration |
|---|---|---|---|
| 1. | BITOC Lalpur and Binary Tags. | Internship opportunities for students at the campus | 3 Years |
| 2. | An MOU between Birla Institute of Technology, Off Campus Lalpur and The JharkhandState Cooperative Milk Producers' Federation Limited, Ranchi | Internship opportunities for students at the campus | 3 Years |

## SECTION 5 ACTIVITIES/ FACULTY MEMBERS / DOS /DAS

## 5.1 Departmental Students' Activities

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 1. | DEB-AURA<br>▪ KALOPSIA – Hurricane of Feelings throwback<br>▪ CHRONICLES- Down the memory lane penning down emotions<br>▪ CLASH OF TRADITIONAS - Finding similarity in dissimilarity Traditional vs western | | | 28/01/2022 |
| 2. | SUMMER INTERNSHIP in IT Profile at Central Coalfields, Jharkhand | Himanshu Swaraj<br>Jatin Kumar Soni<br>Puja Anand<br>Shafan Fardin Khan<br>Yash Shrivastava | | May 2022-July 2022 |
| 3. | SUMMER INTERNSHIP in IT Profile at Central Coalfields, Jharkhand | Anshu Kumari<br>Abhishek Ansu<br>Akash Kumar Pandey<br>Himanshu Kumar<br>Rahul Kant<br>Shivam Kumar Singh<br>Swati Rani<br>VinayPratap | | May 2022-July 2022 |

## 5.2 List of Faculties

**Department: Computer Science & Engineering**

| Sr. No. | Name of Faculty | Designation |
|---|---|---|
| 1. | Dr.Vandana Bhattacharjee | (Professor) Director In-Charge |
| 2. | Dr. (Mrs.) Srabani Mukhopadhyaya | Associate Professor |
| 3. | Dr. (Mrs.) Amrita Priyam | Associate Professor |
| 4. | Mrs. OnimaTigga | Assistant Professor |
| 5. | Dr. Sanjay Kumar | Assistant Professor |
| 6. | Mr. Amar Kumar | Assistant Professor |
| 7. | Dr. Nagendra Prasad Tiwary | Assistant Professor |
| 8. | Dr. N.K. Singh | Assistant Professor |
| 9. | Dr. Partha Sarthi Bishnu | Assistant Professor |
| 10. | Dr. Binod Kumar Sharma | Assistant Professor |
| 11. | Dr. Kuntal Mukherjee | Assistant Professor |
| 12. | Dr. (Ms.) Jaya Pal | Assistant Professor |
| 13. | Dr. Umesh Prasad | Assistant Professor |
| 14. | Dr. (Mrs.) Siba Mitra | Assistant Professor |
| 15. | Dr. Siva Surya Narayana Chintapalli | Assistant Professor |
| 16. | Mr. Deepak Kumar Mishra | Associate Lecturer |
| 17. | Dr. (Mrs.) Aparna Shukla | Associate Lecturer |
| 18. | Mr. Hareshwar Prasad | Associate Lecturer |
| 19. | Mr. Khalid Ashraf | Associate Lecturer |
| 20. | Mrs. Vijaya Lakshmi Chintapalli | Jr. Scientific Officer |

**Department : Management**

| Sr. No. | Name of Faculty | Designation |
|---|---|---|
| 1. | Dr. Pranab Kumar | Associate Professor |
| 2. | Dr. Arun Kumar Singh | Assistant Professor |
| 3. | Dr. Abhay Ranjan Srivastava | Assistant Professor |
| 4. | Ms. Anupma Sahai | Assistant Professor |
| 5. | Dr. Somnath Mukherjee | Assistant Professor |
| 6. | Dr. Sandeep Nath Sahdeo | Assistant Professor |
| 7. | Dr. Syed Anis Haider | Assistant Professor |
| 8. | Dr. Ashutosh Mishra | Assistant Professor |

| Sr. No. | Name of Faculty | Designation |
|---|---|---|
| 9. | Mr. Amitabh Chandan | Assistant Professor |
| 10. | Dr. (Mrs.) Mili Dutta | Assistant Professor |
| 11. | Dr. Pradeep Munda | Assistant Professor |
| 12. | Dr. Soumitro Chakravarty | Assistant Professor |
| 13. | Dr. Avinash Kumar Sinha | Assistant Professor |
| 14. | Dr. Jaleshwar Bhagat | Assistant Professor |
| 15. | Dr. Satrajeet Choudhury | Assistant Professor |
| 16. | Dr. Tanmoy Kumar Banerjee | Assistant Professor |
| 17. | Dr. B.N..Sanyal | Assistant Professor |
| 18. | Mr. Prashant Kumar Singh | Assistant Professor |

## SECTION 6 OTHER INFORMATION

### 6.1 Achievements of Students :

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Abhishek Kumar Anmol | Successful and interactive participation in the workshop "Developing Leadership Skill among budding Entrepreneur" | Department of Management, BIT OFF Campus Lalpur, Ranchi | 12th &13th March,2022, BIT OFF Campus Lalpur, Ranchi |
| 2. | Garima Singh | | | |
| 3. | AditiTigga | | | |
| 4. | ShikharSahai | | | |
| 5. | ArunimaAsthana | | | |
| 6. | Megha Shree | | | |
| 7. | VaibhavSagar | | | |
| 8. | Mohit Kumar | | | |
| 9. | AditiJaiswal | | | |
| 10. | PrathnaKumari | | | |
| 11. | NupurKarjee | | | |
| 12. | RishirajCharan | | | |

### 6.2 Infrastructure Development

Renovation cum modernization of the existing infrastructure is being carried out at the Campus. Till-date 12 classrooms have been fully renovated and are functional. Work is in progress for the other rooms and administrative sections as well.

Build up area(s) in Sqm are presented below in a tabular form:

| Sr. No. | Particulars | Build Up Area (in Sqm.) Approx. |
|---|---|---|
| | (A) Academic Building : | |
| 1. | Laboratories | 181.16 |
| 2. | Class Rooms | 55.14 (Each) |
| 3. | Library | 181.16 |
| 4. | (B)Administrative Building : | |
| 5. | Director (In-Charge) Office | 49 |
| 6. | Faculty Rooms | 37 |
| 7. | Placement Office | 35 |
| 8. | Meeting Room | 25 |
| 9. | Examination Office | 61 |
| 10. | Health Centre /First Aid Cum Sick Room | 140 |
| 11. | Office All Inclusive | 305 |

## 6.3 Ph.D. Supervision:

| Sr. No. | Name of Supervisor | Name of the research scholar | Date of registration | Date of award (Ph.D Viva Voce) |
|---|---|---|---|---|
| 1. | Dr. Abhaya Ranjan Srivastava | Gaitri Kumari | 30/07/2014 | 07/09/2021 |
| 2. | Dr. Amar Nath Jha & Dr. Soumitro Chakravarty | Shreya Patel | 25/08/2012 | 07/12/2021 |
| 3. | Dr. Kuntal Mukherjee | SukalyanGoswami | 2012 | 14.08.2021 |
| 4. | Dr. Kuntal Mukherjee | Abhishek Bhattacharya | 2014 | 16.08.2021 |
| 5. | Dr. P S Bishnu | Ritesh Kumar | 28/7/2014 | 12/02/2022 |
| 6. | Dr. SandeepNathSahdeo | Kunal | 03/03/2014 | 24/02/2022 |

## 6.4 Other Activity /Events Conducted at Birla Institute of Technology, Off-Campus Lalpur

Events over a period of 1 week were attended by staff members of BITOC, Lalpur on the occasion of "**Azadi ka Amrit Mahotsav**" which ended on 28th February which is celebrated as '**National Science Day'**. The day is remembered as a sign of respect for the contribution of the great scientist Shri CV Raman.

The NSS wing of BIT Lalpur celebrated 'International Women's Day' in the event NAZARIYA with faculty members, students and staff on 10/03/22 under the guidance of Dr. Abhaya Ranjan Srivastava.

NSS Volunteers presented their ideas and views through speech, poetry and songs. The winner of the competition was Muskan and Runner-Up was SaniaSahu of BBA program.

The speakers talked about Women Empowerment and their role in building a just and equitable society.

**Smart India Hackathon**

Hackathon-2022 an internal presentations was held at the Institution on 25th March 2022 from 10:00 AM to 4 PM. A total of 09 (Nine) groups presented their proposals to the panel of judges. The groups whose presentations were found innovative and up to the mark by the judges were 08 (Eight) in number. They were selected as official entries from the institution's side.

Online Lecture Series organized from 29th January 2022 to 11th April 2022

A number of lecture series were organized for the students with eminent academiciansand industry professionals sharing their knowledge and insights. The topics coveredwere AI &amp; Deep Learning, Circular Economy, Big Data and so on.

## 6.5 Special Covid Initiatives, if any:

Campus has been sanitized on a regular basis to ensure safety of staff and students. Faculty members have been actively spreading awareness related to the needed precautions among public.

# BIT Off Campus NOIDA

## SECTION 1 CAMPUS PROFILE

### 1.1 About the Campus:

BIRLA INSTITUTE OF TECHNOLOGY, MESRA
NOIDA CAMPUS

Birla Institute of Technology, Noida Campus is one of the leading Technical Institutions in the National Capital Region in the State of Uttar Pradesh. Established in the year 1997, the Institution has set bench marks every year, and grown into an Institution of Excellence in Technical Education. Located at the entrance of NOIDA, BIT Noida Campus has become a household name for its excellence in Discipline, Teaching, Training and Placement. Its rich academic tradition has always attracted the most talented students who later on went on to make important contributions to the society.

**Facilities Provided**

- In order to nurture effective learning among students, all class rooms are well equipped with AC and LCD Projectors.
- The Institute has a well-stocked library with more than 5000 volumes on various subjects along with latest editions of prescribed books, several periodicals, journals and high value books to give the students a winning edge.
- The centre believes in holistic personality development of students providing ample space for their recreational activities like – Canteen, Auditorium, Table Tennis space, and badminton, a centralised college computer centre and fully equipped labs.
- The centre is well equipped with e-journals (Emerald, ProQuest ABI Complete, Pro Quest Dissertations & Thesis, Science Direct), and research software like MATLAB and dedicated internet facility for the research scholars.

**Academic Programmes Offered:**

**Under Graduate Courses:**

1. Bachelor in Business Administration (BBA) – 3 years

2. Bachelor in Computer Applications (BCA) – 3 years
3. B.Sc. in Animation & Multimedia (BAM) - 3 years

**Post Graduate Courses:**

1. Masters in Business Administration – 2 years
2. Masters in Computer Applications – 2 years

**Ph.D.** in Management, Computer Science & Mathematics (Full Time & Part Time)

### Department of Computer Science & Engineering

Computer Science Department at BIT Mesra off Campus Noida campus endeavours to be an important regional, national, and international resource center for the development of computing, IT systems and applications. The Department is recognized as one of the leading departments with infrastructure and facilities to match the very best in the country. The department remains committed towards its mission, which is twofold. One is to provide students with the fundamental knowledge and problem-solving skills in Computer Science required for a fulfilling career. The other goal is to create and disseminate knowledge to improve Computer Science research, education and practice.

### Department of Management

The Department of Management was established in the year 1998 with an aim to serve growing need for qualified management professionals and to meet the requirements of the industry in the competitive and dynamic business environment. The department has continuously strived to achieve this aim by maintaining the highest standards in the Undergraduate (BBA), Postgraduate (MBA) and Doctoral Programmes offered by it.

### Department of Animation & Multimedia

After Covid times, students of Department of Animation and Multimedia are happy in joining offline classes and are coming up with creative exercises in various subjects like Drawings, Graphics Design, 2D Animation, 3D Modeling and Animation, and Games etc. This year, Department is starting a new skill-based, job-oriented one-year Certificate Programme on Game Design and Development and look forward to having lots of colorful exercises and projects by students. We have also planned to organise events like guest lectures, competitions, seminars, and alumni-interactions etc. for the upliftment of the students.

## SECTION 2 RESEARCH PROJECTS

### 2.1 Sponsored Projects (Research and Consultancy)

**a) Ongoing Projects :**

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | Impact of Green Brand Image on Green Brand Equity and Green Purchase Intention in Indian Banking Sector | Dr. Meenakshi Sharma | ICSSR | 01.01.2020 | ₹ 16 Lacs | 2 years |
| 2. | The Rural youth from Enrollment to Employment: Role of New National Education Policy-2020 in Re-Imagining Vocational Education with Experiential Learning through Higher Education Institutions | Prof. (Dr.) S.L. Gupta and Dr. Arun Mittal | Mahatma Gandhi National Council for Rural Education | 21.09.2021 | ₹ 5.5 Lacs | 1 year |

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 3. | Role of Women Entrepreneurship in Holistic Empowerment of Women: An Empirical study of Semi-urban and Urban women Entrepreneurs | Dr. Arun Mittal | Indian Council of Social Science Research | 12.03.2022 | ₹ 7.5 Lacs | 1 year |

**b). Consultancy Projects carried out/ongoing**

| Sl. No. | Title of Project | Funding Agency | Duration | | Grant mobilized (₹ Lacs) | Principal Investigator / Co- Investigator | Ongoing / Complet ed* |
|---|---|---|---|---|---|---|---|
| | | | from | to | | | |
| 1. | In-house training on Internal Marketing, Leadership and Communication | Pest Shield India Pvt. Ltd. | 25.02.2022 | 27.02.2022 | ₹ 50,000/- | Dr. Arun Mittal | Completed |

SECTION 3 SEMINAR / CONFERENCE

## 3.1 Seminar / Conferences / Short – Term Courses Conducted :

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event |
|---|---|---|---|---|
| 1. | FDP on Art of Research Paper writing | Dr. Arun Mittal & Dr. Monika Bisht | -- | 07.12.2021 |
| 2. | National seminar on Transforming business through uncertain times in the era of Covid-19 | Dr. Monika Bisht | -- | 08.12.2021 |
| 3. | International FDP on Pedagogy development | Dr. Abhishek Singh and Dr. Niket Mehta | -- | 09.12.2021 |
| 4. | FDP on Business Analytics | Dr. Arun Mittal and Anurag Joshi | -- | 13.12.2021 – 14.12.2021 |
| 5. | Executive Development Program on Data Science with Data Modeling | Seema Sharma and Muntaha Ahmad | -- | 03.04.2022 – 04.04.2022 |
| 6. | Executive MDP on Business Simulation | Dr. Arun Mittal | JIMS (Partner) | 27.05.2022 – 28.05.2022 |

## 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by

**Faculty Members:**

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 1. | Dr. Niket Mehta | FDP on Idea Generation | Self | ICT Academy | DAVC College Faridabad | 23.06.2022 – 25.06.2022 |
| 2. | Dr. Niket Mehta | Training on "Game based Learning" | -- | CIET-NCERT | Online | 20.06.2022 – 24.06.2022 |
| 3. | Muntaha Ahmad | 6-weeks Training on "Data Science" | Self | Internshala Trainings | Online | 01.05.2022 – 12.06.2022 |
| 4. | Dr. S.L. Gupta & Dr. Monika Bisht | Two-week program on "Entrepreneurship, Incubation & Innovation | Self | EICT Academy and NIT Patna | Online | 20.12.2021 – 31.12.2021 |
| 5. | Dr. Charu Wahi | 1 week ATAL FDP on "Deep Learning" | -- | IIIT Vadodara | Online | 13.12.2021 – 17.12.2021 |
| 6. | Campus faculties | Design thinking Workshop | -- | BIT Mesra, Off Campus NOIDA | Online | 10.12.2021 |
| 7. | Campus faculties | One day International FDP on "Teaching Pedagogy" | -- | BIT Mesra, Off Campus NOIDA | Online | 09.12.2021 |
| 8. | Campus faculties | National Seminar on "Transforming Business through Uncertain times in the Era of COVID-19" | -- | BIT Mesra, Off Campus NOIDA | Online | 08.12.2021 |
| 9. | Seema Sharma, Sheetal Sehgal | Webinar on "Cloud Infrastructure Foundations" |  | Oracle Academy | Online | 08.12.2021 |
| 10. | Campus faculties | Faculty Development Program on "Art of Research Paper" | -- | BIT Mesra, Off Campus NOIDA | Online | 07.12.2021 |
| 11. | Priti Sharma | Prime Career Mantra on Cyber Security : Cybercrime-proofing, Fastest Growing Career in Today's Job market |  | NASSCOM and Future Skills Prime | Online | 30.11.2021 |
| 12. | Pramila Joshi & Priti Sharma | Webinar on "Attended Webinar FutureSkills PRIME \| Bridge Course in BIG DATA Technology" | -- | CDAC Noida | Online | 25.11.2021 |
| 13. | Dr. Niket Mehta | FDP on "Emotional Intelligence" |  | ICT Academy | Online | 22.11.2021 – 26.11.2021 |
| 14. | Preety Bajaj | Management Development Programme | -- | Jharkhand Govt. Tool | Online | 27.09.2021 – 02.10.2021 |
| 15. | Dr. Niket Mehta | FDP on "Inculcating Universal Human Values in Technical Education" |  | AICTE | Online | 20.09.2021 – 24.09.2021 |
| 16. | Seema Sharma | STTP on "Practicing Cloud Computing with AWS" |  | Koneru Lakshmaiah Education Foundation | Online | 20.09.2021 – 25.09.2021 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 17. | Partha Acharya | Integrating Theory in Research and Questionnaire Structuring and Validation | Koach Scholar | Koach Scholar | Online | 18.09.2021 – 22.09.2021 |
| 18. | Sheetal Sehgal | ATAL FDP on "Industrial Applications of Machine Learning and Artificial Intelligence" | | | Online | 06.09.2021 – 10.09.2021 |
| 19. | Dr. Smitha Jha | AICTE Sponsored STTP on "Practicing Cloud Computing with AWS" | AICTE | KL College of Engineering | Online | 30.08.2021 – 04.09.2021 |
| 20. | Aruna Malik | Webinar on "Ethics in AI and BIG Data: Defining the issue, Resolving the problem" | -- | JIO Institute | Online | 05.08.2021 |
| 21. | Sheetal Sehgal & Priti Sharma | Fundamentals of AI | | ICT Academy | Online | 02.08.2021 – 06.08.2021 |
| 22. | Dr. Charu Wahi | 2-week FDP on "Python Programming" | Self | E&ICT Academy | Online | 26.07.2021 – 06.08.2021 |
| 23. | Aruna Malik | Webinar on "AI & DS: Systems Empowering Humans to manage info better" | -- | JIO Institute | online | 15.07.2021 |

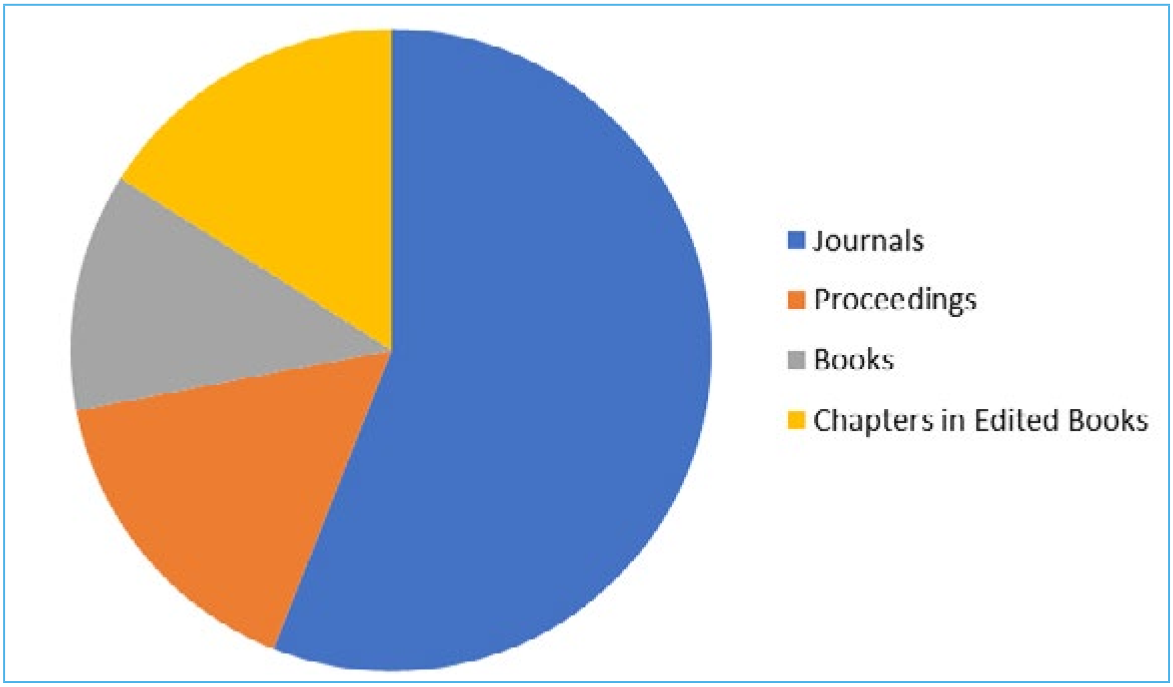
## SECTION 4 RESEARCH PUBLICATIONS

### 4.1 Publications in Journals : 15

### 4.2 Publications in Proceedings : 4

### 4.3 Books Co-Authored : 3

### 4.4 Chapter (s) in Edited Book : 4



## 5.1 Award / Recognition Bestowed on Faculties (State / National / International)

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 1. | Dr. Abhishek Singh | Rashtriya Gaurav Award | Govt. of Maharashtra | State | 2022 |

## 5.2 Patents

| Sr. No. | Name of the Inventor | Title of the Invention | Application / Patent No. (As applicable) | Year | Short Description about the patent |
|---|---|---|---|---|---|
| 1. | Dr. Suparna Dutta & Dr. Niket Mehta | A Method for Mediated Communication | 2021107055 | 2021 | |
| 2. | Dr. Arun Mittal | Device to track the customer's footprints in a mall | 110908 | 2022 | |
| 3. | Dr. Vibha Kaw Raina | A mobile transaction system for remote area and method thereof | 202211000795 | 2022 | |
| 4. | Dr. Charu Wahi, Anurag Joshi, Seema Sharma, Rakesh Singh & Preety Bajaj | Method and system of Security framework for Wireless Sensor Networks | 202211001381 | 2022 | |
| 5. | Rakesh Singh & Anurag Joshi | Design of Bulb | 356883-001 | 2022 | |

## 5.3 MoUs / Collaborations :

| Sr. No. | Name of Organisation / University | Purpose / Area/*Short Description* | Year / Duration |
|---|---|---|---|
| 1. | Academy of Business and Emerging Markets | Academic Collaboration for MBA & BBA students | 2021 |
| 2. | NEXTGEN Shopping Pvt Ltd | Academic Collaboration for MCA & BCA students | 2021 |
| 3. | Sansoftech Services Private Ltd. | Academic Collaboration for MCA & BCA students | 2021 |
| 4. | Nouveau Labs | Academic Collaboration for MCA, MBA, BCA & BBAstudents | 2021 |
| 5. | United Facilities & Logistics Private Ltd. | Academic Collaboration for MCA, MBA, BCA & BBAstudents | 2021 |
| 6. | Monotech Engineers Pvt Ltd. | Academic Collaborations for MCA & BCA students | 2021 |

| Sr. No. | Name of Organisation / University | Purpose / Area/*Short Description* | Year / Duration |
|---|---|---|---|
| 7. | Daddy3d.com | Academic Collaborations for B.Sc. (A&M) Students | 2022 |
| 8. | Gamitronics Studios Pvt. Ltd. | Academic Collaborations for B.Sc. (A&M) Students | 2022 |

SECTION 6 ACTIVITIES/ FACULTY MEMBERS / DOS /DAS

## 6.1 Departmental Students' Activities

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 1. | Research Talk Series-7: Deep Learning models and their applications | | Dr. Smita Jha | 27.06.2022 |
| 2. | Research Talk Series-6: Mesmerising world of Journals: An insight into Indexing, Predatory and Cloned Journals | | Dr. Smita Jha | 23.05.2022 |
| 3. | Industrial visit to Digitoonz Animation Studio for BAM students | | T&P department | 21.05.2022 |
| 4. | Research Scholars Day | | Dr. B. B. Sagar | 20.05.2022 |
| 5. | Farewell | Annie, Koyana, Manas, Nakul, Prameet & Ritika | Cultural Committee | 13.05.2022 |
| 6. | Research Talk Series-5: Qualitative Research Methods | | Dr. Smita Jha | 25.04.2022 |
| 7. | Workshop on Case Writing analysis | | Dr. Monika Bisht and Preety Bajaj | 16.04.2022 |
| 8. | Prize Distribution Ceremony | | Cultural Committee | 11.04.2022 |
| 9. | Sports Day | Alisha, Sarthak | Umair Ujala and Sheetal Sehgal | 30.03.2022 – 31.03.2022 |
| 10. | Cultural Fest: Udbhav | Mink, Sukriti, Alisha, Prashant, Aditya, Karthik, Samhita, Soumya | Cultural Committee | 29.03.2022 |
| 11. | Lecture on "Financial and Investment awareness" | | Dr. Arun Mittal | 28.03.2022 |
| 12. | Lecture on "Psychological well being" | | Rachana Pratik | 24.03.2022 |
| 13. | Research Talk Series-4: Sampling Tools and Techniques | | Dr. Smita Jha | 22.03.2022 |

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 14. | Matribhasha Diwas | Prashant and Annie | Pramila Joshi and Dr. Niket Mehta | 22.03.2022 |
| 15. | Lecture on "Artificial Intelligence and its Role in our Daily lives" |  | Dr. Monika Bisht | 11.03.2022 |
| 16. | Lecture on "Manager to leader: Success mantras" |  | Dr. Monika Bisht | 11.03.2022 |
| 17. | Research Talk Series-3: Guidance for Quality Publications |  | Dr. Smita Jha | 05.03.2022 |
| 18. | Lecture on "Legalities, Securities and Funding Opportunities in Startups & Entrepreneurship" |  | E-Cell | 04.03.2022 |
| 19. | Alumni Talk Series: Career in Digital Illustration |  | A&M department | 25.02.2022 |
| 20. | Alumni Talk Series: Career in VFX and Post Production |  | A&M department | 18.02.2022 |
| 21. | Alumni Talk Series: Understanding OTT Platforms |  | A&M department | 12.02.2022 |
| 22. | Webinar on "Sensitization of students to Entrepreneurship" |  | E-Cell | 11.02.2022 |
| 23. | Alumni Talk Series: UI/UX designing as a career |  | A&M department | 05.02.2022 |
| 24. | BIT Techwiz | Prashant, Osman, Ayush and Yash | IT Club | 28.01.2022 |
| 25. | Research Talk Series-1: Carrying out effective literature review for review papers and doctoral research | Kriti Poddar | Dr. Smita Jha | 27.01.2022 |
| 26. | Republic Day Celebration | Prashant and Annie | Pramila Joshi and Dr. Niket Mehta | 25.01.2022 |
| 27. | Webinar on "Career counselling for all government jobs" |  | Dr. Abhishek Singh | 25.01.2022 |
| 28. | Webinar on "Menstrual Hygiene" |  | Pramila Joshi and Dr. Niket Mehta | 21.01.2022 |
| 29. | Webinar on "Kickstart your Business start-up" |  | E-Cell | 17.01.2022 |
| 30. | Webinar on "Ayurvedic lifestyle for Optimal Health and Well Being" |  | Pramila Joshi and Dr. Niket Mehta | 14.01.2022 |

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 31. | Academia Industry Meet 2022 | | Dr. Abhishek Singh, Dr. Monika Bisht, Muntaha Ahmad and Partha Acharya | 05.01.2022 – 11.01.2022 |
| 32. | Webinar on "New Education Policy" | | Rachana Pratik | 27.12.2021 |
| 33. | Webinar on "Cancer Prevention & Palliative Care" | | Dr. Abhishek Singh | 24.12.2021 |
| 34. | Workshop on Design Thinking & Innovation | | Pramila Joshi and Dr. Niket Mehta | 10.12.2021 |
| 35. | Elocution competition | | Rachana Pratik | 28.10.2021 |
| 36. | Webinar on "Emerging Trends & Challenges in Cyber Security" | | Priti Sharma | 27.10.2021 |
| 37. | Webinar on "Entrepreneurship" | | E-Cell | 21.10.2021 |
| 38. | Orientation programme for UG students | | Academic Coordinators | 20.10.2021 |
| 39. | Webinar on "Digital Marketing, Creativity & Innovation" | | Dr. Abhishek Singh | 08.10.2021 |
| 40. | Webinar on "Double Taxation" | | Dr. Abhishek Singh | 04.10.2021 |
| 41. | Webinar on "The Structure of a Research Paper" | | Dr. Arun Mittal | 02.10.2021 |
| 42. | Webinar on "Real-time Data Analytics-II" | | Dr. Abhishek Singh | 25.09.2021 |
| 43. | Webinar on "Real-time Data Analytics-I" | | Anurag Joshi & Seema Sharma | 24.09.2021 |
| 44. | Tour to Kiran Nadar Museum of Arts | | Dr. Niket Mehta | 17.09.2021 |
| 45. | Webinar on "Mendeley for Researchers" | | Dr.Arun Mittal and Dr. Niket Mehta | 17.09.2021 |
| 46. | Webinar on "Artificial Intelligence" | | Dr. Abhishek Singh | 14.09.2021 |
| 47. | Webinar on "Stress Management" | | Anurag Joshi | 10.09.2021 |
| 48. | Webinar on "Game Design" | | Dr. Niket Mehta | 09.09.2021 |
| 49. | Webinar on "Internet of Things" | | Dr. Vibha Kaw Raina | 03.09.2021 |
| 50. | Webinar on "Campus to Corporate" | | Dr. Abhishek Singh | 31.08.2021 |

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 51. | Webinar on "Objective Wise Analysis" | | Dr. Arun Mittal | 27.08.2021 |
| 52. | Webinar on "How to do well in Group Discussion" | | Dr. Abhishek Singh | 26.08.2021 |
| 53. | Farewell | | Pramila Joshi and Dr. Charu Wahi | 10.07.2021 |

## 6.2 List of Faculties

| Sr. No. | Name | Designation |
|---|---|---|
| 1. | Dr. S. L. Gupta | Professor & Director |
| 2. | Dr. (Mrs.) Asha Prasad | Professor |
| 3. | Dr. (Mrs.) Vandna Sharma | Associate Professor |
| 4. | Dr. (Mrs.) Meenakshi Sharma | Associate Professor |
| 5. | Mrs. Rachana Pratik | Assistant Professor |
| 6. | Ms. Harpreet Charanjit | Assistant Professor |
| 7. | Mrs. Preety Bajaj | Assistant Professor |
| 8. | Dr. Arun Mittal | Assistant Professor |
| 9. | Dr. (Ms.) Monika Bisht | Assistant Professor |
| 10. | Dr. Abhishek Singh | Assistant Professor |
| 11. | Dr. (Mrs.) Suparna Dutta | Associate Professor |
| 12. | Mrs. Sadhu Mallika | Assistant Professor |
| 13. | Dr. (Mrs.) Ila Sahay Dayal | Associate Professor |
| 14. | Mr. Anil Kumar | Assistant Professor |
| 15. | Mrs. Mrinalini Mehta | Assistant Professor |
| 16. | Dr. (Mrs.) Vibha Kaw Raina | Assistant Professor |
| 17. | Mrs. Soma Sircar Dasgupta | Assistant Professor |
| 18. | Mr. Aruna Malik | Assistant Professor |
| 19. | Mrs. Sheetal Sehgal | Assistant Professor |
| 20. | Mrs. Pramila Joshi | Assistant Professor |
| 21. | Mrs. Muntaha Ahmad | Assistant Professor |
| 22. | Dr. (Mrs.) Smitha Jha | Assistant Professor |
| 23. | Mr. Anurag Joshi | Assistant Professor |
| 24. | Mrs. Priti Sharma | Assistant Professor |
| 25. | Dr. (Ms.) Charu Wahi | Assistant Professor |
| 26. | Mrs. Seema Sharma | Assistant Professor |

| | | |
|---|---|---|
| 27. | Dr. Bharat Bhushan Sagar | Assistant Professor |
| 28. | Mr. Umair Ujala | Assistant Professor |
| 29. | Mr. Sanjay Kumar | Assistant Professor |
| 30. | Dr. (Mrs.) Swati Prasad | Assistant Professor |
| 31. | Mr. Rakesh Singh | Associate Lecturer |
| 32. | Dr. Niket Mehta | Assistant Professor |
| 33. | Mr. Partha Acharya | Assistant Professor |
| 34. | Mr. Kiran Ashok Shetti | Sr. Animation Trainer |
| 35. | Mr. Lalit Mohan Bhatt | Editor |
| 36. | Mr. Rahul Dora | Tech. Superintendent |
| 37. | Mr. Obed Horpam Longvah | Cinematographer |
| 38. | Mr. Manoj Kumar | Animator |

## 6.3 List of Adjunct Faculties

| Sr. No. | Name | Designation | Affiliation |
|---|---|---|---|
| 1. | Mr. Ashok Kumar | Visiting Faculty | Visiting Faculty, Delhi University |

## 6.4 Board of Studies

| Sr. No. | Name of the Member | Designation | Role |
|---|---|---|---|
| 1. | HOD CSE, BIT Mesra | HOD | Chairman |
| 2. | Director, BIT Jaipur Campus | Director | Internal |
| 3. | Director, BIT Noida Campus | Director | Internal |
| 4. | Dr. Madhvi Sinha | Associate Professor & In charge-Computer Science Dept. BIT Mesra, Jaipur Campus | Internal |
| 5. | Dr. Vibhuti Pandya | Assistant Professor & In charge-Animation & Multimedia Dept. BIT Mesra, Jaipur Campus | Internal |
| 6. | Ms. Soma Sircar Dasgupta | Assistant Professor & Coordinator, A&M Dept. BIT Noida | Internal |
| 7. | Mr. Lalit Mohan Bhatt | Faculty & Associate Coordinator, A&M Dept. BIT Noida | Internal |
| 8. | Dr. Niket Mehta | Assistant Professor- Animation & Multimedia Dept. BIT Mesra, Noida Campus | Internal |
| 9. | Mr. Gautam Kumar Goswami | Assistant Professor – Animation & Multimedia Dept. BIT Mesra, Jaipur Campus | Internal |
| 10. | Prof. Chinmay Mehta | Retd. Prof. & Dean- Faculty of Fine Arts, Rajasthan University, Jaipur | External |

| Sr. No. | Name of the Member | Designation | Role |
|---|---|---|---|
| 11. | Mr. Chandra Shekher | New Delhi | External |
| 12. | Mr. Praveen Chrispugg | Creative Director, Idea Heavens Studios, Chennai | External |
| 13. | Mr.Sandeep Nandi | New Delhi | External |
| 14. | Mr. Rajiv Chilaka | Founder, Green Gold Animation Pvt. Ltd. | External |
| 15. | Mr. Ajay Joshi | Former Consultant of Animation & Multimedia Dept. BIT Noida and Jaipur Campus | External |

## 7.1 Achievements of Students :

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Nimisha Archana | Special Mention in International Yoga Day competition | Cognifront | 21.06.2022 |
| 2. | Saswata Dutta | Won top prize in the 3D Designing Competition | 3D content platform Daddy 3D | 24.3.2022 |
| 3. | Debangana Bose | Video competition organised on World Happiness Day | BIT Noida | 20.3.2022 |

## 7.2 Distinguished Visitors from Industry/Academia/Research organizations

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture |
|---|---|---|---|
| 1. | Dr. Deepak Yadav<br>Safdarjung Hospital, Delhi | 22.02.2022 | |

| | | | |
|---|---|---|---|
| 2. | Dr. Satyendra Singh<br>Professor<br>University of Winnipeg, Canada | 07.12.2021 | |
| 3. | Dr. Pradeep K. Arora<br>Senior Advisor, NIESBUD | 04.03.2022 | |
| 4. | Dr. Aparna Sharma<br>AIIMS | 08.03.2022 | |

| | | | |
|---|---|---|---|
| 5. | Ms. Geetika Kakkar<br>Specialist Trade Marketing<br>WACOM | 08.03.2022 | |
| 6. | Ms. Akanksha Sood<br>Wildlife Photographer | 08.03.2022 | |
| 7. | Ms. Junahi Rattan<br>Performing Artist | 08.03.2022 | |

| | | | |
|---|---|---|---|
| 8. | Ms. Seema Dhaka<br>ASI, Delhi Police | 08.03.2022 | |
| 9. | Dr. Sapna Rakesh<br>G.L. Bajaj ITM | 08.03.2022 | |
| 10. | Dr. Pramod Kumar Verma<br>Director, Economic Development Trust | 28.03.2022 | भारतीय प्रतिभूति और विनिमय बोर्ड<br>Securities And Exchange Board Of India<br>वित्तीय शिक्षण<br>एवं<br>जागरूकता कार्यक्रम<br>Financial Education<br>&<br>Awareness Program<br>सेबी का प्रयास<br>(An Initiative of SEBI) |

| | | | |
|---|---|---|---|
| 11. | Prof. (Dr.) Dhananjay Joshi<br>VC, Delhi Teachers University | 11.04.2022 | |
| 12. | Prof. (Dr.) P.K. Sharma<br>Principal, Dayal Singh College | 11.04.2022 | |
| 13. | Dr. Deepak Behl<br>Director, Park Hotels | 11.05.2022 | |
| 14. | Dr. Nripendra Singh<br>PennWest University<br>Clarion, USA | 27.05.2022 | |

## 7.3 List of Distinguished Alumni

| Sr. No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | Vaibhav Gautam<br>BAM 2006–09<br>Founder, Graphics Destination | Vaibhav Gautam, who graduated from BIT Noida in 2009, started his career by working for an organization for about two months and he began pursuing his dream thereof. He began working as a freelancer. Slowly and gradually, he built his own team and by 2014 he registered his own firm.<br>He is the founder of Graphics Destination, company caters different kinds of advertising activities. Currently running successfully with a team of 20 members, based at RDC Raj Nagar, Ghaziabad. |
| 2. | Tanoy Das<br>BAM 2009–12<br>Art Director, Digital Apple | Tanoy graduated from B.Sc. (Animation and Multimedia) and has had about 7 years of brilliant and varied work roles. He was a promo designer for WACOM among other things. Presently he is working as an Art director at Digital Apple, Gurgaon. He manages and leads his team of designers through a lot of exciting assignments. Tanoy is also a fine illustrator and dabbles in comic books , as an illustrator and planner. |
| 3. | Vidya<br>BCA 1998–01, MCA 2001–04<br>Capgemini | Vidya is currently working with Capgemini. Prior to the current organization, she has worked with Royal Bank of Scotland, STMicroelectronics. |
| 4. | Poonam Jain<br>MCA 2006–09 | After completing MCA, she joined Aricent Technologies as Software Engineer. She received "Excellence Award" within 6 months of joining. Later, she moved to Naukri.com and Adobe. Currently, she is working in a Germany company. |
| 5. | Akshara Seth<br>BBA 2006–09 | She started her journey at Tata Tele services. In order to develop a purpose-oriented life, she went on to pursue a Happiness Coach from the University of California, Berkeley. She takes sessions impacting 1 Lac people and was also awarded the Outstanding Women of the Year 2021 by Global Trainers Coaches Counsellors Organisation. |

## 7.4 Any other relevant information

### a) Placement details:

| Discipline | Branch | Total No. of Students | Placed | Minimum Salary | Maximum Salary |
|---|---|---|---|---|---|
| Management | MBA | 27 | 26 | 3.5 LAC | 7 LAC |
| Computer Science | MCA | 27 | 18 | 3.6 LAC | 11.4 LAC |
| Computer Science | M.Tech | 03 | 03 | 6.7 LAC | 10 LAC |

### b) Ph.D. Degree awarded to

**Mr. Satvik Vats, (Roll No. PhD/CS/10057/16)** on the topic "Designing a Platform Independent Model for Big Data Analytic", on 06.10.2021

### C) An editorial team

Comprising of Dr. Charu Wahi (Editor), Mrs. Preety Bajaj and Dr. Niket Mehta with student representative Rishabh Kumar Chaudhary designed and published two editions of college Newsletter "BIT Fusion". Sukriti Bhatt was also a member of the 1st edition.

# BIT Off Campus Patna

## SECTION 1 PROFILE

### 1.1 About the Off Campus :

Birla Institute of Technology Patna Campus came into existence in the year 2006 with the initiative of Government of Bihar with a vision to provide quality education for the students of Bihar who wishes to pursue their career in technical education. By far, BIT Patna is one of the best equipped, technically sound professional colleges in the state of Bihar. The campus is well networked. The infrastructure includes 25 Acres of academic space. BIT Patna is committed to provide state-of-the-art facilities to its students.

BIT Patna Campus seeks to attract the best students from diverse background and offer them an excellent educational experience. It offers more flexibility and choice to the students in the academic programmes, option of extra- and co-curricular activities, personality development, life-skills and career planning as the part of holistic development.

The Campus strives to achieve excellence in Teaching, Research and Consultancy by creating an environment in which the faculty and students share a passion for creating, sharing and applying knowledge to continuously improve the quality of education. To keep abreast with latest pedagogy the Institute organizes various International and National Seminar/conferences/ workshops/ FDP/ Short term courses/ Guest lecture etc from time to time.

**Programmes Offered at BIT Patna Campus:**

BIT Patna provides Four Years **Bachelor of Technology (B.Tech.)** in 06 disciplines, namely EEE, ECE, CSE, IT, MECHANICAL & CIVIL Engineering. The total intake capacity of B.Tech. programme is 300, in which 50% seats are reserved for the HOME STATE (Bihar).

BIT Patna also provides Three Years **Bachelor of Business Administration (BBA)**, **Bachelor of Computer Applications (BCA)**.

It also provides Two Years **Masters of Business Applications (MBA), Masters of Technology (M.Tech.)** in CSE & ECE (Wireless Communications) and **Ph.D.** Programme in Science, Engineering and Management.

