

Birla Institute of Technology Mesra Off Campus Jaipur

Topic: Rekindling Aspirations and Ambitions at BIT Jaipur Off Campus

Head Talk
Dr. Peeyush Tewari
Director (Acting),
Off Campus Jaipur





Vision

To become a Globally Recognized 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.



The Off Campus Jaipur

Birla Institute of Technology Mesra, Jaipur Off-Campus is an integral part of BIT Mesra, Ranchi 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 programs & practices. With excellent performance, progressive mind set and good will earned, it is today one of the leading institutes in the field of Engineering, Applied Sciences and Management. The campus is located in southern-east part of Jaipur in institutional, Industrial and business hub within 5-7 km Airport, Railway station and bus stand.





Achievement of Jaipur Campus

Academic

- Webinar/Seminar in the current topics by eminent experts
- Summer training in collaboration with BISR
- Innovators Talk on upcoming Technical topics
- Entrepreneurship development
- Placement









Administrative

- Appointment of Dr. Peeyush Tewari as Director (Acting)
- Three AR joined Jaipur Campus

Dr. Pramod Bubna

Mr. S. P. Mishra

Mr. Sanjay Shukla

 Visit of Medical Professional thrice a month for 2 hours is started for staff and students counselling and health checkup

Infrastructure

- Faculty sitting /IQAC room
- Admission Room Facility
- Extension of canteen with double sitting capacity
- Temple area renovation
- Boys and girls sitting room (128 sq meter for each)
- Renovation of Gym
- New lab for Engg. Graphics is developed
- 30,000 sq feet area developed



PROGRAMS OFFERED

PROGRAM	INTAKE	Starting Year
• B.TECH. IN COMPUTER SCIENCE AND ENGINEERING	60	2004
• B.TECH. IN ELECTRONICS & COMMUNICATION ENGINEERING	60	2004
• B.TECH. IN ELECTRICAL & ELECTRONICS ENGINEERING	60	2010
• BACHELOR OF BUSINESS ADMINISTRATION (BBA)	60	2002
• BACHELOR OF COMPUTER APPLICATIONS (BCA)	60	1999
 BACHELOR OF ANIMATION AND MULTIMEDA (BAM) 	45	2005
 MASTER OF COMPUTER APPLICATIONS (MCA) 	45	1997
MASTER OF MANAGEMENT (MBA)	60	2005
• MASTER OF DESIGN (MAD)	10	2009

• Ph.D. PROGRAM



Academic Programme

- Undergraduate:
- Bachelor of Technology (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:
- MBA, MCA, & M.Sc. Animation Design
- **Doctoral:** Ph.D. Programme in Computer Science Engineering, Electrical & Electronics Engineering, Management, Animation and Basic Sciences (Physics, Chemistry & Mathematics), **Biotechnology and Remote Sensing.**



Infrastructure

Main Block

- Director Room
- Class rooms
- Labs
- Faculty rooms
- Reading room
- Office
- Accounts















Inner Quadrangle

- Gym
- Music Room
- Mandir
- Parking















- Library
- Electrical Machine Lab
- Admission Cell















Block 3

- Animation Department
- Workshop
- Carpentry
- Spiritual Park
- Staff Quatres
- Student Reading room















Library

Library at BIT Off-Campus Jaipur encourages its members to enjoy and use all the available resources like

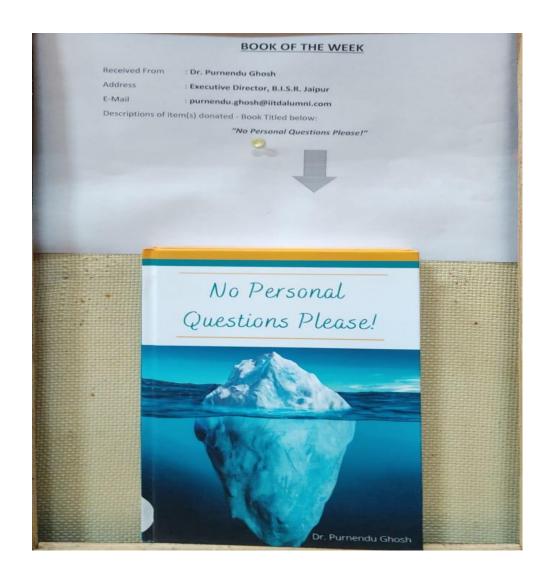
- Course Books
- Reference Books
- Technical & Scientific Journals
- Latest Magazines
- Newspapers
- Digital Library facility to access online resources.

The library has a unique Book-Bank facility where members can keep the prescribed text / course books for the entire semester at a very nominal cost (25%). The entire library facility has been upgraded to digital cataloging using KOHA software since July'22 and till now data of more than 65% of the books have been migrated to Integrated Library System (ILS) and marked with the digital bar-code. Around 29000 books, with over 3600 unique book for Engineering, Animation & Multimedia, and Management streams with to 16 Journals subscription and 15 magazines local & national and newspapers for the benefit of the members.



