



OFFICE OF THE DEAN OF RESEARCH, INNOVATION & ENTREPRENEURSHIP

BIRLA INSTITUTE OF TECHNOLOGY

MESRA, RANCHI, 835 215, INDIA

(Deemed University u /s 3 of UGC Act 1956)



Annual Report 2020-21 Institutions Innovation Council (IIC, BIT Mesra)

SECTION A

About IIC Institute

INSTITUTIONS INNOVATION COUNCIL BIT MESRA

- **VISION**

To create a vibrant local innovation ecosystem and start-up supporting mechanism in BIT. Prepare institute for Atal Ranking of Institutions on Innovation Achievements Framework. Establish Functional Ecosystem for Scouting Ideas and Pre-incubation of Ideas. Develop better Cognitive and Design Thinking Ability for Technology Students.

- **FUNCTIONS**

1. To conduct various innovation and entrepreneurship-related activities prescribed by Central MIC in time bound fashion.
2. Identify and reward innovations and share success stories.
3. Organize periodic workshops/ seminars/ interactions with entrepreneurs, investors, professionals and create a mentor pool for student innovators.
4. Network with peers and national entrepreneurship development organizations.
5. Create an Institution's Innovation portal to highlight innovative projects carried out by institution's faculty and students.
6. Organize Hackathons, idea competition, mini challenges etc. with the involvement of industries.

- **OUR JOURNEY**

Since our establishment (October 2018), IIC Birla Institute of Technology Mesra, has consistently made the requisite efforts to thrust the innovation and start-up ecosystem amongst the students and faculty. The response of the participants in our informative sessions and events are a testimony to our claims. A separate Deanship has been created for Research, Innovation and Entrepreneurship. Today we are proud of the ecosystem that has been developed in the institute, and we see ourselves growing exponentially in the coming times.



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- **DIVERSITY**

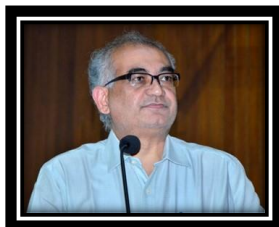
Our team consists of experienced individuals from various departments of our institution. We promote diversity on all fronts, may it be student participation or even the initiatives taken by our esteemed team of faculties. It has involved most of the departments of BIT Mesra and has faculty members from different off campus such as Deoghar, Jaipur, Noida and BIT Lalpur.

SECTION B

Brief mention of key functionaries at the IIC Institute

Members of IIC

Chief Mentor- Prof. Indranil Manna
Vice Chancellor, BIT Mesra



- **President: -Dr. C. Jeganathan**



Professor (Remote Sensing) and Dean [DRIE]
M.Sc. (Physics), M.Sc. (Geoinformatics, Netherlands), Ph.D. (Forest Geoinformatics),
Post.Doc (UK)



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- **Vice president – DR.A.K. SINHA**



Professor Civil & Environmental Engineering and Dean [Student's Welfare]
B.Tech. (IIT, BHU), M.Tech. (IIT, Kharagpur), Ph.D. (IIT, Kharagpur)

- **Convener – Dr. Ritesh Kumar Singh**



Associate Professor Production Engineering and Associate Dean [FA&SR],
Ph.D., M.E. (AMS), B.E. (Ind. Engg.)

- **IPR -Activity Co-ordinator- Dr. S. K. Rout**



Professor, (Physics)
M.Sc., Ph.D.



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- **Start-Up activity Co-ordinator– Mr. Vishal H. Shah**



Assistant Professor Electronics and Communication Engg and Associate Dean [A&IR]
M.Tech

- **NIRF Coordinator- Dr. Sudip Das**



Professor Space Engineering and Rocketry and Director [IQAC]
Ph.D. (BIT Mesra)

- **ARIAA Coordinator – Dr. Priyank Kumar**



Assistant Professor Space Engineering and Rocketry
Ph.D. (BIT Mesra)



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SECTION C

Portfolio/graphical/Tabular representation of Resource strength (human capital and Physical capital) of the IIC institution

Description	No.
Total number of IIC Members	37
Total number of Innovation Ambassadors	13
Total number of faculty Mentors	24

SECTION D.