## 2.1 Sponsored Projects (Research and Consultancy)

### a) Ongoing Projects :

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | Role of Microstructure and interface Strain engineering in Magneto-Electric Properties of PFN/ CZFMO Composite | PI- P.Kour | UGC-DAE CSR | 04.04.2022 | 45000 | 01 |
| 2. | Investigation of the forming behaviour of high strength thermal resistant (HSTR) Metals/alloys through incremental sheet metal forming | Dr. Manish Oraon | SERB | 14 March 2022 | 5254194 | 36 Months |

### b) Consultancy Projects carried out/ongoing :.

| Sl. No. | Title of Project | Funding Agency | Duration | | Grant mobilized (₹ Lacs) | Principal Investigator / Co-Investigator | Ongoing / Complet ed* |
|---|---|---|---|---|---|---|---|
| | | | from | to | | | |
| 1. | Test for Cement (Ultratech PPC) | Mundeshwari Multicon Private Limited | 21/10/2021 | 27/01/2022 | 0.40 | Dr. Anish | Completed on 27/01/2022 |

| Sl. No. | Title of Project | Funding Agency | Duration from | Duration to | Grant mobilized (₹ Lacs) | Principal Investigator / Co-Investigator | Ongoing / Complet ed* |
|---|---|---|---|---|---|---|---|
| 2. | Crushing Strength of Concrete Cubes | Mundeshwari Multicon Private Limited | 21/10/2021 | 03/11/2021 | 0.0236 | Dr. Anish | Completed on 03/11/2021 |
| 3. | Compressive Strength of Concrete for three sets | Mundeshwari Multicon Private Limited | 03/11/2021 | 29/11/2021 | 0.0708 | Dr. Anish | Completed on 29/11/2021 |
| 4. | Test of stone chips 20 mm, 10 mm, sand and water | Mundeshwari Multicon Private Limited | 17/11/2021 | 27/01/2022 | 0.63189 | Dr. Anish, Dr. Angshuman Mandal and Mrs. Bandana Mahto | Completed on 27/01/2022 |
| 5. | Test of Coarse aggregates | Jyoti Construction & Engineering Private Limited | 04/03/2022 | 21/03/2022 | 0.26550 | Dr. Anish | Completed on 21/03/2022 |
| 6. | Test results for compressive strength test of the paver blocks | Birla Institute of Technology Mesra, Off Campus Patna | 07/03/2022 | 14/03/2022 | NA | Dr. Angshuman Mandal | Completed on 14/03/2022 |

## SECTION 3 SEMINAR / CONFERENCE

### 3.1 Seminar / Conferences / Short – Term Courses Conducted :

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event |
|---|---|---|---|---|
| 1. | "Global Innovations and Best Practices in Affordable Housing" under the theme "Inclusive Housing". | Dr Anamika Nandan | Municipal Administration, Urban Development & Housing Department, Government of Bihar | 29th September 2021 |
| 2. | International conference on Sustainability: Research, Education & Practices<br>(organised by Dept. of Management, BIT Mesra in association with Dept of Management, Jaipur, Lalpur, Noida & Patna Campuses) | Dr. Shraddha Shivani | BIT Mesra | 30th – 31st May 2022 |
| 3. | Essential practices in electrical distribution network | Dr. Mayank Singh & Dr. M. A. Hasan | Infimind Private Limited | 14th April 2022 |

## 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by

### Faculty Members

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 1. | Dr. Ritesh Kumar Badhai | Digital Tools for Writing, Authoring and Reviewing Manuscripts | NA | Electronics & ICT Academies<br>IIT Guwahati, NIT Patna, MNIT Jaipur, IIT Kanpur, IIITDM Jabalpur & IIT Roorkee | Online | 12th – 23rd July 2021 |
| 2. | Dr. Nilay Pandey | Hyperspectral imaging: Introduction & challenges in Feld, Airborne application | NA | SINSIL International Pvt Ltd and Resonon HyperSpectral Imaging Solutions | Online | 15th May 2022 |
| 3. | Dr. Anish | e-faculty Development Programme on "Deterioration, diagnosis and Rehabilitation of RC Structures. | NA | Civil Engineering Department at BIT Sindri, Dhanbad | Civil Engineering Department at BIT Sindri, Dhanbad | 25th – 29th Oct 2021 |
| 4. | Dr Anamika Nandan | Certificate Course on Introduction of Archaeology | Govt of Bihar | Bihar Museum | Online | 7th May –<br>31st July 2022 |
| 5. | Dr Satyoki Sarkar | Short Term Training Program,<br>"Techniques of Design, Analysis and Retrofitting of Skyscrapers" | BIT MESRA, Ranchi | Department of Architecture & Planning, BIT MESRA, Ranchi | Online | 13th – 17th December 2021 |
| 6. | Ashutosh Kumar | Short Term Training Program<br>"Techniques of Design, Analysis and Retrofitting of Skyscrapers" | BIT MESRA, Ranchi | Department of Architecture & Planning, BIT MESRA, Ranchi | Online | 13th – 17th December 2021 |
| 7. | Ashutosh Kumar | "Integrating wetland technology as Landscape design Intervention for sustainable built environment" | N/A | ISERS. 8 th GoGreen Summit | Bali, Indonesia | 01st – 03rd June 2022 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 8. | Dr. Ashish Mohan Dubey | 12th Conference on Excellence in Research and<br>Education, | IIM | Indian Institute of Management, Indore | IIM Indore | 03rd - 05th June 2022 |
| 9. | Dr. Ashish Mohan Dubey | International Conference on Sustainability: Research,<br>Education and Practice, | NA | Dept. of Management, BIT Mesra, Jaipur, Lalpur, Noida, Patna | BIT Mesra | 30th – 31st May 2022 |
| 10. | Dr. Sushil Kumar | International conference on Sustainability: Research, Education & Practices | NA | Dept. of Management, BIT Mesra, Jaipur, Lalpur, Noida, Patna | BIT Mesra | 30th – 31st May 2022 |
| 11. | Dr. Sohini Ghosh | International conference on Sustainability: Research, Education & Practices | NA | Dept. of Management, BIT Mesra, Jaipur, Lalpur, Noida, Patna | BIT Mesra | 30th – 31st May 2022 |
| 12. | Dr. Sunil Kumar Pandey | Inculcating Human Values in Technical Education | AICTE | AICTE | Online FDP/ Organized by/ AICTE | 28th June – 2nd July 2021 |
| 13. | Dr. Sunil Kumar Pandey | Training program on IP Awareness | Government of India, Ministry of Commerce and Industry. (NIPAM) | Government of India, Ministry of Commerce and Industry. (NIPAM) | Online FDP/<br>Google Meet. | 28th April 2022. |
| 14. | Dr. Sunil Kumar Pandey | International Conference on Sustainability Research Education and Practice." | NA | Dept. of Management, BIT Mesra, Jaipur, Lalpur, Noida, Patna | BIT Mesra | 30th – 31st May 2022 |
| 15. | Dr. Soumen<br>Mandal | INTERNATIONAL<br>CONFERENCE ON<br>ADDITIVE<br>MANUFACTURING<br>AND ALLIED<br>TECHNOLOGIES | Sponsored by Ministry of Education India Under the Scheme for Promotion of Academic and Research Collaboration (SPARC)<br>Programme | NIT Trichi | NIT<br>Trichi<br>and<br>Online | 10th – 11th<br>June 2022 |

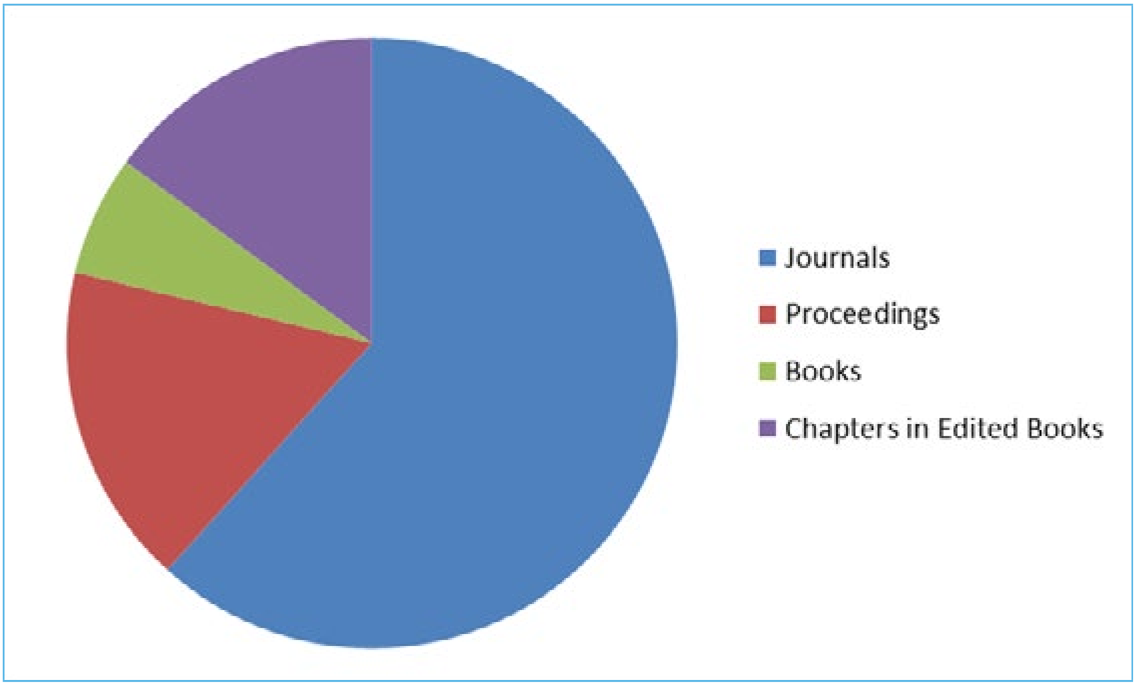
| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 16. | Dr. Amit Kumar | Third International Conference on Recent Advances in Materials and Manufacturing (ICRAMM 2021) | | Department of Mechanical Engineering, D Y Patil College of Engineering and Technology, Kolhapur, Maharastra, India | D Y Patil College of Engineering and Technology, Kolhapur, Maharastra, India | 25th – 26th Nov 2021 |
| 17. | Dr. Amit Kumar | Second International Conference on Advances in Physical Sciences and Materials (ICAPSM 2021) | | Department of Mechatronics, SNS College of Technology, Coimbatore, Tamil Nadu, India | SNS College of Technology, Coimbatore, Tamil Nadu, India | 12th – 13th Aug 2021 |
| 18. | Dr. Amit Kumar | International Conference on Advanced Technologies in Chemical, Construction and Mechanical Sciences (iCATCHCOME2022) | | KPR Institute of Engineering & Technology, Coimbatore, Tamil Nadu, India | KPR Institute of Engineering & Technology, Coimbatore, Tamil Nadu, India | 24th – 25th March 2022 |
| 19. | Dr. S.K. Pradhan | PRIME-2021International conference | BIT Mesra | NIT Patna | NIT Patna | 05th – 07th August 2021 |
| 20. | Manish Oraon | *International Conference on Applied Research and Engineering (ICARAE 2021)* | BIT Mesra | Department of Mechanical Engineering, Cape Peninsula University of Technology, Cape Town | Online | 26th – 28th November 2021 |
| 21. | Manish Oraon, | *International Conference on Aspects of Materials of Materials Science and Engineering* (ICAMSE 2021), | BIT Mesra | PTU Chandigarh, | Online | 05th – 06th Dec 2021 |
| 22. | Dr. Md Asif Hasan | UGC sponsored 28 days faculty induction program | UGC | HRDC Jadavpur University | Jadavpur University | 3rd Jan – 9th Feb 2022 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 23. | Dr. Shradha Kishor | International Conference on Smart Technologies for Power and Green Energy (STPGE 2022) | BIT PATNA | KIIT, Bhubaneswar | KIIT, Bhubaneswar | 12th – 13th February 2022 |
| 24. | Dr. Adhishree | Faculty Induction Programme | | HRDC University of Mumbai | Online | 16th May – 16th June 2022 |
| 25. | Dr S S Yadav | Development program for Faculty physical education Trainers / Sports – Games Teachers / Director of Sports from 07/03/2022 to 20/03/2022 organized by AICTE, New Delhi at NBKRIST, Nelore, A.P. ( Two weeks ). | AICTE | NBKRIST, Nelore, A.P. ( Two weak) | NBKRIST, Nelore, A.P. ( Two weak) | 07th – 20th March 2022 |

## SECTION 4 RESEARCH PUBLICATIONS

### 4.1 Publications in Journals : 29

### 4.3 Book: 3



## 4.3 Chapter(s) in Edited Book :7

## SECTION 5 AWARD / PATENT / COLLABORATIONS

## 5.1 Award / Recognition Bestowed on Faculties (State / National / International)

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 1. | Dr.S.K.Pradhan | Best paper presentation in PRIME-2021 Int. conf. | NIT Patna | International Level | 2021 |
| 2. | Dr. Nidhi Mishra | Senior Member IEEE | IEEE | International | 2022 |

**Patents (Applied / Granted)**

| Sr. No. | Name of the Inventor | Title of the Invention | Application / Patent No. (As applicable) | Year | Short Description about the patent |
|---|---|---|---|---|---|
| 1. | Dr. Sunil Kumar Pandey. | Title of invention: A SYSTEM AND A METHOD FOR E-COMMERCE EPIDEMIC MODELS | Patent number: 2021104529 | Date Of Patent: 13.04.2022. | An analysis to depict cyber frauds in the era of Cyber consumerism |

## SECTION 6 ACTIVITIES/ FACULTY MEMBERS / DOS /DAS

## 6.1 Departmental Students' Activities

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 1. | Xordium -2022 (Technical fest organized by Technical club: Electronics and communication) | Mr. Abhinav Ark | Dr. Ritesh Kumar Badhai | 21st – 23rd Jan 2022 |
| 2. | Internal Smart India Hackathon (SIH2022) | Mr. Abhinav Ark | Dr. Ritesh Kumar Badhai | 12th March 2022 |
| 3. | International Women's Day | Abhishek Datta | Dr. Anish | 08th March 2022 |
| 4. | Farewell of Prof. (Dr.) Balram Singh Sir | Saurav Kumar Sinha | Dr. Anish | 05th March 2022 |

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 5. | Spring Fling 2022 'Fun Event' | Mahi Sharan<br>Priyanshu Kumar<br>Himanshu Raj<br>Subhanshu Raj | Dr. Anish | 15th Jan 2022 |
| 6. | 'Humaare Ahinsak Baapu' An event on Gandhi Jayanti | Mahi Sharan<br>MD. Sujaat Shoukat<br>Swayam Bhaskar | Dr. Anish | 02nd Oct 2021 |
| 7. | 'Ek Shaam Rushad Sir ke Naam' A teacher's day event. | MD. Sujaat Shoukat<br>Dheeraj Kumar Mahto<br>Nilesh Yamal | Dr. Anish | 05th Sep 2021 |
| 8. | 'Edifice 2021' A three days event organized by the students | Dheeraj Kumar Mahto<br>Aditya<br>Swayam Bhaskar<br>MD. Sujaat Shoukat<br>Nilesh Yamal | Dr. Anish | Form 13th – 15th Aug 2021 |
| 9. | Establishment of IGBC (Indian Green Building Council) Student's Chapter | - | Dr Anamika Nandan | 29th May 2022 |
| 10. | Webinar: Grid modernization<br>Guest: John D Donald (IEEE Fellow | Kunal Shankar | Dr.Mayank Singh | 23rd Oct 2021 |
| 11. | Webinar: start up culture and innovation<br>Guest: Prem Prabhat (MD-Amplitech Automations) | Yashasvini, Kunal | Dr.Mayank Singh | 06th Oct 2021 |
| 12. | Webinar: UPSC Engineering services exam<br>Guest: Saurabh Raj ( AIR 34 UPSC ESE 2020,BIT Patna EEE alumni) | Kunal Shankar, Priyadarshi Anand | Dr. Mayank Singh<br>& Dr. Md. Asif Hasan | 25th Sep 2021 |
| 13. | Webinar: Higher Education opportunities abroad<br>Guest: – SHREYA KUMAR (MS from Arizona, BIT Patna EEE alumni) | Yashasvini | Dr. Mayank Singh<br>& Dr. Shradha Kishore | 11th Sep 2021 |

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 14. | Webinar: Grid modernization<br>Guest: John D Donald (IEEE Fellow | Kunal Shankar | Dr.Mayank Singh | 23rd Oct 2021 |
| 15. | Patriotic Run | - | Dr S S Yadav | 26th Jan 2022<br>11.30 am. |
| 16. | Sun Salutation | - | Dr S S Yadav | 14th Jan 2022<br>08.00 am. |
| 17. | Indoor Game Tournament<br>(Badminton, Table Tennis, Chess And Carrom) | Shitanshu Ranjan<br>Ankur<br>Vishwajeet | Dr S S Yadav | 25th - 27 th Feb 2022 |
| 18. | Annual Athletic Meet 2021 – 2022 | Abhishek Kumar | Dr S S Yadav | 28th – 30th March 2022 |
| 19. | Fit India Freedom Run 2,0 Km. | - | Dr S S Yadav | 24th Sep 2021 |

## 6.2 List of Faculties

| Sr. No. | Name | Designation |
|---|---|---|
| 1. | Prof. (Dr. ) Arbind Kumar | Professor & Director |
| 2. | Dr. Anamika Nandan | Assistant Professor |
| 3. | Ar. Ashutosh Kumar | Assistant Professor |
| 4. | Ar. Nitish Chandra | Assistant Professor |
| 5. | Dr. Kaushlendra Sharma | Assistant Professor |
| 6. | Dr. Anubha Singh | Assistant Professor |
| 7. | Dr. Anish | Assistant Professor |
| 8. | Ms. Bandana Mahto | Assistant Professor |
| 9. | Dr. Angshuman Mandal | Assistant Professor |
| 10. | Dr. Bishwas Narayan Singh | Associate Lecturer |
| 11. | Dr. Kanhaiya Lal | Assistant Professor |
| 12. | Mr. Sujit Kumar Chatterjee | Assistant Professor |
| 13. | Mr. Subho Chaudhuri | Associate Professer |
| 14. | Dr. Sheel Shalini | Assistant Professor |
| 15. | Dr. Ravi Shanker Pandey | Assistant Professor |
| 16. | Dr. Subhash Chandra Pandey | Assistant Professor |
| 17. | Dr. Ajit Kumar Keshri | Assistant Professor |
| 18. | Dr. Ratnesh Mishra | Assistant Professor |

| Sr. No. | Name | Designation |
|---|---|---|
| 19. | Mr. Shridhar Kumar | Assistant Professor |
| 20. | Dr. Upendra Kumar | Assistant Professor |
| 21. | Dr. Ayan Kumar Das | Assistant Professor |
| 22. | Dr. Amit Prakash | Assistant Professor |
| 23. | Mr. Madhup Kumar | Associate Lecturer |
| 24. | Mr. Adnan Mahmood | Associate Lecturer |
| 25. | Dr. Mayank Singh | Assistant Professor |
| 26. | Mr. Sanjay Kumar | Assistant Professor |
| 27. | Mr. Raj Kumar Mishra | Assistant Professor |
| 28. | Dr. Kumar Nikhil | Assistant Professor |
| 29. | Dr. Shradha Kishore | Assistant Professor |
| 30. | Dr. Asif Hasan | Assistant Professor |
| 31. | Dr. Adhishree | Assistant Professor |
| 32. | Dr. Nidhi Mishra | Assistant Professor |
| 33. | Dr. Ritesh Kumar Badhai | Assistant Professor |
| 34. | Dr. Shahiruddin | Assistant Professor |
| 35. | Dr. Megha Dadel | Assistant Professor |
| 36. | Dr. Shipra | Assistant Professor |
| 37. | Dr. Atul Kumar Pandey | Assistant Professor |
| 38. | Dr. Sweta Kumari | Assistant Professor |
| 39. | Dr. Priyadarshi Suraj | Assistant Professor |
| 40. | Mr. Rajeev Ranjan | Assistant Professor |
| 41. | Dr. Nilay Ranjan | Assistant Professor |
| 42. | Dr. Adhip Kumar Mahanty | Assistant Professor (Sr. Grade) |
| 43. | Dr. Vijay Agarwal | Associate Professer |
| 44. | Dr. Iftekhar Ahmad | Assistant Professor (Sr. Grade) |
| 45. | Dr. Sweta | Assistant Professor |
| 46. | Dr. Ashish Mohan Dubey | Assistant Professor (Sr. Grade) |
| 47. | Dr. Sohini Ghosh | Assistant Professor |
| 48. | Dr. Amit Raghuvanshi | Assistant Professor |
| 49. | Dr. Sunil Kumar Pandey | Assistant Professor (Sr. Grade) |
| 50. | Dr. Sushil Kumar | Asst. Professor |
| 51. | Mr. Sultan Khan | Asst. Professor |
| 52. | Dr. Prakash Chandra Srivastava | Assistant Professor |
| 53. | Dr. Premlata Singh | Assistant Professor |
| 54. | Mr. Girish Pathak | Assistant Professor |
| 55. | Dr. Anand Kumar | Assistant Professor |

| Sr. No. | Name | Designation |
|---|---|---|
| 56. | Dr. Sudipta Kishore Pradhan | Assistant Professor |
| 57. | Dr. Soumen Mandal | Assistant Professor |
| 58. | Dr. Chandan Kumar | Assistant Professor |
| 59. | Dr. Ravi Shankar Anand | Assistant Professor |
| 60. | Dr. Amit Kumar | Assistant Professor |
| 61. | Mr. Vijay Kumar Mandal | Associate Lecturer |
| 62. | Dr. Sanjay Kumar Sinha | Associate Professer |
| 63. | Dr. Binay Bhushan | Assistant Professor |
| 64. | Dr. Kamala Pati Tiwary | Assistant Professor |
| 65. | Dr. Paramjit Kour | Assistant Professor |
| 66. | Prof. (Dr. ) Shree Prakash Lal | Professor |
| 67. | Mr. Kapil Deo Prasad | Assistant Professor |
| 68. | Dr. Manish Oraon | Assistant Professor |
| 69. | Dr. Prashant Prakash | Assistant Professor |
| 70. | Mr. Thakur Abhinav Amar | Assistant Professor |
| 71. | Dr. Suresh Singh Yadav | Associate Lecturer |

**List of Adjunct Faculties**

| Sr. No. | Name | Designation | Affiliation |
|---|---|---|---|
| 1. | Dr. Garima Dubey | Visiting Faculty | NA |
| 2. | Mr. R.A.Khan | Visiting Faculty | NA |
| 3. | Mrs. Shalini Agarwal | Visiting Faculty | NA |

## SECTION 7 OTHER INFORMATION

### 7.1 Publication by students, if any

**Publications in Proceedings: (International/National)**

1. **Bhardwaj Nitish,** Singh Mayank, «Achieving Cost Benefit Using Fuzzy Logic Based Charging Schemes for Electric Vehicles. In : 2nd IEEE International Conference on Emerging Frontiers in Electrical and Electronic Technologies ( ICEFEET ) 2022, 24- 25 June 2022,NIT Patna **(Presented)**
2. **Aishwarya Gupta**, Vivek Nirala, Ananya Jha, Mayank Singh, S K Choubey, K Sharma and K. P Tiwary" Photocatalytic degradation of methyl orange dye using Mn doped CdS nanoparticles synthesized by microwave method", CAMSE2022 (Congress on Advances in Mechanical and Systems Engineering) **(Accepted)**

### 7.2 Achievements of Students :

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | Harsit Naman<br>(BTECH/15253/18) | Selected for Higher study (PhD) in Electrical and Computer Engineering,<br>Purdue University, West Lafayette, Indiana, USA. | Purdue University, West Lafayette, Indiana, USA. | May 2022 |
| 2. | Abhishek Dutta (BTECH/15266/18)<br>Harsh Vardhan (BTECH/15258/18)<br>Pratiksha Ray (BTECH/15151/19) | Selected in "Concept design competition of Area 200 sqm for Eco. Tourism Hut with Car parking , Garden area with solar Panels" | Ministry of Tourism | 06/04/2022<br>Birla Institute of Technology off campus Patna |
| 3. | Mahi Sharan (BTECH/15070/20) | 1st position in EXTEMPORE | Civil Engineering Society<br>(EDIFICE 2021)<br>Civil Engineering Society<br>(EDIFICE 2021) | 13/08/2021 – 15/08/2021<br>Birla Institute of Technology Off campus Patna<br>13/08/2021 – 15/08/2021<br>Birla Institute of Technology Off campus Patna |
| 4. | Prem Ranjan (BTECH/15064/20) | 1st position in ARCHITECTURAL DESIGN | | |
| 5. | Harsh Anand (BTECH/15063/20) | 1st position in POSTER PRESENTATION | | |
| 6. | Mahi Sharan (BTECH/15070/20) | 1st position in ARTICLE WRITING | | |
| 7. | Vishal (BTECH/15045/18) | 1st position in CHORD BATTLE | | |
| 8. | Mahi Sharan (BTECH/15070/20) | 1st position in DEBATE | | |
| 9. | Saurav Kumar Sinha (BTECH/15169/18) | 1st position in LOGO-FICE | | |
| 10. | Himanshu Raj (BTECH/15071/20) | 1st position in SPELL BEE | | |
| 11. | MD. Farhad (BTECH/15078/20) | 1st position in SVADHAYAYA COVER DESIGN | | |
| 12. | Himanshu Raj (BTECH/15071/20) | 1st position in SVADHAYAYA COVER DESIGN | | |
| 13. | Ayush Kumar Chaudhary (BTECH/15075/20) | 1st position in TREASURE HUNT (A group event) | | |
| 14. | MD Farhad (BTECH/15078/20) | | | |
| 15. | Mohit Kumar (BTECH/15055/20) | | | |
| 16. | Sweta Sharma (BTECH/15084/19) | Treasurer | Civil engineering society, Birla Institute of Technology off-Campus Patna (CES/BITP). | 25-07-2021 onwards at BIT Patna |
| 17. | Sweta Sharma (BTECH/15084/19) | Scholarship for B-Tech | Concentrix and Lotus Petal Foundation | For Academic Session 2019-2023. |

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 18. | Abhijeet Gaurav (BTECH/15061/20) | 1st Team position (CAMP) in Basketball Inter-branch tournament | Birla Institute of Technology Off campus Patna | 26/03/2022<br>Birla Institute of Technology Off campus Patna |
| 19. | Priyanshu Kumar (BTECH/15065/20) | 2nd position in ARCHITECTURAL DESIGN | Civil Engineering Society<br>(EDIFICE 2021) | 13/08/2021 – 15/08/2021<br>Birla Institute of Technology Off campus Patna |
| 20. | Harsh Anand (BTECH/15063/20) | 2nd position in ARTICLE WRITING | | |
| 21. | Subhanshu Raj (BTECH/15072/20) | 2nd position in CHORD BATTLE | | |
| 22. | Priyanshu Kumar (BTECH/15065/20) | 2nd position in DEBATE | | |
| 23. | Dheeraj Kumar Mahto (BTECH/15001/20) | 2nd position in EXTEMPORE | | |
| 24. | Sumit Kumar (BTECH/15238/20) | 2nd position in POSTER PRESENTATION | | |
| 25. | Mahi Sharan (BTECH/15070/20) | 2nd position in SPELL BEE | | |
| 26. | Priyanshu Kumar (BTECH/15065/20) | 2nd position in SVADHAYAYA COVER DESIGN | | |
| 27. | Arya Parashar (BTECH/15208/20) | | | |
| 28. | Swati Kumari (BTECH/15074/20) | 2nd position in TREASURE HUNT (A group event) | | |
| 29. | Ashish Ranjan (BTECH/15067/20) | | | |
| 30. | Himanshu Raj (BTECH/15071/20) | | | |
| 31. | Abhijeet Gaurav (BTECH/15061/20) | 3rd position in ARCHITECTURAL DESIGN | Civil Engineering Society<br>(EDIFICE 2021) | 13/08/2021 – 15/08/2021<br>Birla Institute of Technology Off campus Patna |
| 32. | Himanshu Raj (BTECH/15071/20) | 3rd position in ARTICLE WRITING | | |
| 33. | Yashaswi (BTECH/15068/20) | 3rd position in CHORD BATTLE | | |
| 34. | Subhanshu Raj (BTECH/15070/20) | 3rd position in DEBATE | | |
| 35. | Priyanshu Kumar (BTECH/15065/20) | 3rd position in EXTEMPORE | | |
| 36. | Subhanshu Raj (BTECH/15072/20) | 3rd position in POSTER PRESENTATION | | |
| 37. | Himanshu Raj (BTECH/15071/20) | 3rd position in SPELL BEE | | |
| 38. | Subhanshu Raj (BTECH/15072/20) | 3rd position in TREASURE HUNT (A group event) | | |
| 39. | Vivek Kumar Singh (BTECH/15217/20) | | | |
| 40. | MD. Sujaat Shoukat (BTECH/15109/19) | 2nd position in TUG OF WAR | Annual Athletic Meet, Birla Institute of Technology Off campus Patna | 03/03/2022<br>Birla Institute of Technology Off campus Patna |

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 41. | MD. Sujaat Shoukat<br>(BTECH/15109/19) | 3rd position in DISCUSS THROW | Annual Athletic Meet, Birla Institute of Technology Off campus Patna | 03/03/2022<br>Birla Institute of Technology Off campus Patna |
| 42. | Ishan | Rank -953 | GATE 2022 | |

## 7.3 Distinguished Visitors from Industry/Academia/Research organizations

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture (Insert Picture here. Further send the JPEG file along with the email.) |
|---|---|---|---|
| 1. | Mr. Rameshwar Singh<br>(DGM, Customer Technical Services, JK Cement) | 05/07/2021 | |
| 2. | Mr. Prashant Singh<br>(Assistant Manager, Customer Technical Services, JK Cement) | 05/07/2021 | |
| 3. | Er. Soumitra Chakravarti<br>(Alumnus, BIT Mesra, Patna Campus) | 16/08/2021 | |
| 4. | Er. Arpan Singh (MS Student, IIIT Hyderabad) | 14/08/2021 | |

| | | | |
|---|---|---|---|
| 5. | Mrs. Anu Anand ( Speaker & Trainer) | 21/08/2021 | |

## 7.4 List of Distinguished Alumni

| Sr.No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | Er. Avi Ranjan Batch 2007 | Executive Engineer, Govt. of Bihar |
| 2. | Er. Nasseer Shamim Batch 2008 | Assistant Engineer, Govt. of Bihar |
| 3. | ER. Abhishek Kumar Shaurya Batch: 2010 | Deputy manager, SAIL |
| 4. | Er. Sidharth Kumar Batch 2010 | BSRDC |
| 5. | Er. Vimal Kumar Batch 2012 | RITES Construction, Mumbai |
| 6. | Er. Uday Kumar Batch 2012 | Assistant Engineer, Govt. of Bihar |
| 7. | Er. Anjneya Srivastava Batch 2012 | Pursuing PhD from IIT Kharagpur |
| 8. | Er. Sourav Swaraj Batch 2013 | Group 1 services in Indian Railways |
| 9. | Er. Sparsh Bhardwaj Batch 2014 | Group 1 services in Indian Railways |
| 10. | Er. Kashfi Khan Batch: 2014 | MHRD |
| 11. | Er. Saurav Batch: 2014 | Medishala Start Up |
| 12. | Er. Rituraj Batch: 2014 | Medishala Start Up |
| 13. | ER. Arpan Singh Batch: 2015 | Pursuing MS from IIIT-Hyderabad |
| 14. | Er. Shamsheer Alam Batch: 2016 | Placed in Byjus |
| 15. | Er. Nihar Ranjan Batch 2017 | Junior Engineer, Govt. of Jharkhand |
| 16. | Gaurav Kumar, 2019 Pass out batch, EEE Student of BIT PATNA | **AIR-01** GATE 2022 (in EE paper) |
| 17. | Saurabh Raj , 2018 Pass out EEE Student of BIT PATNA | **AIR- 34** UPSC ESE 2020 |

## 7.5 Infrastructure Development

**Dept. of Management**

1. Research Scholar Room for Research related activities.
2. Software SPSS-27 for Computer Lab.

**Dept. of Mechanical Engg.**

1. Computer chair: 40 pcs
2. Almira: 4 pcs
3. Color printer: 1 pc
4. B/W Printer: 2 pc
5. Lcd Projector: 1 pc
6. Visitor chair: 23 Pc
7. Movable Chiar: 11 pc

**Dept. of EEE**

1. Computer Lab Developed (40 computers)

## 7.6 Special Covid Initiatives, if any:

Dept. of NSS BIT Patna is organizing regular free On the Spot Registration & Vaccination Camp (for first/ second and booster doses as well) for its employee, students and their family members.

# University Polytechnic

## SECTION 1 PROFILE

### 1.1 About the Polytechnic:

The University Polytechnic, BIT Mesra was established during 2001 in joint collaboration of Birla Institute of Technology, Mesra, Ranchi with the Department of Welfare, Govt of Jharkhand.

**The University Polytechnic offers**

- Diploma in Computer Engineering
- Diploma in Electronics & Communication Engineering,
- Diploma in Mechanical Engineering
- Diploma in Electrical & Electronics Engineering
- Diploma in Automobile Engineering
- B.Sc. programme in Medical Lab Technology.

The Polytechnic is committed to achieve global excellence in technical education and empowering youth with multidisciplinary skill sets to lead innovation centric socio-economic development of India.

The aims & objective of the Polytechnic is to impart outcome based technical education to student with modern tools and skills required in 21st century. The Institution is nurturing globally competent diploma engineers with growth mindset, professional ethics and integrity.

To lead innovative minds and design thinking based teaching-learning along with leveraging global best practices are the dreams of this Polytechnic. The Polytechnic is strengthening industry-academia collaboration to forge impactful partnership in pursuit of technical excellence.

## SECTION 2 RESEARCH PROJECTS

### 2.1 Sponsored Projects (Research and Consultancy)

**a) Ongoing Projects :**

| Sr. No. | Project Title | PI / Co PI / Collaborator, if any | Funding Agency | Date of Sanction | Sanctioned Amount (₹) | Duration of the Project |
|---|---|---|---|---|---|---|
| 1. | Modernization of Computer Hardware & Networking Lab | PI-Niraj Kumar<br>Co-PI-Ramnish Sinha | AICTE<br>(MODROB) | 20.01.2022 | 16,84,750 | 2 Years |

## SECTION 3 SEMINAR / CONFERENCE

### 3.1 Seminar / Conferences / Short – Term Courses Conducted:

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event |
|---|---|---|---|---|
| 1. | Cloud Computing & Azure Fundamental | Mr. Abhay Kumar | University Polytechnic | 23.04.2022 |

| Sr. No. | Title of Seminar/ Conference/ Short Term Courses/ Workshop | Coordinator | Funding / Sponsoring Agency | Date of Event |
|---|---|---|---|---|
| 2. | Invited Lecture on Importance of Yoga by Mrs. Sapna Jha, District Coordinator of Patanjali Yoga Center | Dr. Sandhya Rani | University Polytechnic | 28.03.2022 |
| 3. | Mentorship Workshop for Jharkhand State level Inspire Awardee to participate in the National Level Exhibition & Project Competition (NLEPC) | Dr. Satish Kumar | National Innovation Foundation, Department of Science & Technology, Government of India | 22.03.2022 -23.03.2022 |
| 4. | Workshop on "Digital Payment" | Dr. (Mrs.) Neeru Singh | University Polytechnic | 08.03.2022 |
| 5. | Workshop on "Industrial Robotics and IOT" in association with Sky Rider Institution | Dr. Satish Kumar | University Polytechnic | 19.02.2022 |
| 6. | Workshop on "APP Development" | Mr. Neeraj Kumar | University Polytechnic | 08.10.2021 |

## 3.2 Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 1. | Dr. Satish Kumar | 5-day FDP-SI UHV Online – "AICTE Incorporating Universal Human Values in Education (An AICTE Initiative) | AICTE | AICTE | Online | 30.05.2022 - 03.06.2022 |
| 2. | Mrs. Nirupam | 5G Antenna Design with AIML Applications using HFSS | Self | Department of Electronics and Communication Engineering, St. Martin's Engineering College, Dhulapally, Secunderabad, Telangana, India | Online | 27.05.2022 - 28.05.2022 |
| 3. | Dr. Sandhya Rani | Universal Human Values in education. | AICTE | AICTE | Online | 21.02.22 -25.02.22 |
| 4. | Mr. Abhay Kumar | Microsoft Azure Fundamental | University Polytechnic | Microsoft | Online | 17.02.2022 – 19.02.2022 |
| 5. | Mr. Prabhat Ranjan Mahto | Introduction to Finite Element method in Engineering | NITTR Kolkata | NITTR Kolkata | Online | 07.02.2022 -18.02.2022 |
| 6. | Dr. Maqubool Hosain | Digital tool for faculty and staff | Free | National Institute of Technical Teachers' Training and Research (NITTTR) Kolkata | Online | 02.02.22 – 04.02.22 |

| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 7. | Mr. Prabhat Ranjan Mahto | Convergence Of IoT and AI | The Institution of Engineers (India) | West Bengal state centre of The Institutions of Engineers (India) under the aegis of Electronics and Telecommunication Engineering Division | Online | 27.01.2022 |
| 8. | Dr. Sandhya Rani | National Education Policy 2020: Different Dimensions | Self | Surya College of Education, Kathua, J&K & Govt. Degree College, Samba, J&K | Online | 10.01.2022 – 16.01.2022 |
| 9. | Dr. Meena Singh | National Education Policy 2020: Different Dimensions | Self | Surya College of Education, Kathua, J&K & Govt. Degree College, Samba, J&K | Online | 10.01.2022 – 16.01.2022 |
| 10. | Dr. Neeru Singh | National Education Policy 2020: Different Dimensions | Self | Surya College of Education, Kathua, J&K & Govt. Degree College, Samba, J&K | Online | 10.01.2022 – 16.01.2022 |
| 11. | Mrs. Nirupam | National Education Policy 2020: Different Dimensions | Self | Surya College of Education, Kathua, J&K & Govt. Degree College, Samba, J&K | Online | 10.01.2022 – 16.01.2022 |
| 12. | Dr. Sandhya Rani | Design Thinking for Exellence in OBE & Digital learning. | AICTE | AICTE | Online. | 29.11.21 -03.12.22 |
| 13. | Mrs. Nirupam | Cyber Security & Personal Safety | Self | West Bengal State Centre of The Institution of Engineers (India) | Online | 08.10.2021 |
| 14. | Dr. Sumana Kumari | 6 Days Management Development Programme on "Creating New Era Principals". | Self | Jharkhand Government Tool Room, Ranchi. (A society of deptt. of industries, Govt of Jharkhand) | Online | 27.09.2021 -02.10.2021 |
| 15. | Mrs. Nirupam | 6 Days Management Development Programme on "Creating New Era Principals". | Self | Jharkhand Government Tool Room, Ranchi. (A society of deptt. of industries, Govt of Jharkhand) | Online | 27.09.2021 -02.10.2021 |
| 16. | Dr. Satish Kumar | Groundwater remediation in difficult conditions | Remtech Europe | Remtech Expo, Italy | Online | 23.09.2021 |
| 17. | Mrs. Nirupam | Dam Safety & Risk Mitigation Techniques in Hydro Power / Irrigation Projects | Self | National Power Training Institute, Eastern Region, Durgapur | Online | 20.09.2021 -21.09.2021 |

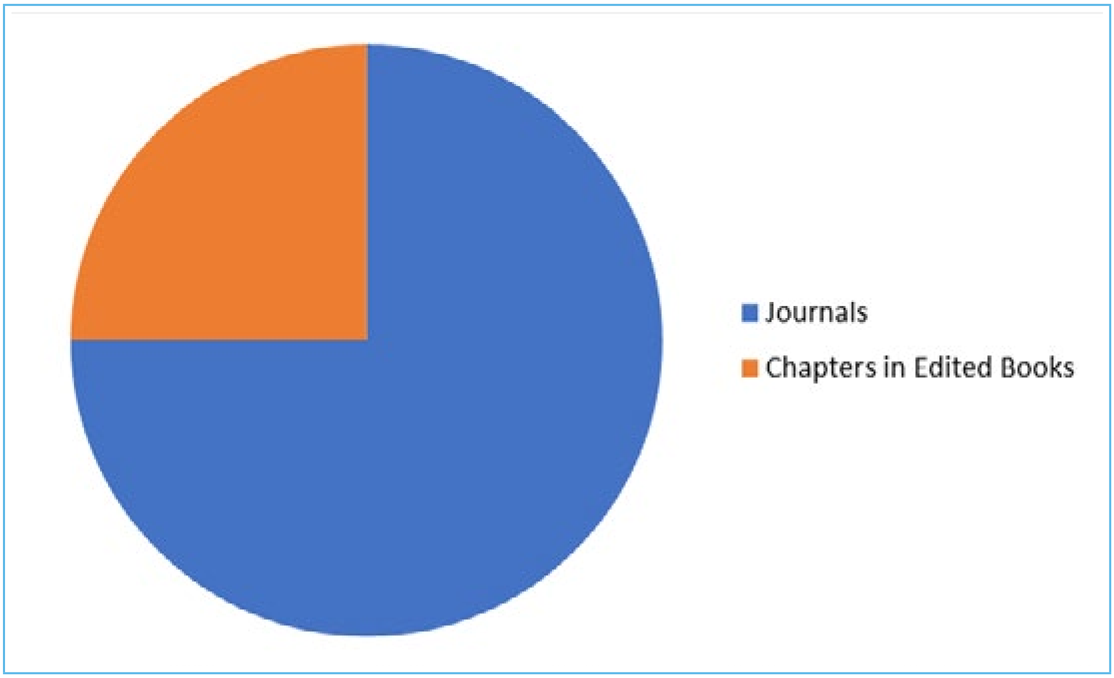
| Sr. No. | Name of the Faculty | Title of the Conference/ Seminar | Funding Agency | Organizers | Venue | Date |
|---|---|---|---|---|---|---|
| 18. | Dr. Maqubool Hosain | World Library: A primary of library content | Free | Balani Infotech Pvt. Ltd | Online | 30.07.21 |

## SECTION 4 RESEARCH PUBLICATIONS

### 4.1 Publications in Journals: (International/National)

**Journals: 3**

**Chapter(s) in Edited Book : 1**



## SECTION 5 AWARD / PATENT / COLLABORATIONS

### 5.1 Award / Recognition Bestowed on Faculties

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| **1.** | Dr. Maqubool Hosain | PhD- Design and Development of Compact Filtenna for Wireless Devices. | B.I.T Mesra, Ranchi | NA | 26.11.21 |

| Sr. No. | Name of the Faculty Member | Title of the Award / Honour | Organisation | State / National / International Level | Year / Duration |
|---|---|---|---|---|---|
| 2. | Dr. Satish Kumar | Ambassador | Remtech Europe, Italy | International | 31.10. 2021 |
| 3. | Mr. Abhay Kumar | Honouring Teachers | Lions Club of Ranchi East | State | 08.09.2021 |

## 5.2 MoUs / Collaborations:

| Sr. No. | Name of Organisation / University | Purpose / Area/*Short Description* | Year / Duration |
|---|---|---|---|
| 1. | ETS Services Ranchi | Short term course on "Geoinformatics using Drone Technology" | 3years |

## SECTION 6 ACTIVITIES/ FACULTY MEMBERS / DOS /DAS

## 6.1 Departmental Students' Activities

**(Please arrange in reverse chronological order: Latest first)**

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 1. | 8th International Yoga Day | Piyush Kumar and Vikash Kumar Barnwal, BMLT 2020 | Narendra Kumar Singh, Chanchal Kumar Mishra | 21.06.2022 |
| 2. | FUSION Night | Deewakar Singh D098/19, Saket Shivam D167/19, Payal Kumari D078/20, Ambika Mishra D017/20 | Dr. Neeru Singh,<br>Mr. Shanker Singh,<br>Md. Maqubool Hosain | 06.05.2022 |
| 3. | Morning Yoga Classes | D 94/19 Usha Kumari, D08/19 Swati Kumari | Mr. Narender Kumar Singh | 11.04. 2022-06.05.2022 |
| 4. | Inter Semester Volleyball Tournament | Nishant Khalkho 2k19 Batch | Mr. Narendra Kumar Singh | 26.03.2022-27.03.2022 |
| 5. | Inter Semester Cricket Tournament | Diwakar Kumar<br>2k19 Batch | Mr. Narendra Kumar Singh | 14.03.2022-15.03.2022 |
| 6. | Blood donation camp in association with Sadar hospital, Ranchi | All BMLT 4th semester students | Dr. Neeru Singh,<br>Dr. Chanchal Mishra | 09.03.22 |
| 7. | Morning Yoga Classes | D 94/19 Usha Kumari, D08/19 Swati Kumari | Dr Sandhya Rani | 09.03.2022- 26 04.2022 |
| 8. | Inter Semester Football Tournament for both Boys and Girls Section. | Abdul Muksid<br>2k19 Batch | Mr. Narendra Kumar Singh | 02.03.2022-06.03.2022. |
| 9. | Saraswati Puja | Students were not allowed due to COVID guideline | Dr. Neeru Singh,<br>Shanker Singh,<br>Md. Maqubool Hosain | 05.02.22 |

| Sr. No. | Name of the Activity | Students' Co-Ordinator (If any) | Faculty Coordinator (if any) | Date / Duration |
|---|---|---|---|---|
| 10. | Health check-up camp in association with Pathkind Labs | All BMLT 6th semester students | Dr. Neeru Singh | 15.12.21 |
| 11. | UNIFESTO 2021 Online | Deewakar Singh D098/19, Piyush Kumar BMLT010/20, Ambika Mishra D017/20, Payal Kumari D078/20 | Dr. Neeru Singh | 30.10.21 |
| 12. | Vishwakarma Puja | Students were not allowed due to COVID guideline | Dr. Neeru Singh,<br>Shanker Singh,<br>Md. Maqubool Hosain | 17.09.21 |

## 6.2 List of Faculties

| Sr. No. | Name | Designation | TEQIP Sponsored |
|---|---|---|---|
| 1. | Dr. Vinay Sharma | Professor and Director | No |
| 2. | Dr. Shambhu Sharan Kumar | Assistant Professor | No |
| 3. | Mr. Ramkesh | Assistant Professor | No |
| 4. | Dr. (Mrs.) Meena Singh | Assistant Professor | No |
| 5. | Mr. Abhay Kumar | Assistant Professor | No |
| 6. | Dr. (Mrs.) Sandhya Rani | Assistant Professor | No |
| 7. | Dr. Satish Kumar | Assistant Professor | No |
| 8. | Dr. T. K. Parashar | Assistant Professor | No |
| 9. | Dr. (Mrs.) Neeru Singh | Assistant Professor | No |
| 10. | Mr. Pradeep Toppo | Assistant Professor | No |
| 11. | Mr. Ramnish Sinha | Assistant Professor | No |
| 12. | Mr. Rajendra Mahto | Assistant Professor | No |
| 13. | Dr. (Mrs.) Sumana | Assistant Professor | No |
| 14. | Mrs. Rekha Kumari | Assistant Professor | No |
| 15. | Dr. Mohd. Neyaz Ahsan | Assistant Professor | No |
| 16. | Dr. Chanchal Kumar Mishra | Assistant Professor | No |
| 17. | Mr. Manoj Kumar | Assistant Professor | No |
| 18.. | Mr. Niraj Kumar | Assistant Professor | No |
| 19. | Ms. Nirupam | Assistant Professor | No |

| Sr. No. | Name | Designation | TEQIP Sponsored |
|---|---|---|---|
| 20. | Dr. Rohit Kamal Chatterjee | Assistant Professor | No |
| 21. | Mr. Rakesh | Associate Lecturer | No |
| 22. | Mr. N. K. Mukherjee | Associate Lecturer | No |
| 23. | Mr. Maqubool Hossain | Associate Lecturer | No |
| 24. | Mr. Narendra Kumar Singh | Physical Training Instructor | No |
| 25. | Mr. Sanjay Jha | Teaching Assistant | No |
| 26. | Mr. Shankar kumar | Teaching Assistant | No |
| 27. | Mr. P.R.mahto | Teaching Assistant | No |

## 6.3 Board of Studies

| Sr. No. | Name of the Member | Designation | Role |
|---|---|---|---|
| 1. | Prof. (Dr.) Vinay Sharma | Director (Ex-Officio) | Chairman |
| 2. | Dr. D. P. Mishra | HoD., Mechanical Engineering, B.I.T. Mesra | External |
| 3. | Dr. Joyjeet Ghose | HoD, Mechanical and Industrial Engineering | External |
| 4. | Mr. Pradeep Kr. Gupta | DGM, Tata Motors Ltd., Jamshedpur | External |
| 5. | Mr. Pranay Kant Prasad | DGM, Tata Motors Ltd., Jamshedpur | External |
| 6. | Mr. Dhiman Das | Mind Tree, Tatisilwai, Ranchi | External |
| 7. | Mr. Manoj Kumar | Course Coordinator, Automobile Engineering | Internal |
| 8. | Mr. Ramkesh | Course Coordinator, Mechanical (Production) Engineering | Internal |
| 9. | Mr. Rakesh | Course Coordinator, Mechanical Engineering | Internal |
| 10. | Dr. Sarbani Chhakraborty | HoD, EEE, B.I.T. Mesra | External |
| 11. | Dr. Sandeep Dutta | HoD, CSE, B.I.T. Mesra | External |
| 12. | Prof. (Dr.) S.S. Solanki | H.O.D., Electronics & Communication Engineering, B.I.T. Mesra | External |
| 13. | Dr. Swastika Ganguly | HoD, PST, B.I.T. Mesra | External |
| 14. | Mr. Randhir Prasad | DGM, Tata Motors Ltd., JSR (EEE) | External |
| 15. | Mr. N.C. Aggarwal | CEO, Meditron, Ranchi (ECE) | External |
| 16. | Mr. Praveen Kumar | SDE, Admin and T M, BSNL, Ranchi (CSE) | External |

| Sr. No. | Name of the Member | Designation | Role |
|---|---|---|---|
| 17. | Dr. K. K. Das | CCL, Head of Path., Gandhinagar Hospital (BMLT) | External |
| 18. | Mr. N. K. Mukherjee | Course Coordinator, Electrical and Electronics Engineering | Internal |
| 19. | Mrs. Nirupam | Course Coordinator, Electronics and Communication Engineering | Internal |
| 20. | Mr. Abhay Kumar | Course Coordinator, Computer Science Engineering | Internal |
| 21. | Dr. Chanchal Mishra | Course Coordinator, BMLT | Internal |

## 7.4 Achievements of Students:

| Sr. No | Name of Student | Achievement/Position/ Award etc | Organised by | Date and Venue |
|---|---|---|---|---|
| 1. | KAVITA BHARTI | Best OET of the year 2021 | Dana Anand India Pvt. Ltd., Pune | 23.05.2022, Pune |

## 7.5 Distinguished Visitors from Industry/Academia/Research organizations

| Sr. No | Name of Visitor with Affiliation | Date of Visit | Picture (Insert Picture here. Further send the JPEG file along with the email.) |
|---|---|---|---|
| 1. | Dr. Vivek Kumar<br>Sr. Innovation Officer<br>National Innovation Foundation, Department of Science & Technology, Government of India | 23.03.2022 | |

## 7.6 List of Distinguished Alumni

| Sr. No | Name, Batch and Affiliation | Short Description |
|---|---|---|
| 1. | Himanshu Mahto<br>Electronics – 2007 | Senior Section Engineer, Indian Railway |
| 2. | Ravi Chandra<br>Mechanical- 2010 | Customer Support team GMMCO (C. K. Birla Group) |
| 3. | Nikhil Kumar Rajak<br>Electronics-2005 | Automation Engineer, Hindalco Industries Ltd. Muri (Aditya Birla Group) |
| 4. | Pooja Prasad<br>EEE – 2013 | Junior Electrical Engineer, Bihar State Power Holding Company Limited |
| 5. | Mantu Kumar<br>Electronics – 2009 | Junior Engineer, Indian Railway |
| 6. | Nitish Bhardwaj<br>Electronics- 2007 | Senior Software Engineer, ServiceNow |

## 7.7 Infrastructure Development

1. ₹ 35 Lac was received from ITDA office, Department of welfare, Govt. Of Jharkhand in the month of November 2021 for construction of left over portion of New Electrical Trade Building. Out of which nearly 5000 sqft area has been casted.
2. A new Strength of Material Lab for Mechanical and Automobile is set up in which Digital Universal Testing Machine with all attachments capacity 20 t model AMT 20 E – Price 3.25 Lacs, Digital Torsion Testing Machine capacity 50 kg-m motor 2hp price 2.52 Lacs, Muffle furnace Max temp $1000^0$ C, furnace size 12 × 6 × 6 inch and Digital Impact Testing Machine having Impact capacity 300 joule price 1.23 Lacs are installed.
3. In Automobile Lab LMV Driving Simulator Full Cabin of Amount: 4,00000.00 has been installed.