Highlight Facilities, Infrastructure of Pre-Incubation & Incubation kind and Student bodies/clubs engaged in promotion of Innovation and Entrepreneurship in the campus.

1. The Entrepreneurship Development Cell (EDC), a student club, was set up in year 2007 and has been working for this very purpose. Its sole objective is to give a platform to the ideas, and early-stage start-up(s) that come up in the college and provide proper channels to support their growth. Currently EDC BIT Mesra has a student body of 118 Members including 32 Executive member. Every year EDC holds a series of guest lecture and webinars to promote innovation, entrepreneurship in campus.
2. The E-Summit (i.e., Entrepreneurship-Summit) is organized by the EDC every year to encourage entrepreneurial thinking in the college, through its events, and provide a stage to the budding start-up(s).
3. A key event to mention is the flagship, B-Plan event of the E-Summit, where the club partners with Ventur Capitalist and Angel Investors, with an aim to give the young entrepreneurs a chance to display their brilliant ideas and efforts and receive initial funding. **It is one of the biggest B-Plan events in Eastern India.**
4. Other events, which are organized throughout the year, and not necessarily limited to the E-Summit include workshops on the fields of entrepreneurship, finance etc. and interactions with industry giants.



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SECTION E.

Highlight Achievements (Narrative/Graphical/tabular representation).

BIT has fostered innovation in every domain of the technology. In the past, 19 Patents were received by the institution. Also, we have seen multiple ventures established by our students. We had students venturing into entrepreneurial space in the field of media, ed. tech, game-tech etc. Few names are Floxus, Rubrix, Adman, tipoff, and many others.

Name of Startup	Founder	Start-up Domain and Achievements
Floxus	Utkarsh Mishra(IMH/10051/17) Hrithik Shubham(IMH/10064/17)	Ed-Tech; It has raised a seed fund of INR. 2500000/- from angel investor.
Rubrix	Anushk(BTECH/10496/19)	Content Marketing, Provided content support to more than 20 corporate clients.
Adman	Abhiram Chakka(BE/10664/17)	Advertisement and Brand marketing
Tipoff	Soham (BTECH/10596/19)	Content and Newsletter
Psyberduck	Vibhu Bhatia(BTECH/10669/18)	Web Services, supported 25+ companies in their tech end.
ReVeD	Aman Shrivastava(Btech/10573/19)	Online Gaming
Finess	Soumya Agarwal(BTECH/10673/19)	Internships, Helped more than 1000 students to get industrial internships.
ShapeAI	Ashish Modi(BTECH/10387/18)	Ed Tech startup with user acquisition of more than 100,000 users.



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SECTION F.

Highlight few best IIC Faculty/Student members and their achievements/Rewarded for the innovations at different forum).

1. Vishal H. Shah is an innovation ambassador and has conducted innovation contests. He established the first Entrepreneurship community.
2. Dr. Manish Kumar conducted innovation contests for 2019. He is a motivational speaker and innovation ambassador.
3. Dr. S.K. Rout is an innovation ambassador and has supported many startups to grow in their early stage.
4. Dr. Ashoke Sharon has supported IIC BIT Mesra from its very beginning. His guidance has played a vital role in nurturing startups in BIT Mesra.
5. Dr. Priyank has always been an active mentor for startups in BIT Mesra. His able guidance has inspired many to achieve their goals in their ventures.

SECTION G.

Highlight selected best Innovations & images with mention of inventor/innovation name

Institute Innovation contest was organized by IIC between 1st December 2020 and 12th Jan 2021. Total nine PoCs were submitted by the student, out of which top three were selected, the details of which are as follows

1. Cry Care: Saving New-born lives at birth through Artificial Intelligence
Team Leader: Aastha Singh (BTech/10007/18)
2. Ergonomic Ground Chair for Bangle-Makers and Vegetable Sellers of India
Team Leader: Utkarsh (BTech/10067/18)
3. Patient Management and Extensible Diagnosis System (P MEDS)
Team Leader: Atulya Arya (BTech/10113/18)



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SECTION H.