## 7.8 Any other relevant information

1. Dr. Sandhya Rani is serving the Institute as President of Ladies Club having fifty lady members. The club has introduced variety of activities including Spiritual, dance, Music, Yoga etc. for the campus resident.
2. Dr. Satish Kumar served as a member of Expert committee constituted for assessment of water quality of Rukka Dam and Water Treatment Plant of Drinking Water and Sanitation Department, Government of Jharkhand in July 2021.
3. Dr. Satish Kumar served as an Evaluator of Poster Session-2 in the International Symposium on Plant Biotechnology Towards Improving Agri-Food Industry and Healthcare Products (ISPB-2021) organized by Department of Bioengineering and Biotechnology, Birla Institute of Technology, Mesra, Ranchi, Jharkhand, India from OCTOBER 27–30, 2021
4. Dr. Satish Kumar appointed as an Expert of STATE CURRICULUM FRAMEWORK COMMITTEE under New Education Policy (NEP 2020) constituted in the Jharkhand by Education Department and NCERT in February 2022.
5. Dr. Satish Kumar served as JURY MEMBER in INSPIRE AWARD SCHEME (Science exhibition) organized by Deptt. of Science & Technology, Govt. of India and Education deptt. in state level program of Jharkhand from 21–01–2022.
6. Dr. Shambhu Sharan Kumar has been selected as Editorial Board member of Journal of Research in Engineering and Applied Sciences"; www.ijreas.com, www.mgijournal.com, ISSN: 2348–1862
7. Dr. Shambhu Sharan Kumar has been selected as Editorial Board member of International Journal of Engineering and Applied Sciences- IJEAS, ISSN: 2394–3661.
8. Dr Chanchal Mishra Organized Internship for BMLT 2K19 batch in association with PULSE Hospital, Ranchi, Bariatu, Rani Hospital, RIMS, Ranchi and Tata Motors Hospital, Jamshedpur.
9. Narendra Kumar Singh and Chanchal Kumar Mishra organized "8th International Yoga Day" on 21st June 2022 for students, non-teaching and all faculty members at University Polytechnic, BIT Mesra campus.

### Training and Placement Cell

1. Diploma and BMLT 168 students were placed in various reputed companies and hospitals, respectively, in the year 2021-2022.

### NSS

1. Dr. Neeru Singh, Programme officer NSS has conducted various events such as Women's & Teacher's Day celebration, Essay & Poster competition. Furthermore, the team organized various events under International Yoga Day. Swachh Bharat Abhiyan was conducted every month in the campus of University Polytechnic.

## 6.9 Special Covid Initiatives, if any:

1. Automatic Body Sanitization Machine with Tunnel was developed by D124/2019 Raj and D127/2019 Aditya Patralekh under the guidance of Dr. Sumana Kumari.

2. Smart (Contactless) Dustbin using Bluetooth is developed by D157/2019 Omprakash Nag, D162/2019 Mrityunjay Kumar, and D164/2019 Vikram Kumar Thakur under the guidance of Mrs. Nirupam.

# BIT Dispensary

The present BIT Dispensary is 20 bedded including 8 bedded two isolation wards fully functional Health Care Centre providing facilities to BIT Students, Faculties, their families and staff members & their families plus Villagers around the Campus. The Dispensary is functioning in all the 3 shifts (Round the clock 24×7) including Sunday & Holidays attending all OPD and IPD & Emergency Cases. Presently it is manned by 4 Allopathic & 1 Homeopathic Doctor put in shift/General shift and about 20 paramedical staff.

We have also Eye Specialist, Dentist, Physiotherapist, Skin, & Gynecologist as visiting specialist every week for health care service. The workforce, as per the need and work-load is quite insufficient and we are in the process of appointing and adding up few more Doctors & Paramedics to give our services in a better way. The dispensary is functioning essentially as a primary health centre and patients who need specialized treatment or hospitalization are referred to multi specialty hospitals.

All students and staff members & their two dependent children are covered under Mediclaim policy by SBI General Insurance Company.The Health Centre is equipped with 4 Ambulances, available in all the 3 shifts fitted with Oxygen Cylinders & first aid kits.

## Details of Dispensary Staffs

| S.N | Medical officers | Contact No |
|---|---|---|
| 1. | Dr. Mona Deepa | 7763855564 |
| 2. | Dr. Anju Kumari | 7319905831 |
| 3. | Dr. Madhu Pramanik | 9546745091 |
| 4. | Dr. Dharmendra Kumar | 9576174033 |

| S.N | Medical officers | Contact No |
|---|---|---|
| | **Visiting Specialist** | **Specialization** |
| 1. | Dr. Rishi Raj | Dentist |
| 2. | Dr. Renu Sinha | Gynaecology |
| 3. | Dr. R.P.Choudhary | Skin Specialist |
| 4. | Dr. Promod Kumar | Phsiotherapist |
| 5. | Dr. M.E.Asraf | Eye Specialist |
| 6. | Dr. Subhodh Kumar | Psychiatrist |
| | **Homeopathy Physician** | |
| 1. | Dr. P.Mohanty | 9430118376 |
| | **Name of Pharmacist** | **Name of Store Keeper** |
| 1. | Mr.A.K.Tarun | Mr. Mahesh Kumar Sinha |
| 2. | Mr.B.P.Yadav | Mr.Rajeev Ranjan |
| 3. | Mr.Umesh Prasad | |
| | **Nursing Staff** | **X-Ray Technician** |
| 1. | Mrs. Renu Kumar | Mr.Kaleshwar Mahto |
| 2. | Ms. Suman Lovely Tigga | |
| 3. | Mr. Ram Eqbal Singh | **Lab Technician** |
| 4. | Mrs. Sanju Devi | Mr.Surendra Kumar Singh |
| 5. | Mrs. Pinki Kachhap | |
| | **Dressing Staffs** | **Office Attendant** |
| 1. | Mrs. Janki Devi | Mr.Bhuneshwar Munda (Peon) |
| | **ATTENDANT** | |
| 1. | Mr. Radhe Shyam Mahto | Medical Lab Attendant- (IV) |
| 2. | Mr.Saurav Kumar | Attendant-(IV) |
| 3. | Mr. Jitendra Kumar | Ward Attendant- ( A-IV) |
| 4. | Mr. Akash Kumar | Ward Attendant-(IV) |
| 5. | Mr. Bijay KumarLakra | Office Attendant-(IV) |
| 6. | Mrs. Sunita Pallai | Ward Attendant-(IV) |
| 7. | Mrs. Nupur Tigga | Attendant-(IV) Nursing |
| 8. | Mrs. Parmila Devi | Attendant-(IV) |
| 8. | Mrs. Aruna Goswami | Ward Attendant-(V) |
| 9. | Mrs. Pramila Devi | Attendant-(IV) |
| 10. | Mr. Anil Kumar | Attendant-(IV) |

| S.N | Medical officers | Contact No |
|---|---|---|
| | **Sweeper** | |
| 1. | Mrs. Gita Devi | Safai Karamchari (A-V ) |
| 2. | Mr. Rajendra Munda | Safai Karamchari (A-V) |
| 3. | Mr. Mukesh Ram | Safai Karamchari (A-V ) |

## Facilities and Services:-

1. OPD Services including part time specialist OPD viz. Skin Obs/Gynecologist & Dental Surgeon & Physiotherapist.
2. In patient Service for minor ailments.
3. Emergency Service
4. Homeopathy Clinic
5. Dental Clinic
6. Physiotherapy Unit
7. X-Ray Unit
8. ECG Unit
9. Isolation Ward 02 (One each for male &Female Patients)
10. Dressing unit
11. 02 Ventilators are available
12. 03 Oxygen concentrators & portable oxygen cylinders are available.

## Service Details

| Sl.No | | |
|---|---|---|
| 1. | Total Number of patient | 26964 |
| 2. | Number of outdoor patients treated &Supplied medicines | 22740 |
| 3. | Male | 13620 |
| 4. | Female | 8470 |
| 5. | Students | 1020 |
| 6. | Staff members & their dependants | 19375 |
| 7. | Non- entitled Cases | 960 |
| 8. | Number of patients admitted & treated | 230 |
| 9. | Number of patients referred | 310 |
| 10. | Number of ECGs | 91 |
| 11. | Number of X-Rays | 121 |
| 12. | Number of Covid – 19 Vaccinations Till Date:-12/02/2022 | 13630 |

# NATIONAL CADET CORPS

## 1. About NCC at BIT Mesra:

The 3 Jhar CTC, NCC BIT Mesra provides the enrolled cadets with training equivalent to army training for theoretical, physical, emotional & social development of the cadets.

The cadets are taught and groomed to inculcate qualities of leadership along with the feelings of patriotism.

- **No. of units in NCC** : 3 JHAR COMPO TECH COY, NCC BIT MESRA

## 2. No. of students enrolled:

| | | |
|---|---|---|
| K20 – 66<br>k21 – 64<br>Total Students – 130 | Boys:<br>K20 – 57<br>K21 – 50 | Girls:<br>K20 – 09<br>K21 – 14 |

## 3. Achievement of NCC:

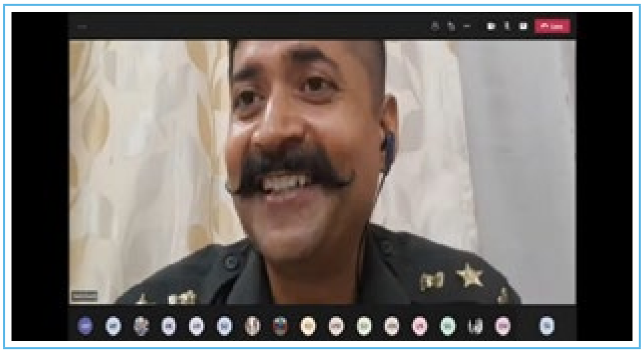
- 63 number of students cleared B certificate Exam.
- 10 number of students cleared C certificate Exam.

## 4. Any other relevant point:

**EVENTS CONDUCTED**

- Conducted flag hoisting ceremony on Independence Day (i.e., 15th Aug 2021)

- Conducted a visual meet with **Lt. Col Amit kumar** on the occasion of Kargil Vijay Diwas (i.e., 26 July 2021).



- ATC IX camp ( i.e 22nd Dec 2021 to 28th Dec 2021)

TARPEX
TARPEX

- Republic day parade and flag hoisting ceremony (i.e 26th Jan 2022)

- ATC XI Camp (i.e 21st Feb 2022 to 27th Feb 2022)

- Safai abhyan (i.e 24th Feb 2022)

स्वच्छ भारत अभियान

- Blood donation camp (i.e 5th March 2022)

3 JHAR CTC NCC
BIT MESRA
in association with
SADAR HOSPITAL, RANCHI
sponsored by SBI
BLOOD DONATION CAMP
TEARS OF A MOTHER CANNOT SAVE HER CHILD, BUT YOUR BLOOD CAN
ON SITE REGISTRATION
5th MARCH, 2022
9:30 AM - 1:00 PM
BIT DISPENSARY
BLOOD
DONATION CAMP

- Yoga day (i.e 21st June 2022)

USHTRASANA
ARDHA USTRASANA

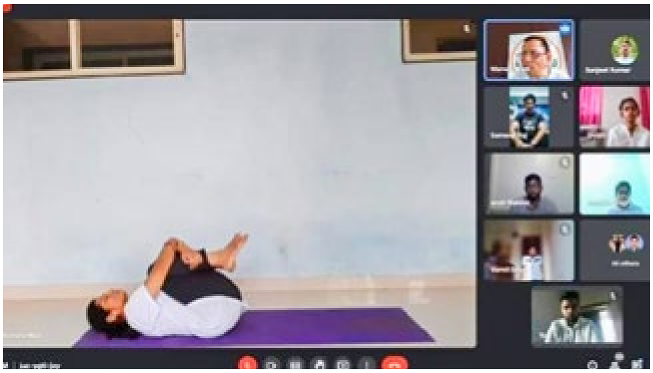
## 5. NCC Team:

| Sr. No | Rank | Name of Faculty Member / NCC Officer | Department / NCC | Designation |
|---|---|---|---|---|
| 1. | LT. COL | Praveen Thakur | NCC | CO |
| 2. | LT | Dr. Kishore Kumar Senapati | CSE | ANO |
| 3. | SUB | Shashi Kumar | NCC | Sr. JCO |
| 4. | SUB | Purshotam Tiwari | NCC | JCO |
| 5. | NB. SUB | SK Sahoo | NCC | JCO |
| 6. | CHM | Suresh Chandra | NCC | OR |
| 7. | HAV | Sudeep Tyagi | NCC | OR |
| 8. | HAV | Ishwar Singh | NCC | OR |

# National Service Scheme

## Yoga Day(21-06-2021)

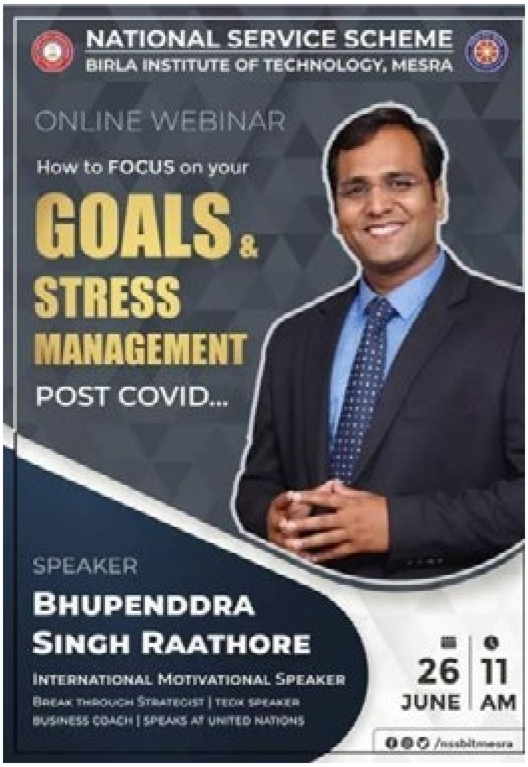
To live the spirit of the ancient science of Yoga, we at NSS, BIT MESRA, organized an instructed session and webinar on the occasion of International Yoga Day. Our esteemed guest of honor was DrVishwas Vasant Mandlik, founder and Yogacharya of Yoga Vidya Dham, Nasik andhis team.



## Webinar on "How to focus on goal and stress"(26-06-2021)

COVID-19 Pandemic has left a huge impact on our lives. Many of them are dealing with stressful, overwhelming, and elicit powerful emotions in both theadults and children. On this note, NSS BIT

Mesra, invited Dr Bhupendra Singh Rathore, popularly known as BSR sir,to host an online webinaron "How to focus on goal and stress".



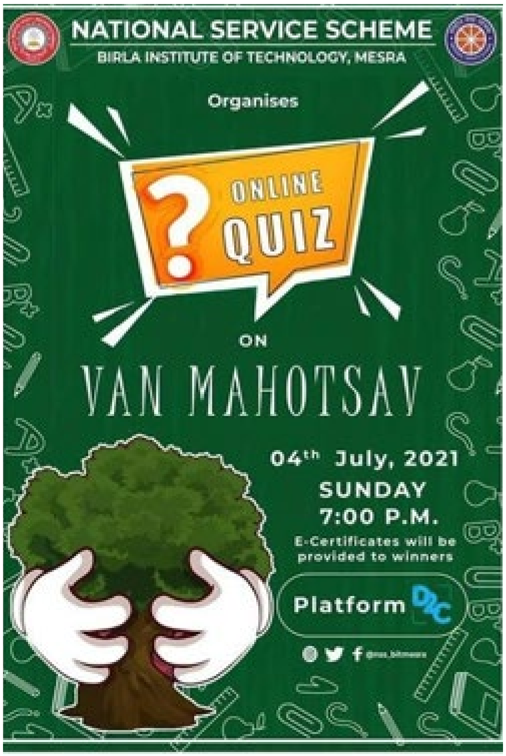
NATIONAL SERVICE SCHEME
BIRLA INSTITUTE OF TECHNOLOGY, MESRA

ONLINE WEBINAR
How to FOCUS on your
GOALS &
STRESS
MANAGEMENT
POST COVID...

SPEAKER
BHUPENDDRA
SINGH RAATHORE
INTERNATIONAL MOTIVATIONAL SPEAKER
BREAK THROUGH STRATEGIST | TEDX SPEAKER
BUSINESS COACH | SPEAKS AT UNITED NATIONS

26 JUNE | 11 AM

/nssbitmesra



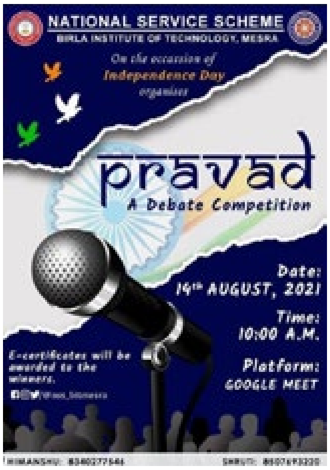
NATIONAL SERVICE SCHEME
BIRLA INSTITUTE OF TECHNOLOGY, MESRA
Organises
ONLINE QUIZ
ON
VAN MAHOTSAV
04th July, 2021
SUNDAY
7:00 P.M.
E-Certificates will be provided to winners
Platform D2C

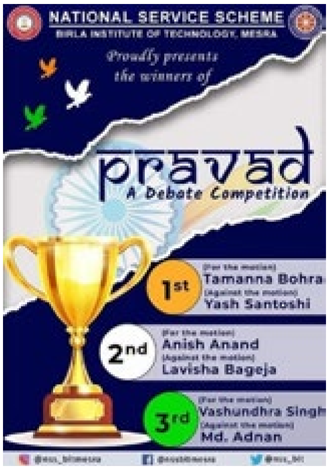
## Van Mahotsav Week (01.07.2021–07.07.2021)

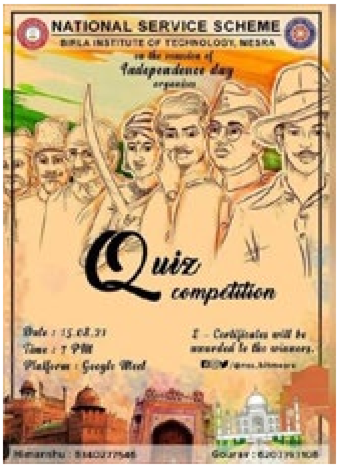
Van Mahotsav Week started to create awareness in the mind of the people for the conservation of forests and planting of new trees. To thisend, NSS BIT Mesra organised an online QUIZ on Van Mahotsav on 4thJuly.

## Pravad (14–07–2021)

Pravad: A Debate Competition." NSS, BIT ,Mesra, organized a debate competition on 14th August, 2021 to celebrate this auspicious day to remember the efforts of those countless Indians who sacrificed their lives for our bright future. In Round 1-the participants were divided into a number of subgroups in accordance with the total number of candidates. Atotal of 5 different topics were given to them. Then in the final round, 2 groups were made (For and Against the Motion). A Google doc was circulated in which a topic was given, and the person had to choose which side he wants to pick. The choosing of which side a person wants wasbased on first come first priority. Then one team spoke on the topic and from another team each member asked at least one question. If no answer was given by the participant, then the other person will got the point.


NATIONAL SERVICE SCHEME
BIRLA INSTITUTE OF TECHNOLOGY, MESRA
On the occasion of
Independence Day
organises
pravad
A Debate Competition
Date:
14th AUGUST, 2021
Time:
10:00 A.M.
Platform:
GOOGLE MEET
E-certificates will be awarded to the winners.
HIMANSHU: 8340277546
SHRUTI: 8607693320


NATIONAL SERVICE SCHEME
BIRLA INSTITUTE OF TECHNOLOGY, MESRA
Proudly presents
the winners of
pravad
A Debate Competition
1st
(For the motion)
Tamanna Bohra
(Against the motion)
Yash Santoshi
2nd
(For the motion)
Anish Anand
(Against the motion)
Lavisha Bageja
3rd
(For the motion)
Vashundhra Singh
(Against the motion)
Md. Adnan


NATIONAL SERVICE SCHEME
BIRLA INSTITUTE OF TECHNOLOGY, MESRA
on the occasion of
Independence day
organises
Quiz
competition
Date : 15.08.21
Time : 7 PM
Platform : Google Meet
E - Certificates will be awarded to the winners.

## Quiz on Independence Day (15–07–2021)

August 15 marks the occasion of Independence Day, one of the three National holidays, in India, and this year we are celebrating 75 years of Independence from British Rule. To this end, NSS BIT MESRA organised an online Quiz on Independence Day, 15th August.

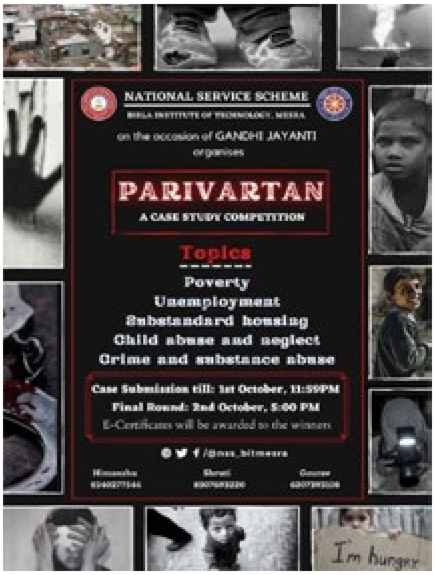
## Plantation Drive (02–10–2021)

NSS planted saplings celebrating Azadi Ka Amrit Mahotsav on the eve ofGandhiji's birthday on2nd October'21, the Mahatma who played a key role in said 'Azadi'.

NATIONAL SERVICE SCHEME
BIRLA INSTITUTE OF TECHNOLOGY, MESRA
आजादी
का
अमृत महोत्सव

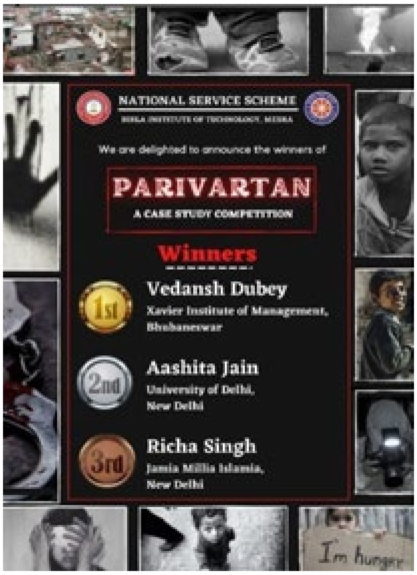
## Parivartan (02-10-2021)

Every year on 2nd October we celebrate Gandhi Jayanti to mark the birthday ofMahatma Gandhi and his selfless contribution to India's freedom struggle. So inorder to solve the underlying issues ofour society we, NSS BIT Mesra, are organised a case study competition.



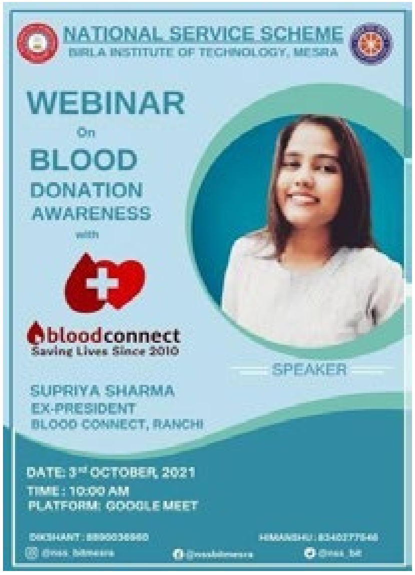
NATIONAL SERVICE SCHEME
BIRLA INSTITUTE OF TECHNOLOGY, MESRA
on the occasion of GANDHI JAYANTI
organises
PARIVARTAN
A CASE STUDY COMPETITION
Topics
Poverty
Unemployment
Substandard housing
Child abuse and neglect
Crime and substance abuse
Case Submission till: 1st October, 11:59PM
Final Round: 2nd October, 5:00 PM
E-Certificates will be awarded to the winners
/@nss_bitmesra

I'm hungry



NATIONAL SERVICE SCHEME
BIRLA INSTITUTE OF TECHNOLOGY, MESRA
We are delighted to announce the winners of
PARIVARTAN
A CASE STUDY COMPETITION
Winners
1st Vedansh Dubey
Xavier Institute of Management, Bhubaneswar
2nd Aashita Jain
University of Delhi, New Delhi
3rd Richa Singh
Jamia Millia Islamia, New Delhi

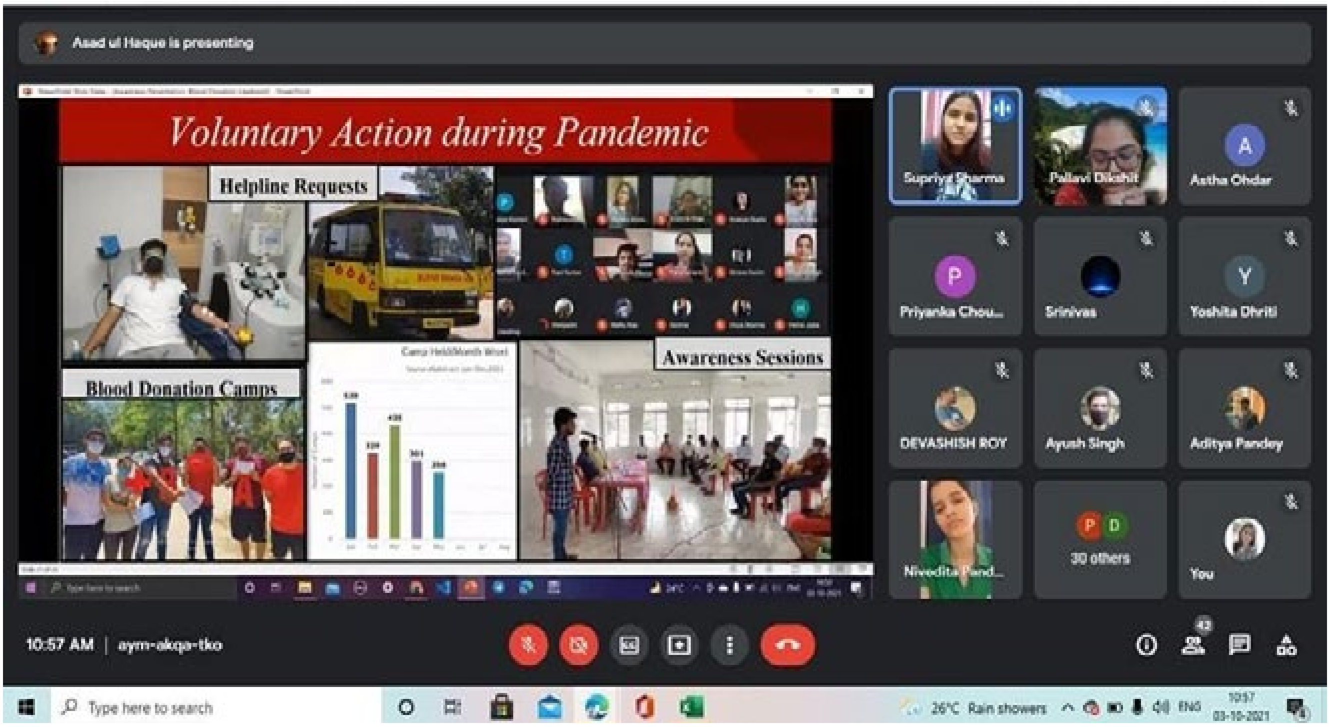
I'm hungry



NATIONAL SERVICE SCHEME
BIRLA INSTITUTE OF TECHNOLOGY, MESRA
WEBINAR
On
BLOOD
DONATION
AWARENESS
with
bloodconnect
Saving Lives Since 2010
SPEAKER
SUPRIYA SHARMA
EX-PRESIDENT
BLOOD CONNECT, RANCHI
DATE: 3rd OCTOBER, 2021
TIME : 10:00 AM
PLATFORM: GOOGLE MEET

## Webinar on Blood Donation Awareness (03-10-2021)

It is necessary to promote public knowledge about the need and importance donating blood and as wellas the role voluntary blood donors play. In view ofthis, NSS BIT Mesra in association with Blood Connect organised a webinaron blood awareness and the importance of blood donation. The webinarwas conducted on Google Meet.



Asad ul Haque is presenting

Voluntary Action during Pandemic

Helpline Requests

Blood Donation Camps

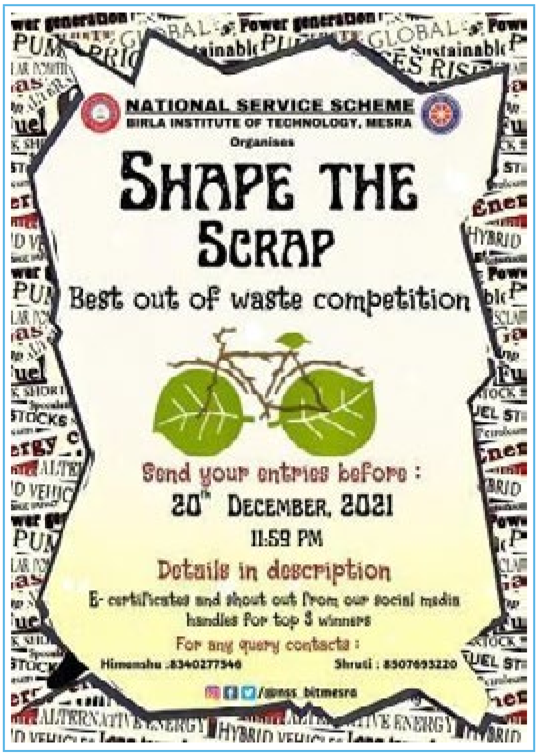
Awareness Sessions

10:57 AM | aym-akqa-tko

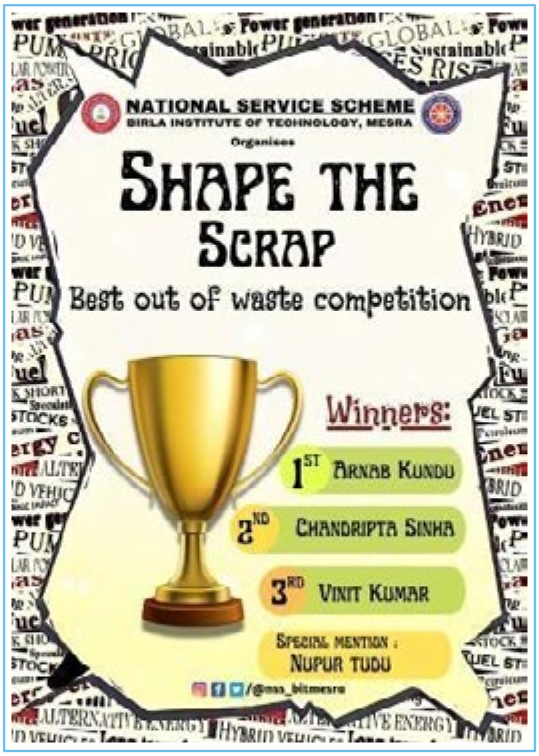
Supriya Sharma
Pallavi Dikshit
Astha Ohdar
Priyanka Chou...
Srinivas
Yoshita Dhriti
DEVASHISH ROY
Ayush Singh
Aditya Pandey
Nivedita Pand...
30 others
You
Type here to search
26°C Rain showers
ENG
10:57
03-10-2021

## Shape The Scrap (20-12-2021)

NSS, BIT Mesra organized a week-long event "Shape The Scrap" where participants were required to create art out of waste materials. Through this event, we aimed to promote Waste to Wealth Mission and Swachh Bharat Abhiyan, a cleanliness campaign launched by the Government.



NATIONAL SERVICE SCHEME
BIRLA INSTITUTE OF TECHNOLOGY, MESRA
Organises
SHAPE THE SCRAP
Best out of waste competition
Send your entries before :
20th DECEMBER, 2021
11:59 PM
Details in description
E-certificates and shout out from our social media handles for top 3 winners
For any query contacts :
Himanshu :8340277346 Shruti : 8507693220
/@nss_bitmesra

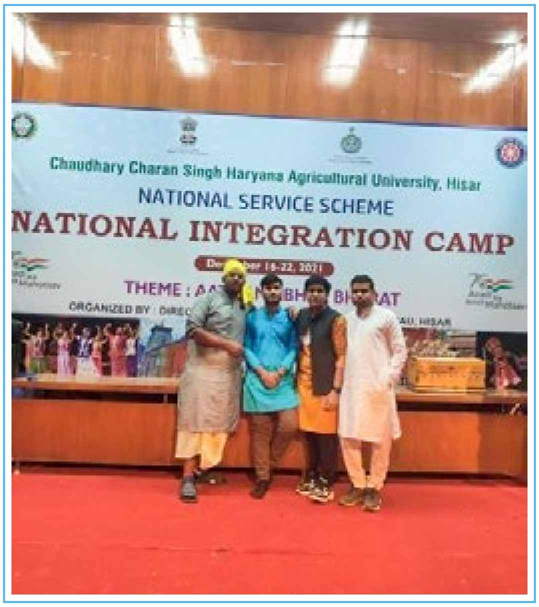


NATIONAL SERVICE SCHEME
BIRLA INSTITUTE OF TECHNOLOGY, MESRA
Organises
SHAPE THE SCRAP
Best out of waste competition
Winners:
1st ARNAB KUNDU
2nd CHANDRIPTA SINHA
3rd VINIT KUMAR
SPECIAL MENTION : NUPUR TUDU
/@nss_bitmesra

## National Integration Camp (16-12-2021 to 22-12-2021)

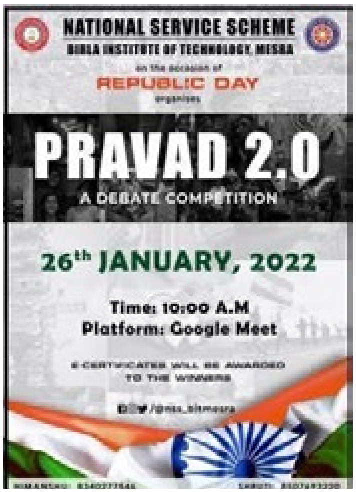
A week-long event, from 16th to 22nd of December in which volunteers from 17 different states gathered to show the social and cultural aspects of India. In this event NSS BIT Mesra represented Jharkhand with 4 NSS volunteers along with Programme officer Dr. SS yadav. The camp was held at CCS_HAU,Hisar, Haryana.

Chaudhary Charan Singh Haryana Agricultural University, Hisar
NATIONAL SERVICE SCHEME
NATIONAL INTEGRATION CAMP


Chaudhary Charan Singh Haryana Agricultural University, Hisar
NATIONAL SERVICE SCHEME
NATIONAL INTEGRATION CAMP

## Pravad 2.0 – A Debate competition (26-01-2022)

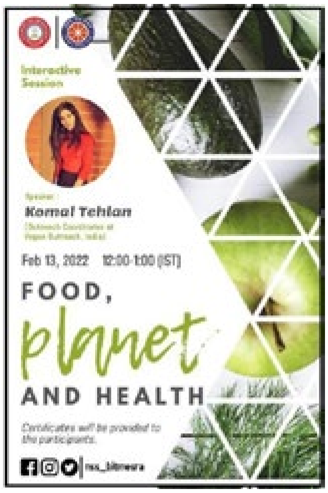
To commemorate India's 73rd Republic Day, we at NSS, BIT MESRA organizedPravad 2.0, a debate competition. We saw huge participation from colleges from all over India. The event was conducted in two rounds, both of which were a success. In Round 1-the participants were divided into a number of subgroups in accordance with the total number of candidates. A total of 5 different topics were given to them. Then in the final round, 2 groups were made (For and Against the Motion). A Google doc was circulated in which atopic was given, and the person had to choose which side he wants to pick.The choosing of which side a person wants was based on first come first priority. Then one team spoke on the topic and from another team each member asked at least one question. If no answer was given by the participant, then the other person will got the point.



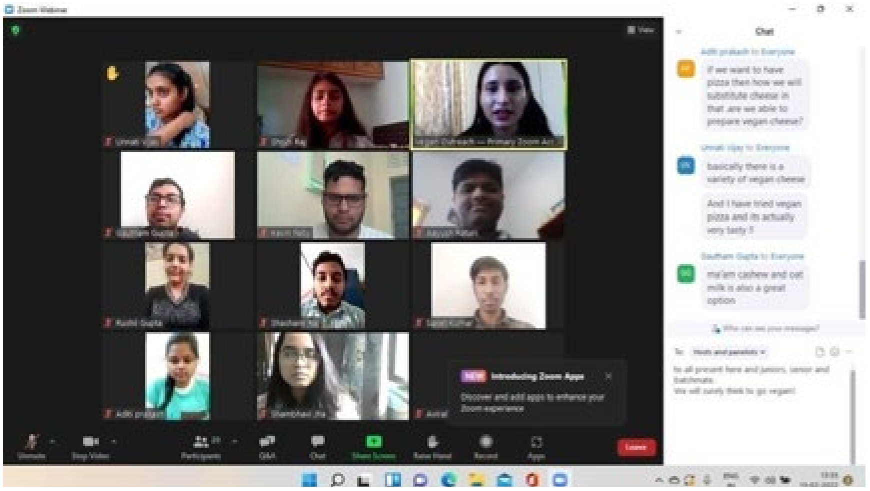
NATIONAL SERVICE SCHEME
BIRLA INSTITUTE OF TECHNOLOGY, MESRA
REPUBLIC DAY
PRAVAD 2.0
A DEBATE COMPETITION
26th JANUARY, 2022
Time: 10:00 A.M
Platform: Google Meet

## Webinar on Food, Planet and Health (13-02-2022)

NSS, Birla Institute of Technology, Mesra with the support of Vegan Outreachand its coordinator, Komal Tehlan, successfully conducted a webinar on the impact of food choices on our health, our environment and the animals.

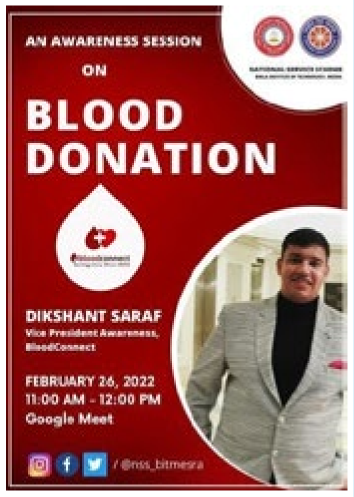


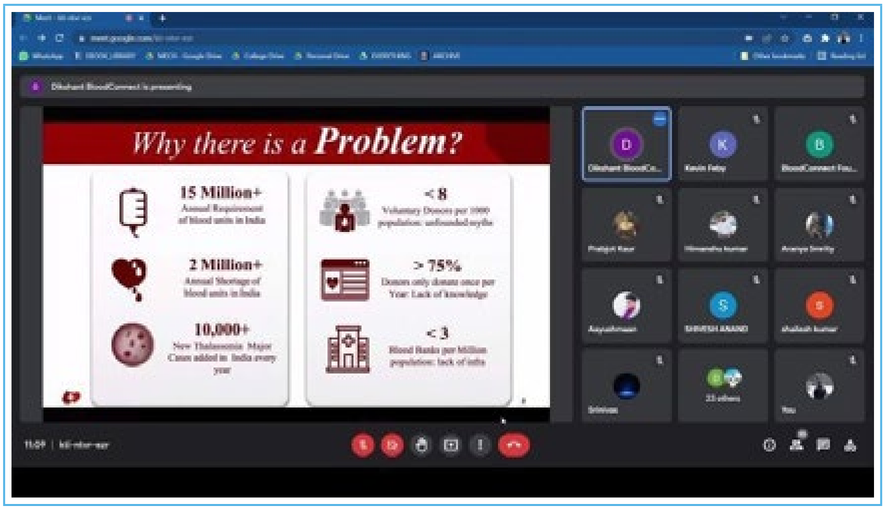
Interactive Session
Komal Tehlan
Feb 13, 2022 12:00-1:00 (IST)
FOOD,
planet
AND HEALTH



## Awareness Session on Blood Donation (26-02-2022)

NSS BIT Mesra organized an awareness session on the topic "Blood Donation " in association with Blood Connect foundation. The event witnessed a huge number of participation of NSS volunteers.


AN AWARENESS SESSION
ON
BLOOD
DONATION
DIKSHANT SARAF
Vice President Awareness, BloodConnect
FEBRUARY 26, 2022
11:00 AM - 12:00 PM
Google Meet
/ @nss_bitmesra


Dikshant BloodConnect is presenting

Why there is a Problem?

15 Million+
Annual Requirement of blood units in India

2 Million+
Annual Shortage of blood units in India

10,000+
New Thalassemia Major Cases added in India every year

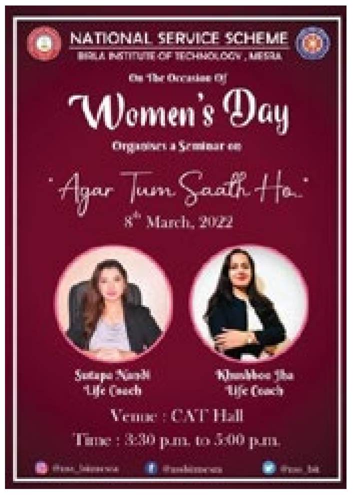
< 8
Voluntary Donors per 1000 population: unfounded myths

> 75%
Donors only donate once per Year: Lack of knowledge

< 3
Blood Banks per Million population: lack of info

## Seminar on "Agar Tum Saath Ho" (08-03-2022)

On the occasion of Women's Day, NSS BIT, MESRA had organised a seminar"Agar Tum Sath Ho" at BIT – Cat Hall from 3:30 – 5:00 P. M. The seminar was successfully conducted by life coach Sutapa Nandi and Khushboo Jha.


NATIONAL SERVICE SCHEME
BIRLA INSTITUTE OF TECHNOLOGY, MESRA
On The Occasion Of
Women's Day
Organises a Seminar on
"Agar Tum Saath Ho"
8th March, 2022
Sutapa Nandi
Life Coach
Khushboo Jha
Life Coach
Venue : CAT Hall
Time : 3:30 p.m. to 5:00 p.m.

NATIONAL SERVICE SCHEME
BIRLA INSTITUTE OF TECHNOLOGY, MESRA

## Blood Donation Camp (13-03-2022)

NSS BIT, MESRA had organised a Blood Donation Camp at Bit Dispensary on 13th March. The Camp was successfully conducted by the chief guest VC Indranil Manna andAGM Bikram Mishra of the Bank of India. Four hospitals Maa Rampyari, Raj, Medanta, Sevasadan in collaboration with the Blood Bank of India visited for the collection of blood. A total of 250 plus units of blood was donated. All the NSS volunteers and executives joined the Campand made it a successful one.

## Awareness Session on Tobacco Control and Cancer (22-03-2022)

NSS BIT, MESRA in collaboration with Ranchi Cancer Care Foundation and Tata Trusts had organised an awareness session on tobacco control and cancer to create awareness on thehazardous effects of tobacco use, at BIT -Cat Hall on 22-03-2022 from 3:30 - 4:30 P. M.

## Environment day (05-06-2022)

NSS BIT Mesra, in association with Institute Innovation Council (IIC) and Environment Protection and Awareness Club (EPAC) organized a series of events for World EnvironmentDay on 5th June, 2022. The events which took place were :

### Cleanliness Drive

A cleanliness drive was also organized wherein a group of students went and cleaned up aparticular area with that unit being led by the NSS. Dustbins and broomsticks were procured from the NSS office and distributed.

### Environmental Campaign

Posters raising awareness about Environment Day were distributed and students went doorto door, teaching residents how to properly dispose hazardous wastes such as batteries, sanitary pads, and razor blades.

### Plantation Drive

A plantation drive was also organized in the premises wherein 50 plants were plantedbehind Hostel No. 9 in order to nourish the soil and environment.

### Webinar

An insightful webinar was also organized by Dr. Jit Mukherjee and Dr. Rajat Kumar on the same day from 12:00 P.M. to 1:00 P.M. on Google Meet platform wherein famous ecologist and environmentalist, Dr. RajuKumar had been invited as the guest speaker. The webinar saw an active participation of more than 100+ volunteers.

राष्ट्रीय सेवा योजना
विश्व पर्यावरण

## Internation Yoga Day (21-06-2022)

NSS, BIT MESRA organised a yoga session on the occasion of International Yoga Day on 21st of June, 2022. It took place at Sports Complex and was attended by 155 volunteers.It began with the yoga session followed by an encouraging speech. This was followed by various pranayama and asana performed by all the participants. Thus, the event wasconducted successfully witnessing an enthusiastic participation of the volunteers and executives, and the revered presence of our faculty members and dignitaries.