Highlight selected start-ups established by students/faculties with mention of founder/co-founder name

The following are some of the most recent startups to have come out of BIT Mesra:

- A. Floxus: An Ed-Tech Startup, Founded by Utkarsh Mishra, Hritik Shubham and Nagendra Kumar.
- B. ResearchINT: A service-based startup founded by Ankur Gupta and Sharwadi Shatank
- C. PsyberDuck: Software based Startup founded by Vibhu Bhatia, Tanay Goel and Arpit.
- D. Rubrix: Infotainment startup, Founded by Anushk and Somaditya Singh
- E. Tipoff: Finance based startup, founded by Soham Roy.
- F. ReVed: A gaming startup, founded by Aman Shrivastava
- G. Dexignko: An UI/UX based startup, Founder Hridesh Singh

Name of Startup	Founder	Roll No.	Department	Year of Establishment
Floxus	Utkarsh Mishra	IMH/10051/17	Mathematics(M&C)	2020
Rubrix	Anushk	BTECH/10496/19	Electronics and Communication Engineering	2020
Tipoff	Soham Roy	BTECH/10596/19	Chemical Engineering	2019
Dexignko	Hridesh Singh	BTECH/10465/19	Civil Engineering	2021
Externship Now	Anil Kumar	IMH/10047/16	Mathematics(M&C)	2018
ReVed	Aman Shrivastava	BTECH/10573/19	Chemical Engineering	2019



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PsyberDuck	Vibhu Bhatia	BTECH/10669/18	Computer Science Engineering(IT)	2020
Name of Startup	Founder	Roll No.	Department	Year of Establishment
ResearchINT	Sharwadi Shatank	BTECH/10280/18	Biotechnology	2021
AdMan	Abhiram Chakka	BE/10664/17	Biotechnology	2018
Finess	Saumya Agarwal	BTECH/10673/19	Computer Science Engineering(IT)	2020
ShapeAI	Ashish Modi	BTECH/10387/18	Computer Science Engineering	2020

SECTION I.

List of any breakthrough Innovations / Technology Developed at the institute (2-3 technology with 2-3 lines about technology and innovation)

About Technology /Innovation

Technology has become backbone of corporate sustainability after the pro-market reforms due to immense competition. With rising complexity and globalization, technology has gained overriding objective in the fast-changing competitive environment. In the contemporary business environment latest technology is imperative for maintaining quality standards in order to remain in the business where as Technological innovation comprises activities that contribute to the research, development and design of new products, services or techniques, or to improving existing products, and generates new technological knowledge which potentially results in a better business model.

Some of the technology /innovation developed by students of BIT Mesra are listed below.

1. Wastewater management: Guar Gum Grafted Itaconic Acid: A Solution for Different Wastewater Treatment. synthesis of a novel Guar Gum (GG) based flocculant by grafting it with Itaconic Acid (IA) using microwave irradiation technique by Arti Mahto & Sumit Mishra (Department of Chemistry, BIT Mesra)



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2. Chemistry: Intramolecular cyclization to fused pyranoisoxazoles and molecular packing motifs identification through X-ray structural studies by Sarika Verma and Ashoke Sharon(Department of Chemistry, BIT Mesra)
3. Chemistry: Synthesis, characterization and photovoltaic studies of 2,2';6',2''-terpyridine-based ruthenium complexes with phenylamino, anthranyl and furfuryl substitutions at the 4'-position by Binitendra Naath Mongal(Department of Chemistry, BIT Mesra)

SECTION J.

Participation of IIC-institute in various programs of Central and Stage Govt.

Smart India Hackathon is a nationwide initiative to provide students with a platform to solve some of the pressing problems face in our daily lives, and thus inculcate a culture of product innovation and a mindset of problem-solving. It's a open platform for the innovators or entrepreneurs of tomorrow to start today towards a smarter India

Some of the students participated in SMART INDIA HACKATHON (SIH) 2020 which was held on 1st, 2nd& 3rd August 2020.