राष्ट्रीय सेवा योजना
अंतर्राष्ट्रीय योग दिवस

# ENVIRONMENTAL INITIATIVES

**Intro** – The Environment Protection and Awareness Club of BIT Mesra, popularly known as EPAC, is the student club whose primary motive is to instigate awareness about the detrimental effects rapid urbanisation and industrialisation has on our environment, and provide a space for contemplating the possible solutions to lift this pressure. We, as the student body, aim to improvise the existing systems which lay in the favour of nature and thusly started a plethora of initiatives in our lush green Institute Campus, and elsewhere, to aid the upliftment of the environment, and inform our peers about the consequences of an unhealthy environment. With an objective to nurture nature in return to all she does for us, we selflessly carry out activities with paramount dedication and unequivocal semblance of ideas to save what has been ours for all these years. We work in consonance with the latest advancements in technology to bring about small differences which might lead towards a green future.

## Flagship events

1. Jumanji – Organized by the Environmental Protection and Awareness Club (EPAC) BIT Mesra, Jumanji V5.0 is a treasure hunt that truly did justice to its namesake movie. Filled with rampant adrenaline rushes, a seemingly endless array of perplexing clues and enthusiastic participants despite conducting it in virtual mode.
2. JSEF – As a club, we organize the Jharkhand Science and Environment Festival (JSEF), the largest science festival in the East Zone exclusively for school students went pan-India this year by conducting the event online. It included events like poster making, debate, games, etc.

## Major events

1. Nat Frames – A photography competition testing the ability of BIT students to look at Nature tenderly by asking them to capture their surroundings in a way that appeals to them.
2. Beyond Crisis – An online quiz and case study competition that tests the knowledge of nature that college students hold, held in multiple stages.

## Webinars

1. Know and Grow by Mrs. Nupur, the co-founder of Greenmyna: Mrs. Nupur talks about the challenges and the emotions involved in making an eco-friendly wedding ceremony, and making a business out of it. Mrs. Nupur also talks about her experience leading an eco-friendly life and her approach to teaching her friends to do so as well.
2. By Mr. Akhilesh Anil Kumar, UN India climate leader: On the account of Energy Conservation Day, Mr. Akilesh talks about changing the manufacturing industry to be more eco-friendly, his personal endeavours educating school children waste management and green education, improving college and school campuses by collaborating with the local vendor community.

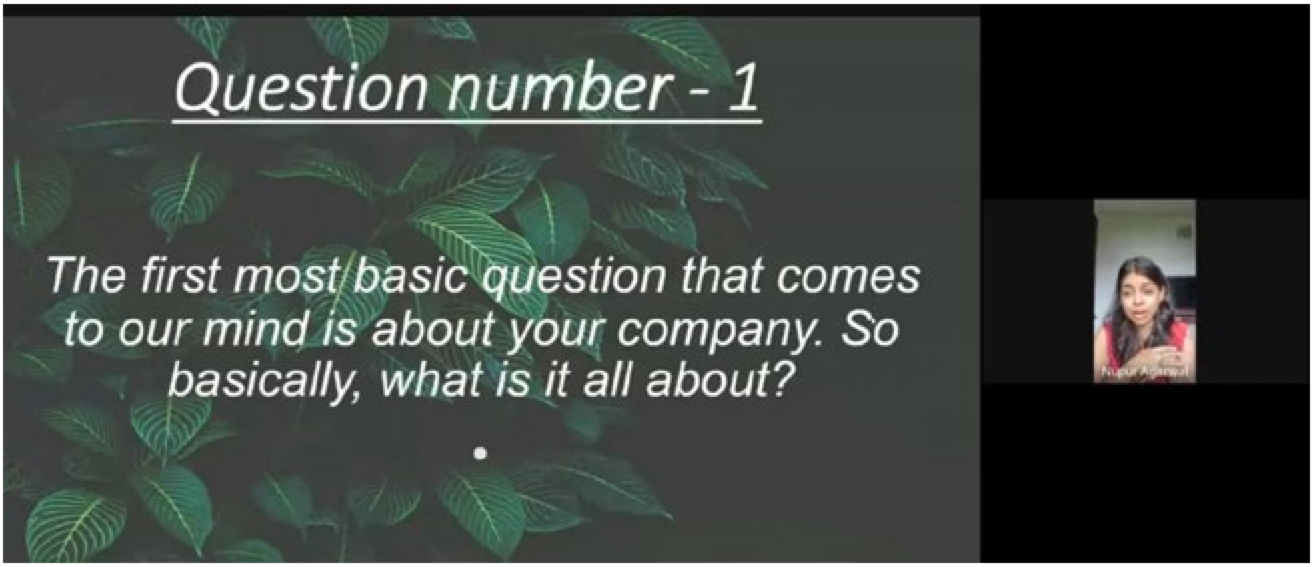
## Other initiatives

1. #Plantmoretrees: On the account of Van Mahotsav, EPAC encouraged BITians and their families to plant more trees in their living area to make it a point to live with other species in harmony rather than forcefully claiming their habitat.

## Achievements

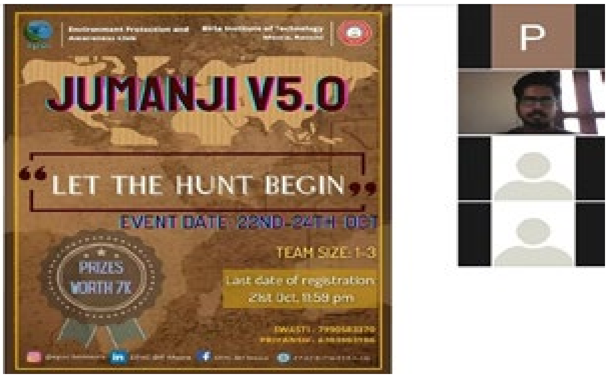
1. EPAC launched its website epacbitmesra.in as another channel to publicise its events and to spread awareness about environmental issues.
2. EPAC organized plantation drive in the locality inhabited by its club members by collaborating with the local nurseries.

## Event Gallery



Question number - 1

The first most basic question that comes to our mind is about your company. So basically, what is it all about?

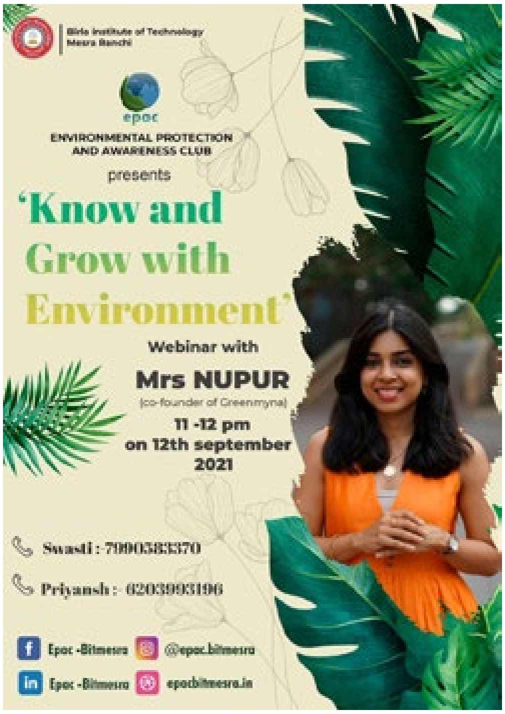

Environment Protection and Awareness Club
Birla Institute of Technology Mesra, Ranchi
JUMANJI V5.0
"LET THE HUNT BEGIN"
EVENT DATE: 22ND-24TH OCT
TEAM SIZE: 1-3
PRIZES WORTH 7K
Last date of registration 21st Oct. 11:59 pm
P

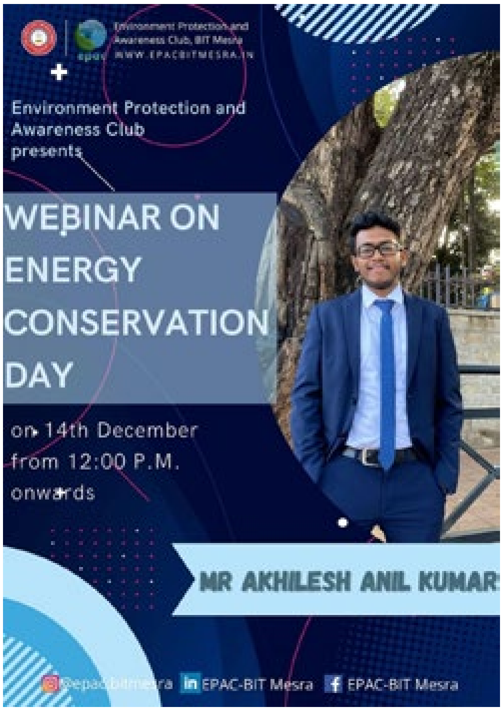
Jumanji V5.0

Birla Institute of Technology (BIT), Mesra, Ranchi

Registration closed

Karthikeyan S
Pratima R Devadharsan RR
SHALINI SHREE PV
Jagjeet Singh
Jaswanth.G SEOD1
U
UJJWAL KUMAR
M rohith
Visuwesh Muthukumar
P
PRABHAN JHA
SHIVAM KUMAR
Varshini Chidambaram
Sushant Ranjan
Jeesita Hannah Selvi
You
12:23 | dow-bqbr-oqe
14


Birla Institute of Technology
Mesra Ranchi
epac
ENVIRONMENTAL PROTECTION AND AWARENESS CLUB
presents
'Know and Grow with Environment'
Webinar with
Mrs NUPUR
(co-founder of Greenmyna)
11 -12 pm
on 12th september 2021
Swasti : 7990583370
Priyansh : 6203993196
Epac -Bitmesra
@epac.bitmesra
Epac -Bitmesra
epacbitmesra.in

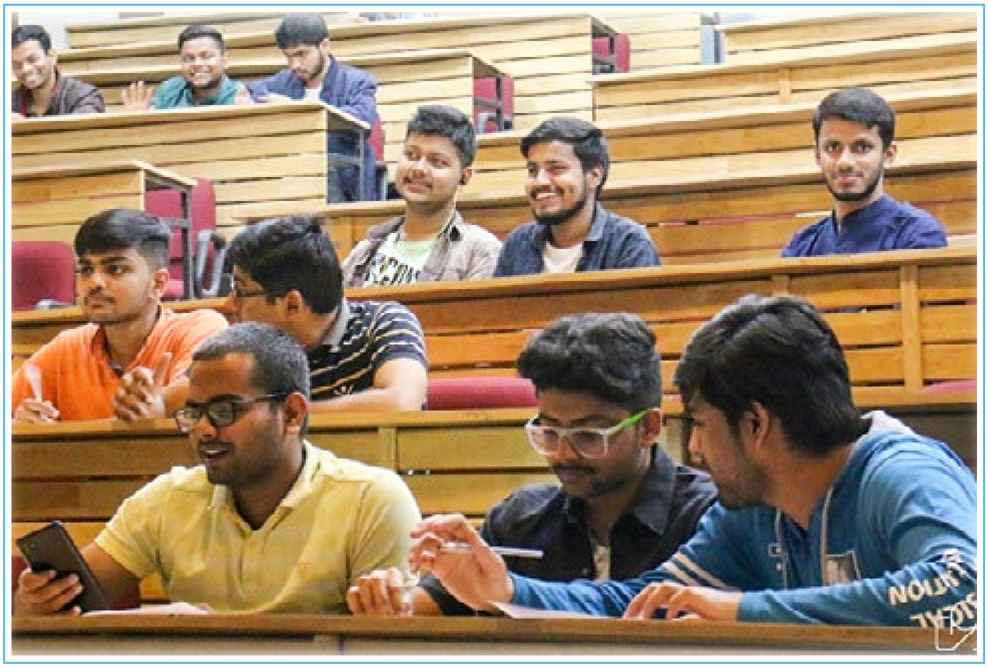

Environment Protection and Awareness Club, BIT Mesra
WWW.EPACBITMESRA.IN
Environment Protection and Awareness Club
presents
WEBINAR ON ENERGY CONSERVATION DAY
on 14th December
from 12:00 P.M. onwards
MR AKHILESH ANIL KUMAR
@epac.bitmesra
EPAC-BIT Mesra
EPAC-BIT Mesra

# The Entrepreneurship Development Cell

**The Entrepreneurship Development Cell** was founded in the year 2007 by students Amit Chaudhary and Ankit Jain with Dr. B.M Karan as Mentor to foster the spirit of entrepreneurship among students. EDC's prime objective is to be a stepping stone for students who want to take the unconventional path and start their own enterprise. To gather the required expertise for them and help them to approach Venture Capitalists (VCs), investors and banks are the major areas of focus. EDC also plays a vital role in encouraging entrepreneurship among students of the Jharkhand region through workshops, activities, and guest lectures by eminent personalities. The Institute is governmentally recognized as the Nodal Centre for Entrepreneurship in the state of Jharkhand.

The major events held for the duration May'21 – March'22 included The Annual Entrepreneurship Summit which accounted for a footfall of more than 1000 young and budding entrepreneurs looking to take part in a series of challenging events & be a part of guest talks from renowned industry moguls. IPL Kickoffs, The Feud & Bellagio were the major highlights of informal events. Participants had the opportunity to demonstrate their skill and expertise in one of the best financial showdowns thanks to Pennywise. Online contests like OG Karts and Spike Rush drew participants from various colleges and involved them in an exciting activity. Participants gained knowledge about market speculation through Sahifolio, Pentagon provided the right opportunity to the folks to put up their skills in the real business world. Participants got a taste of what it's like to handle the heat of unpredictability through experiences like Under Pressure. With Bizalytics, participants in a data analytics hackathon with thrilling challenges and rewards gain first-hand experience with the analysis, structure, and specification of the design and implementation of a solution to solve actual business problems. For those who wanted to start in this domain pitch, Unicorn League presented a perfect opportunity to come and pitch their ideas to judges and take home exciting prizes. The total prize pool for the entire summit was a whopping 2.5 crore thanks to a strong sponsorship from a variety of brands.

E-Summit'22 witnessed a stellar speaker line-up that included Mr. Satish Ray, a comedian, and a YouTube personality; Mr. Vatsal Kanakiya, the CTO of 100X.VC; Mr. Vijay Srivastava, ASEAN Academy of Entrepreneurship and Employability; Mr. Rajive Sinha, COO at U2CA Consultants Pvt. Ltd., Co-founder and member Governing Board, Indian Academy of Entrepreneurship; Mr. Vijay Aggarwal, CTO of Bharat Pe; Mr. Nitin Jain, CEO and co-founder of INDIBNI Pvt Ltd; Mr. Harish Uthayakumar, CEO and co-founder of Bluelearn.in; Mr. Aman Kumar, (Ex-Microsoft) Co-founder at Pepcoding; Mr. Prasanna Swain, Mentor at Pepcoding Education Pvt Ltd; Mr. Vinayaka Kalra, Founder of Mining Devs; Mr. Dmitry Gerasimov, CEO of CellFrame and a Software Engineer.



E-Summit had strong backing from renowned sponsors & corporate partners like Angel One, HPCL, PUMA, BMW, Pizza Hut, Geeks for Geeks, Coding Ninjas, Floxus & the list goes on. Overall E-Summit was an overwhelming plethora of events, speakers & an entrepreneurial vibe.

Entrepreneurship Development Cell also hosted individual events like Virtual Stock Simulation which simulated a stock trading environment wherein participants with the highest profits at the end were hailed the big bulls.

Fostering the young entrepreneurs, the new and young members of the cell hosted a unique corporate case study, Gulf of Entrepreneurs with prizes worth 5K, which required the participants to submit a marketing solution as a case study for the preliminaries. This was followed by the finale, which consisted of 6 teams going head-to-head in solving tricky case studies.

Following this, a variety of webinars and workshops, including the HULT Prize – Introductory session and others, gave all of the students an equal opportunity to test and fuel their entrepreneurial fire.

Expansion of the cell to further generations is as important, and therefore the recruitment drive was carried out, which tested the student's various skills and knowledge domains. In the end, EDC recruited 65 talented individuals full of ideas and willing to put in the work and hustle in life.

Brief details about different workshops and activities conducted by EDC, BIT Mesra to contribute and promote Entrepreneurship among students of BIT Mesra.

a) Unicorn League - It is a fun event where participants had to pitch their ideas which test their entrepreneurial skills. The Top 3 teams received cash prizes, support and mentoring from the known stalwarts of the startup industry.

b) Under Pressure - It is a brainstorming event filled with a myriad of exciting levels to test one's risk analysis acumen. Teams were given hypothetical and real crises based on a pre-decided theme and they have to submit their best possible solution to the crises.

c) Basics of Product Management – It›s a well-known fact that Product Management is a challenging task. Between interfacing with multiple teams, prioritizing customer satisfaction, and driving the mobile product roadmap, one often gets caught up in the hustle, bustle, and stress. EDC BIT Mesra in collaboration with Angel One had a session with Mr. Ankit Rastogi, Chief Product Officer of Angel One to enlighten students about the 'Basics of Product Management'. This session witnessed a footfall of more than 100 students.

d) BIT NISHAN – Apart from the E-Summit, The Institute of Innovation council in association with Entrepreneurship Development Cell and Finance Club presented ‹BIT-NISHAN› – an initiative to provide seed funding to home startups run by students and faculty of BIT Mesra and off campuses. This new initiative served as a landing platform for providing hands-on support to entrepreneurs. BIT NISHAN is focused on scouting early-stage ventures to help them upscale and provide guidance for necessary outreach and growth.

e) Strategies for College Ventures.- Indian millennials are even more interested in start-ups and entrepreneurship at a time when the country is witnessing a significant and strong increase in the number of unicorns. However, the road to entrepreneurial success is fraught with erratic and, at times, unprecedented challenges. To further understand these challenges, EDC BIT Mesra conducted an interactive seminar with Mr. Nitin Jain, CEO and Founder INDIBNI Pvt Ltd. and also an alumnus of BIT Mesra Jaipur campus. He guided students with his life journey as an entrepreneur and what challenges he faced in past 9 years.

f) Fire Side Chat.- The journey of Entrepreneurs is not a path full of roses, but the path can be made easy with the help of proper guidance. For enlightening the aspiring entrepreneurs, EDC BIT Mesra conducted an interactive seminar with Vijay Aggarwal, CTO of BHARAT.PE is a technological leader with more than 13 years of experience in the internet sector, all of which have been with high-energy companies.

Not only this, EDC BIT Mesra has developed long-term relationships with more than 50 corporate partners including Angel One, HPCL, Dare2Compete, Puma, Floxus, and many more.

We have also conducted numerous sessions on Entrepreneurship, Business Development, Marketing, Finance and Technical skills that have helped many students to enhance their skills and excel in their careers.

## SPEAKERS' SESSION

1. My Journey from Bihar to Bombay – EDC BIT MESRA had an interactive online session with Satish Ray, A Youtuber and Standup Artist. He described his journey from real to reel life and how art and wits are more important than sophisticated equipment for content creation.
2. Basics of Product Management - It›s a well-known fact that Product Management is a challenging task. Between interfacing with multiple teams, prioritizing customer satisfaction, and driving the mobile product roadmap, one often gets caught up in the hustle, bustle, and stress. EDC BIT Mesra in collaboration with Angel One had a session with Mr. Ankit Rastogi, Chief Product Officer of Angel One to enlighten students about the 'Basics of Product Management'. This session witnessed a footfall of more than 100 students.
3. Start-up in Colleges. - Intendending to instill an entrepreneurial spirit in students, the Entrepreneurship Development Cell at BIT MESRA conducted an interactive session with Mr. Harish Uthayakumar, CEO and Co-Founder of bluelearn.in for the session Creator Conclave at angel one E-Summit'22.
4. Strategies for College Ventures.- Indian millennials are even more interested in start-ups and entrepreneurship at a time when the country is witnessing a significant and strong increase in the number of unicorns. However, the road to entrepreneurial success is fraught with erratic and, at times, unprecedented challenges. To further understand these challenges, EDC BIT Mesra conducted an interactive seminar with Mr. Nitin Jain, CEO and Founder INDIBNI Pvt Ltd. and also an alumnus of BIT Mesra Jaipur campus. He guided students with his life journey as an entrepreneur and what challenges he faced in past 9 years.

5. Learning blockchain from Cell Frame. -Technology is advancing a breakneck pace. Blockchain is maybe today›s most quickly growing technology. EDC BIT MESRA presented a session titled «Learning Blockchain using Cell Frame.» Mr. Vinayaka Kalra, Founder of Mining Devs, and Mr. Dmitry Gerasimov, CEO of Cell Frame.
6. Fire Side Chat.- The journey of Entrepreneurs is not a path full of roses, but the path can be made easy with the help of proper guidance. For enlightening the aspiring entrepreneurs, EDC BIT Mesra conducted an interactive seminar with Vijay Aggarwal, CTO of BHARAT.PE is a technological leader with more than 13 years of experience in the internet sector, all of which have been with high-energy companies.
7. World of Investment - Mr. Vatsal offers everything you need to succeed as an investor, entrepreneur, and self-improvement expert. Mr. Vatsal Kanakiya, CTO of @100x.vc and a member of his family office Mehta Ventures' venture investing team. BIT Entrepreneurship Development Cell Mesra was thrilled to have him as a guest speaker at our massive angel one E-Summit-22.
8. Data Analytics Workshop.- Entrepreneurship Development Cell, in partnership with Google Developer Student Club, proudly introduced Mr. Aman Kumar (Ex-Microsoft), Co-Founder at Pep coding, and Mr. Prasanna Swain, Mentor at Pep coding Education Private Limited, DTU grad, a specialist at Python & Machine Learning, as keynote speakers for the fifth edition of Mega Entrepreneurial Fest, angel one E-Summit.
9. Leadership and Execution Lessons I learned as an Entrepreneur.- EDC BIT Mesra, in collaboration with the Institution's Innovation Council, was delighted to welcome Mr. Anand Prahlad, Founder & CEO of Parablu Inc., to share his important experience as an entrepreneur on leadership and execution lessons. Mr. Prahlab created Parablu Inc., a B2B SaaS firm located in Santa Clara, CA with R&D operations in India, with over 25 years of expertise in designing Enterprise software solutions.
10. Finance Workshop.- The BIT Mesra Entrepreneurship Development Cell and Institute Innovation Council was delighted to submit Mr. Satish Krishnan's Finance Workshop, which covered personal finance, financial markets, fundraising, investments, revenue forecasting, and everything else you need to know to scale your financial growth.
11. The screenplay called Life.- Mr. Raj A. Kapoor, Chief Blockchain Advisor of India Blockchain Alliance, spoke at EDC BIT Mesra about the complexities that define who we are. He is a multifaceted personality who has mentored pupils outside of the classroom to bring out the best in them.
12. Product roles in Startup.- To discover what goes into creating killer products within high-growth firms EDC BIT Mesra held a workshop with the Speaker - Mr. Ajeet Singh Kushwaha, Co-Founder of Seekho
13. Fintech and Neobanking.- Fintech (a combination of the words "finance" and "technology") is the use of technology to improve and automate financial services and operations. Fintech and Neo- Finance are broad terms that refer to a fast-rising industry that serves the interests of both consumers and corporations in a variety of ways. The list goes on and on, from mobile banking and insurance to cryptocurrency and investing apps. EDC BIT Mesra organized a workshop to educate the students more on the topic.
14. Emotional intelligence.- The Student Alumni Relations Cell, BIT Mesra, in collaboration with the Entrepreneurship Development Cell (EDC) and the Institution's Innovation Council (IIC), brought forth a delightful webinar in _"How Emotions Drive Innovation"_ from the author of two renowned self-help books "How to unleash your true potential" and "Finding the magic in you."

Mr. Shivam is a renowned life coach, an avid researcher on the subject of aerodynamics, and a former professor.

15. Building innovation Fit for Market.- With the shared objective of creating an inclusive entrepreneurial ecosystem in mind, EDC presented a one-of-a-kind webinar on “Building Innovations Fit for Market,” with the youthful and lively Piyush Verma as the session’s guest.

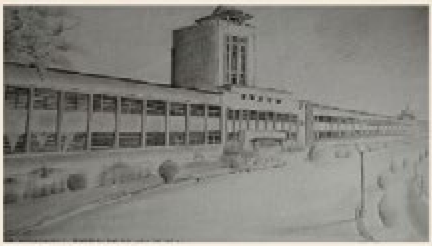
# CREATIVE ARTS

Students who opt for Creative Arts as their co-curricular subject attend a CREATIVE ART's number of theory and sessional classes in Music and fine arts as well as stage performances, etc under the guidance of Mr. Mrinal kumar Pathak & Mrs. Alka Srivastava

## Fine Arts

BIRLA INSTITUTE OF TECHNOLOGY
MESRA, RANCHI, JHARKHAND
Foundation Day
Celebration

They are exposed to different aspects of Creative Arts in their first to fourth semesters.



## Music

Creative Arts, Mesra is dedicated to fostering a passion for the Arts by providing exceptional instruction in visual and performing arts to a diverse population of students.

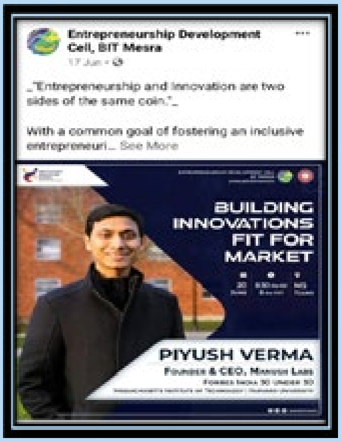
## Perfomance at Foundation Day

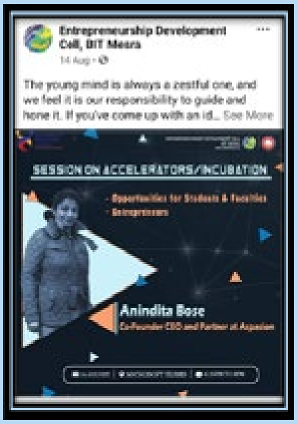
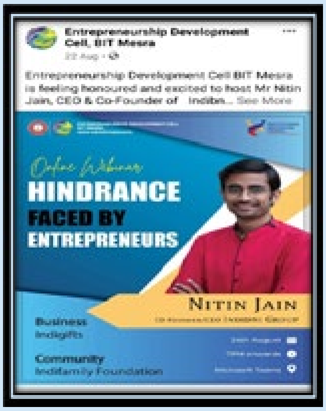
Round the year students not only learn but also Perform for different events at BIT

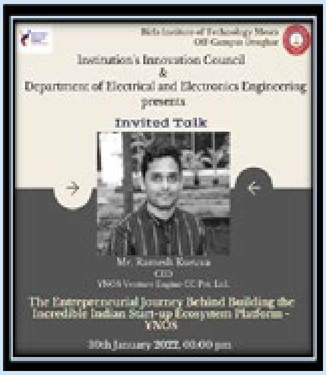
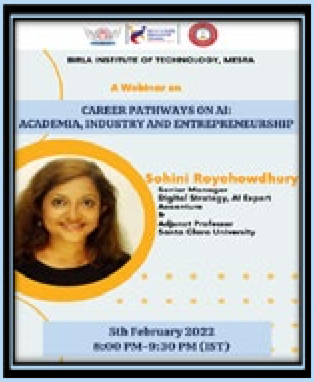
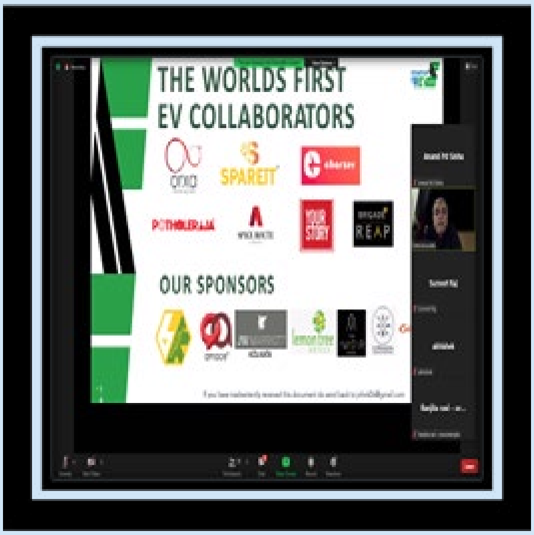
Art speaks where words are unable to explain. Art is a diverse range of human activities in creating visual, auditory or performing artifacts which make us learn a lot.

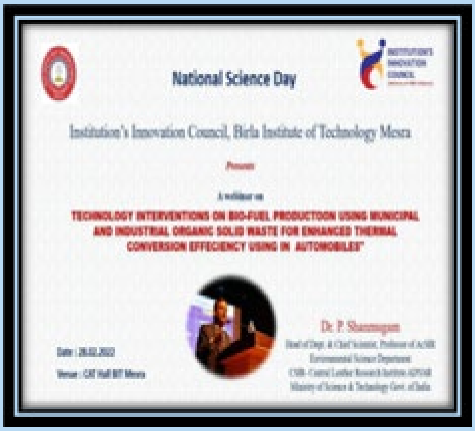
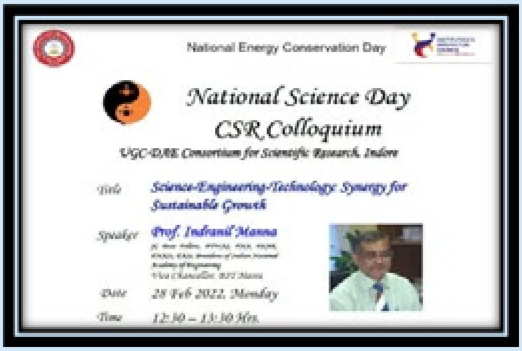
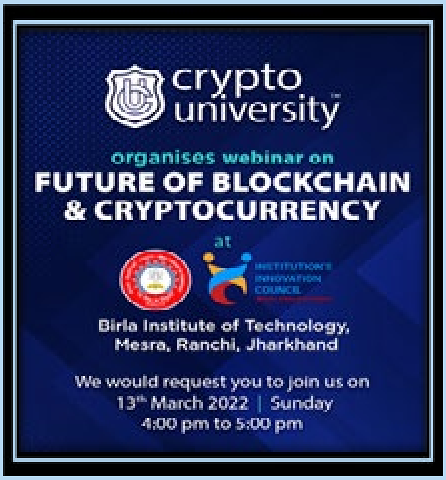
INSTITUTION'S
INNOVATION
COUNCIL
(Ministry of HRD Initiative)

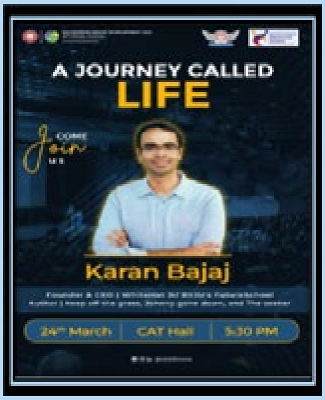
## Institutions Innovation Council

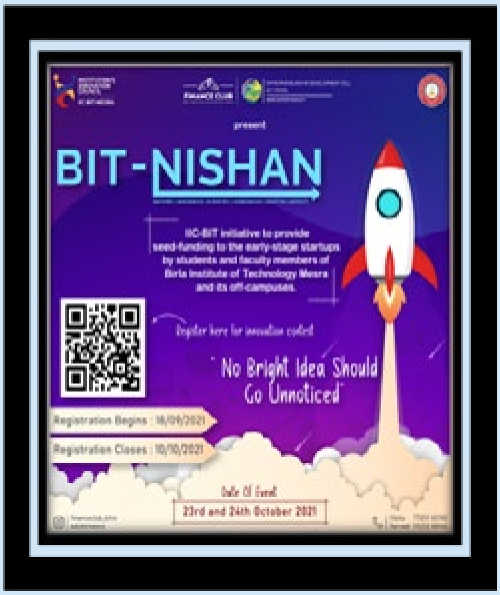
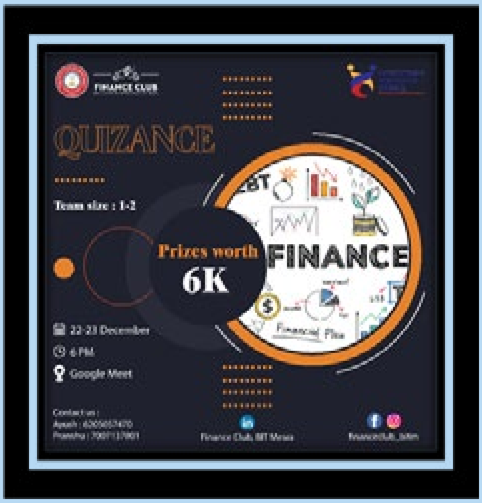
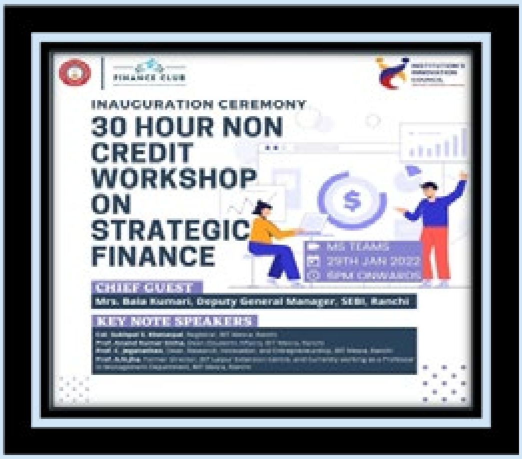
| Sr. No. | Name of The Event | Date<br>Webinar | Evidence |
|---|---|---|---|
| 1. | **Machine Learning Engineering Solutions for end-to-end product creation: Computer Vision & E-commerce case studies.**<br>**Resource Person:**<br>Ms. Sohini Roy Chowdhury<br>Senior Manager, Digital Strategy, AI Expert Accenture & Adjunct Professor Santa Clara University | 12.06.21 | <br>STUDENT ALUMNI RELATIONS CELL<br>BIRLA INSTITUTE OF TECHNOLOGY, MESRA<br>A Webinar on<br>MACHINE LEARNING ENGINEERING SOLUTIONS FOR END-TO-END PRODUCT CREATION: COMPUTER VISION AND E-COMMERCE CASE STUDIES.<br>by<br>SOHINI ROYCHOWDHURY<br>12TH JUNE 2021<br>8:00-9:30PM (IST) |
| 2. | **Building Innovations Fit for Market**<br>**Resource Person:**<br>Mr. Piyush Verma<br>Founder & CEO, Manush Labs | 20/06/21 | <br>Entrepreneurship Development Cell, BIT Mesra<br>17 Jun ·<br>_"Entrepreneurship and Innovation are two sides of the same coin."_<br>With a common goal of fostering an inclusive entrepreneuri... See More<br>BUILDING INNOVATIONS FIT FOR MARKET<br>PIYUSH VERMA<br>Founder & CEO, Manush Labs<br>Forbes India 30 Under 30 |
| 3. | **Creating, building & Transforming business & people opportunity for early-stage Entrepreneurs**<br>**Resource Person:**<br>**Mr. Debashish Sen**<br>CEO, Acelot Academy<br>(Building Careers & Transforming Lives) | 21.06.21 | <br>CREATIVE<br>WEBINAR<br>CREATING, BUILDING & TRANSFORMING BUSINESS & PEOPLE - OPPORTUNITY FOR EARLY STAGE ENTREPRENEURS<br>DEBASHISH SEN |

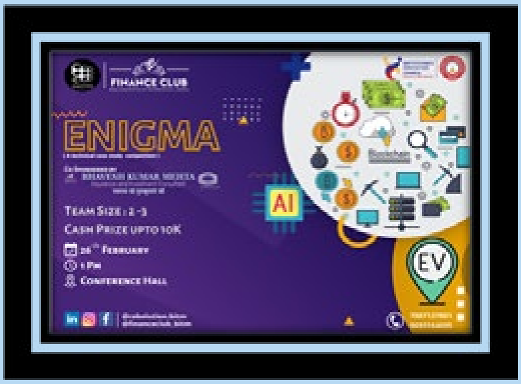
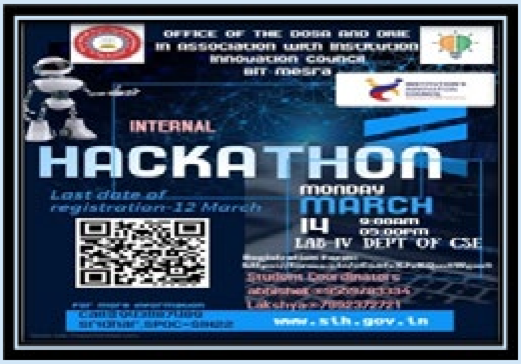
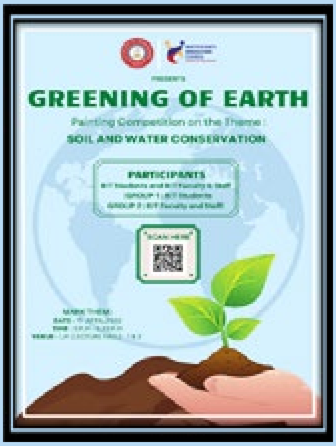
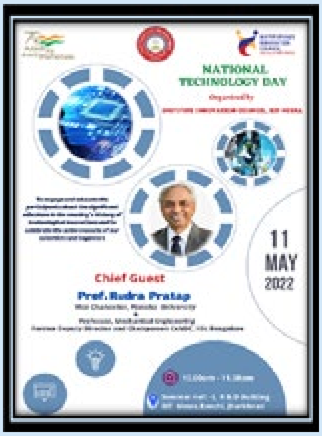
| Sr. No. | Name of The Event | Date | Evidence |
|---|---|---|---|
| 4. | **Webinar on Emotional Intelligence -How Emotions Drive Innovations**<br>**Resource Person:**<br>**Mr. Shivam**<br>BIT Alumnus | 27/06/21 | Webinar On<br>Emotional Intelligence<br>"How Emotions drive Innovation"<br>Mr Shivam |
| 5. | **Lean Startup and Minimum Viable Product**<br>**Resource Person:**<br>**Mr. Ashutosh Kumar**<br>Advisor, Ph.D Chamber of Commerce and Industry | 12.07.21 | Entrepreneurship Development Cell, BIT Mesra<br>Entrepreneurs must ask themselves, "Should this product be built?" rather than "Can this product be built?"<br>Building a lean s... See More ONLINE WEBINAR ON<br>LEAN STARTUP AND MINIMUM VIABLE PRODUCT<br>12<br>MS TEAMS<br>ASHUTOSH KUMAR |
| 6. | **Session on Accelerators /Incubation**<br>**Resource Person:**<br>**Ms. Anindita Bose**<br>Co-Founder CEO and partner at Aspersion | 16.08.21 | Entrepreneurship Development Cell, BIT Mesra<br>14 Aug<br>The young mind is always a zestful one, and we feel it is our responsibility to guide and hone it. If you've come up with an id... See More SESSION ON ACCELERATORS/INCUBATION<br>Opportunities for Students & Faculties<br>Entrepreneurs<br>Anindita Bose<br>Co-Founder CEO and Partner at Aspersion |
| 7. | **Hindrance faced by Entrepreneurs**<br>**Resource Person:**<br>**Mr. Nitin Jain**<br>Co-Founder/CEO<br>Indidni Group | 24.08.21 | Entrepreneurship Development Cell, BIT Mesra<br>Entrepreneurship Development Cell BIT Mesra is feeling honoured and excited to host Mr Nitin Jain, CEO & Co-Founder of Indibs... See More Online Webinar<br>HINDRANCE FACED BY ENTREPRENEURS<br>Nitin Jain<br>Business<br>Community |

| Sr. No. | Name of The Event | Date | Evidence |
|---|---|---|---|
| 8. | **Orientation Session IIC 4.0**<br>**Resource Person:**<br>**Mr. Dipan Kumar Sahu**,<br>Assistant Innovation Director, MoE Innovation Cell | 24.01.22 | |
| 9. | **The Entrepreneurial Journey behind building the Incredible Indian Startup Ecosystem Platform -YNOS**<br>**Resource Person:**<br>**Mr. Ramesh Kuruva**<br>CEO-YNOS Venture Engine CC Pvt. Ltd. | 30.01.22 | <br>Birla Institute of Technology Mesra<br>Off Campus Deoghar<br>Institution's Innovation Council<br>&<br>Department of Electrical and Electronics Engineering<br>presents<br>Invited Talk<br>Mr. Ramesh Kuruva<br>CEO<br>YNOS Venture Engine CC Pvt. Ltd.<br>The Entrepreneurial Journey Behind Building the Incredible Indian Start-up Ecosystem Platform - YNOS<br>30th January 2022, 03:00 pm |
| 10. | **Career Pathways on AI: Academia, Industry and Entrepreneurship**<br>**Resource Person:**<br>**Ms. Sohini Roy Chowdhury**<br>Senior Manager, Digital Strategy, AI Expert Accenture & Adjunct Professor Santa Clara University | 05.02.22 | <br>BIRLA INSTITUTE OF TECHNOLOGY, MESRA<br>A Webinar on<br>CAREER PATHWAYS ON AI: ACADEMIA, INDUSTRY AND ENTREPRENEURSHIP<br>Sohini Roychowdhury<br>Senior Manager<br>Digital Strategy, AI Expert<br>Accenture<br>&<br>Adjunct Professor<br>Santa Clara University<br>5th February 2022<br>8:00 PM-9:30 PM (IST) |
| 11. | **STARTNREV**<br>Department of Management in collaboration with Institute Innovation Council, BIT Mesra, has organized Startup Awareness program under the Team Sustainability,<br>i.e., "STARTNREV "is a group of startups encouraging students to become Job creators instead of Job seekers.<br>**Resource Person:**<br>**Mr. John Kuruvilla**<br>Chief Mentor of BRIGADE-REAP | 16.02.22 | <br>THE WORLDS FIRST EV COLLABORATORS<br>OUR SPONSORS<br> SPAREIT<br>POTHOLERAJA<br>YOUR STORY<br>BRIGADE REAP<br>lemon tree |

| Sr. No. | Name of The Event | Date | Evidence |
|---|---|---|---|
| 12. | Technology Interventions on Bio-Fuel Production using Municipal and Industrial Organic Solid Waste for Enhanced Thermal Conversion Efficient<br>**Resource Person:**<br>Dr. P. Shanmugam<br>Head of Dept.& Chief Scientist, Professor of AcSIR Environmental Science Department | 28.02.22 | <br>National Science Day<br>Institution's Innovation Council, Birla Institute of Technology Mesra<br>Presents<br>A webinar on<br>TECHNOLOGY INTERVENTIONS ON BIO-FUEL PRODUCTOON USING MUNICIPAL AND INDUSTRIAL ORGANIC SOLID WASTE FOR ENHANCED THERMAL CONVERSION EFFECIENCY USING IN AUTOMOBILES"<br>Dr. P. Shanmugam<br>Head of Dept. & Chief Scientist, Professor of AcSIR<br>Environmental Science Department<br>Ministry of Science & Technology Govt. of India<br>Date : 28.02.2022<br>Venue : CAT Hall BIT Mesra |
| 13. | **Science Engineering Technology Synergy for Sustainable Growth**<br>**Resource Person:**<br>**Prof. Indranil Manna**<br>Hon'ble Vice chancellor<br>BIT Mesra Ranchi | 28.02.22 | <br>National Energy Conservation Day<br>National Science Day<br>CSR Colloquium<br>UGC-DAE Consortium for Scientific Research, Indore<br>Title Science-Engineering-Technology Synergy for Sustainable Growth<br>Speaker Prof. Indranil Manna<br>Vice Chancellor, BIT Mesra<br>Date 28 Feb 2022, Monday<br>Time 12:30 – 13:30 Hrs. |
| 14. | **Future of Block Chain & Cryptocurrency**<br>**Mr. Ajay Pathak**<br>Industry Expert<br>Crypto University | 13.03.22 | <br>crypto university<br>organises webinar on<br>FUTURE OF BLOCKCHAIN & CRYPTOCURRENCY<br>at<br>Birla Institute of Technology, Mesra, Ranchi, Jharkhand<br>We would request you to join us on 13th March 2022 \| Sunday<br>4:00 pm to 5:00 pm |
| 15. | **Intellectual Property Rights Awareness Programme**<br>**Resource Person:**<br>**Shri. Dhiren Pattanayak**<br>Examiner of Patents & Designs (Group A – Gazetted.) Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry, Govt. of India. | 23.03.2022 | <br>Background of Intellectual Property |

| Sr. No. | Name of The Event | Date | Evidence |
|---|---|---|---|
| 16. | **"A Journey Called Life"**<br>**Resource Person:**<br>**Karan Bajaj**<br>Founder & CEO<br>White Hat Jr/ BYJU's Future School | 24.03.2022 | <br>A JOURNEY CALLED<br>LIFE<br>COME Join US<br>Karan Bajaj<br>24th March \| CAT Hall \| 5:30 PM |
| 17. | **"Accelerating Innovation through WIN"**<br>**Resource Person:**<br>Dr. G.P. Mishra, Professor, Department of Management, BIT Mesra, Jaipur Campus | 06.04.22 | <br>ACCELERATORS BY FMCG MNCS for scale-up of start-ups |
| 18. | **"CONVERTING RESEARCH TO PATENT"**<br>**Resource Person:**<br>**Dr. Rahul Kapoor,** Founder & Director-Turnip innovation | 26.04.2022 | <br>CONVERTING RESEARCH TO PATENT<br>ORGANIZED BY IIC & IPR CELL BIT MESRA<br>SEMINAR TOPICS<br>• A MIND SET TO CONVERT IDEAS<br>• IMPORTANCE OF INVENTION<br>• WRITING ,DRAWING SIMPLE PATENT SEARCHES<br>DATE : 26.04.22<br>TIME : 11.00 AM<br>PLATFORM : MSTEAM<br>LINK : SHORTURL.AT/FWPSX<br>DR.RAHUL KAPOOR<br>FOUNDER & DIRECTOR<br>TURNIP INNOVATION |
| 19. | **TechnoTren**<br>Practical Approaches to Intellectual Property Development for Engineers<br>**Resource Person:**<br>Mr. Akhil Singhal | 23 .06.2022 | <br>TECHNOTREN<br>INSTITUTION'S INNOVATION COUNCIL<br>Online bootcamp on<br>"PRACTICAL APPROACHES TO INTELLECTUAL PROPERTY DEVELOPMENT FOR ENGINEERS"<br>MR AKHIL SINGHAL<br>23rd June 2022<br>11:00 AM - 12:30 PM<br>Joining Link: https://bit.ly/3b4iLRh |

| Sr. No. | Name of The Event | Date | Evidence |
|---|---|---|---|
| **Event** | | | |
| 1. | **BIT-NISHAN**<br>**Innovation Contest**<br>IIC -BIT initiative to provide -seed funding to the early-stage startup for all BIT students<br>In association with Entrepreneurship Development Cell (EDC) and Finance Club (FC) | 23.10.21<br>to<br>24.10.21 |  present<br>BIT-NISHAN<br>IIC-BIT initiative to provide seed-funding to the early-stage startups by students and faculty members of Birla Institute of Technology Mesra and its off-campuses.<br>Register here for innovation contest<br>"No Bright Idea Should Go Unnoticed"<br>Registration Begins : 18/09/2021<br>Registration Closes : 10/10/2021<br>Date Of Event<br>23rd and 24th October 2021 |
| 2. | **"QUIZANCE"**<br>A Business & Finance<br>Quiz Competition<br>In Collaboration with Finance Club BIT Mesra | 22-12-21<br>To<br>23-12-21 |  FINANCE CLUB<br>QUIZANCE<br>Team size : 1-2<br>Prizes worth<br>6K<br>FINANCE<br>22-23 December<br>6 PM<br>Google Meet<br>Finance Club, BIT Mesra |
| 3. | **"30 Hours Non-Credit Workshop on Strategic Finance"**<br>In Collaboration with Finance Club BIT Mesra | 29.01.22<br>To<br>09.04.22 |  FINANCE CLUB<br>INSTITUTION'S INNOVATION COUNCIL<br>INAUGURATION CEREMONY<br>30 HOUR NON CREDIT WORKSHOP ON STRATEGIC FINANCE<br>MS TEAMS<br>29TH JAN 2022<br>CHIEF GUEST<br>Mrs. Bala Kumari, Deputy General Manager, SEBI, Ranchi<br>KEY NOTE SPEAKERS |

| Sr. No. | Name of The Event | Date | Evidence |
|---|---|---|---|
| 4. | **"ENIGMA"**<br>A Technical Case Study Competition<br>In Collaboration with Finance Club BIT Mesra & Robolution Club | 26.02.22 |  FINANCE CLUB<br>ENIGMA<br>TEAM SIZE : 2-3<br>CASH PRIZE UPTO 10K<br>26th FEBRUARY<br>1 PM<br>CONFERENCE HALL<br>AI<br>EV |
| 5. | **Internal Hackathon for Smart India Hackathon** | 14.03.2022 |  OFFICE OF THE DOSA AND DRIE<br>IN ASSOCIATION WITH INSTITUTION INNOVATION COUNCIL<br>BIT MESRA<br>INTERNAL<br>HACKATHON<br>Last date of registration-12 March<br>MONDAY<br>MARCH<br>14<br>9:00AM<br>05:00PM<br>LAB-IV DEPT OF CSE<br>Student Coordinators<br>www.sih.gov.in |
| 6. | **World Earth Day Celebration**<br>The event was organized for a full one-week celebration which started on 18th April to 22nd April 2022 with a competition of<br>*River Mapping on*<br>*Indian Map.*<br>Soil and Water Conservation,<br>Earth Day with Plantation of Ashoka Tree | 18.04.22<br>to 22.04.2022 |  GREENING OF EARTH<br>Painting Competition on the Theme :<br>SOIL AND WATER CONSERVATION<br>PARTICIPANTS<br>SCAN HERE |
| 7. | **"National Technology Day"**<br>*'From Science to Systems: An imperative for 21st Century India'.* | 11.05.22 |  NATIONAL TECHNOLOGY DAY<br>11 MAY 2022<br>Chief Guest<br>Prof. Rudra Pratap |

| Sr. No. | Name of The Event | Date | Evidence |
|---|---|---|---|
| 8. | **World Environment Day**<br>The Institution's Innovation Council (IIC), in collaboration with the National Service Scheme and EPAC, Birla Institute of Technology, Mesra, celebrated World Environment Day on 5th June, 2022. The entire event was divided into three significant drives, namely Awareness Drive, Plantation Drive, and Cleanliness Drive. | 05.06.2022 | |

# Students Club Activities

**AEROSPACE SOCIETY**

Aerospace Society, BIT Mesra is the official aero-modelling and drone research team at BIT Mesra. It is an interdisciplinary organisation of about 70+ graduate, postgraduate and PhD students with a mission to innovate and learn by applying theoretical concepts and create attractive opportunities for research and interaction with industry professionals.