The list of students as follows.

SL No.	Name of the Students	Team Name	Certificate Attached
1	Abhilasha Sinha	Ctrl Alt Elite	Annexure 1.1
2	Aryan Khandelwal	Ctrl Alt Elite	Annexure 1.2
3	Rohan Nishant	Ctrl Alt Elite	Annexure 1.3
4	Kumar Shrey Rai	Ctrl Alt Elite	Annexure 1.4



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Annexure 1.2



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Annexure 1.3





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Annexure 1.4

9/15/2020 <https://micds.aicte-india.org/cert-module/templates/participation/member-certificate-download.php?tid=3554&&member=m4>

Organisers MHRD MIC AICTE Persistent SIH | Platinum Partner aws

Certificate of PARTICIPATION

This Certificate is awarded to

Kumar Shrey Rai

of team Ctrl Alt Elite

for participating in

"Smart India Hackathon 2020"

SMART INDIA HACKATHON 2020
SOFTWARE EDITION
Grand Finale
1st, 2nd & 3rd Aug. 2020

Dr. Anil D. Sahasrabudhe
Chairman, AICTE
Chairman, Organizing Committee,
Smart India Hackathon 2020

Dr. Abhay Jere
CEO, MIC, MITRD
Organizing Committee,
Smart India Hackathon 2020

Dr. Anand Deshpande
Chairman and MD, Persistent Systems
Co-Chairman, Organizing Committee,
Smart India Hackathon 2020

Sh. Amit Khare
Secretary, Higher Education
Ministry of Education
Government of India

Certificate Umid: 138258

Partners CISCO **DEVNET** intel **KPIT** | Communication Partner uma | Media Partner



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SECTION J

Webinar Conducted by IIC

SI No	Name of the Webinar	Date of Webinar	Webinar Pictures
1	Institution Innovation Connects for addressing the socio-economic challenges of nations	25 th Nov 2020	
2	National Education Policy -Innovation & Entrepreneurship	27 th Nov 2020	





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3	Creating, building & Transforming business & people opportunity for early-stage Entrepreneurs	21.06.21	
4	Webinar on Emotional Intelligence -How Emotions Drive Innovations	27/06/21	




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5	Machine Learning Engineering Solutions for end-to-end product creation: Computer Vision & E-commerce case studies.	12.06.21	
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SI No	Name of the Event	Date of Event	Event Pic
1	Institute Innovation Contest 20	15 th -21 Dec 20	
2	Innovation Contest and exhibition		<p>नवोदय विद्यालय में लगायी गयी विज्ञान पदर्शनी, विद्यार्थियों को मिली अहम जानकारी</p> <h2>बच्चों को इनोवेशन के प्रति प्रेरित किया</h2> <p>संवाद रिपोर्टर @ रंजी</p> <p>मानव संसाधन एवं विकास मंत्रालय और आइआईटी (इंस्टीट्यूट इनोवेशन सेल) के तत्त्वधान में बीआईटी मेसरा गैंगोटिस विभाग ने विद्यार्थियों को नवे प्रयोग के गुर सिखाये. यह अवॉजन सेमिनर को जखार नवोदय विद्यालय मेसरा में हुआ. इसका उदेश्य था कि बच्चों में इनोवेशन के प्रति लालक बढ़े. इस दौरान गैंगोटिस के प्राध्यापकों ने बच्चों को गैंगोटिस विभाग के शोध कार्य से स्बन्धक करवाया. साथ ही उनमें छिपी हुई वैज्ञानिकता को जगाने की कोशिश की. प्रोफेसर डॉ अरुण दत्तल ने बच्चों को आवश्यकता ही आविष्कार को जन्म देते हैं की धीप पर अहम जानकारी दी. उनकी विद्वानता का महत्व समझाया और वैज्ञानिक अध्ययन के लिए प्रेरित किया. गैंगोटिस क्लब ने गैंगोटिस शैली में कई खरकन माइलस को पेश किया.</p> <p>एप्रिओन क्लब ने छात्रों को ऑन टैन इलेक्ट्रिकल कोकन को जगन करी है. आज वैज्ञानिक डॉ एरिने अदुल कलाम की जयंती है. इस अवसर पर देशभर में इनोवेशन कार्यक्रम का अवॉजन किया जा रहा है. कार्यक्रम का समान नवोदय विद्यालय मेसरा के प्राध्यापक डॉ डीके मोदी ने किया. इस दौरान विद्वान प्रदर्शनी भी लगायी गई.</p>