## MAJOR EVENTS

1 Aeroquiz

1 Aerotalk

2 Webinars

3 Workshops

JULY 2021 - JULY 2022

**TEAM AVEON RACING**

Team Aveon Racing consists of 40 highly zealous students from different disciplines who come together to build an "Electric All-Terrain Vehicle" and participate in a national-level event called E-BAJA. The team is highly dedicated to design, build, test, promote and race an ATV within due limits. Designing, fabrication, assembly and testing-all kinds of work are done by the students themselves in the college workshops with an aim to build a lighter, faster and the more durable ATV. Starting as one of the best debutants, the team has achieved a lot. Our electric vehicles don't make noise but our achievements surely do!

TEAM AVEON AT BAJA SAE INDIA 2022

## MAJOR EVENTS & FOOTFALLS

- E-BAJA SAE India - 70+ Teams
- Workshop on E-ATV - 250 People
- Online ansys workshop - 100 People
- DSA workshop - 100 People

## ACHIEVEMENTS

BAJA SAE INDIA 2022

80+ TEAMS PARTICIPATED

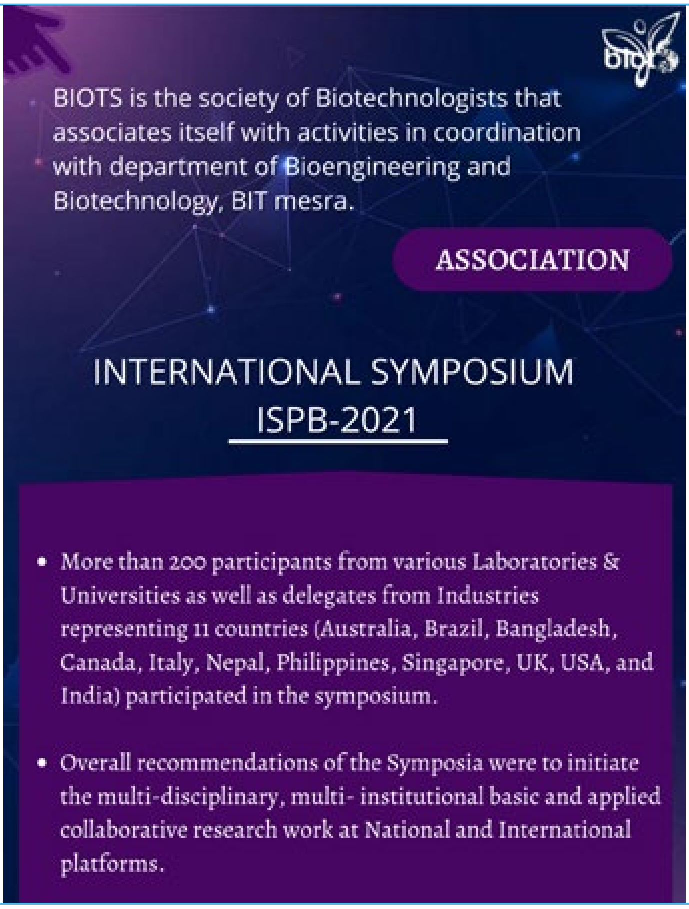
6 TH SLEDGE PULL

7 TH ENDURANCE

14 TH ACCELERATION

14 TH OVERALL DYNAMIC EVENTS

16 TH OVERALL RANK



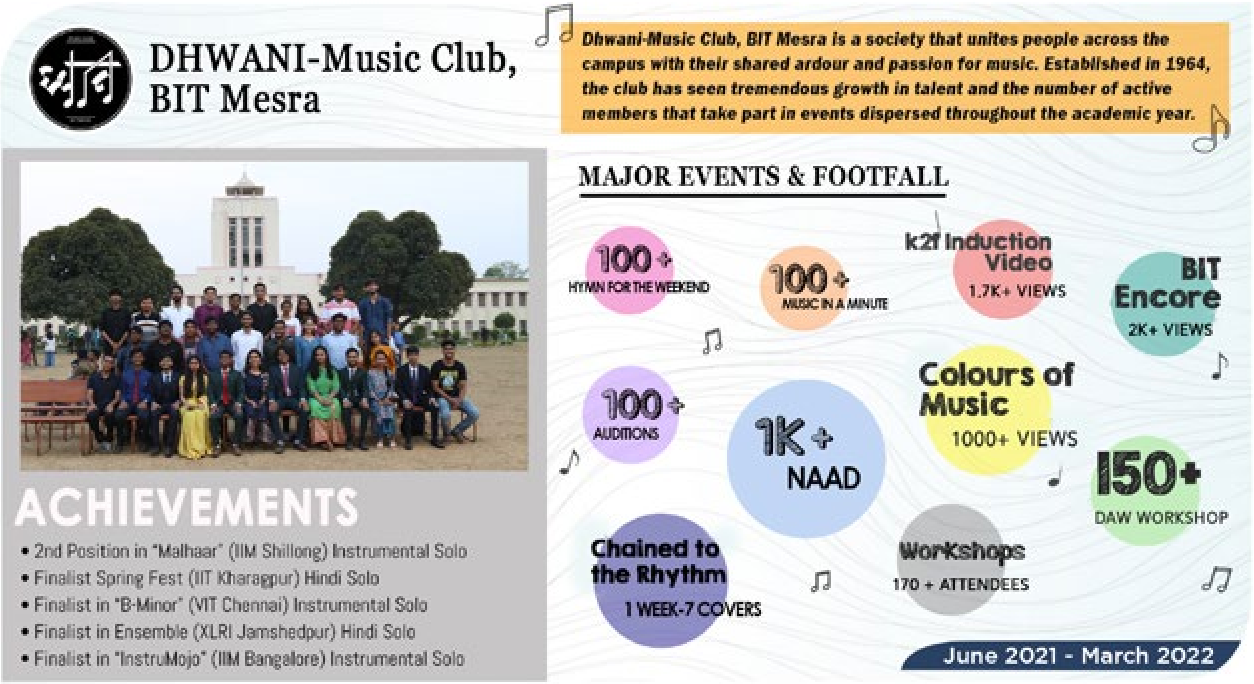
BIOTS is the society of Biotechnologists that associates itself with activities in coordination with department of Bioengineering and Biotechnology, BIT mesra.

**ASSOCIATION**

INTERNATIONAL SYMPOSIUM

ISPB-2021

- More than 200 participants from various Laboratories & Universities as well as delegates from Industries representing 11 countries (Australia, Brazil, Bangladesh, Canada, Italy, Nepal, Philippines, Singapore, UK, USA, and India) participated in the symposium.
- Overall recommendations of the Symposia were to initiate the multi-disciplinary, multi- institutional basic and applied collaborative research work at National and International platforms.



**DHWANI-Music Club, BIT Mesra**

*Dhwani-Music Club, BIT Mesra is a society that unites people across the campus with their shared ardour and passion for music. Established in 1964, the club has seen tremendous growth in talent and the number of active members that take part in events dispersed throughout the academic year.*

**MAJOR EVENTS & FOOTFALL**

100+ HYMN FOR THE WEEKEND

100+ MUSIC IN A MINUTE

k2f Induction Video 1.7K+ VIEWS

BIT Encore 2K+ VIEWS

100+ AUDITIONS

1K+ NAAD

Colours of Music 1000+ VIEWS

150+ DAW WORKSHOP

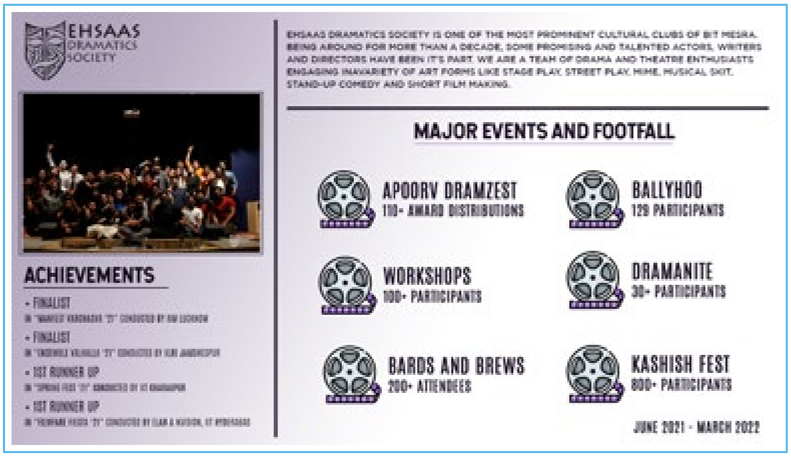
Chained to the Rhythm 1 WEEK-7 COVERS

Workshops 170 + ATTENDEES

June 2021 - March 2022

**ACHIEVEMENTS**

- 2nd Position in "Malhaar" (IIM Shillong) Instrumental Solo
- Finalist Spring Fest (IIT Kharagpur) Hindi Solo
- Finalist in "B-Minor" (VIT Chennai) Instrumental Solo
- Finalist in Ensemble (XLRI Jamshedpur) Hindi Solo
- Finalist in "InstruMojo" (IIM Bangalore) Instrumental Solo



**EHSAAS DRAMATICS SOCIETY**

EHSAAS DRAMATICS SOCIETY IS ONE OF THE MOST PROMINENT CULTURAL CLUBS OF BIT MESRA. BEING AROUND FOR MORE THAN A DECADE, SOME PROMISING AND TALENTED ACTORS, WRITERS AND DIRECTORS HAVE BEEN IT'S PART. WE ARE A TEAM OF DRAMA AND THEATRE ENTHUSIASTS ENGAGING INAVARIETY OF ART FORMS LIKE STAGE PLAY, STREET PLAY, MIME, MUSICAL SKIT, STAND-UP COMEDY AND SHORT FILM MAKING.

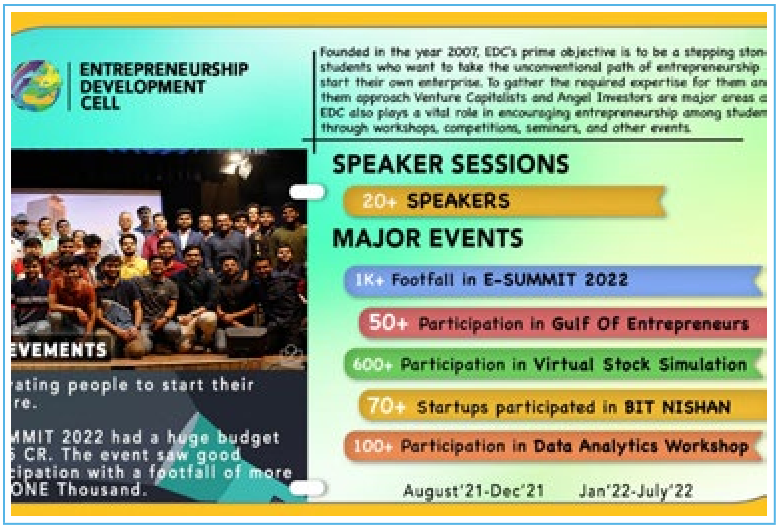
**ACHIEVEMENTS**

- FINALIST
- FINALIST
- 1ST RUNNER UP
- 1ST RUNNER UP

**MAJOR EVENTS AND FOOTFALL**

| | |
|---|---|
| APOORV DRAMZEST<br>110+ AWARD DISTRIBUTIONS | BALLYHOO<br>129 PARTICIPANTS |
| WORKSHOPS<br>100+ PARTICIPANTS | DRAMANITE<br>30+ PARTICIPANTS |
| BARDS AND BREWS<br>200+ ATTENDEES | KASHISH FEST<br>800+ PARTICIPANTS |

JUNE 2021 - MARCH 2022



**ENTREPRENEURSHIP DEVELOPMENT CELL**

Founded in the year 2007, EDC's prime objective is to be a stepping ston
students who want to take the unconventional path of entrepreneurship
start their own enterprise. To gather the required expertise for them an
them approach Venture Capitalists and Angel Investors are major areas o
EDC also plays a vital role in encouraging entrepreneurship among studen
through workshops, competitions, seminars, and other events.

EVEMENTS

ating people to start their
re.

MMIT 2022 had a huge budget
5 CR. The event saw good
cipation with a footfall of more
ONE Thousand.

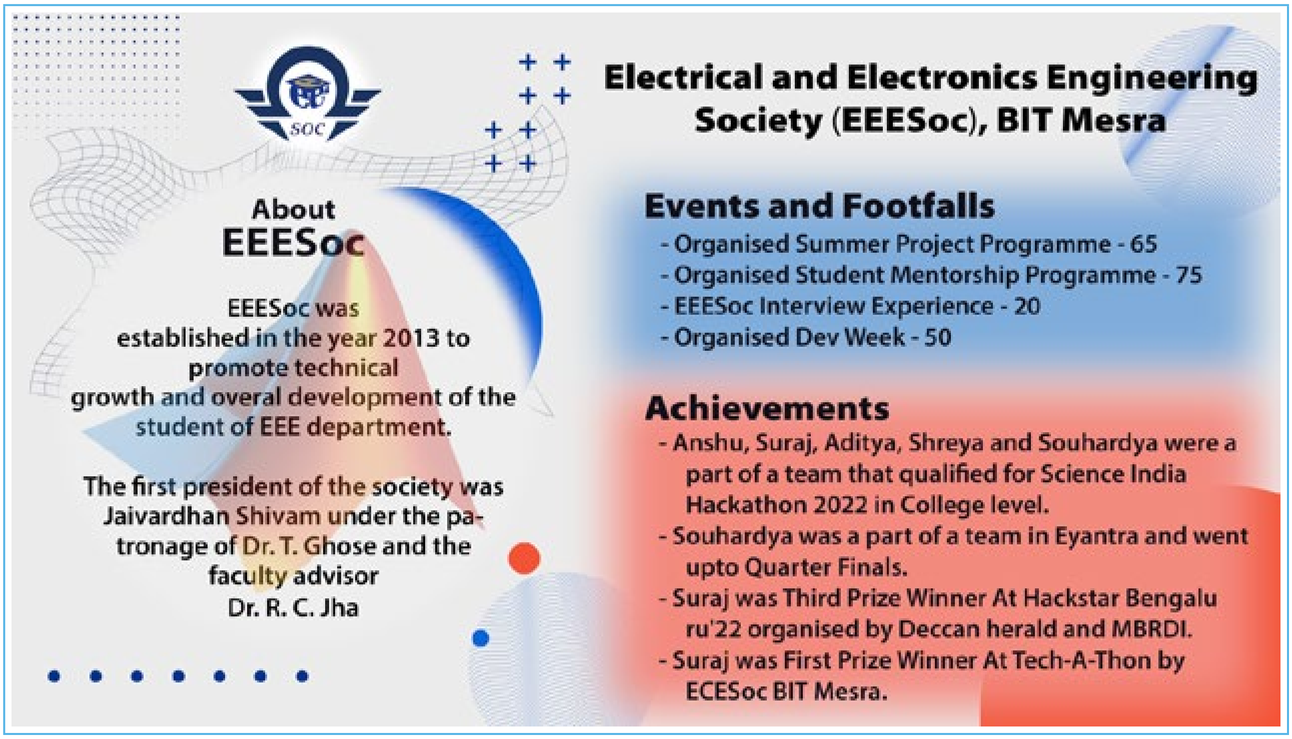
**SPEAKER SESSIONS**

20+ SPEAKERS

**MAJOR EVENTS**

- 1K+ Footfall in E-SUMMIT 2022
- 50+ Participation in Gulf Of Entrepreneurs
- 600+ Participation in Virtual Stock Simulation
- 70+ Startups participated in BIT NISHAN
- 100+ Participation in Data Analytics Workshop

August'21-Dec'21 Jan'22-July'22



## Electrical and Electronics Engineering Society (EEESoc), BIT Mesra

### About EEESoc

EEESoc was established in the year 2013 to promote technical growth and overal development of the student of EEE department.

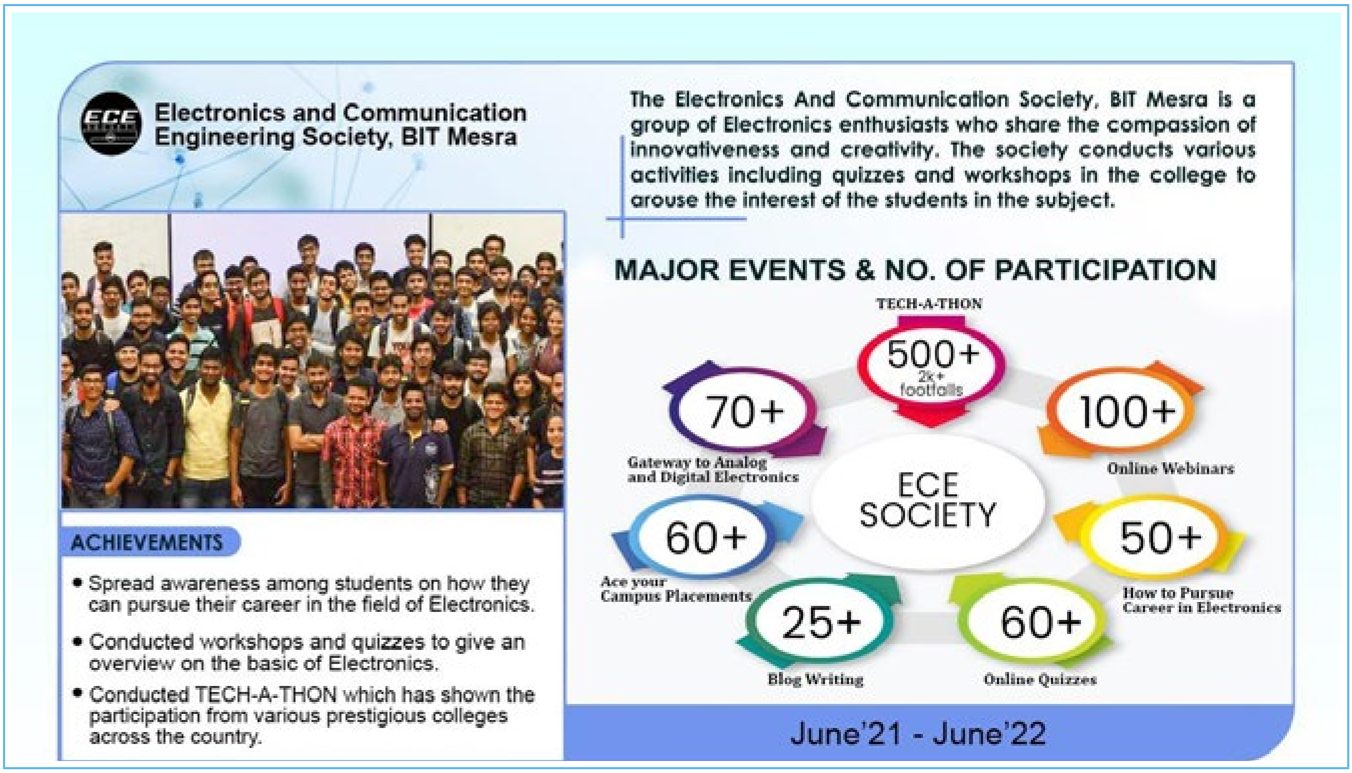
The first president of the society was Jaivardhan Shivam under the patronage of Dr. T. Ghose and the faculty advisor Dr. R. C. Jha

### Events and Footfalls

- Organised Summer Project Programme - 65
- Organised Student Mentorship Programme - 75
- EEESoc Interview Experience - 20
- Organised Dev Week - 50

### Achievements

- Anshu, Suraj, Aditya, Shreya and Souhardya were a part of a team that qualified for Science India Hackathon 2022 in College level.
- Souhardya was a part of a team in Eyantra and went upto Quarter Finals.
- Suraj was Third Prize Winner At Hackstar Bengaluru'22 organised by Deccan herald and MBRDI.
- Suraj was First Prize Winner At Tech-A-Thon by ECESoc BIT Mesra.



## Electronics and Communication Engineering Society, BIT Mesra

The Electronics And Communication Society, BIT Mesra is a group of Electronics enthusiasts who share the compassion of innovativeness and creativity. The society conducts various activities including quizzes and workshops in the college to arouse the interest of the students in the subject.

### ACHIEVEMENTS

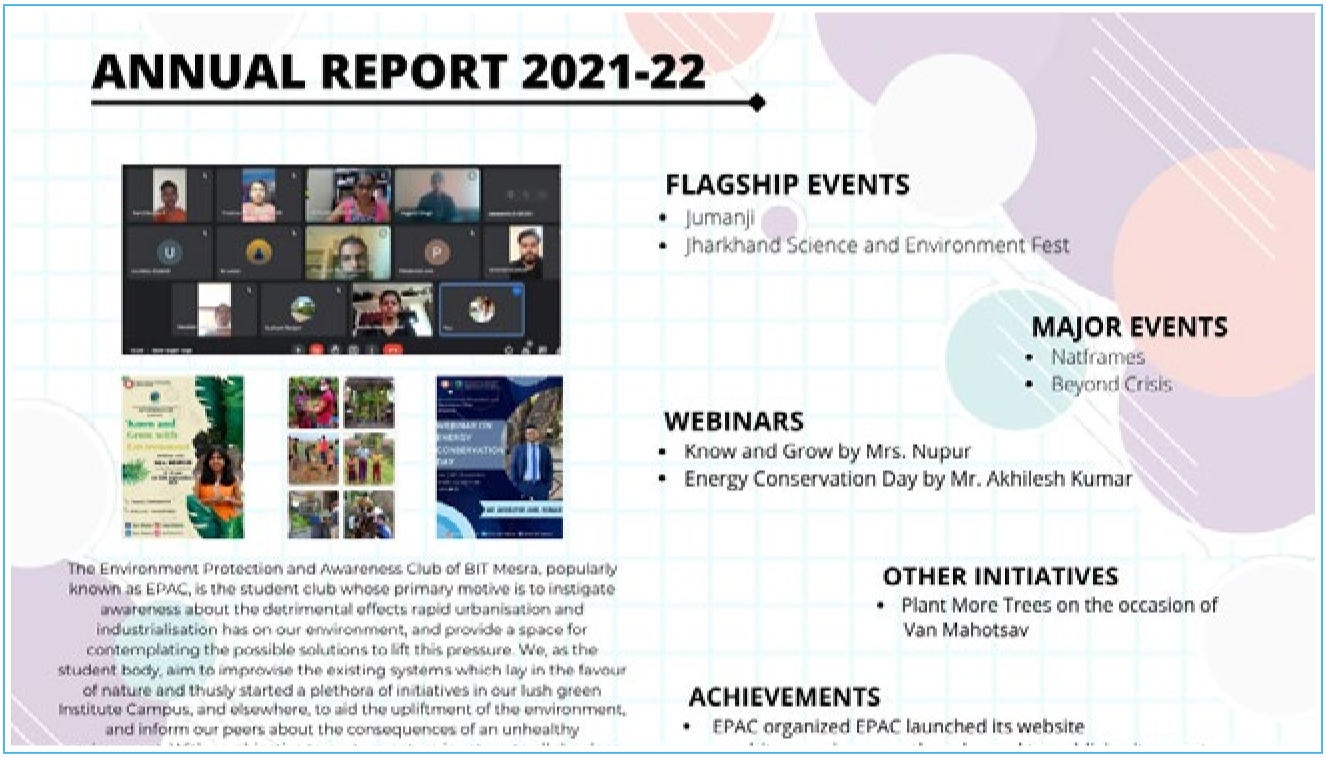
- Spread awareness among students on how they can pursue their career in the field of Electronics.
- Conducted workshops and quizzes to give an overview on the basic of Electronics.
- Conducted TECH-A-THON which has shown the participation from various prestigious colleges across the country.

### MAJOR EVENTS & NO. OF PARTICIPATION

ECE SOCIETY

TECH-A-THON: 500+ (2k+ footfalls)
Online Webinars: 100+
How to Pursue Career in Electronics: 50+
Online Quizzes: 60+
Blog Writing: 25+
Ace your Campus Placements: 60+
Gateway to Analog and Digital Electronics: 70+

June'21 - June'22



## ANNUAL REPORT 2021-22

The Environment Protection and Awareness Club of BIT Mesra, popularly known as EPAC, is the student club whose primary motive is to instigate awareness about the detrimental effects rapid urbanisation and industrialisation has on our environment, and provide a space for contemplating the possible solutions to lift this pressure. We, as the student body, aim to improvise the existing systems which lay in the favour of nature and thusly started a plethora of initiatives in our lush green Institute Campus, and elsewhere, to aid the upliftment of the environment, and inform our peers about the consequences of an unhealthy

### FLAGSHIP EVENTS

- Jumanji
- Jharkhand Science and Environment Fest

### MAJOR EVENTS

- Natframes
- Beyond Crisis

### WEBINARS

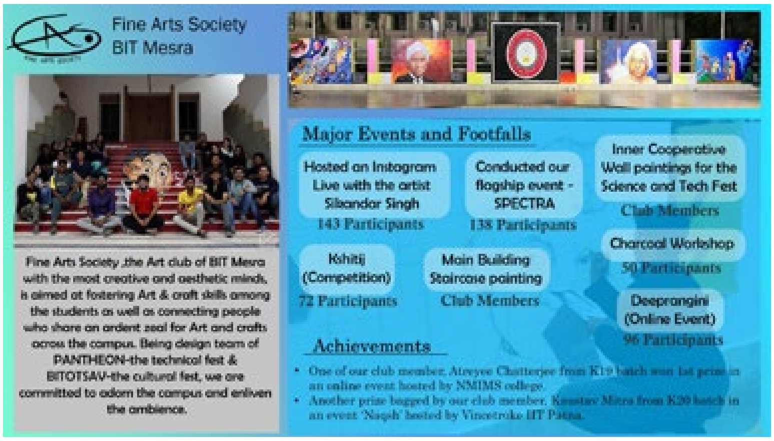
- Know and Grow by Mrs. Nupur
- Energy Conservation Day by Mr. Akhilesh Kumar

### OTHER INITIATIVES

- Plant More Trees on the occasion of Van Mahotsav

### ACHIEVEMENTS

- EPAC organized EPAC launched its website



Fine Arts Society
BIT Mesra

Fine Arts Society ,the Art club of BIT Mesra with the most creative and aesthetic minds, is aimed at fostering Art & craft skills among the students as well as connecting people who share an ardent zeal for Art and crafts across the campus. Being design team of PANTHEON-the technical fest & BITOTSAV-the cultural fest, we are committed to adorn the campus and enliven the ambience.

Major Events and Footfalls

Hosted an Intagram Live with the artist Sikandar Singh
143 Participants

Conducted our flagship event - SPECTRA
138 Participants

Inner Cooperative Wall paintings for the Science and Tech Fest
Club Members

Kshitij (Competition)
72 Participants

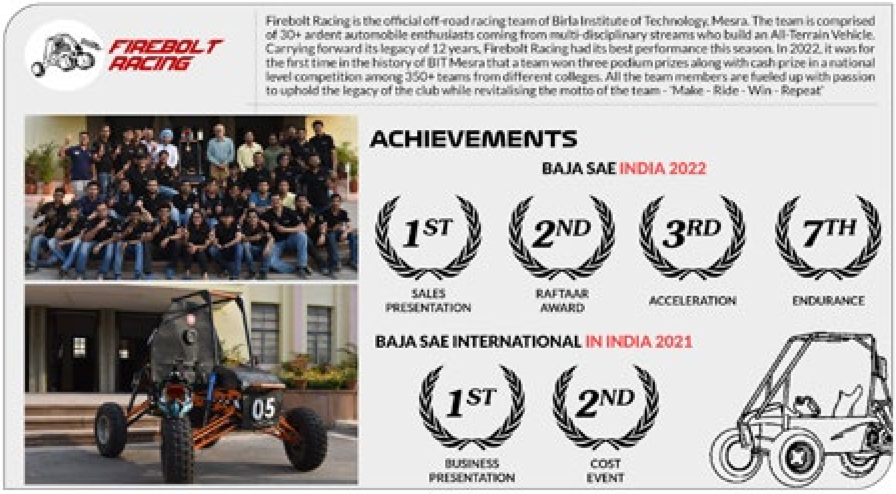
Main Building Staircase painting
Club Members

Charcoal Workshop
50 Participants

Deeprangini (Online Event)
96 Participants

Achievements

- One of our club member, Atreyee Chatterjee from K19 batch won 1st prize in an online event hosted by NMIMS college.
- Another prize bagged by our club member, Koustav Mitra from K20 batch in an event 'Naqsh' hosted by Vincetroke IIT Patna.



FIREBOLT RACING

Firebolt Racing is the official off-road racing team of Birla Institute of Technology, Mesra. The team is comprised of 30+ ardent automobile enthusiasts coming from multi-disciplinary streams who build an All-Terrain Vehicle. Carrying forward its legacy of 12 years, Firebolt Racing had its best performance this season. In 2022, it was for the first time in the history of BIT Mesra that a team won three podium prizes along with cash prize in a national level competition among 350+ teams from different colleges. All the team members are fueled up with passion to uphold the legacy of the club while revitalising the motto of the team - 'Make - Ride - Win - Repeat'

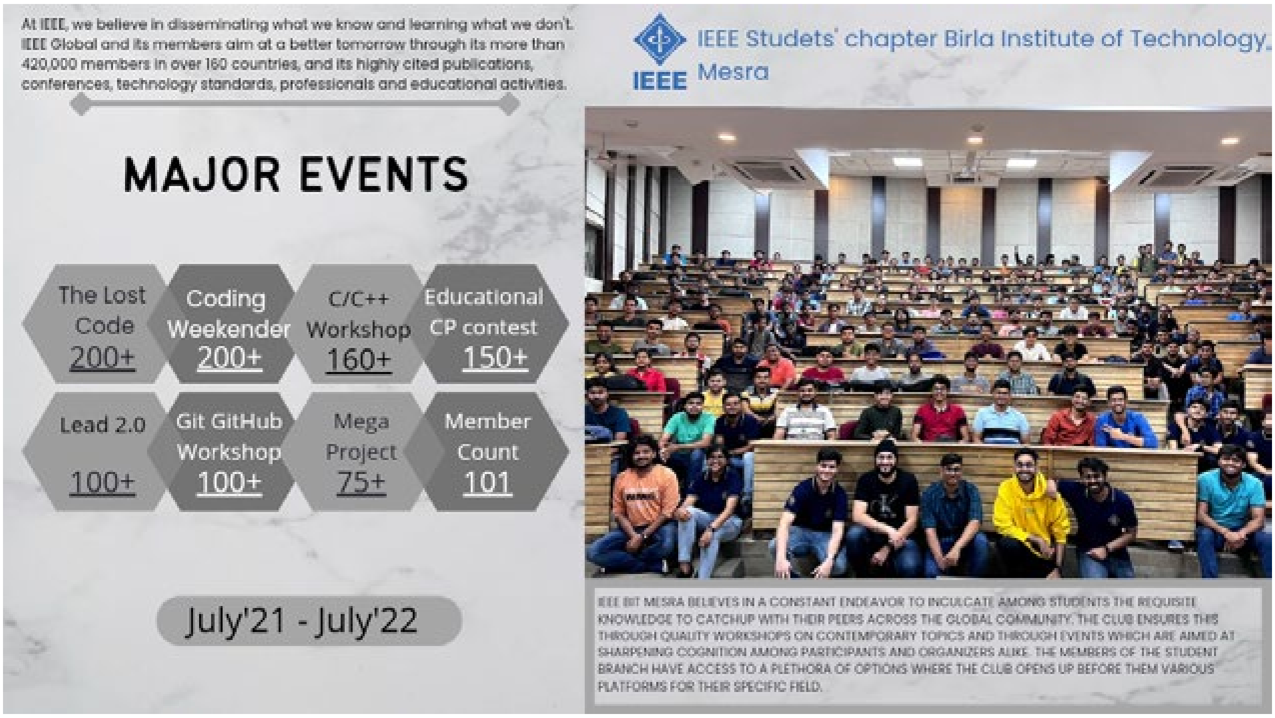
ACHIEVEMENTS

BAJA SAE INDIA 2022

1ST SALES PRESENTATION
2ND RAFTAAR AWARD
3RD ACCELERATION
7TH ENDURANCE

BAJA SAE INTERNATIONAL IN INDIA 2021

1ST BUSINESS PRESENTATION
2ND COST EVENT



At IEEE, we believe in disseminating what we know and learning what we don't. IEEE Global and its members aim at a better tomorrow through its more than 420,000 members in over 160 countries, and its highly cited publications, conferences, technology standards, professionals and educational activities.

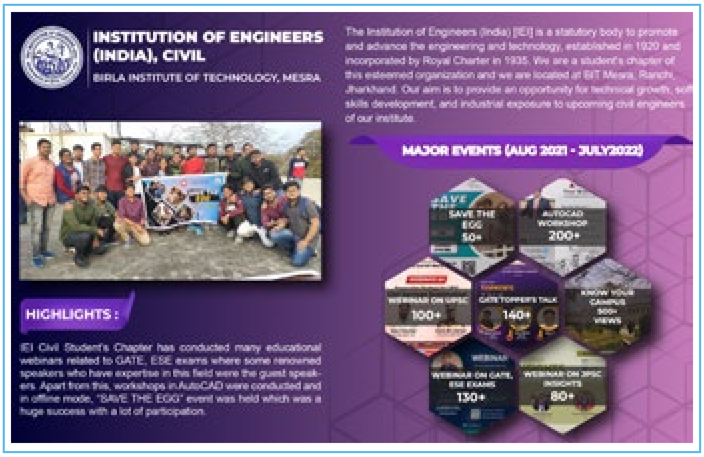
IEEE Studets' chapter Birla Institute of Technology, Mesra

MAJOR EVENTS

The Lost Code 200+
Coding Weekender 200+
C/C++ Workshop 160+
Educational CP contest 150+
Lead 2.0 100+
Git GitHub Workshop 100+
Mega Project 75+
Member Count 101

July'21 - July'22

IEEE BIT MESRA BELIEVES IN A CONSTANT ENDEAVOR TO INCULCATE AMONG STUDENTS THE REQUISITE KNOWLEDGE TO CATCHUP WITH THEIR PEERS ACROSS THE GLOBAL COMMUNITY. THE CLUB ENSURES THIS THROUGH QUALITY WORKSHOPS ON CONTEMPORARY TOPICS AND THROUGH EVENTS WHICH ARE AIMED AT SHARPENING COGNITION AMONG PARTICIPANTS AND ORGANIZERS ALIKE. THE MEMBERS OF THE STUDENT BRANCH HAVE ACCESS TO A PLETHORA OF OPTIONS WHERE THE CLUB OPENS UP BEFORE THEM VARIOUS PLATFORMS FOR THEIR SPECIFIC FIELD.



**INSTITUTION OF ENGINEERS (INDIA), CIVIL**

BIRLA INSTITUTE OF TECHNOLOGY, MESRA

The Institution of Engineers (India) [IEI] is a statutory body to promote and advance the engineering and technology, established in 1920 and incorporated by Royal Charter in 1935. We are a student's chapter of this esteemed organization and we are located at BIT Mesra, Ranchi, Jharkhand. Our aim is to provide an opportunity for technical growth, soft skills development, and industrial exposure to upcoming civil engineers of our institute.

**HIGHLIGHTS :**

IEI Civil Student's Chapter has conducted many educational webinars related to GATE, ESE exams where some renowned speakers who have expertise in this field were the guest speakers. Apart from this, workshops in AutoCAD were conducted and in offline mode, "SAVE THE EGG" event was held which was a huge success with a lot of participation.

**MAJOR EVENTS (AUG 2021 - JULY2022)**

SAVE THE EGG 50+

AUTOCAD WORKSHOP 200+

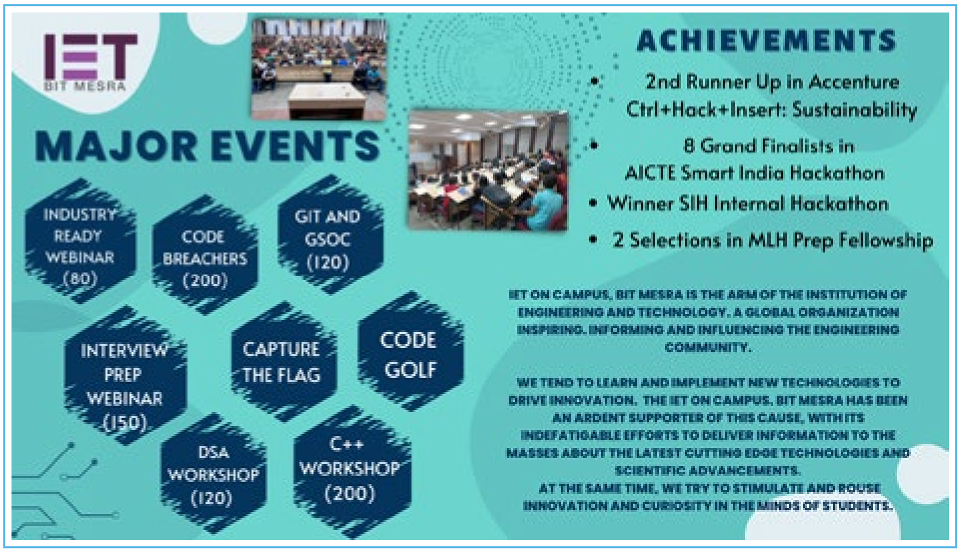
WEBINAR ON UPSC 100+

GATE TOPPER'S TALK 140+

KNOW YOUR CAMPUS 300+ VIEWS

WEBINAR ON GATE, ESE EXAMS 130+

WEBINAR ON JPSC INSIGHTS 80+



**IET** BIT MESRA

**MAJOR EVENTS**

INDUSTRY READY WEBINAR (80)

CODE BREACHERS (200)

GIT AND GSOC (120)

INTERVIEW PREP WEBINAR (150)

CAPTURE THE FLAG

CODE GOLF

DSA WORKSHOP (120)

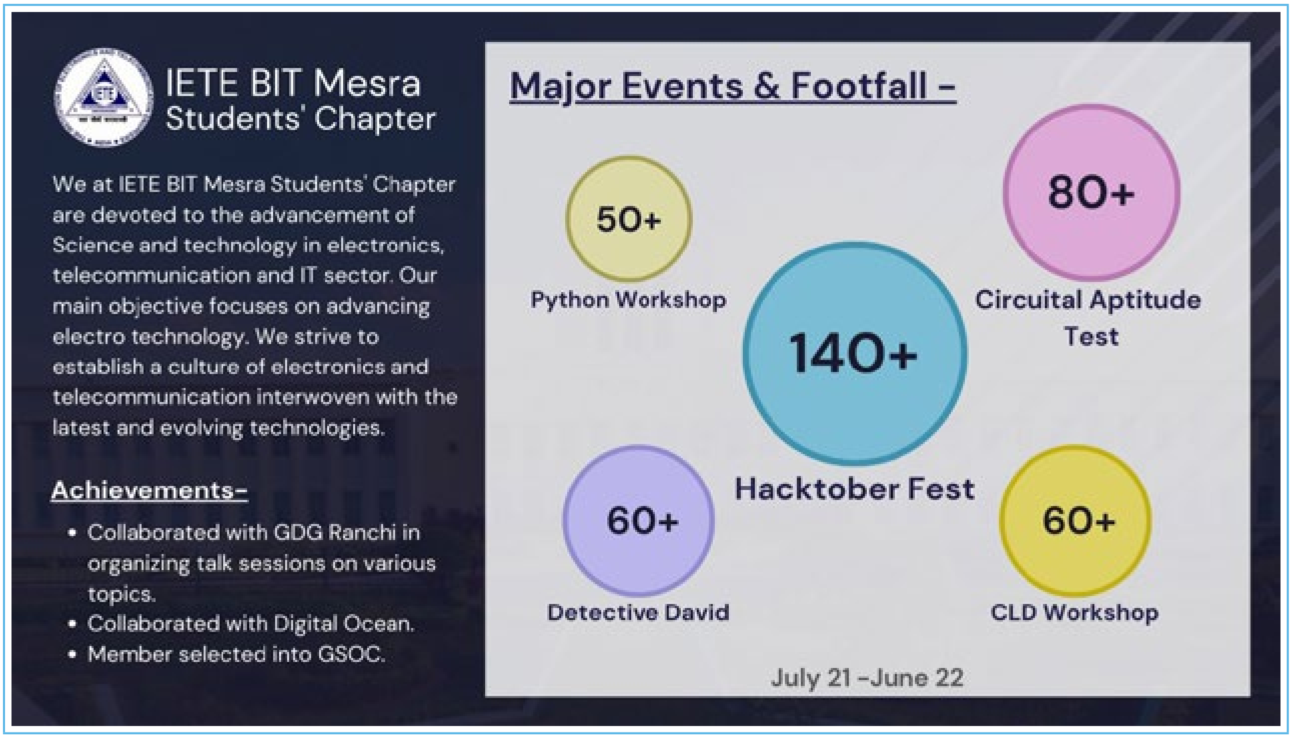
C++ WORKSHOP (200)

**ACHIEVEMENTS**

- 2nd Runner Up in Accenture Ctrl+Hack+Insert: Sustainability
- 8 Grand Finalists in AICTE Smart India Hackathon
- Winner SIH Internal Hackathon
- 2 Selections in MLH Prep Fellowship

IET ON CAMPUS, BIT MESRA IS THE ARM OF THE INSTITUTION OF ENGINEERING AND TECHNOLOGY. A GLOBAL ORGANIZATION INSPIRING. INFORMING AND INFLUENCING THE ENGINEERING COMMUNITY.

WE TEND TO LEARN AND IMPLEMENT NEW TECHNOLOGIES TO DRIVE INNOVATION. THE IET ON CAMPUS, BIT MESRA HAS BEEN AN ARDENT SUPPORTER OF THIS CAUSE, WITH ITS INDEFATIGABLE EFFORTS TO DELIVER INFORMATION TO THE MASSES ABOUT THE LATEST CUTTING EDGE TECHNOLOGIES AND SCIENTIFIC ADVANCEMENTS.
AT THE SAME TIME, WE TRY TO STIMULATE AND ROUSE INNOVATION AND CURIOSITY IN THE MINDS OF STUDENTS.



## IETE BIT Mesra Students' Chapter

We at IETE BIT Mesra Students' Chapter are devoted to the advancement of Science and technology in electronics, telecommunication and IT sector. Our main objective focuses on advancing electro technology. We strive to establish a culture of electronics and telecommunication interwoven with the latest and evolving technologies.

**Achievements-**

- Collaborated with GDG Ranchi in organizing talk sessions on various topics.
- Collaborated with Digital Ocean.
- Member selected into GSOC.

**Major Events & Footfall –**

50+ Python Workshop

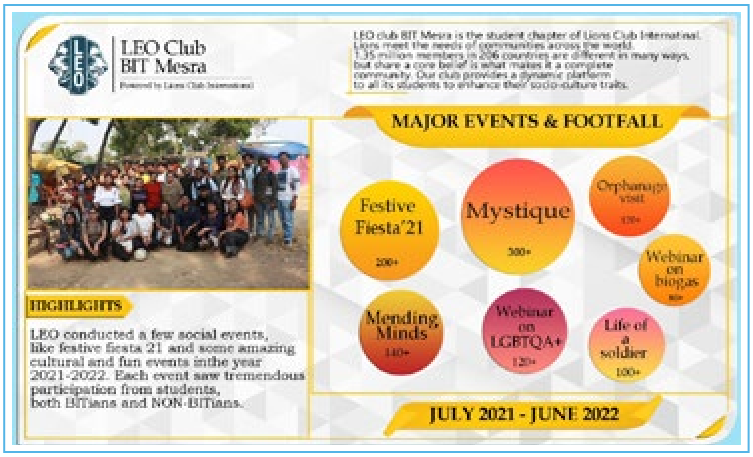
80+ Circuital Aptitude Test

140+ Hacktober Fest

60+ Detective David

60+ CLD Workshop

July 21 –June 22



**LEO Club BIT Mesra**

Powered by Lions Club International

LEO club BIT Mesra is the student chapter of Lions Club International. Lions meet the needs of communities across the world. 1.35 million members in 206 countries are different in many ways, but share a core belief is what makes it a complete community. Our club provides a dynamic platform to all its students to enhance their socio-culture traits.

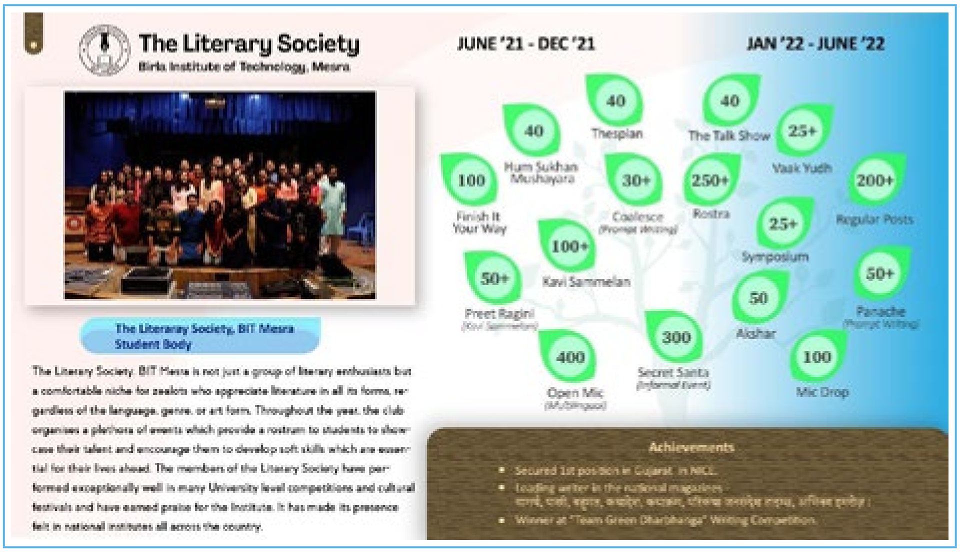
**HIGHLIGHTS**

LEO conducted a few social events, like festive fiesta 21 and some amazing cultural and fun events inthe year 2021-2022. Each event saw tremendous participation from students, both BITians and NON-BITians.

**MAJOR EVENTS & FOOTFALL**

- Festive Fiesta'21 200+
- Mystique 300+
- Orphanage visit 170+
- Webinar on biogas 80+
- Mending Minds 140+
- Webinar on LGBTQA+ 120+
- Life of a soldier 100+

JULY 2021 - JUNE 2022



**The Literary Society**

Birla Institute of Technology, Mesra

The Literary Society, BIT Mesra Student Body

The Literary Society, BIT Mesra is not just a group of literary enthusiasts but a comfortable niche for zealots who appreciate literature in all its forms, regardless of the language, genre, or art form. Throughout the year, the club organises a plethora of events which provide a rostrum to students to showcase their talent and encourage them to develop soft skills which are essential for their lives ahead. The members of the Literary Society have performed exceptionally well in many University level competitions and cultural festivals and have earned praise for the Institute. It has made its presence felt in national institutes all across the country.

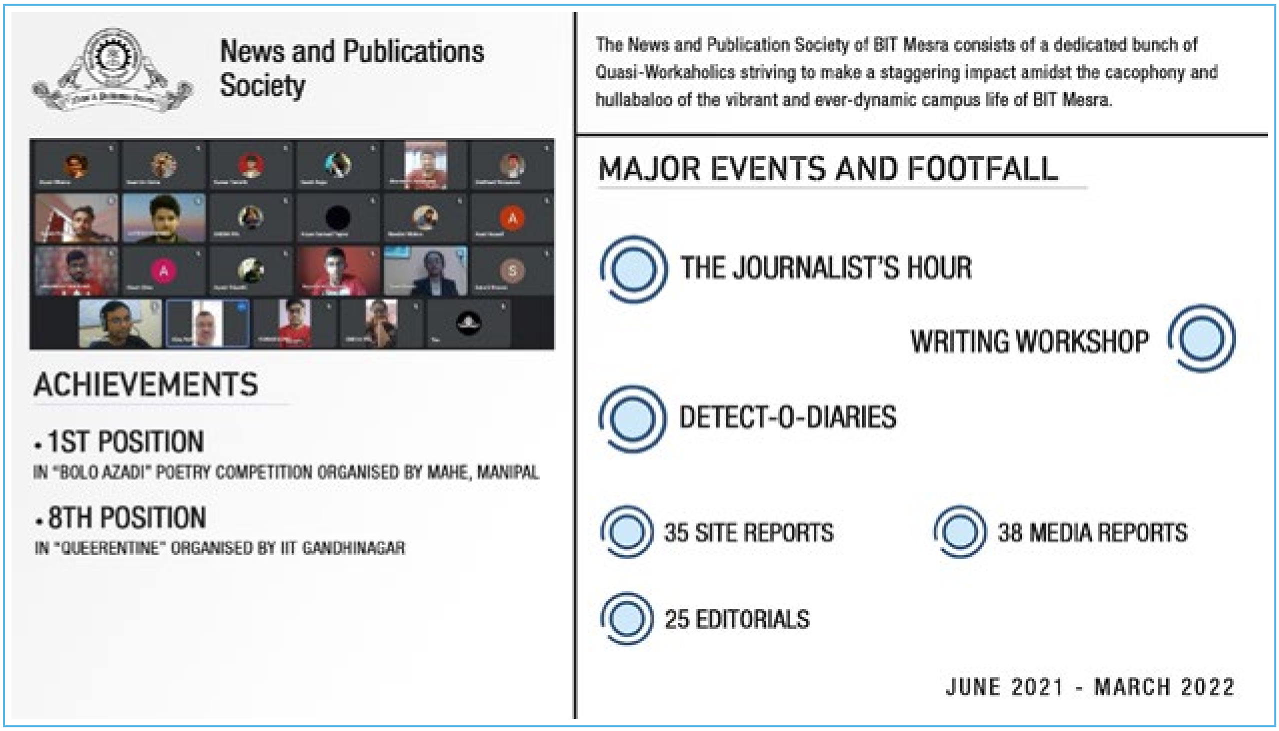
JUNE '21 - DEC '21

JAN '22 - JUNE '22

- 100 Finish It Your Way
- 40 Hum Sukhan Mushayara
- 40 Thespian
- 30+ Coalesce (Prompt Writing)
- 100+ Kavi Sammelan
- 50+ Preet Ragini (Kavi Sammelan)
- 400 Open Mic (Multilingual)
- 300 Secret Santa (Informal Event)
- 40 The Talk Show
- 25+ Vaak Yudh
- 250+ Rostra
- 200+ Regular Posts
- 25+ Symposium
- 50 Akshar
- 50+ Panache (Prompt Writing)
- 100 Mic Drop

**Achievements**

- Secured 1st position in Gujarat in NICL.
- Leading writer in the national magazines - [illegible]
- Winner at "Team Green Dharbhanga" Writing Competition.



**News and Publications Society**

The News and Publication Society of BIT Mesra consists of a dedicated bunch of Quasi-Workaholics striving to make a staggering impact amidst the cacophony and hullabaloo of the vibrant and ever-dynamic campus life of BIT Mesra.

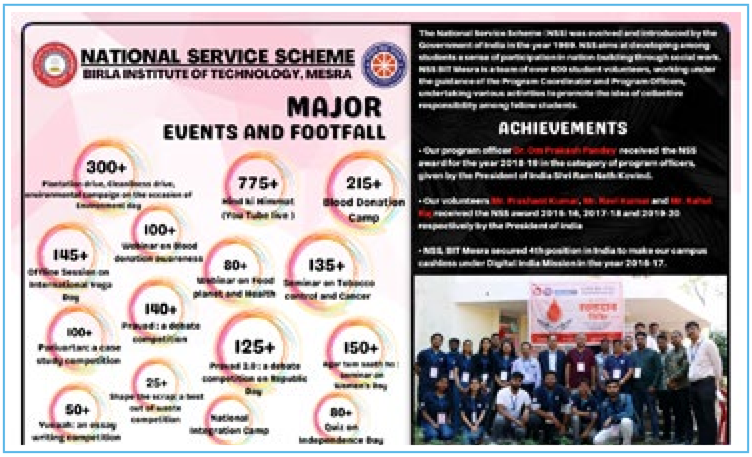
**ACHIEVEMENTS**

- **1ST POSITION**
  IN "BOLO AZADI" POETRY COMPETITION ORGANISED BY MAHE, MANIPAL
- **8TH POSITION**
  IN "QUEERENTINE" ORGANISED BY IIT GANDHINAGAR

**MAJOR EVENTS AND FOOTFALL**

- THE JOURNALIST'S HOUR
- WRITING WORKSHOP
- DETECT-O-DIARIES
- 35 SITE REPORTS
- 38 MEDIA REPORTS
- 25 EDITORIALS

JUNE 2021 - MARCH 2022



**NATIONAL SERVICE SCHEME**
**BIRLA INSTITUTE OF TECHNOLOGY, MESRA**

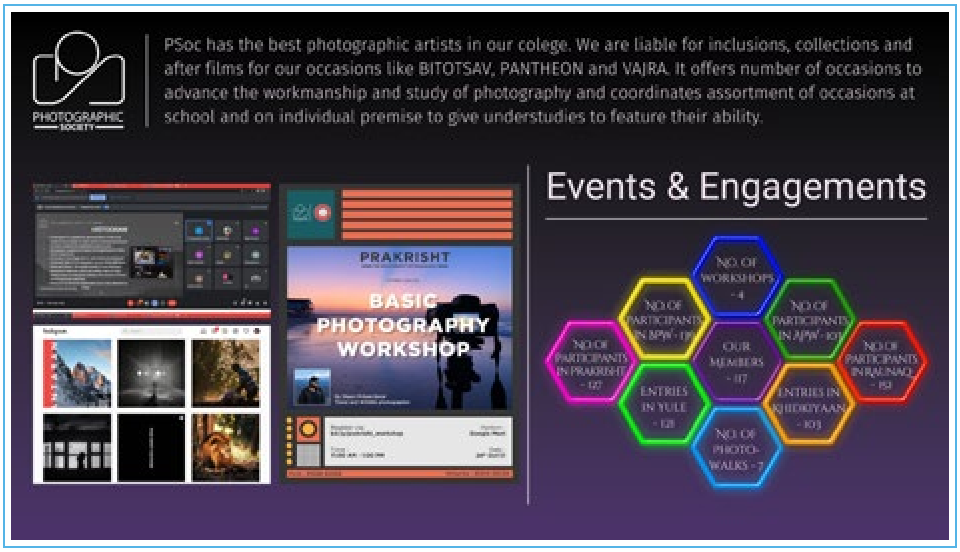
**MAJOR**
**EVENTS AND FOOTFALL**

300+
Plantation drive, Cleanliness drive, environmental campaign on the occasion of Environment day
775+
Hind ki Himmat (You Tube live)
215+
Blood Donation Camp
100+
Webinar on Blood donation awareness
145+
Offline Session on International Yoga Day
80+
Webinar on Food planet and Health
135+
Seminar on Tobacco control and Cancer
140+
Prayaad : a debate competition
100+
Paricartan: a case study competition
125+
Prayaad 2.0 : a debate competition on Republic Day
150+
Apr tum saath ho : Seminar on Women's Day
25+
Shape the scrap: a best out of waste competition
50+
Vyaakh: an essay writing competition
National Integration Camp
80+
Quiz on Independence Day

The National Service Scheme (NSS) was evolved and introduced by the Government of India in the year 1969. NSS aims at developing among students a sense of participation in nation building through social work. NSS BIT Mesra is a team of over 800 student volunteers, working under the guidance of the Program Coordinator and Program Officers, undertaking various activities to promote the idea of collective responsibility among fellow students.

**ACHIEVEMENTS**

- Our program officer Dr. Om Prakash Pandey received the NSS award for the year 2018-19 in the category of program officers, given by the President of India Shri Ram Nath Kovind.
- Our volunteers Mr. Prashant Kumar, Mr. Ravi Kumar and Mr. Rahul Raj received the NSS award 2016-16, 2017-18 and 2019-20 respectively by the President of India
- NSS, BIT Mesra secured 4th position in India to make our campus cashless under Digital India Mission in the year 2016-17.



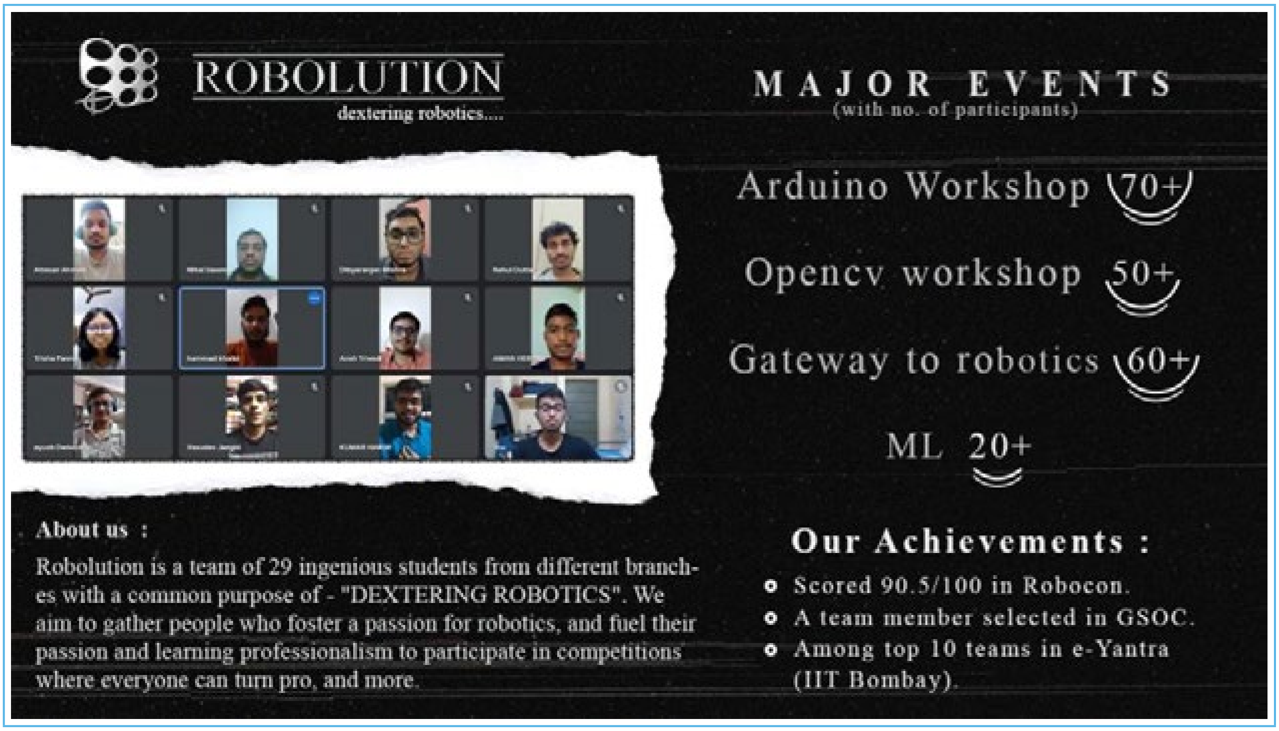
PHOTOGRAPHIC SOCIETY

PSoc has the best photographic artists in our colege. We are liable for inclusions, collections and after films for our occasions like BITOTSAV, PANTHEON and VAJRA. It offers number of occasions to advance the workmanship and study of photography and coordinates assortment of occasions at school and on individual premise to give understudies to feature their ability.

PRAKRISHT
BASIC PHOTOGRAPHY WORKSHOP

**Events & Engagements**

- NO. OF WORKSHOPS - 4
- NO. OF PARTICIPANTS IN BPW - 119
- NO. OF PARTICIPANTS IN APW - 101
- NO. OF PARTICIPANTS IN PRAKRISHT - 127
- OUR MEMBERS - 117
- NO. OF PARTICIPANTS IN RAUNAQ - 152
- ENTRIES IN YULE - 128
- ENTRIES IN KHIDKIYAAN - 103
- NO. OF PHOTO-WALKS - 7



**ROBOLUTION**
dextering robotics....

**MAJOR EVENTS**
(with no. of participants)

- Arduino Workshop 70+
- Opencv workshop 50+
- Gateway to robotics 60+
- ML 20+

**About us :**

Robolution is a team of 29 ingenious students from different branches with a common purpose of - "DEXTERING ROBOTICS". We aim to gather people who foster a passion for robotics, and fuel their passion and learning professionalism to participate in competitions where everyone can turn pro, and more.

**Our Achievements :**

- Scored 90.5/100 in Robocon.
- A team member selected in GSOC.
- Among top 10 teams in e-Yantra (IIT Bombay).

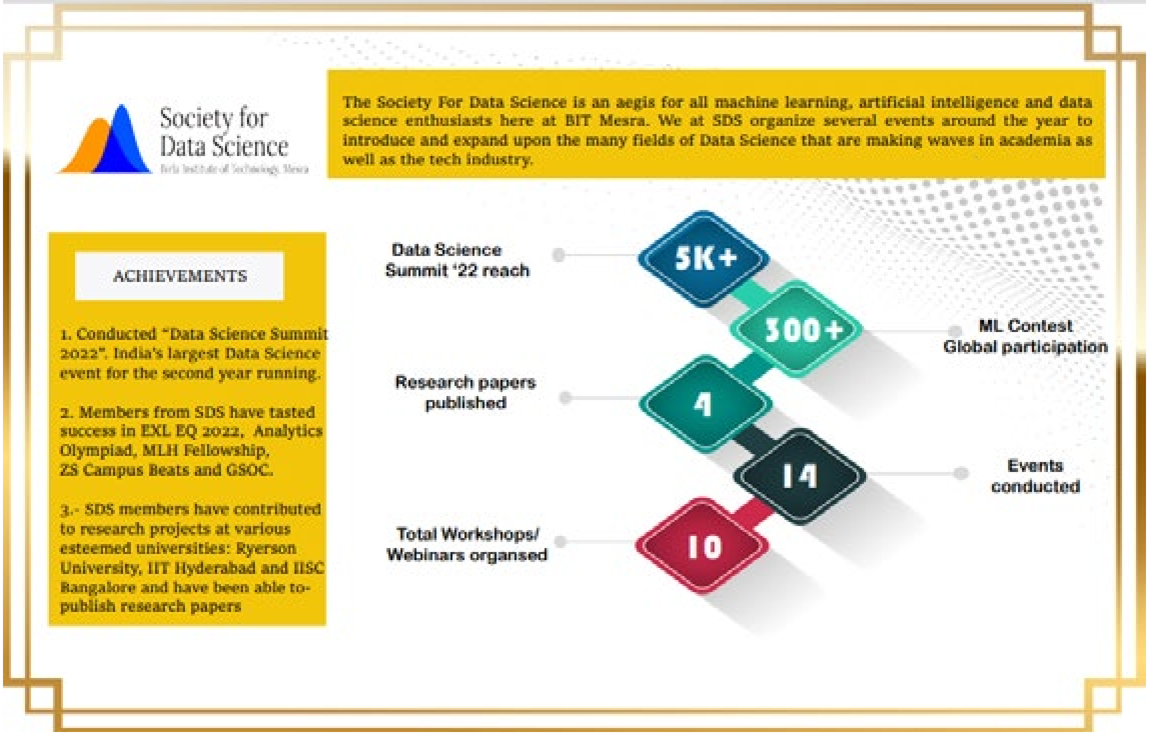
## Rotaract Club of BIT Mesra

Rotaract Club of BIT Mesra is the official students' chapter of Rotary, aimed at organizing various socio-cultural events and nurturing managerial skills. The purpose is to provide opportunities for young people to enhance and address the physical and social needs of communities.

### Past events

### Participations

- Bharat Darshan 2.0 (50k+)
- Meme Regime (52k+)
- Your Spotify Story (1k+)
- Holi Mahotsav (500+)
- Bamboozled (1k+)
- Pride and Prejudice Webinar (200+)



## Society for Data Science

Birla Institute of Technology, Mesra

The Society For Data Science is an aegis for all machine learning, artificial intelligence and data science enthusiasts here at BIT Mesra. We at SDS organize several events around the year to introduce and expand upon the many fields of Data Science that are making waves in academia as well as the tech industry.

### ACHIEVEMENTS

1. Conducted "Data Science Summit 2022". India's largest Data Science event for the second year running.

2. Members from SDS have tasted success in EXL EQ 2022, Analytics Olympiad, MLH Fellowship, ZS Campus Beats and GSOC.

3.- SDS members have contributed to research projects at various esteemed universities: Ryerson University, IIT Hyderabad and IISC Bangalore and have been able to-publish research papers

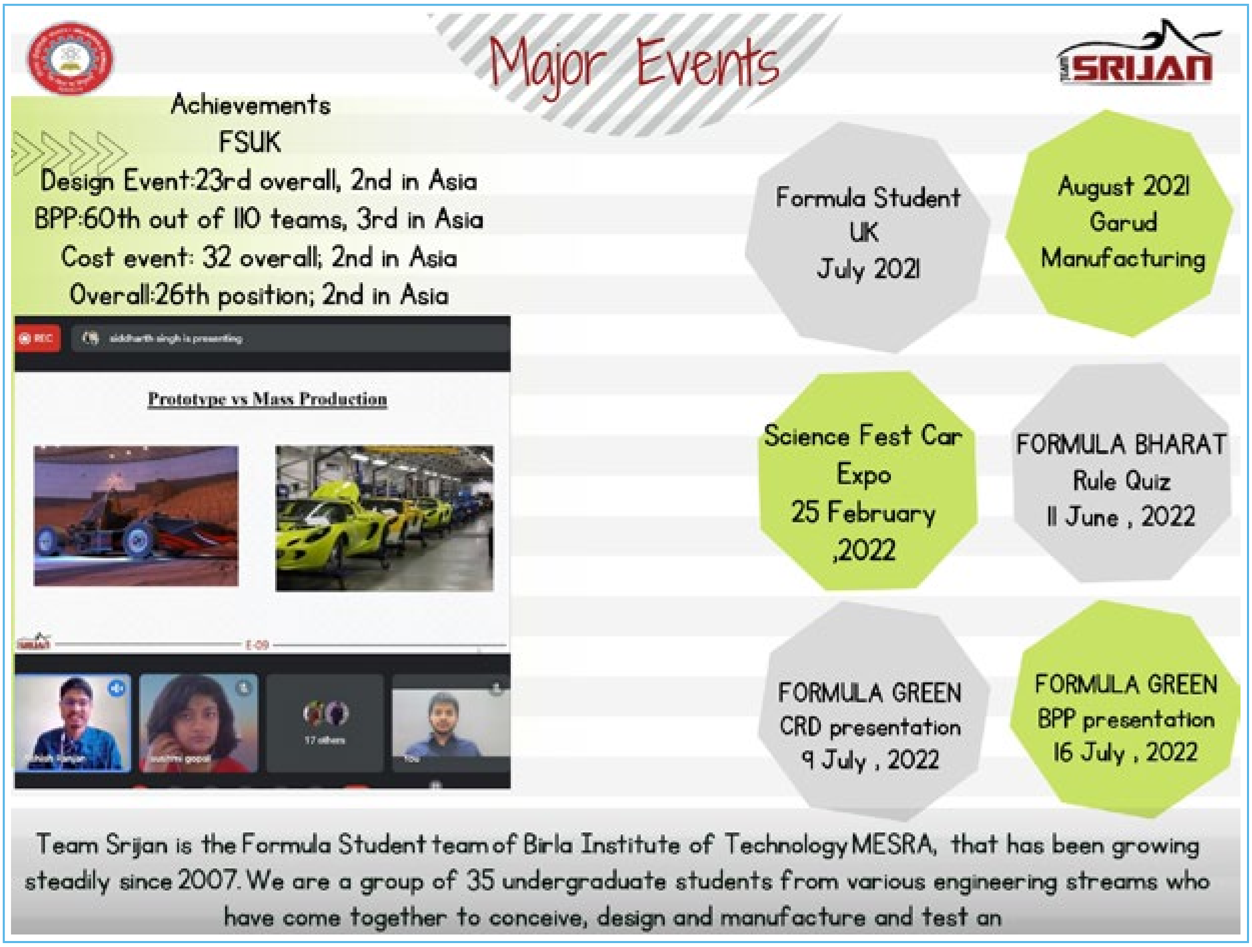
Data Science Summit '22 reach – 5K+

ML Contest Global participation – 300+

Research papers published – 4

Events conducted – 14

Total Workshops/ Webinars organsed – 10



# Major Events

Achievements
FSUK
Design Event:23rd overall, 2nd in Asia
BPP:60th out of 110 teams, 3rd in Asia
Cost event: 32 overall; 2nd in Asia
Overall:26th position; 2nd in Asia

Formula Student
UK
July 2021

August 2021
Garud
Manufacturing

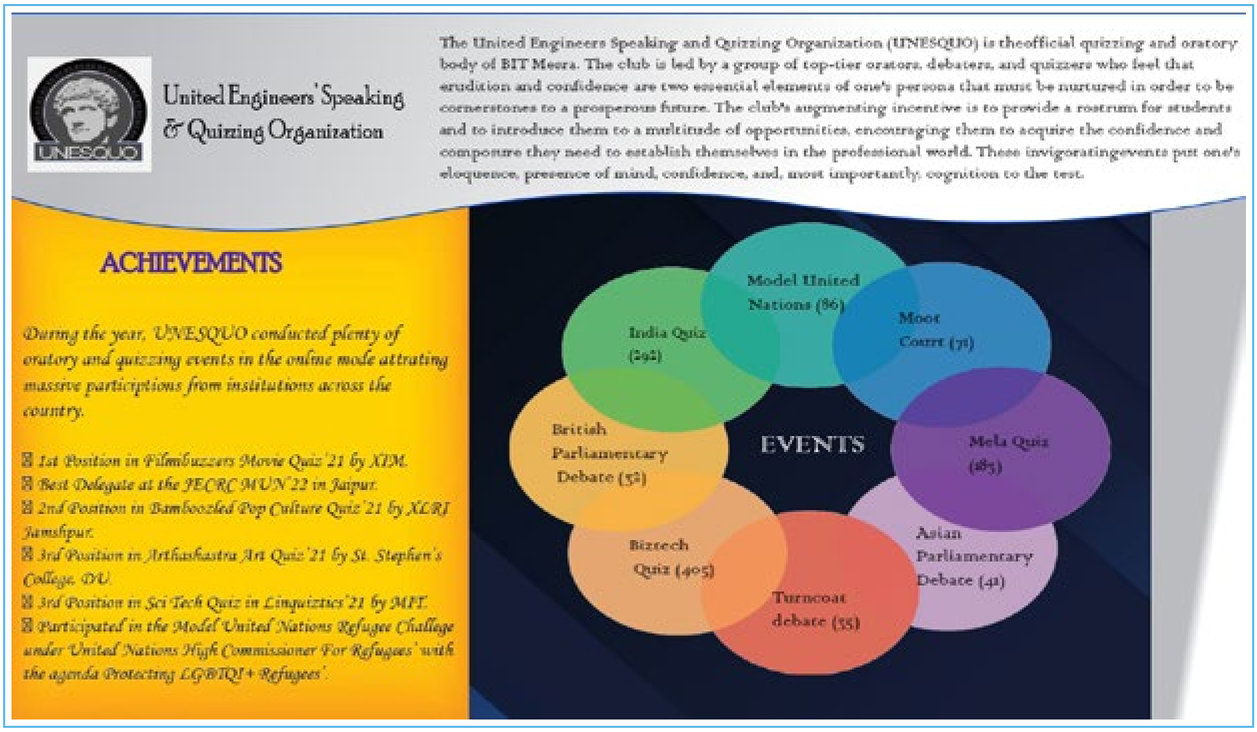
Science Fest Car
Expo
25 February
,2022

FORMULA BHARAT
Rule Quiz
11 June , 2022

FORMULA GREEN
CRD presentation
9 July , 2022

FORMULA GREEN
BPP presentation
16 July , 2022

Team Srijan is the Formula Student team of Birla Institute of Technology MESRA, that has been growing steadily since 2007. We are a group of 35 undergraduate students from various engineering streams who have come together to conceive, design and manufacture and test an



## United Engineers' Speaking & Quizing Organization

The United Engineers Speaking and Quizzing Organization (UNESQUO) is theofficial quizzing and oratory body of BIT Mesra. The club is led by a group of top-tier orators, debaters, and quizzers who feel that erudition and confidence are two essential elements of one's persona that must be nurtured in order to be cornerstones to a prosperous future. The club's augmenting incentive is to provide a rostrum for students and to introduce them to a multitude of opportunities, encouraging them to acquire the confidence and composure they need to establish themselves in the professional world. These invigoratingevents put one's eloquence, presence of mind, confidence, and, most importantly, cognition to the test.

### ACHIEVEMENTS

*During the year, UNESQUO conducted plenty of oratory and quizzing events in the online mode attrating massive participtions from institutions across the country.*

- *1st Position in Filmbuzzers Movie Quiz'21 by XIM.*
- *Best Delegate at the JECRC MUN'22 in Jaipur.*
- *2nd Position in Bamboozled Pop Culture Quiz'21 by XLRI Jamshpur.*
- *3rd Position in Arthashastra Art Quiz'21 by St. Stephen's College, DU.*
- *3rd Position in Sci Tech Quiz in Linguiztics'21 by MPT.*
- *Participated in the Model United Nations Refugee Challge under United Nations High Commissioner For Refugees' with the agenda Protecting LGBTQI+ Refugees'.*

EVENTS

India Quiz (292)
Model United Nations (86)
Moot Court (71)
British Parliamentary Debate (52)
Mela Quiz (85)
Biztech Quiz (405)
Turncoat debate (55)
Asian Parliamentary Debate (41)

# Physical Education & Sports

1. Badminton Open Tournament 2021 -22 was organized from **02.9.2021 to 13.9.2021** inaugurated by Dean of students affairs BIT Mesra Ranchi on 02.9.2021. Total 16 teams participated from BIT Staffs and Research Scholars. Match was played on knockout Cum knockout basis final match was played between Priyank Saxena & S. Tripathy faculty (ECE) Vs Abhishek & Washim (Civil). They declared combined winner. Prof. Indranil Manna distributed the prizes to the winners. Most senior Prof S.S. Sahay and Registrar Sukhpal Singh awarded for senior and motivating person. On the occasion of final match Prof. A.K Sinha, Dr. K. Sridhar Patnaik, Dr. V.S Rathore, Dr. Sammer, Mrs. Nidhi Jaiswal, Dr. Abhijet Mustafi and another guest were present.
2. Knockout Cum knockout single staff & scholar students stated from 28.9.2021 to 06.10.2021 total 32 teams were participated. Chief guest Dr. Anand Kumar Sinha (Dean of student's affairs) distributed the prizes to winner -up Mayur, and runner -up Kunal.
3. Jharkhand Master Athletics association, Ranchi organized one day Athletic Meet on 26th September 2021. Dr. Mahua Manjhi Chief guest distributed the prizes.
4. Cross Country Race was organized on 02.10.2021 at 6.00 am on the occasion of **Gandhi Jayanti**. Prizes were distributed by Registrar Colonel Sukhpal Singh Khetarpal (Retd.) & other Senior Professor.

**Results**

| Men | | | Women | | |
|---|---|---|---|---|---|
| Sr. No. | Name | Position | Sl No. | Name | Position |
| 1. | Rajan Kumar | First | 1. | Nilam Kumari | First |
| 2. | Ranjeet Mahto | Second | | | |
| 3. | Dilip Kumar | Third | | | |

5. Cross Country Race for Staffs and wards was organized on 29.01.2022. prizes were distributed by Dr. Mahendra Kumar I/C Physical Education & Sports, Sri Rajesh Longiyer, Sri D.C. Murti (PTI). Results of the prizes winners.

| Men's | | | Women's | | |
|---|---|---|---|---|---|
| Sr. No. | Name | Position | Sl No. | Name | Position |
| 1. | Abishek Soren | I | 1 | Naha Kumari | I |
| 2. | Abinay Kumar | II | 2 | Anjali Kumari | II |
| 3. | Rishav Deo Pandey | III | 3 | Neelam Kumari | III |

6. The Final match of Inter Hostel Football Tournament will be played between Hostel No. 10 and Hostel No.12 on 22.03.2022. Hostel No. 10 winner and Hostel No. 12 Runner's – up. Chief guest Registrar Sukhpal Singh distributed the prizes.

7. Powerlifting Championship 2021–22 was organized on 23.3.2022.

**Men's Results**

| | **51 Kg – 59 Kg** | **Position** | | **59 Kg – 66 Kg** | **Position** |
|---|---|---|---|---|---|
| 1. | Avijeet Kumar | I | 1. | Siddhant | I |
| 2. | Nawal Kishore Soren | II | 2. | Saurabh | II |
| 3. | Shobhit Jha | II | 3. | Mohit Deep Singh | III |
| | **66 Kg – 74 Kg** | | | **74 Kg – 83 Kg** | **Position** |
| 1. | Deepak Soren | I | 1. | Atul | I |
| 2. | Samanya Raina | II | 2. | Rohan Saxena | II |
| 3. | Sudip Chakraborty | III | 3. | ______ | ______ |
| | **83 Kg – 93 Kg** | **Position** | | **105 Kg – 120 Kg** | **Position** |
| 1. | Shashwat | I | 1. | Tathajat Saranj | I |
| 2. | Sauhard Suman | II | 2. | ______ | _______ |
| 3. | Mukul | III | 3. | ______ | _______ |

POWER LIFITING CHAMPIONSHIP 2021-2022

**Women's Result**

| **Weight -55** | **Weight -59** | **Weight – 60** |
|---|---|---|
| Sanjhi Sharma (I) | Shweta (I) | Ambika (II) |

- Chief Guest – Sri Inderjeet Singh (chief Judge), Prizes were distributed by Sri Inderjeet Singh.
- Overall, Champion – Deepak Soren (B. Tech.)
- Present Officer & Staff's – Prof. A.K. Sinha (Dean of Student Affairs), Col. Sukhpal Singh Khetarpal (Registrar), Dr. K.S Patnaik, Dr. S.K. Singh, Dr S.S. Sahu, Dr. Pankaj Gupta, Dr. Mahendra Kumar, Mr. Chirag (GYM Instructor), Mr. Durga Charn Murti (Assistant Physical Training Instructor) and Mr. Ranjeet Munda.

8. Inter Hostel Volleyball Final Tournament 2021 – 2022 was organized on 01.04.2022 Hostel No. 5 won the championship and Hostel NO. 12 Runner -up. Chief Guest Sri Prashant Kumar Police Commissioner (RPF) SER Ranchi distributed the prizes.

9. Inter Hostel Basketball Final Tournament 2021 – 2022 was organized on 06.04.2022 Hostel No. 5 won the championship and Hostel No. 12 Runner up. Chief Guest Dr. Anand Kumar Sinha (DoSA) and Guest of Honour Smt. Dr. A. Nigam distributed the prizes.

10. Inter Hostel Badminton Tournament 2021–2022 was held on 08.4.2022. Results is Men's & Women's final are:

**Men's Section**

» Winner – Ved Prakash Gope (Single)

Harshjeet & Armaan (Double)

**Women's Section**

» Winner – Meghana Tripathy (Single)

Meghana Tripathy & Harshal Jain (Double)

# Value Education Cell

A Value Education Cell has been setup in the Institute under the guidelines of AICTE. It aims for Holistic development of students and also to create a pool of potential faculty members to propagate value-based quality education in the institute.

Value Education Cell implements teaching of Universal Human Value courses proposed by AICTE. The BOS has approved “MT131: Understanding Harmony” in line with Universal Human Value course to be taught in 3rd or 4th Semester in all engineering departments.

30 Faculty Members have undergone online/offline faculty development program on “Inculcating Universal Human Values in Technical Education” conducted by AICTE.

Value Education Cell conducts Students Induction program for newly inducted first year UG students in the institute, which aims to make students familiar with the ethos and culture of the institute and help them set a healthy daily routine and also to create bonding in batch as well as between faculty members and students.

Students Induction program (SIP) was conducted for MO 2021 batch during December 15th, 2021 to Jan 3rd 2022 using MS Teams platform where more than 550 freshly inducted students actively participated who were introduced to Institute facilities, administrative resources, club activities, annual sports, technical and cultural events. The students were also exposed to various aspects of academic and personal well-being such as Importance of yoga in mental health, association of happiness with relationships, aspects of uncertainties in life and coping mechanism through self-management, gender and socioenvironment sensitiveness, and Importance of extracurricular activities in self-management.

Assignments
Calendar
Calls
Files
SK
PP
RA
OK
SS
MS
SS
AP
SK
RA
SA
SD
+875

**Words of Encouragement by Hon'ble Vice Chancellor,BIT Mesra: Prof. Indranil Manna**

## SIP Committee

| | | |
|---|---|---|
| | **Prof. Indranil Manna**<br>**Hon'ble Vice Chancellor, BIT Mesra**<br>**and Patron Value Education Cell** | |
| | | |
| **Dr. Vibha Rani Gupta**<br>Dean of Undergraduate Studies | **Dr. Sanjay Jha**<br>Controller of Examinations | **Dr. Sanjay Kumar**<br>Chairperson: Value Education Cell |
| | | |
| **Dr. K. S. Patnaik**<br>Convenor: Value Education Cell | **Dr. Kirti Avishek**<br>University Coordinator: Value Education Cell | **Mr. Mrinal Pathak**<br>Co-cordinator: Value Education Cell |
| | | |
| **Mr. Vishal H. Shah**<br>Member: Value Education Cell | **Dr. Praveen Mishra**<br>Member: Value Education Cell | **Dr. Richa Pandey**<br>Member: Value Education Cell |
| | | |
| | **Dr. Shashank Pushkar**<br>Member: Value Education Cell | |

बिरला प्रौद्योगिकी संस्थान में विश्वविद्यालय अनुदान आयोग के मार्च 2021 के पत्र में दिए गए निर्देशानुसार राजभाषा प्रकोष्ठ की स्थापना की गई तथा 30 जून 2021 को राजभाषा कार्यान्वयन समिति का गठन किया गया। कुलपति डॉ. इंद्रनील मन्ना के आदेश द्वारा राजभाषा प्रकोष्ठ का गठन किया गया है। नव गठित प्रकोष्ठ की सलाहकार समिति में विश्वविद्यालय के विभिन्न विभागों के सदस्यों को सम्मिलित किया गया है, जिसके अध्यक्ष माननीय कुलपति श्री इंद्रनील मन्ना हैं। वहीं संस्थान के कुल सचिव कर्नल सुखपाल सिंह खेतरपाल (सेवानिवृत्त) इस समिति के कार्यकारी सदस्य हैं। डॉ. अमित कुमार तिवारी, प्रकोष्ठ के कार्यान्वयन समिति के सदस्य सचिव हैं। सभी विभाग हिन्दी भाषा को बहुत महत्व देते हैं। राजभाषा प्रकोष्ठ के प्रतीक चिन्ह का कुलपति द्वारा अनावरण भी किया गया। राजभाषा अधिनियम 3.3 के अनुसार दस्तावेजों को हिन्दी में परिवर्तित किए बिना राजभाषा अधिनियम का अनुपालन संभव नहीं है। भारतीय संविधान में भी हिन्दी को राजभाषा का पद दिया गया है। राजभाषा प्रकोष्ठ वेबसंगोष्ठी , हिन्दी सॉफ्टवेयर का प्रशिक्षण, हिन्दी पखवाड़ा आदि कार्यक्रम नियमित रूप से करता रहा है। रविवार 27 जून, 2021 को चित्रा मुद्गल की पुस्तक "तिल भर जगह नहीं' का लोकार्पण किया गया। राजभाषा प्रकोष्ठ द्वारा छात्र-छात्राओं को हिन्दी के प्रति सम्मान और दैनिक व्यवहार में हिन्दी के उपयोग करने आदि की शिक्षा दी जाती है। जिसमें हिन्दी निबन्ध लेखन, वाद-विवाद, हिन्दी टंकण प्रतियोगिता आयोजित की जाती है। राजभाषा प्रकोष्ठ 5 दिन का हिंदी पखवाड़ा 9 सितंबर से 14 सितंबर तक धूमधाम से मनाता रहा है। इस वर्ष हुए कार्यक्रम का विवरण अधोलिखित है।

09/09/2021 : कवि सम्मेलन आगंतुक कवियों द्वारा और "अभिधा" का विमोचन

10/09/2021 : कवि सम्मेलन संस्थान के सदस्यों और विद्यार्थियों द्वारा

11/09/21 एवं 12/09/21 : छात्रों द्वारा "लॉकडाउन की यात्रा" विषय पर गद्य लेखन, नाटक, कविता, स्लोगन आदि प्रतियोगिताओं के लिए दो दिवसीय कार्यक्रम

13/09/2021 : हिंदी वेब गोष्ठी का आयोजन, विषय: “तकनीकी शिक्षा में हिंदी का योगदान”

14/09/2021 : हिंदी वेब गोष्ठी का आयोजन, विषय: “प्रौद्योगिकी संस्थान में हिन्दी का समावेश”

दिनांक 09/0 9/2021 को समारोह का उद्घाटन हुआ। राजभाषा प्रकोष्ठ के माध्यम से इस वर्ष "अभिधा" नामक पत्रिका प्रकाशित करके इस उद्देश्य में एक और आयाम जोड़ा गया। पत्रिका के प्रकाशन और प्रसार से संस्थान में और छात्रों के बीच हिंदी के उपयोग और संस्कृति को काफी बढ़ावा मिलेगा। हिंदी के प्रयोग से सरकारी गतिविधियों से परे भी संस्कृति और रचनात्मक कार्यों का विकास होगा। 10 सितंबर को डॉ ओ पी पाण्डेय , डॉ अमित तिवारी , डॉ नीरज सिंह, डॉ प्रवीण श्रीवास्तव, डॉ रजनीश, विद्यार्थियों और अन्य ने कविता पाठ किया। 11 सितंबर को दो प्रतियोगिता वक्तृत्व स्पर्धा तथा लेखन स्पर्धा हुई। इसमे

हर्ष अग्रवाल- प्रथम पुरस्कार, अभिनय कुमार- द्वितीय पुरस्कार, स्पर्श आनंद एवं शौर्य राज- तीसरा पुरस्कार तथा लेखन स्पर्धा में आयुष- प्रथम पुरस्कार, शौर्य राज- द्वितीय पुरस्कार तथा गोल्डी मिश्रा ने तृतीय पुरस्कार प्राप्त किया। डॉ ऋचा पाण्डेय की पुस्तक "मन के लम्हे” का भी लोकार्पण किया गया। हिन्दी में उत्कृष्ठ कार्य के लिए यूनिवर्सिटी पॉलीटेक्नीक की श्रीमती निरुपम को दिनांक 14 को सम्मानित किया गया। सम्मानित सदस्य में श्री अशोक प्रियदर्शी, और सुनील बादल (झारखंड के प्रबुद्ध पत्रकार) आदि को सम्मानित किया गया । दिनांक 10 जनवरी 2022, विश्व हिन्दी दिवस को शाम 4-6 बजे तक हिन्दी और अन्य क्षेत्रीय भाषाओं में तकनीकी शिक्षा पाठ्यक्रम शुरू करने के लिए संसाधनों की उपलब्धता पर एक संगोष्ठी आयोजित की गई, जिसमें डॉ ओम विकास, डॉ आर के पांडे, बनारस हिंदू विश्वविद्यालय, डॉ बुद्धा चंद्रशेखर, एआईसीटीई, प्राध्यापक सुदीप्ता चक्रवर्ती, बी आई टी , प्रो. अविनाश कुमार, डायरेक्टर, केन्द्रीय हिंदी डायरेक्टरेट(पूर्व ), डॉक्टर प्रेम मोहन मिश्रा, एमएलएसएम कॉलेज बिहार, डॉ आरएस राठौर, स्किल यूनिवर्सिटी, डॉ राजीव रावत, आई आई टी खड़गपुर, और डॉ अंजू खंडेलवाल ने अपने विचार व्यक्त किए। इस कार्यक्रम का संचालन डॉक्टर मृणाल पाठक ने किया ।

राजभाषा प्रकोष्ठ समय-समय पर संस्थान के समस्त विभागों, कार्यालयों के अधिकारियों, प्राध्यापकों और कार्मिक व्यक्तियों को राजभाषा अधिनियम के अनुसार कार्य करने की सलाह देता है, साथ ही वेबसंगोष्ठी द्वारा उन्हें शिक्षित भी करता है । प्रशिक्षण कार्यक्रम “भारत सरकार की राजभाषा नीति और संस्थान में कार्यान्वयन” का डॉ राजीव रावत, हिंदी अधिकारी, आइ. आइ. टी खड़गपुर द्वारा संचालित किया गया। जिसमें लगभग 60 लोगों ने भाग लिया। हमारे संस्थान की वेबसाइट, कई प्रकार के फॉर्म और पत्र द्विभाषीय हो गए हैं । प्रकोष्ठ के कार्यकारी समूह में संस्थान के छात्र-छात्राएं भी हैं जिसमें मानस कुमार, हिमांशु शेखर, इशिता श्रेष्ठ, देवलीना, प्राची प्रणम्या, आयुष वर्मा और अन्य सदस्य शामिल हैं।

ईमेल : inc.hindicell@bitmesra.ac.in अभिधा वेबलिंक : https://abhidha-bitm.web.app/mobile.html

# SANSHRAY
# (Rekindling Hope)

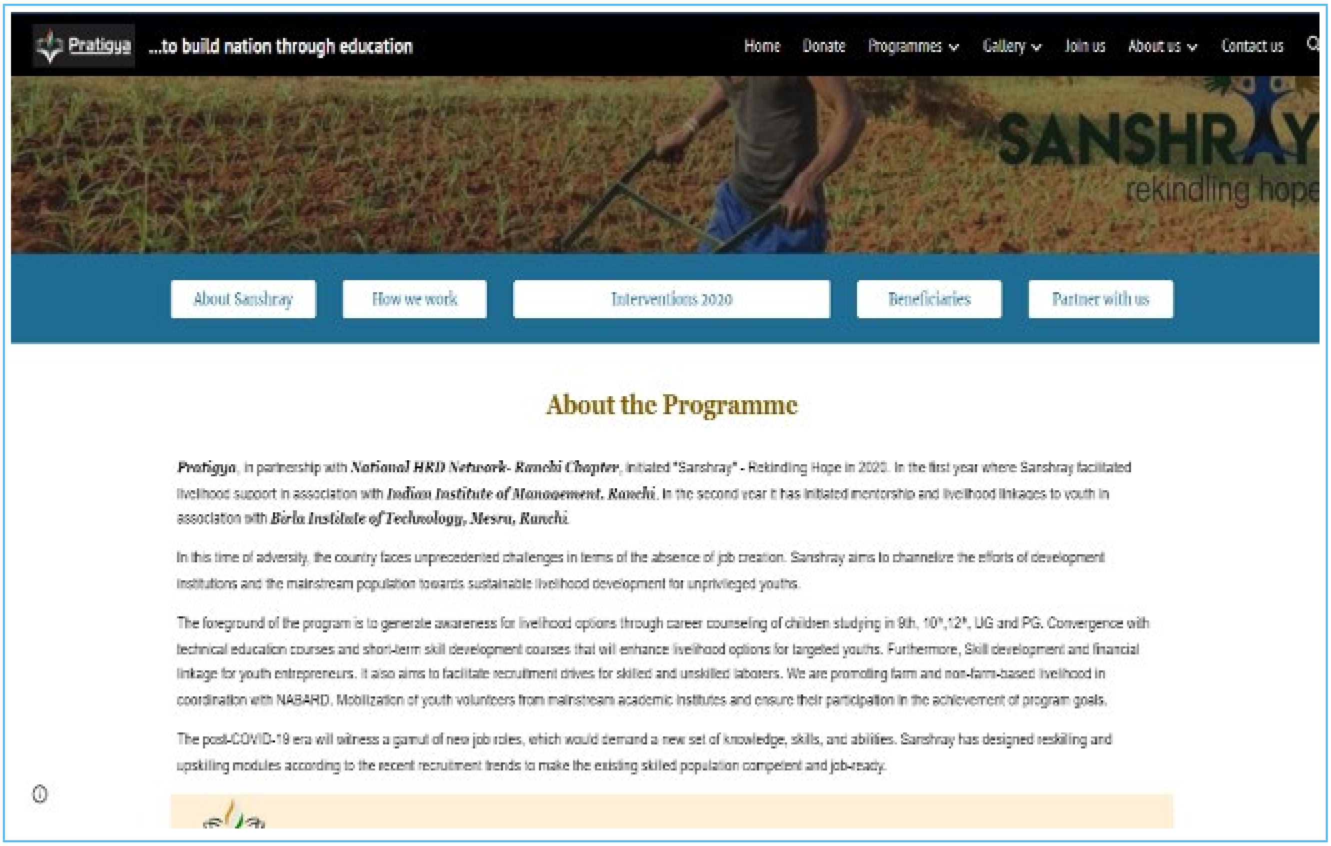
Department of Management in association with National HRD Network and Pratigya, an NGO, are working on Project "SANSHRAY" (Rekindling Hope) since June, 2021. Sanshray aims to provide the best career counselling to students at different early education stages to make them informed decisions about their career paths. In these difficult times where optimism is everything one needs, the MBA students, with the help of Pratigya, have chosen to be the guiding light for underprivileged children.