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SECTION K

Detail of Social Media & Connections of IIC institute:

- a. <https://www.linkedin.com/company/edcbitmesra/>
- b. <https://www.instagram.com/edcbitmesra/>
- c. <https://www.facebook.com/edcbitmesra/>

SECTION L.

Testimonials from IIC members and external about IIC institute and IIC of MoE's Innovation Cell

- IIC's well defined calendar of activities truly helped in building an innovative atmosphere in our college and even during covid-19 pandemic period, lot of events were organised which helped students and faculty a lot
 - Dr. C. Jeganathan(DRIE, BIT Mesra)
- The events conducted by IIC in our college helped a lot in promoting the entrepreneurship spirit among students and motivated all of us to work on ideas.
 - Mr. Vishal H. Shah (Startup Activity Coordinator, IIC BIT Mesra)
- Many of us started working on our own ideas after collaboration with IIC and the activities conducted by IIC throughout the year are a great help in refining our ideas at each and every stage.
 - Anushk(Founder, Rubrix)
- Webinars by experts conducted through support of IIC were very beneficial for me as they helped me gain insights from the corporate world and helped me understand how things function in big companies.
 - Jasleen Kaur(Pre-Final Year, Chemical Engineering)



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SECTION M. IMAGES

Entrepreneurship Development Cell, BIT Mesra
18 Nov 2020

"Innovation comes out of great human ingenuity and very personal passions."

Entrepreneurship Development Cell, BIT Mesra will... See More

Entrepreneurship Development Cell, BIT Mesra
26 Feb

Entrepreneurship Development Cell BIT Mesra in association with Institution's Innovation Council, brings a workshop on 'Amalgam... See More

Entrepreneurship Development Cell, BIT Mesra
28 Feb

Entrepreneurship Development Cell, BIT MESRA in association with the Institution's Innovation Council, is organizing a workshop... See More

Entrepreneurship Development Cell, BIT Mesra is with Dharani Deiveegan.
15 Mar

When you read new books, you broaden your thinking horizons and enrich your perspectives. Don't limit your bookshelves to just... See More



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Entrepreneurship Development Cell, BIT Mesra
31 Mar · 🌐

IBM-ICE: New Age Technology Skills

Innovation and Entrepreneurship often go hand in hand. Realizing the growth potential in t... See More

Entrepreneurship Development Cell, BIT Mesra
10 Apr · 🌐

Innovation is the specific instrument of entrepreneurship. The act endows resources with a new capacity to create wealth. To in... See More

Entrepreneurship Development Cell, BIT Mesra
17 Jun · 🌐

"Entrepreneurship and Innovation are two sides of the same coin."

With a common goal of fostering an inclusive entrepreneuri... See More

Entrepreneurship Development Cell, BIT Mesra
8 Jul · 🌐

Entrepreneurs must ask themselves, "Should this product be built?" rather than "Can this product be built?"

Building a lean s... See More

Entrepreneurship Development Cell, BIT Mesra
14 Aug · 🌐

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

Entrepreneurship Development Cell, BIT Mesra
22 Aug · 🌐

Entrepreneurship Development Cell BIT Mesra is feeling honoured and excited to host Mr Nitin Jain, CEO & Co-Founder of Indibn... See More



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SECTION N. CONTACT DETAILS

Dr. C. Jeganathan
Professor & Dean(RIE)

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