24 MBA students are working on the project.

The students have been divided under following teams:

- Program Implementation – One to one career counselling of selected students studying in class X, XII and Graduation. Pratigya provided profiles of 33 students who were assigned to the team equally for mentorship.
- Research and Documentation – Secondary research to prepare potential convergence schemes, development institutes and a compendium comprising all necessary details for different job roles.
- IT Support- Creating database, dashboard, MIS and templates as per program requirements.

As the Covid- 19 pandemic has shifted the entire world to an online space. Therefore, Sanshray adheres to the new normal and is being conducted online until things become normal.



About the Programme

***Pratigya***, in partnership with ***National HRD Network- Ranchi Chapter***, initiated "Sanshray" - Rekinding Hope in 2020. In the first year where Sanshray facilitated livelihood support in association with ***Indian Institute of Management, Ranchi***. In the second year it has initiated mentorship and livelihood linkages to youth in association with ***Birla Institute of Technology, Mesra, Ranchi.***

In this time of adversity, the country faces unprecedented challenges in terms of the absence of job creation. Sanshray aims to channelize the efforts of development institutions and the mainstream population towards sustainable livelihood development for unprivileged youths.

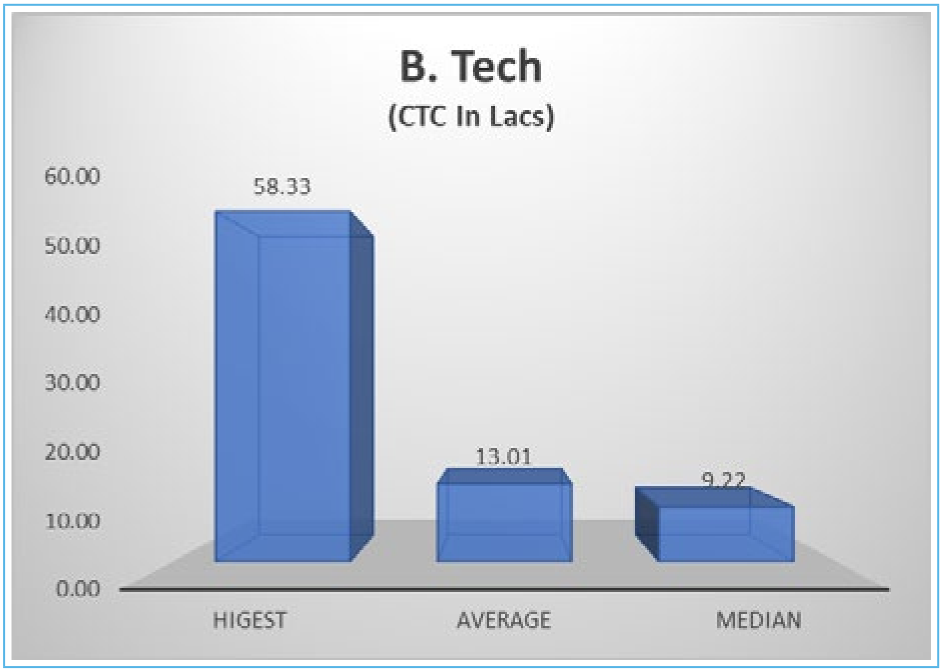
The foreground of the program is to generate awareness for livelihood options through career counseling of children studying in 9th, 10th,12th, UG and PG. Convergence with technical education courses and short-term skill development courses that will enhance livelihood options for targeted youths. Furthermore, Skill development and financial linkage for youth entrepreneurs. It also aims to facilitate recruitment drives for skilled and unskilled laborers. We are promoting farm and non-farm-based livelihood in coordination with NABARD. Mobilization of youth volunteers from mainstream academic institutes and ensure their participation in the achievement of program goals.

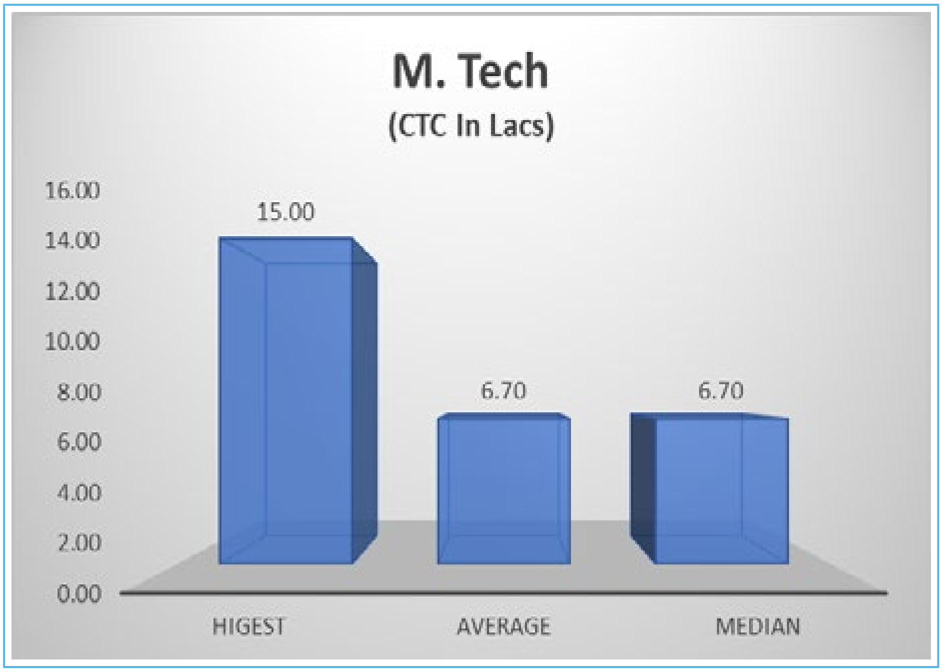
The post-COVID-19 era will witness a gamut of new job roles, which would demand a new set of knowledge, skills, and abilities. Sanshray has designed reskilling and upskilling modules according to the recent recruitment trends to make the existing skilled population competent and job-ready.

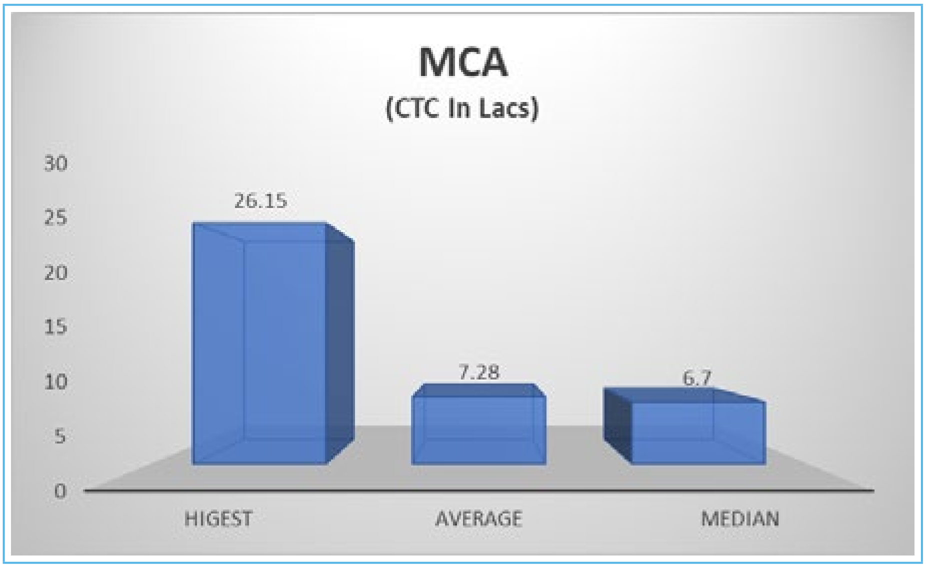
# Training and Placement

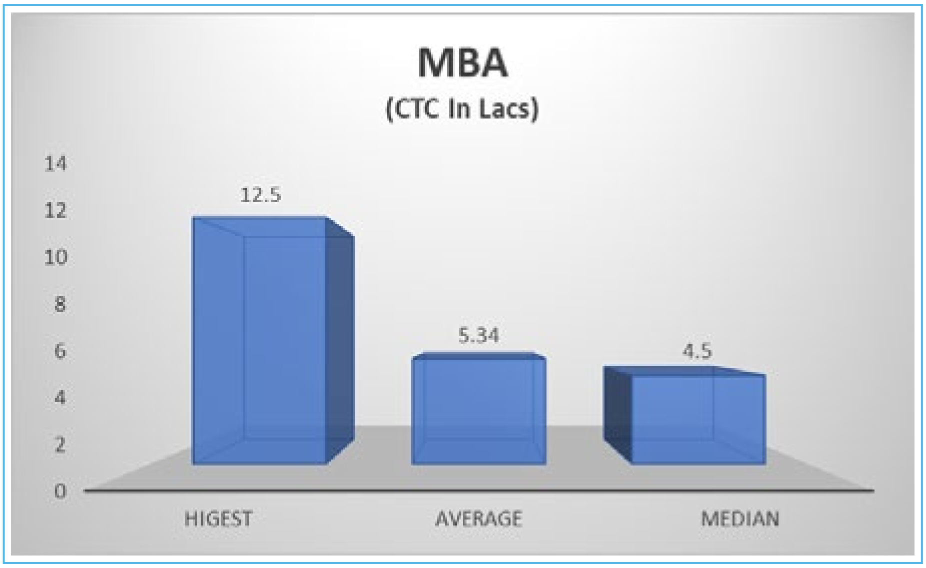
The Campus Recruitment Programme of BIT has been strengthening and nurturing value-added relationships with recruiters across a wide spectrum of industries over the years. Every year new milestones are achieved which speak for the strength of the BIT student community as well as the diversity in academic programmes. One of the key factors which bring BIT into limelight, as an institution of high repute, is its campus recruitment.

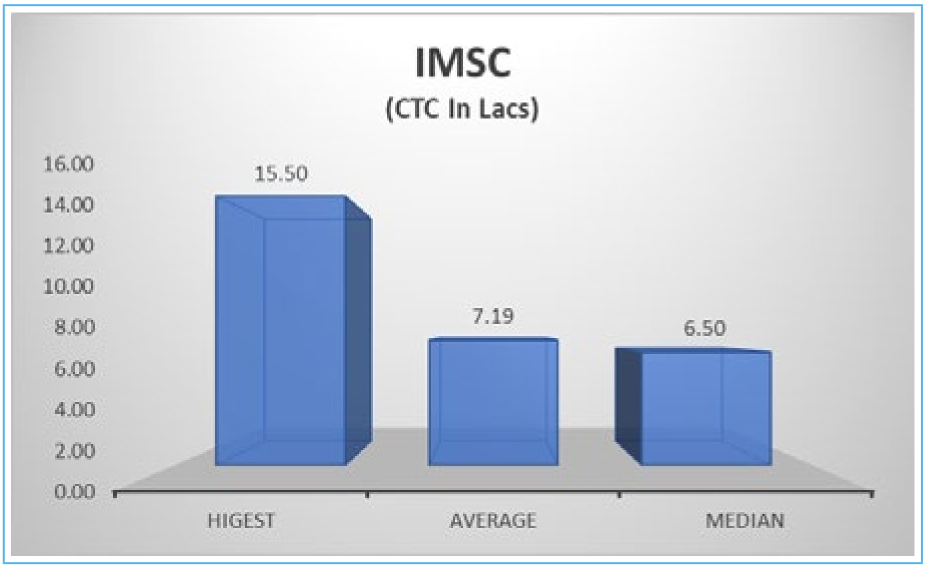
In the Campus Recruitment Programme of 2021–22, around 232 recruiters from different sectors visited for full time recruitment and internship, achieving an overall target of 925 job offers. The Mesra campus boasts of an average package of ₹ 13.01 Lacs per annum and the highest national salary of ₹ 58.33 Lacs per annum for BE Programme.

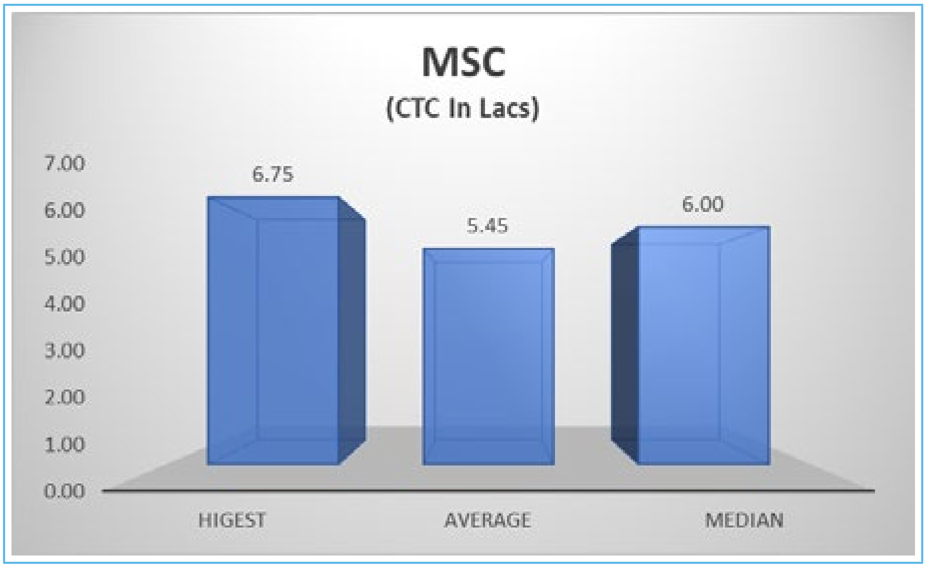


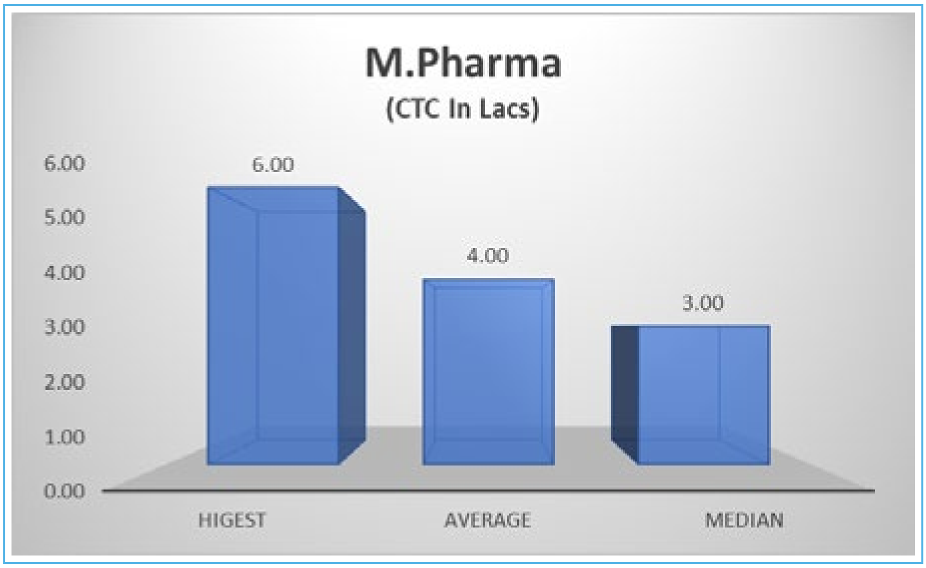


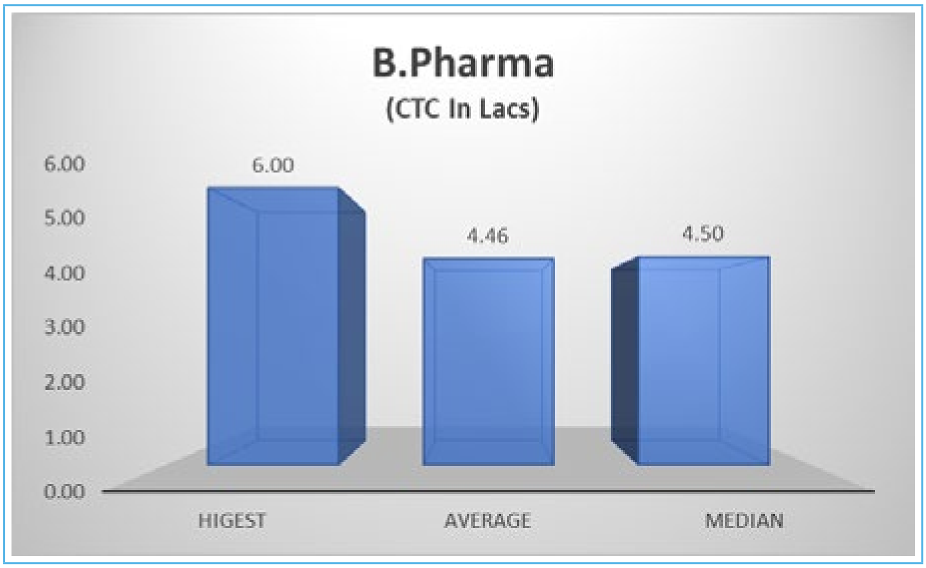

MCA
(CTC In Lacs)
30
25
20
15
10
5
0
26.15
7.28
6.7
HIGEST
AVERAGE
MEDIAN


MBA
(CTC In Lacs)
14
12
10
8
6
4
2
0
12.5
5.34
4.5
HIGEST
AVERAGE
MEDIAN


IMSC
(CTC In Lacs)
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
15.50
7.19
6.50
HIGEST
AVERAGE
MEDIAN


MSC
(CTC In Lacs)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
6.75
5.45
6.00
HIGEST
AVERAGE
MEDIAN


M.Pharma
(CTC In Lacs)
6.00
5.00
4.00
3.00
2.00
1.00
0.00
6.00
4.00
3.00
HIGEST
AVERAGE
MEDIAN


B.Pharma
(CTC In Lacs)
6.00
5.00
4.00
3.00
2.00
1.00
0.00
6.00
4.46
4.50
HIGEST
AVERAGE
MEDIAN

## List of Company and Number of Offers (Full Time)

**Table below shows the Student placed in various Departments of BIT Mesra**

| Company Name | B.Arch | B.Tech | M.Tech | B.Pharm | M.Pharm | M.Sc | Integrated M.Sc | MBA | MCA |
|---|---|---|---|---|---|---|---|---|---|
| Aakash Institute | | 2 | 1 | | | 1 | 1 | | |
| Accenture | | 15 | | | | | | | |
| Acty System | | | | | | | | | 3 |
| Additus Medi-Healthcare LLP | | | | 1 | | | | | |
| Addverb | | 1 | | | | | | | |
| Aditya Birla (Pantaloon) | | | | | | | | 6 | |
| Aditya Birla Group | | 10 | | | | | | | |
| Adrosonic | | 5 | | | | | 3 | | 1 |
| Airtel | | | | | | | | 1 | |
| Albedo | | | | | | | 2 | | |
| Amadeus | | 1 | | | | | | | |
| Amantya Technologies | | | | | | | | | 3 |
| Amazon | | 2 | | | | | | | |
| Amdocs | | 4 | 3 | | | | | | 8 |
| American Express | | 1 | | | | | | | |
| Anchanto | | 2 | | | | | | | |
| Aris Global | | 1 | 1 | | | | | | |
| Atlassian | | 4 | | | | | | | |
| Axis Bank | | 4 | | | | | | 1 | |
| Axis Bank | | 4 | | | | | | | |
| Bain Capability Network | | 3 | | | | | | | |
| Bandhan Bank | | | | | | | | 5 | |
| Barclays india | | | | | | | | 1 | |
| BCN | | 1 | | | | | | | |
| Bhanix Finance and Investment Ltd. | | | | | | | 2 | | |
| Bharti Airtel | | | | | | | | 2 | |
| Board Infinity | | | | | | | | 5 | |
| Box8 | | 1 | | | | | | | |
| Briisk Global | | | | | | | | 5 | |
| Byjus | | | 1 | | | | 1 | | |
| Byjus (Academic Specialist) | | | 1 | 3 | 1 | 2 | | | |

| Company Name | B.Arch | B.Tech | M.Tech | B.Pharm | M.Pharm | M.Sc | Integrated M.Sc | MBA | MCA |
|---|---|---|---|---|---|---|---|---|---|
| Byjus (Content) |  | 1 | 3 | 2 |  |  |  |  |  |
| Byjus (Faculty Position) |  |  |  |  |  | 1 | 3 |  |  |
| Byjus BDA |  | 1 |  |  |  |  |  |  |  |
| Capgemini |  | 11 | 1 |  |  |  |  |  | 1 |
| Carwale |  |  |  |  |  |  |  | 1 |  |
| Chubb |  |  |  |  |  |  |  |  | 3 |
| ClearWater |  |  |  |  |  |  | 2 |  |  |
| Cognizant Elevate |  | 6 | 2 |  |  |  | 5 |  | 8 |
| Cognizant GenC |  | 35 | 6 |  |  |  | 10 |  | 17 |
| Collabera |  |  |  |  |  |  |  | 1 |  |
| Commvault |  | 1 |  |  |  |  |  |  |  |
| Comviva |  | 1 |  |  |  |  |  |  |  |
| Couture |  |  |  |  |  |  | 1 |  |  |
| Daimler |  |  | 1 |  |  |  |  |  |  |
| DE Shaw |  | 2 |  |  |  |  |  |  |  |
| Delhivery |  | 1 |  |  |  |  |  |  |  |
| Deloitte Consulting |  | 39 | 2 |  |  |  | 4 |  | 7 |
| Dezerv |  | 1 |  |  |  |  |  |  |  |
| Dover |  | 1 |  |  |  |  |  |  |  |
| DRL (B.Pharma) |  |  |  | 4 |  |  |  |  |  |
| DRL (Engg) |  | 1 |  |  |  |  |  |  |  |
| Ernst & Young Services Pvt. Ltd |  | 2 |  |  |  |  |  |  |  |
| ESAF Small Finance |  |  |  |  |  |  |  | 2 |  |
| Exl Services |  | 16 |  |  |  |  | 5 |  | 1 |
| FarEye |  | 1 |  |  |  |  |  |  | 2 |
| Fastenal |  | 14 |  |  |  |  | 2 |  | 3 |
| Federal Bank |  |  | 1 |  |  |  | 2 |  |  |
| FICO |  |  |  |  |  |  |  |  | 1 |
| Flipspaces |  |  |  |  |  |  |  | 1 |  |
| Gainwell |  | 1 |  |  |  |  |  |  |  |
| Ganit |  |  |  |  |  |  | 2 |  |  |
| Gap |  | 4 |  |  |  |  |  |  |  |
| Genpact |  | 5 |  |  |  |  |  |  | 1 |
| GEP |  | 3 |  |  |  |  |  |  |  |

| Company Name | B.Arch | B.Tech | M.Tech | B.Pharm | M.Pharm | M.Sc | Integrated M.Sc | MBA | MCA |
|---|---|---|---|---|---|---|---|---|---|
| Goldman Sachs | | 7 | | | | | | | |
| Goldman Sachs PPO | | 7 | | | | | | | |
| Google | | 4 | | | | | | | 2 |
| HCL Technologies | | 10 | 6 | | | | | | |
| HDFC Asset | | | | | | | | 1 | |
| Hero MotoCorp | | 5 | | | | | | | 1 |
| ICICI Bank | | | | | | | | 17 | |
| ICICI Prudential | | | | | | | | 2 | |
| ICICI Securities | | | | | | | | 3 | |
| IDBI Bank | | | | | | | | 6 | |
| ileadHR | | | | | | | | 1 | |
| Incture Technologies | | 3 | | | | | 1 | | 1 |
| Infineon | | 1 | | | | | | | |
| Infoedge | | 1 | | | | | | | |
| Infosys | | 1 | 2 | | | | 4 | 1 | 1 |
| Infosys | | | | | | | | 2 | |
| Interra Systems | | 1 | | | | | | | |
| ITC – TM&D | | 4 | | | | | | | |
| Jio Platforms | | 4 | | | | | | | |
| Jio Platforms Ltd. | | 6 | | | | | | | |
| JSW | | 3 | | | | | | | |
| Jubliant Food | | 2 | | | | | | | |
| JWIL | | 2 | | | | | | | |
| Kantar | | 4 | | | | | | | 1 |
| KMK Consulting | | | | | | | | | 2 |
| Knowlvers | | 2 | | | | | | | |
| KPMG | | 26 | | | | | | | |
| L&T | | 6 | 1 | | | | | | |
| L&T | | 1 | | | | | | | |
| Logic Fruit Technology | | 4 | | | | | | | |
| Lowe's PPO | | 1 | | | | | | | |
| MAQ Software | | 1 | | | | | | | 3 |
| Market Intelligence | | | | | | | | 2 | |
| Maruti Suzuki | | 2 | | | | | | | |

| Company Name | B.Arch | B.Tech | M.Tech | B.Pharm | M.Pharm | M.Sc | Integrated M.Sc | MBA | MCA |
|---|---|---|---|---|---|---|---|---|---|
| Meibach |  | 2 |  |  |  |  |  |  |  |
| Merkle Sokrati |  |  |  |  |  |  |  | 1 |  |
| Microsoft – PPO |  | 17 |  |  |  |  |  |  |  |
| Microsoft Off-Campus |  | 1 |  |  |  |  |  |  |  |
| MindTickle |  | 7 |  |  |  |  |  |  |  |
| MMT |  | 2 |  |  |  |  |  |  |  |
| Nation with Namo |  | 2 |  |  |  |  |  |  |  |
| Natwest Group |  |  | 1 |  |  |  |  |  |  |
| NBC |  | 2 |  |  |  |  |  |  |  |
| Nexus Power |  |  | 1 |  |  |  |  |  |  |
| Nielson IQ |  |  |  |  |  |  |  |  | 1 |
| No Broker |  |  |  |  |  |  |  | 3 |  |
| Nomura RI |  |  |  |  |  |  |  |  | 1 |
| Oracel OFFS |  | 6 | 1 |  |  |  |  |  | 11 |
| Oracle |  | 13 |  |  |  |  |  |  |  |
| Paytm |  | 20 |  |  |  |  |  |  |  |
| PEOPLESTRONG |  | 2 |  |  |  |  |  |  |  |
| Pickrr |  | 1 |  |  |  |  |  |  |  |
| Planet Spark |  | 1 |  |  |  |  |  | 1 |  |
| Poncho Hospitality Pvt Ltd (Box8) |  | 6 |  |  |  |  |  |  |  |
| PWC |  | 30 | 1 |  |  |  | 7 |  |  |
| PWC PPO |  | 6 |  |  |  |  |  |  |  |
| Reliance Industries Limited |  | 20 |  |  |  |  |  |  |  |
| Reliance Jio Infocomm |  |  |  |  |  |  |  | 1 |  |
| Revature |  |  |  |  |  |  |  |  | 1 |
| Robo MQ |  | 2 |  |  |  |  |  |  | 1 |
| Samsung R&D Bangalore |  | 2 |  |  |  |  |  |  |  |
| Samsung R&D Delhi |  | 9 |  |  |  |  |  |  |  |
| Samsung R&D Delhi PPO |  | 8 |  |  |  |  |  |  |  |
| Samsung R&D Noida |  | 4 |  |  |  |  |  |  |  |
| Scanpoint |  |  | 1 |  |  |  |  |  |  |
| Schlumberger |  | 2 |  |  |  |  |  |  |  |
| Signicent LLP |  |  | 1 |  | 2 |  | 2 |  |  |
| Simpli Learn |  |  | 1 |  |  |  | 2 |  | 9 |

| Company Name | B.Arch | B.Tech | M.Tech | B.Pharm | M.Pharm | M.Sc | Integrated M.Sc | MBA | MCA |
|---|---|---|---|---|---|---|---|---|---|
| Srelite Technologies | | 1 | | | | | | | |
| Sunstone Eduversity | | | | | | | | 6 | |
| SVI Public Company Limited, Thailand | | 1 | | | | | | | |
| SWYM | | 1 | | | | | | | |
| Synopsys | | 8 | | | | | | | |
| Tata Autocomp | | 2 | 3 | | | | | 1 | |
| Tata Digital | | 2 | | | | | | | 1 |
| Tata IQ | | 1 | | | | | | | |
| Tata Motors | | 4 | | | | | | | |
| Tata Power | | 2 | | | | | | | |
| Tata Steel | | 5 | | | | | | | |
| TATA STEEL DOWNSTREAM | | 2 | | | | | | | |
| TATA STEEL LONG PRODUCTS LTD | | 1 | | | | | | | |
| Tata Steel PPO | | 3 | | | | | | | |
| Tata Technologies | | 1 | | | | | | | |
| Tata Unistore Limited | | 2 | | | | | 2 | | |
| Tech Mahindra | | 3 | | | | | | | |
| Techture structures | 1 | 1 | | | | | | | |
| Times Internet | | | | | | | 1 | | |
| Tredence Analytics Solutions Pvt Ltd | | 7 | | | | | | | |
| Trumind | | 1 | | | | | 1 | | |
| Ugam Solutions | | 2 | | | | | 2 | | |
| Unilever | | 1 | | | | | | | |
| Utkarsh Bank | | | | | | | | 1 | |
| VMWARE | | 4 | | | | | | | |
| Walkaroo | | | | | | | | 3 | |
| Walmart Labs | | 11 | | | | | | | |
| Walmart PPO | | 5 | | | | | | | |
| Wells Fargo | | 5 | | | | | | | |
| Wells Fargo PPO | | 4 | | | | | | | |
| white Hat Junior | | 6 | | | | | 2 | | |
| Wipro Turbo | | 10 | | | | | 13 | | |

| Company Name | B.Arch | B.Tech | M.Tech | B.Pharm | M.Pharm | M.Sc | Integrated M.Sc | MBA | MCA |
|---|---|---|---|---|---|---|---|---|---|
| Xiaomi | | | | | | | | 2 | |
| Xoxo Day | | | | | | | | | 2 |
| Yamaha | | 1 | | | | | | | |
| Zensar | | 2 | | | | | | | |
| ZS Associate | | 13 | | | | | | | |
| ZS PPO | | 8 | | | | | | | |

## List of Company and Number of Offers (Internship)

| Recruiter Name | Pre- Final Year | Final Year |
|---|---|---|
| Accenture | 7 | |
| Addverb | | 1 |
| Adobe Systems | 2 | |
| Adrosonic | | 8 |
| Adrosonic (MCA) | | 1 |
| Aegon Life | | 2 |
| Agile Capital Services | 7 | |
| Amantya Technologies | | 3 |
| Amazon | | 7 |
| American Express | | 3 |
| Anchanto | | 2 |
| Atlassian | 4 | |
| AxisBank | 4 | 6 |
| Bain & Co | | 6 |
| BHARTI AIRTEL LIMITED | 1 | |
| Capital Flot | | 3 |
| Chawla Publication | 2 | |
| Cisco | | 1 |
| Commvault | | 1 |
| CropIn | | 2 |
| Delighful Gourmet Pvt Ltd | | 1 |
| Dover | | 1 |
| DRL Engg. | | 9 |
| DRL Phrma. | | 7 |
| Ericsson Global IT Services | | 1 |
| Fastenal | 2 | 19 |
| Flipkart | | 2 |
| Future First | | 6 |

| Recruiter Name | Pre- Final Year | Final Year |
|---|---|---|
| Ganit | | 2 |
| GAP | 5 | |
| Genpact | | 10 |
| GEP | 5 | |
| Goldman Sachs | 6 | 13 |
| Google | | |
| Great Learning | | 3 |
| Infineon | | 6 |
| Infoedge | | 1 |
| Interra Systems | | 1 |
| ISWPL | 4 | |
| ITC – TM&D | 2 | |
| ITC Centre | 2 | |
| Jiyonwall | 2 | |
| Jubliant Food | | 8 |
| KPMG | | 26 |
| Leadsquare | 1 | |
| Logic Fruit | | 4 |
| Magnik India | 3 | |
| MAQ Software | | 4 |
| Microland | | 7 |
| Microsoft | 29 | 1 |
| Miebach | | 2 |
| MindTickle | | 9 |
| MMT | | 2 |
| MOZOHunt | 3 | |
| Nexus Power | | 1 |
| Nielson IQ | | 1 |
| Nomura RI | | 1 |
| Oracle GBU | | 13 |
| Oracle OFFS | 5 | |
| Paytm | | 20 |
| Philips | | 2 |
| Praedico Global Research Pvt. Ltd | 4 | |
| Publicis Sapient | | 2 |
| Puresh Daily Foods Pvt.ltd. | 3 | |
| PWC | 20 | |
| Relecura | | 3 |

| Recruiter Name | Pre- Final Year | Final Year |
|---|---|---|
| Robo MQ |  | 3 |
| Salesforce | 3 |  |
| Samsung Bangalore | 13 |  |
| Samsung R&D Delhi |  | 12 |
| Samsung R&D Noida |  | 5 |
| Siemens Industry |  | 2 |
| Signicent LLP |  | 5 |
| Smartserv |  | 3 |
| Star TV |  | 1 |
| Steradian Semiconductor |  | 4 |
| SWYM |  | 1 |
| Synopsys |  | 8 |
| Tata Steel | 4 |  |
| Tata Unistore Limited |  | 4 |
| Tech Mahindra |  | 3 |
| The Gene Box |  | 1 |
| Times Internet |  | 3 |
| Trumind |  | 2 |
| Verzeo |  | 12 |
| VMWARE |  | 5 |
| Walmart | 6 | 30 |
| WELLS FARGO | 10 | 9 |
| Workex Solutions and Services Pvt. Lmt. |  | 3 |
| WOXEN DIGITAL for MBA | 11 |  |
| ZS Associate |  | 21 |

# Central Instrumentation Facility

**Central Instrumentation Facility**, at BIT Mesra, has been created with an objective of providing a central facility of latest and advanced analytical techniques for research in various areas of science and technology. It houses several highly sophisticated and modern analytical equipments offering its users, a wide range of analytical methods/techniques for chemical/material analysis/testing/characterization enabling them to keep pace with developments taking place globally, publish their research findings in peer reviewed high impact factor journals and through their concerted efforts contribute to the upliftment of the society at large. This facility is extensively used by undergraduate and post graduate students, doctoral research scholars and faculty members. The facility is also extended to external organizations ( Industry, academic Institutions and R & D Labs) on chargeable basis. Presently Research Scholars from Departments of Chemistry, Physics, Civil and Environmental Engineering , Pharmaceutical Science and Technology, Bioengineering, Chemical Engineering and Technology, Mechanical Engineering, Production Engineering, Space Engineering and Rocketry, Hotel Managment and Catering Technology, Electrical and Electronics Engineering, Electronics and Communication Engineering and Remote Sensing are extensively using this facility. This facility is also used for organizing short term courses/ workshops on the use and application of various instruments and analytical techniques.

## Services provided by the CIF

### A. Analytical Services:

i) Sample Preparation: CIF provides facilities and assistance in sample preparation to the users.

ii) Sample Analysis: CIF carries out analysis of samples received from researchers and provides spectra/results of analysis on routine basis.

iii) Testing facility: CIF caries out testing of quality of raw materials and end products for industries.

iv) Water Quality Testing: CIF carries out water quality testing as per the BIS norms.

### B. Short Term Courses/ Training Programmes : The CIF organizes the following types of

Short term courses/Training Programmes / Workshops on application and use of various instruments and analytical techniques for UG /PG students, research scholars, faculty members, teachers and personnel from other academic institutions, R&D Labs and industries. Repair/maintenance and operation of sophisticated instruments for technicians.

### C. Consultancy on analytical problems :

The CIF offers consultancy on solution to analytical problems including development of analytical methods for specific needs, sampling problems, spectrum analysis and interpretation of results etc. as well as on R&D problems/issues.

### D. Repair and maintenance of high end instruments:

The CIF personnel make a concerted effort to develop expertise to repair and maintain the high end instruments available with them.

## Instruments available at CIF:

### A. Spectroscopy:

1. Inductively coupled plasma optical emission spectroscope, (OPTIMA 2100DV ICP-OES), Perkin Elmer, USA.
2. Ultraviolet-Visible Spectroscope, (Lambda25), Perkin Elmer, USA.
3. FTIR Spectrophotometer, Mid IR Range (IR-PRESTIGE 21), Shimadzu, Japan.
4. FTIR Spectrometer, Far & Mid IR Range( L1280044), Perkin Elmer, USA
5. FTIR Spectrometer, Far & Mid IR Range (L1280026, Frontier NIR), Perkin Elmer, USA

6. Color Measurement System, (Colorflex), Hunter Lab, USA.
7. Spectro Fluoro photometer, (RF-5301 PC), Shimadzu, Japan.
8. Nuclear magnetic Resonance Spectroscopy (JNM ECZ400S/LI), Jeol, Japan
9. Dynamic Light Scattering, (NANO ZS), Malvern Instruments, UK.

**B. X Ray Diffraction:**

1. X-Ray Diffractometer (Smart Lab 9KW), Rigaku, Japan
2. Single Crystal X Ray Diffraction, Rigaku, Japan

**C. Microscopy:**

1. Scanning Electron Microscope (SEM), (JSM-6390 LV), JEOL, Japan.
2. Field Emission Scanning Electron Microscope, (Sigma300) CarlZeiss, Germany
3. Atomic Force Microscope , (Solver Pro-47), NT-MDT, Russia.

**D. Thermal Analysis:**

1. Thermo Gravimetric Analyzer, (DTG-60), Shimadzu, Japan.
2. Simultaneous TGA-DTA-DSC, (Discovery SDT 650) Waters, USA
3. Differential Scanning Calorimeter, (Q-10), TA Instruments, USA.
4. Modulated Differential Scanning Calorimeter (Discovery DSC 25), Watrs, USA
5. Thermal Conductivity Analyzer (LFA 467), Netzsch, Germany

**E. Chromatography :**

1. Gel Permeation Chromatograph, Waters, USA.
2. Ion Chromatography (ICS 5000), Thermo Fisher, USA
3. Analytical HPLC (Vanquish), Thermo Fisher, USA
4. Flash Chromatography(Cheetah, MP 200), Bonna Agela, USA
5. Analytical Cum Semi Preparative HPLC (Ultimate 3000), Thermo Fisher, USA
6. High Precision Thin Layer Chromatography, Camag, Switzerland
7. Liquid Chromatography Mass Spectrometry (Ultimate3000, LTQXL), Thermo Fisher, USA

**F. Water and Soil Analysis:**

1. Ion Analyzer(VERSA STAR), Thermo Orion, USA
2. Anodic Stripping Voltammeter, Metrohm, Switzerland
3. Microwave Digestion System, (Multiwave 3000), Anton Paar, Austria.
4. Flame Photometer(CL 378), Elico, India
5. pH Meter ( 2 Star), Thermo Orion , USA
6. Turbidity Meter( AQ 3010), Thermo Orion, USA
7. Conductivity Meter ( 4 Star), Thermo Orion , USA
8. Colorimeter (), HACH, Usa
9. COD Reactor (DRB 200) , HACH, USA
10. Magnetic Stirrer( MCO2), Tarson, India
11. Shaking Incubator, Lab Tech
12. Hot Air Oven
13. Muffle Furnace
14. Centrifuge Machine

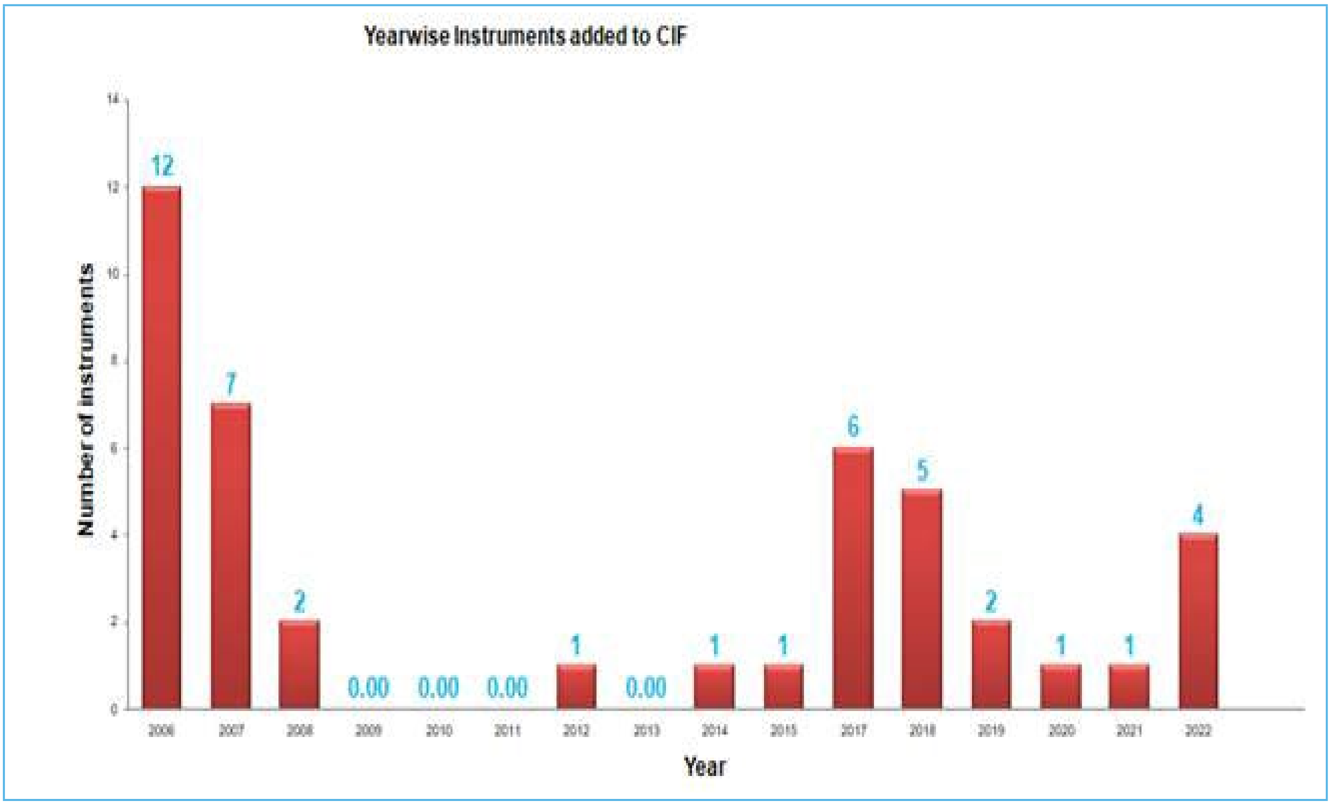
**G. Other Facilities :**

1. Electrochemical analyzer, (680B), CH Instruments,USA.
2. CHNSO Analyzer (Vario EL III), Elementar, Germany.
3. Pulse Analyzer, (OR 38/ ORS), Oros SA, France.
4. Mercury Porosity meter, (PASCAL 440), Thermoelectron, Italy

5. Universal Testing Machine , (8801), Instron, UK.
6. Impedance Analyser, (Alfa ATB), Novocontrol Tech, Germany.
7. Optical Contact Angle (OCA), (OCAH 230), Dataphysics, Germany.
8. Dynamic Contact Angle , (DCAT-21), Dataphysics, Germany.
9. Printed Circuit Board (PCB), (LPKF PCB), Germany.
10. 50. Ellipsometer ( Se MG-VIS) Nano View Inc. , Korea
11. 51. Machine Fault Simulator( MFS2010), Spectraquest Inc., USA
12. 52. BET Surface Area Analyser, Quantachrome Instruments, USA
13. 53. Rheometer(MCR320), Anton Paar, Austria
14. 54. Tribometer(TR 705), Ducom Instruments, Banglore

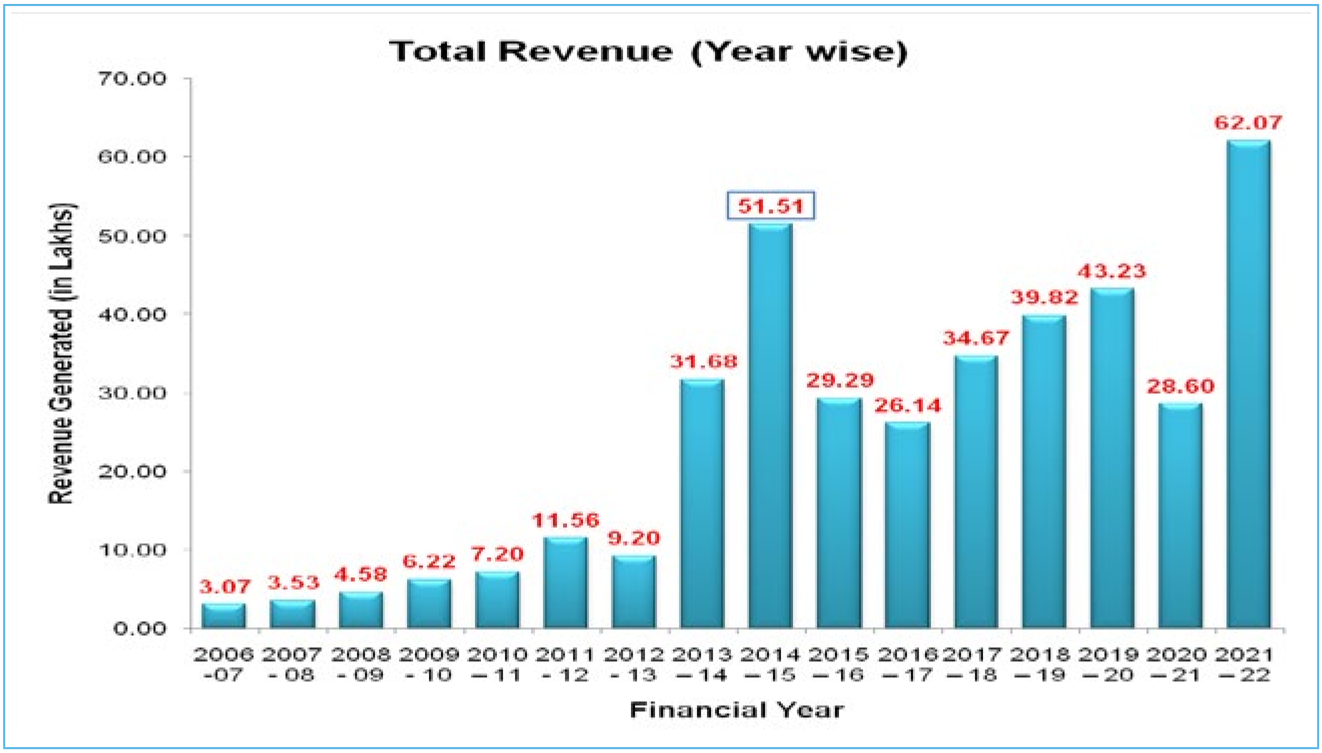
## Procedure for Submission of samples:

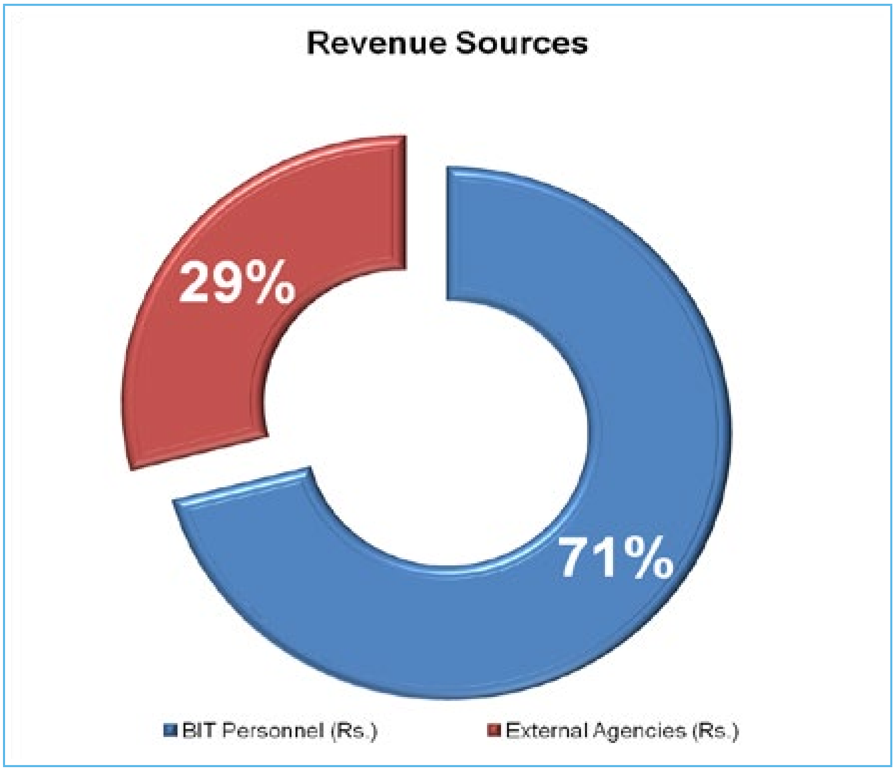
For internal (BIT) samples the student/ faculty member has to fill up the specific form for the instrument, which is then signed by the respective departmental head during submission of the samples. The charges are deducted from the annual research budget of the concerned department or project fund (if any). For outsiders, there will be CGST of 9% and SGST of 9% along with the analysis charges and the payment has to be made in the form of demand draft (DD) drawn in favour of " Birla Institute of Technology " from any Nationalized Bank, payable at Ranchi. For Invoice, user is requested to send/bring a self addressed envelope with stamp of requisite amount.



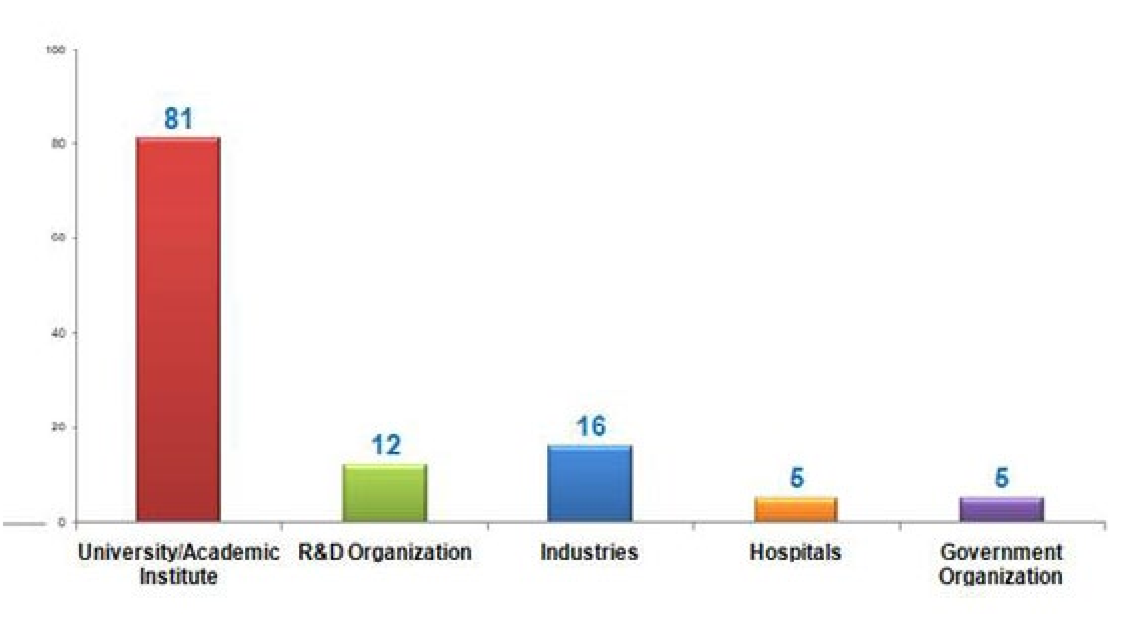
## Revenue Generated:

Total revenue of ₹62, 06,641.00 (Internal; ₹54,82,650.00, Outsider: ₹7,23,991.00) was generated in the FY 2021–22.



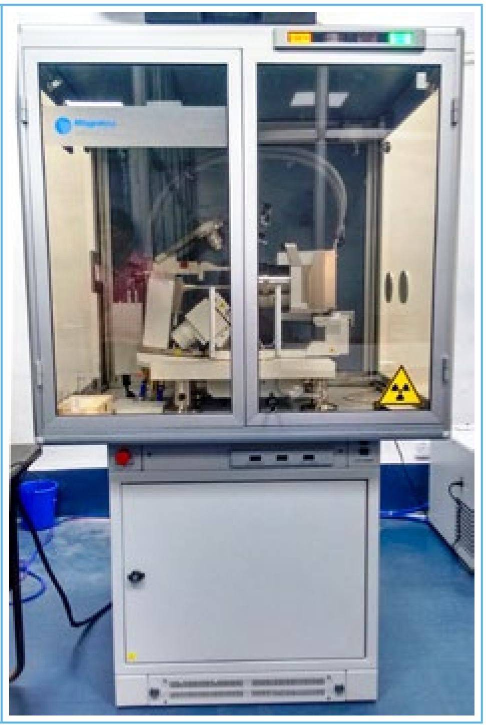


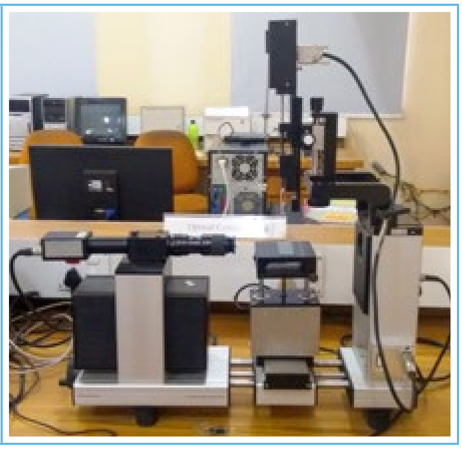
## External Users:



Rigaku
SmartLab

INSTRON
8801





# Central Library

## Introduction

The Central Library strives to evolve into a model and leading technical university library. The library contributes and supports BIT in building an internationally top ranked academic & research driven institution by establishing a knowledge hub. Library has been fully automated with RFID technology using Koha software. The collection comprises of print and electronic documents in the field of basic science, engineering, pharmacy, management, Architecture & Planning and hotel management. Online journals like IEEE, Science Direct, Springer, ABIC, Statista and others subscribed through Institute fund & e-Shodh Sindhu Consortium. E-Library section consisting of a number of networked terminals to access e-journals, e-books and other e-reference resources to the library users under Intranet and Internet environment.

| **Print Books** | | |
|---|---|---|
| Total Volumes | : | 1, 52,149 |
| Total Titles | : | 49,282 |
| Online Books | : | 2, 13,000 |
| **Online Journals, Conference** | | |
| Proceedings, Standards | : | 38,683 |
| Print Journals/Magazine | : | 174 |
| **Print Journals** | | |
| Indian | : | 174 |
| Foreign | : | 00 |
| Magazine | : | 00 |
| Indian | : | 00 |
| Foreign | : | 00 |
| CD/ DVD | : | 4,400 |
| **Bound Volumes** | : | 18,902 |
| **Library home page** | : | http://bitmesra.ac.in/library/default.asp |
| **Library Services** | : | Bibliographic services |
| | | Document Lending Services |
| | | E Document Delivery Services |
| | | Inter Library Loan |
| | | Language Laboratory |
| | | Literature search |
| | | New arrivals |
| | | News clippings |
| | | Off Campus Service |
| | | ON/Offline database search |
| | | Reference |
| | | Referral |
| | | Reprographic |
| **Library Membership** | : | 7,402 |

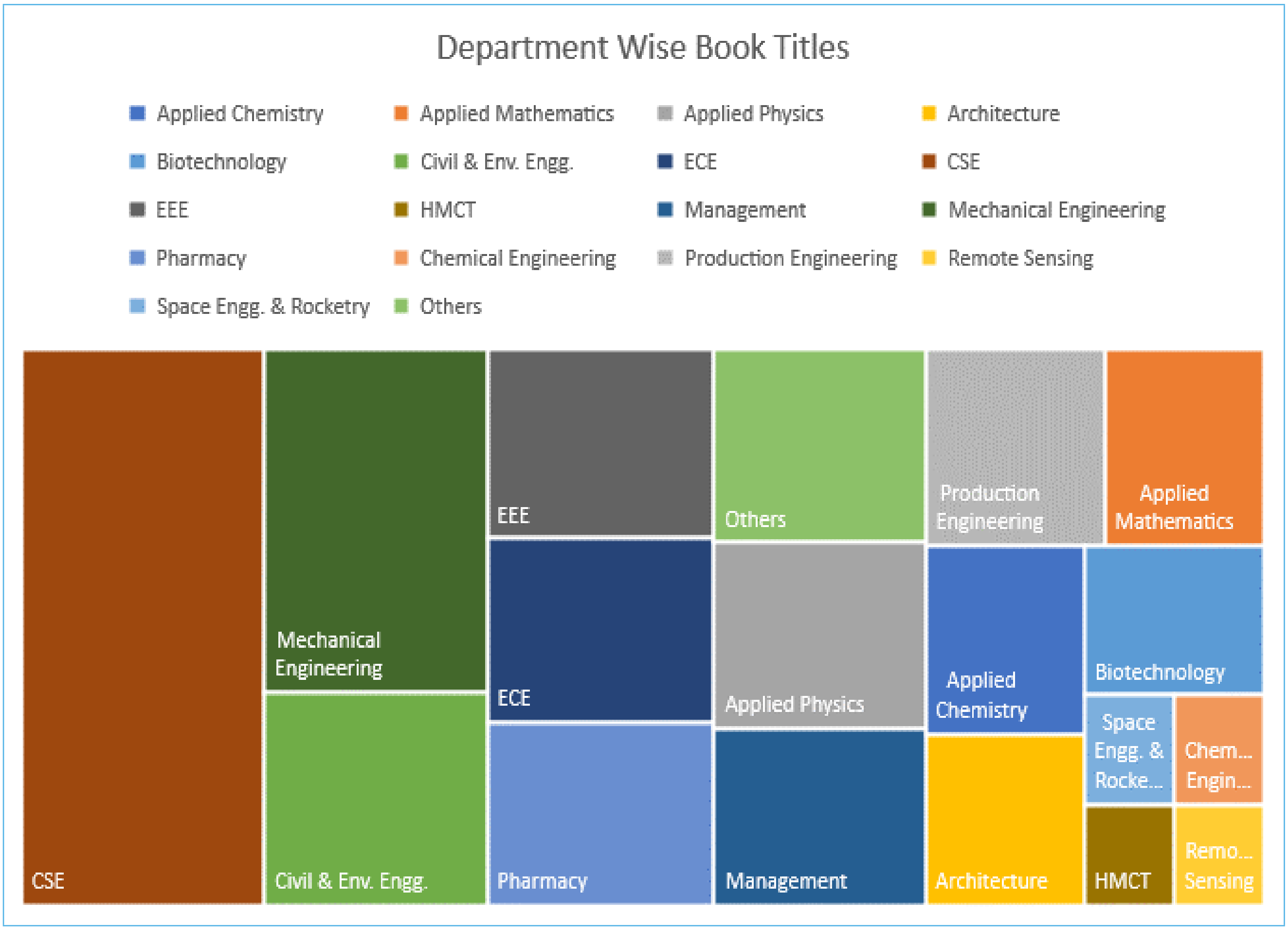
The library serves more than 5000 members, including students, research scholars, faculty, project engineers, and staff.

| Description | No. of Books | Period of Loan |
|---|---|---|
| Teaching Faculty | 08 | One Month |
| Non-Teaching Staff | 04 | One Month |
| All Undergraduate and Post Graduate students | 05 | 15 Days |
| All Undergraduate and Post Graduate SC/ST students | 10 | One Semester |
| All Undergraduate and Post Graduate OBC student | 5 | One Semester |
| Research Scholars | 05 | One Month |
| Books from Textbook Section for All Categories | 1 | 1 Day |

## Library Consortium/Membership

Central library enrolled its membership for following consortium

- e-Shodh Sindhu Consortium
- Shodh Ganga
- NDL India



## Library Statistics

Total Books Added : Title – 43 & Volumes – 359

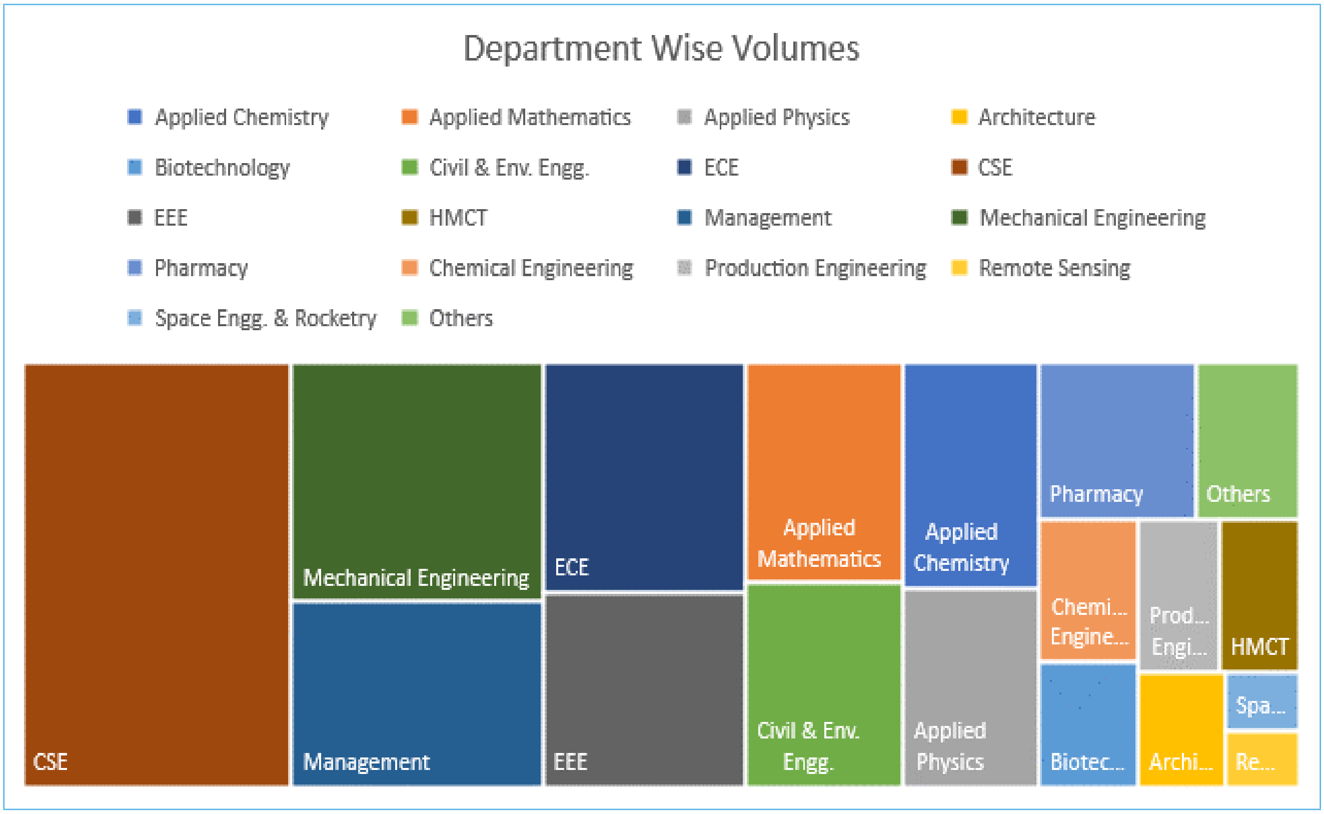
Total Journals Procured : Print – 174 & Online – 38,683

Total Online books Procured : 2,13,000

Total Number of Membership enrolled : 1,055

Total Number of Books Issued : 4,786

Total Number of Books Returned : 5,165



## Details of Online Journals/books/thesis & dissertations

| Sl.No. | Publishers | Web Link |
|---|---|---|
| 1. | ABI/Inform (Management Collection) | http://search.proquest.com |
| 2. | American Chemical Society | http://pubs.acs.org |
| 3. | American Institute of Physics | http://www.aip.org |
| 4. | American Physical Society | http://www.aps.org |
| 5. | Annual Reviews | http://www.annualreviews.org |
| 6. | EBSCO (e-book Academic Subscription) | http://web.ebscohost.com |
| 7. | Economic & Political Weekly | http://www.epw.in |
| 8. | Elsevier's Science Direct | http://www.sciencedirect.com |
| 9. | Chemical Engineering | http://www.sciencedirect.com |

| SI.No. | Publishers | Web Link |
|---|---|---|
| 10. | Chemistry | http://www.sciencedirect.com |
| 11. | Engineering | http://www.sciencedirect.com |
| 12. | Materials Science | http://www.sciencedirect.com |
| 13. | Pharmacology, Toxicology and Pharmaceutics | http://www.sciencedirect.com |
| 14. | Grammarly (Online Grammar & Spell checker) | http://www.grammarly.com/edu |
| 15. | IEEE/IEL Online | http://ieeexplore.ieee.org/Xplore |
| 16. | Project Muse | http://muse.jhu.edu/browse |
| 17. | Springer Link | http://www.springerlink.com |
| 18. | Taylor & Francis | http://www.tandfonline.com |
| 19. | iThenticate **(**Anti Plagiarism Tool) | https://www.ithenticate.com/ |
| 20. | Shodh Shuddhi Resource URKUND **(**Anti Plagiarism Tool) | https://pds.inflibnet.ac.in |
| 21. | Web of Science (Bibliographic Database) | http://apps.webofknowledge.com |
| 22. | RemoteXs | https://bitmesra.remotexs.in |

# Annexure-I : List of Deans and Associate Deans

## Deans

| Sr. No. | Name and Address | Designation |
|---|---|---|
| 1. | Dr. (Mrs.) Vibha Rani Gupta<br>Professor<br>Department of Electronics and Communication<br>BIT-Mesra, Ranchi | Dean of Undergraduate Studies |
| 2. | Dr. (Mrs.) Nisha Gupta<br>Professor<br>Department of Electronics and Communication<br>BIT-Mesra, Ranchi | Dean of Postgraduate Studies |
| 3. | Dr. Kunal Mukhopadhyay<br>Professor<br>Department of Bioengineering and Biotechnology<br>BIT-Mesra, Ranchi | Dean of Faculty Affairs |
| 4. | Dr. Anand K. Sinha<br>Professor<br>Department of Civil and Environmental Engineering<br>BIT-Mesra, Ranchi | Dean of Student Affairs |
| 5. | Dr. C. Jeganathan<br>Professor<br>Department of Remote Sensing<br>BIT-Mesra, Ranchi | Dean of Research, Innovation, Entrepreneurship |
| 6. | Dr. (Mrs.) Manjari Chakraborty<br>Professor<br>Department of Architecture<br>BIT-Mesra, Ranchi | Dean of Infrastructure and Planning |
| 7. | Dr. Sudip Das<br>Professor<br>Department of Space Engineering and Rocketry<br>BIT-Mesra, Ranchi | Dean of Admission, Accreditation and Coordination and Director (Internal Quality Assurance Committee) |
| 8. | Dr. Utpal Baul<br>Professor<br>Department of Management<br>BIT- Mesra, Ranchi | Dean of Alumni and International Relations |

## Associate Deans

| Sr. No. | Name and Address | Designation |
|---|---|---|
| 1. | Dr. Vinod Kumar Nigam<br>Associate Professor<br>Department of Bioengineering and Biotechnology<br>BIT-Mesra, Ranchi | Associate Dean (Student Affairs) |
| 2. | Dr. K. Sridhar Patnaik<br>Associate Professor<br>Department of Computer Science and Engineering<br>BIT-Mesra, Ranchi | Associate Dean (Student Affairs) |
| 3. | Dr. Ritesh Kumar Singh<br>Associate Professor<br>Department of Production and Industrial Engineering<br>BIT-Mesra, Ranchi | Associate Dean (Faculty Affairs) |
| 4. | Mr. Vishal H. Shah<br>Assistant Professor<br>Department of Electronics and Communication Engineering<br>BIT-Mesra, Ranchi | Associate Dean (Alumni and International Relations) |
| 5. | Dr. Sujan Kumar Saha<br>Associate Professor<br>Department of Computer Science and Engineering<br>BIT-Mesra, Ranchi | Associate Dean (Undergraduate Studies) |
| 6. | Dr. Laxmi Narayan Pattnaik<br>Associate Professor<br>Department of Production and Industrial Engineering<br>BIT-Mesra, Ranchi | Associate Dean (Postgraduate Studies) |

# Annexure II

## Board of Governors

| Sr. No. | Name | Official Designation | In the Capacity Of |
|---|---|---|---|
| 1. | Shri C.K. Birla | Chairman<br>CK Birla Group | Chairman |
| 2. | Joint Secretary (CU) | Dept. of Higher Edu.<br>MoE, New Delhi | Member<br>(Nominee of MoE) |
| 3. | Addl. Secretary – II | University Grants Commission (UGC) New Delhi | Member<br>(Nominee of UGC) |
| 4. | Professor. Ajit K. Chaturvedi | Director,<br>IIIT-Roorkee | Member<br>(Nominee of AICTE) |
| 5. | Shri K.K. Khandelwal, IAS | Addl. Chief Secretary<br>Dept. of HTE- GOJ | Member<br>(Ex-Officio) |
| 6. | Shri Nitin Madan Kulkarni, IAS | Pr. Secretary to Hon'ble Governor | Member<br>(Nominee of the Chancellor) |
| 7. | Shri Nitin Madan Kulkarni, IAS | Commissioner<br>South Chhotanagpur, GOJ | Member<br>(Ex-Officio) |
| 8. | Shri Rohit Saboo | M/s. National Engineering Industries Limited | Member<br>(Nominee of the HCT) |
| 9. | Shri S.N. Agarwal | Chairman<br>M/s Bhoruka Power Ltd. | Member<br>(Nominee of the HCT) |
| 10. | Professor. (Dr.) Indranil Manna | Vice Chancellor | Member<br>(Ex-Officio) |
| 11. | Dr. Swapan Kr. Ghorai | Professor<br>Dept. of ELECTRONICS AND COMMUNICATION ENGINEERING, BIT Mesra | Member<br>(Institute Faculty) |
| 12. | Dr. Itu Snigdh | Asst. Professor<br>Dept. of CSE, BIT Mesra | Member<br>(Institute Faculty) |
| 13. | Dr. P. Ghosh | Executive Director<br>BISR | Member<br>(Nominee of GC) |
| 14. | Dr. Arup Roy Choudhury | Pr. Advisor to West Bengal Govt. | Member<br>(Nominee of GC) |
| 15. | Shri Aroop Zutshi | Fremont, CA-94539<br>USA | Member<br>(Nominee of GC) |
| 16. | Shri Y. Goenka | Treasurer Honorary<br>Birla Tower, New Delhi | Special Invitee |
| 17. | Col. Sukhpal Singh (Retd.) | Registrar | Secretary<br>(Ex-Officio) |

# Annexure III

## Academic Council

| Sr. No. | NAME | DESIGNATION | DEPARTMENT | As |
|---|---|---|---|---|
| 1. | Dr. Indranil Manna | Vice Chancellor | | Chairman |
| 2. | Dr. (Mrs.) Nisha Gupta | Dean | Post Graduate Studies | Member |
| 3. | Dr. (Mrs.) Vibha Rani Gupta | Dean | Under Graduate Studies | Member |
| 4. | Dr. Sudip Das | Dean | Admission, Accreditation and Academic Coordination and IQAC | Member |
| 5. | Dr. Utpal Baul | Dean | Alumni and International Relations | Member |
| 6. | Dr. Kunal Mukhopadhyay | Dean | Faculty Affairs | Member |
| 7. | Dr. C. Jeganathan | Dean | Research, Innovation and Entrepreneurship | Member |
| 8. | Dr. Anand Kumar Sinha | Dean | Student Affairs | Member |
| 9. | Dr. (Mrs.) Manjari Chakraborty | Dean and Head of Department | Infrastructure and Planning; Architecture and Planning | Member |
| 10. | Dr. Sanjay K. Jha | Controller of Examinations | Examination | Member |
| 11. | Dr. K. K. Senapati | Controller of Admissions | Admission, Accreditation and Academic Coordination | Member |
| 14. | Dr. Rakesh Kumar Sinha | Professor and Head of Department | Bioengineering and Biotechnology | Member |
| 15. | Dr. Akhil Kr. Sen | Associate Professor and Head of Department | Chemical Engineering | Member |
| 16. | Dr. Ashoke Sharon | Professor and Head of Department | Chemistry | Member |
| 17. | Dr. Sudeshna Chakravarty | Professor and Head of Department | Civil and Environmental Engineering | Member |
| 18. | Dr. Sandip Dutta | Professor and Head of Department | Computer Science and Engineering | Member |
| 19. | Dr. S.S. Solanki | Professor and Head of Department | Electronics And Communication Engineering | Member |
| 20. | Dr. (Mrs.) Sarbani Chakraborty | Professor and Head of Department | Electrical And Electronics Engineering | Member |
| 21. | Dr. S.K. Jain | In-Charge | Hotel Management and Catering Technology | Member |
| 22. | Dr. Shradha Shivani | Professor and Head of Department | Management | Member |
| 23. | Dr. S.K. Jain | Professor and Head of Department | Mathematics | Member |

| Sr. No. | NAME | DESIGNATION | DEPARTMENT | As |
|---|---|---|---|---|
| 24. | Dr. Dipti P. Mishra | Professor and Head of Department | Mechanical Engineering | Member |
| 25. | Dr. Swastika Ganguly | Professor and Head of Department | Pharmaceutical Sciences and Technology | Member |
| 26. | Dr. S.K. Sinha | Professor and Head of Department | Physics | Member |
| 27. | Dr. Joyjeet Ghose | Associate Professor and Head of Department | Production and Industrial Engineering | Member |
| 28. | Dr. Vinay Sharma | Professor | Production and Industrial Engineering | Member |
| 29. | Dr. A.P. Krishna | Professor and Head of Department | Remote Sensing | Member |
| 30. | Dr. Dipti P. Mishra | Professor and Incharge Head | Space Engineering and Rocketry | Member |
| 31. | Professor Soumendranath Sikdar | Actg. Head and Visiting Professor | Centre for Quantitative Economics and Data Science | Member |
| 32. | Mrs. (Dr.) P. Padmanabhan | Professor | Bioengineering and Biotechnology | Member |
| 33. | Dr. Ramesh Chandra | Professor | Bioengineering and Biotechnology | Member |
| 34. | Dr. (Mrs.) Sudipta Goswami | Professor | Chemical Engineering | Member |
| 35. | Dr. Gautam Sarkhel | Professor | Chemical Engineering | Member |
| 36. | Dr. (Mrs.) Usha Jha | Professor | Chemistry | Member |
| 37. | Dr. P.K. Srivastava | Professor | Chemistry | Member |
| 38. | Dr. J.P. Pandey | Professor | Chemistry | Member |
| 39. | Dr. Birendra Kr. Singh | Professor | Civil and Environmental Engineering | Member |
| 40. | Dr. (Mrs.) Bindhu Lal | Professor | Civil and Environmental Engineering | Member |
| 41. | Dr. Rajeev R. Sahay | Professor | Civil and Environmental Engineering | Member |
| 42. | Mrs. (Dr.) Vandana Bhattacharjee | Director Incharge | BIT Lalpur | Member |
| 43. | Dr. Srikanta Pal | Professor | Electronics And Communication Engineering | Member |
| 44. | Dr. S.K. Ghorai | Professor | Electronics And Communication Engineering | Member |
| 45. | Dr. D.K. Mohanta | Professor | Electrical And Electronics Engineering | Member |
| 46. | Dr. T. Ghose | Professor | Electrical And Electronics Engineering | Member |
| 47. | Dr. (Ms.) Vijaya Laxmi | Professor | Electrical And Electronics Engineering | Member |
| 48. | Dr. Soubhik Chakraborty | Professor | Mathematics | Member |

| Sr. No. | NAME | DESIGNATION | DEPARTMENT | As |
|---|---|---|---|---|
| 49. | Dr. S.K. Jain | Professor | Mathematics | Member |
| 50. | Dr. (Mrs.) Manju Bhagat | Professor | Management | Member |
| 51. | Dr. R.N. Bhagat | Professor | Management | Member |
| 52. | Dr. A.N. Jha | Professor | Management | Member |
| 53. | Dr. R.P. Sharma | Professor | Mechanical Engineering | Member |
| 54. | Dr. P.R.P. Verma | Professor | Pharmaceutical Sciences and Technology | Member |
| 55. | Dr. Shiveshwar Jha | Professor | Pharmaceutical Sciences and Technology | Member |
| 56. | Dr. K. Jayaram Kumar | Professor | Pharmaceutical Sciences and Technology | Member |
| 57. | Dr. B.N. Sinha | Professor | Pharmaceutical Sciences and Technology | Member |
| 58. | Dr. (Mrs.) Papiya Mitra Mazumder | Professor | Pharmaceutical Sciences and Technology | Member |
| 59. | Dr. (Mrs.) S.M. Verma | Professor | Pharmaceutical Sciences and Technology | Member |
| 60. | Dr. Venkateshan Jayaprakash | Professor | Pharmaceutical Sciences and Technology | Member |
| 61. | Dr. S. Konar | Professor | Physics | Member |
| 62. | Dr. (Mrs.) Sunita Keshri | Professor | Physics | Member |
| 63. | Dr. Sanjeeb Kr. Rout | Professor | Physics | Member |
| 64. | Dr. Nilanchal Patel | Professor | Remote Sensing | Member |
| 65. | Dr. Vinay Sharma | Director | University Polytechnic | Member |
| 66. | Col. Sukhpal Singh (Retd.) | Registrar | General Office | Member Secretary |
| 67. | Dr. R.C. Jha | Director | Director Off-campus, Deoghar | Member |
| 68. | Dr. Arbind Kumar | Professor | Off-campus, Deoghar | Member |
| 69. | Dr. S.L. Gupta | Professor | Director Off-campus, Noida | Member |
| 70. | Mrs. (Dr.) Asha Prasad | Professor | Off-campus, Noida | Member |
| 71. | Dr. Arbind Kumar | Professor | Director (I/c) Off-campus, Patna | Member |
| 72. | Dr. Balram Singh | Professor | Off-campus, Patna | Member |
| 73. | Dr. Shree Prakash Lal | Professor | Off-campus, Patna | Member |
| 74. | Dr. Abhinav Dinesh | Director | Director Off-campus, Jaipur | Member |
| 75. | Dr. Ganesh Prasad Mishra | Professor | Off-campus, Jaipur | Member |
| 76. | Dr. Roopali Sharma | Professor | Off-campus, Jaipur | Member |
| 77. | Dr. M. Krishna Mohan | Professor | Off-campus, Jaipur | Member |
| 78. | Dr. Laxmi Narayan Pattnaik | Associate Dean | Postgraduate Studies | Special Invitee |
| 79. | Dr. Sujan Kumar Saha | Associate Dean | Undergraduate Studies | Special Invitee |
| 80. | Md. Nadim Quaiser | Assistant Registrar | Academic Programme | Special Invitee |
| 81. | Mr. Rahul Rai | Dy. Registrar | Academic | Special Invitee |
| 82. | Ms. Shruti Sharma | Assistant Registrar | Student's Affairs | Special Invitee |

# Annexure IV

## Finance Committee

| Sr. No. | Name and Address | Designation |
|---|---|---|
| 1. | Shri C.K. Birla<br>Group Chairman<br>CK Birla Group of Companies | Chairman (Ex-Officio) |
| 2. | Professor Indranil Manna<br>Vice Chancellor<br>BIT-Mesra | Member (Ex-Officio) |
| 3. | Professor Jose Varghese<br>Professor of Eminence<br>Christ University (Deemed University) | Member (Nominee of UGC) |
| 4. | Shri Nitin Madan Kulkarni<br>Pr. Secretary to the Hon'ble Governor | Member (Nominee of the Chancellor) |
| 5. | Shri P.C. Agarwala<br>GMMCO Ltd<br>Kolkata | Member (Nominee of the General Council) |
| 6. | Shri Rohit Saboo<br>M/s National Engineering Industries Ltd. | Member (Nominee of Board of Governors) |
| 7. | Shri Y. Goenka<br>Hon. Treasurer | Member |

# Annexure V

## Building Works Committee

| Sr. No. | Name and Address | Designation |
|---|---|---|
| 1. | Vice Chancellor | Chairman |
| 2. | Honorary Treasurer | Member |
| 3. | Registrar | Member |
| 4. | Dr. Manjari Chakraborty<br>Professor and Dean of Infrastructure Planning<br>And Head – Department of Architecture and Planning | Member |
| 5. | Deputy Finance Officer | Member |
| 6. | In-Charge (Construction) | Member |
| 7. | Asst. Registrar (Works) | Member Secretary |

# Annexure VI

## List of Heads / In-charges of Departments

| Sr. No. | Name | Department | Designation |
|---|---|---|---|
| 1. | Dr. (Mrs.) Manjari Chakraborty | Architecture and Planning | Professor and Head |
| 2. | Dr. Rakesh Kumar Sinha | Bioengineering and Biotechnology | Professor and Head |
| 3. | Prof. Soumyendranath Sikdar | Centre for Quantitative Economics and Data Science | Professor and Head |
| 4. | Dr. Ashoke Sharon | Chemistry | Professor and Head |
| 5. | Dr. Akhil Kumar Sen | Chemical Engineering | Associate Professor and Head |
| 6. | Dr. Sandip Dutta | Computer Science & Engineering | Professor and Head |
| 7. | Dr. (Ms.) Sudeshna Chakravarty | Civil & Environmental Engineering | Professor and Head |
| 8. | Dr. Sandeep Singh Solanki | Electronics & Communication Engineering | Professor and Head |
| 9. | Dr. (Mrs.) Sarbani Chakraborty | Electrical & Electronics Engineering | Professor and Head |
| 10. | Dr. Saral Kumar Jain | Hotel Management & Catering Technology | Professor and In-charge |
| 11. | Dr. (Mrs.) Shradha Shivani | Management | Professor and Head |
| 12. | Dr. Dipti Prasad Mishra | Mechanical Engineering | Professor and Head |
| 13. | Dr. Saral Kumar Jain | Mathematics | Professor and Head |
| 14. | Dr. (Ms.) Swastika Ganguly | Pharmaceutical Sciences & Technology | Professor and Head |
| 15. | Dr. Sanjay Kumar Sinha | Physics | Professor and Head |
| 16. | Dr. Joyojeet Ghosh | Production Engineering | Professor and Head |
| 17. | Dr. Akhouri Pramod Krishna | Remote Sensing | Professor and Head |
| 18. | Dr. Dipti Prasad Mishra | Space Engineering & Rocketry | Professor and In-charge |
| 19. | Dr. Gautam Sarkhel | Central Instrumentation Facility | In-charge |
| 20. | Dr. Mahendra Kumar | Physical Education and Sports | In-charge |

# Annexure VII

## Addresses of off Campuses of BIT Mesra

### Deoghar

BIT Mesra, Deoghar Campus, P.O. Ratanpur
JasidihDeoghar – 815142 (Jharkhand)
Phone – 9334654856/9308139037
Telefax: 06432–292565
Email: bitdeoghar@bitmesra.ac.in

### Jaipur

BIT Mesra, Jaipur Campus, 27, Malviya Industrial Area,
Jaipur – 302017 (Rajasthan)
Phone – 0141–4019798/4019819
Fax: 2751601
Email: bitjaipur@bitmesra.ac.in

### Ranchi

BIT Mesra, Lalpur (Ranchi City) Campus
P.O. and P.S. – Lalpur,
Ranchi – 834001 (Jharkhand)
Phone – 0651–2531817/2531676
Fax: 0651–2531686
Email: bitlalpur@bitmesra.ac.in

### Noida

BIT Mesra, Noida Campus
A-7 Sector – 1,
Noida – 201301 (Uttar Pradesh)
Phone –91–0120–2553661
Fax: 91–0120–2554146/5323095
Email: bitnoida@bitmesra.ac.in

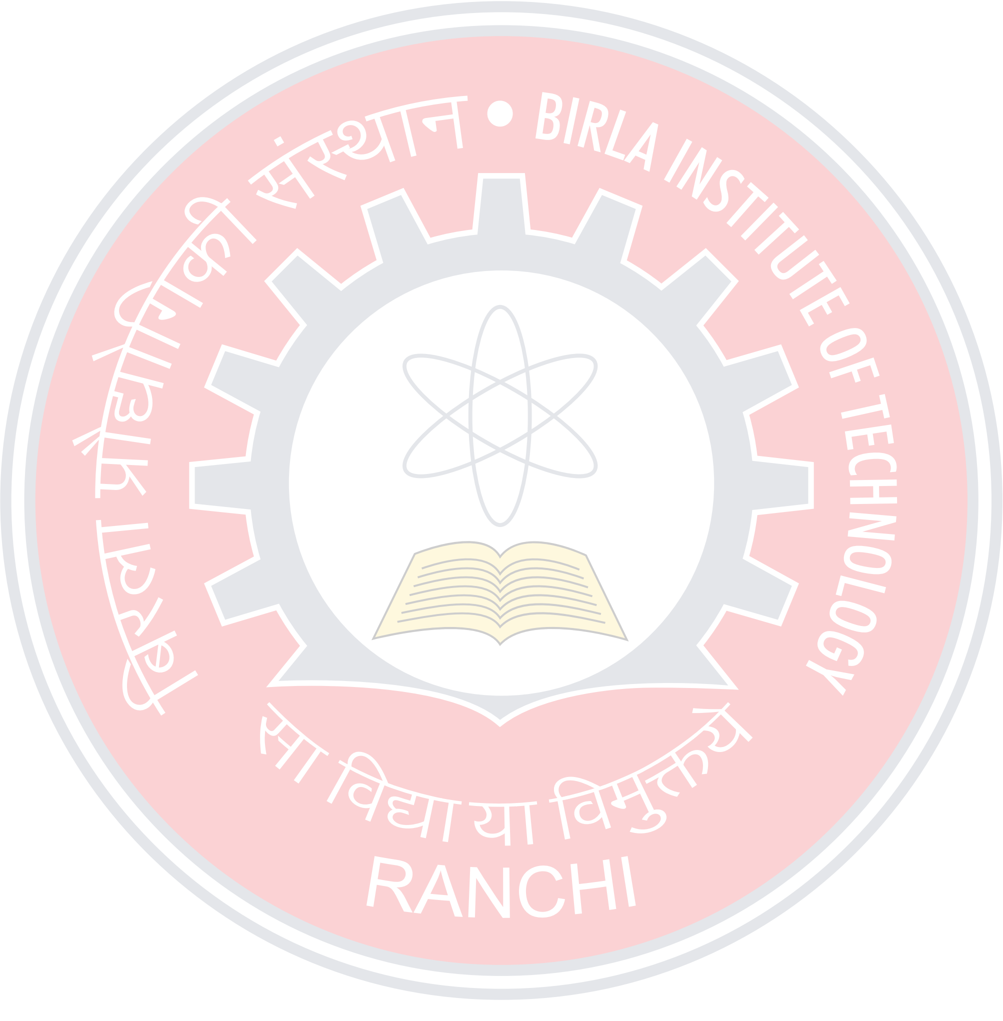
### Patna

BIT Mesra, Patna Campus
Near Patna Airport,
P.O. – Bihar Veterinary Colleger,
Patna – 800014 (Bihar)
Phone: 0612–2223538, 2223545
Fax: 0612–2227050
Email: bitpatna@bitmesra.ac.in

# Annexure VIII

## Internal Complaint Committee

| Sr. No. | Name | Designation |
|---|---|---|
| 1. | Dr. (Mrs.) Papiya Mitra Mazumdar<br>Professor, Dept. of Pharmaceutical Sciences and Technology | Chairperson |
| 2. | Dr. Venkatesan J<br>Associate Professor, Dept. of Pharmaceutical Sciences and Technology | Member |
| 3. | Dr. (Mrs.) Itu Snigdh<br>Asst. Professor, Dept. of Computer Science and Engineering | Member |
| 4. | Mr. Awadhesh Kumar Singh<br>Dy. Comptroller | Member |
| 5. | Mrs. Kaushiki Sengupta | Member |
| 6. | Student Nominees (03) to be co-opted if matter involves students | Member |
| 7. | Mrs. Nidhi Jaiswal<br>Asst. Registrar (Legal)<br>General Office | Member Secretary |


बिरला प्रौद्योगिकी संस्थान • BIRLA INSTITUTE OF TECHNOLOGY
सा विद्या या विमुक्तये
RANCHI