Library: Book of the Week

- The Library & the Institute is also a members of various professional societies namely National Digital Library of India (NDLI), Computer Society of India (CSI), Institute of Engineers (IE), IEEE, etc. that provides vast exposure in the field of science and technology.
- Under NDLI Club, the library is actively performing various activities at global & local levels, few of which (local events) are as detailed below:
 - Poster Making, Case Study, NDLI Quiz, Short Movie Critique, Essay Writing etc.





Library and Digital Library



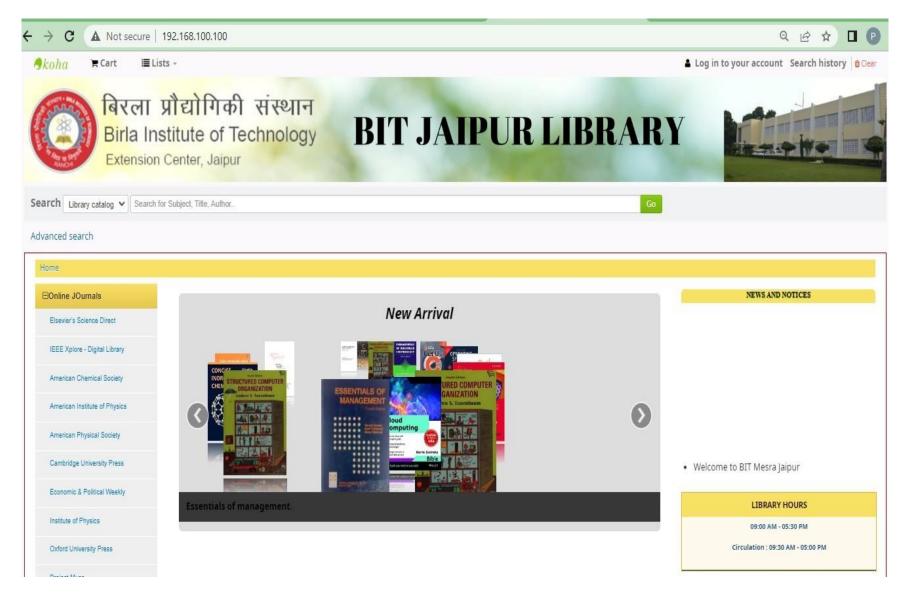








Web Access to the Library Members





Canteen





FACULTY MEMBERS

Faculty: 50, Assistant Registrar: 03, Account Officer: 01 & Staff 63

Department	Professor	Adjunct professor	Associate Professor	Assistant Professor	Associate Lecturer	Others	Total
CSE			2	12	1	1	16
ECE				6			06
EEE				3			03
Mechanical				1		2	03
Management	2		1	3	3		09
Physics				2	1		03
Chemistry				1			01
Mathematics			1	2			03
Animation				4	1	1	06
Bio Tech.	1			2		1	04
Remote Sensing		1				3	04



PUBLICATIONS & SPONSORED PROJECTS

Department	Journal Publications (last five years)	Conferences (last five years)	Books/ Book Chapters (last five years)	Patents	Projects completed	Projects Ongoing	Projects Applied (last one years)
CSE	22	5	3	1	1	1	
ECE	10			1			
EEE	9	9	3	2	1		
Management	30	6	2		2		2
Physics	10	2	1	2	1		
Chemistry	2						
Animation	4	10			2		
Bio Tech.	25			1		6	
Remote Sensing	20				3		
Total	132	32	9	7	10	7	2

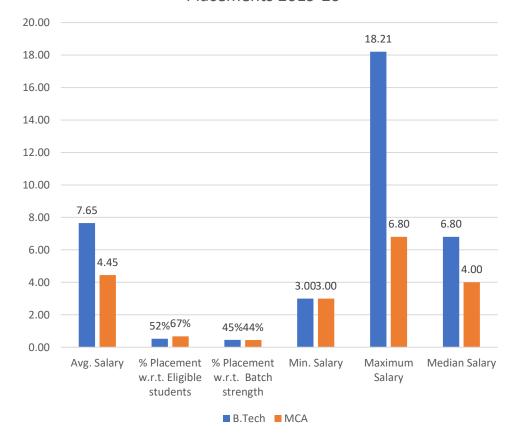


PLACEMENT

Placements 2019-20

	BTech	MCA
Avg. Salary	7.65	4.45
% Placement w.r.t. Eligible students	52%	67%
% Placement w.r.t. Batch strength	45%	44%
Min. Salary	3.00	3.00
Maximum Salary	18.21	6.80
Median Salary	6.80	4.00

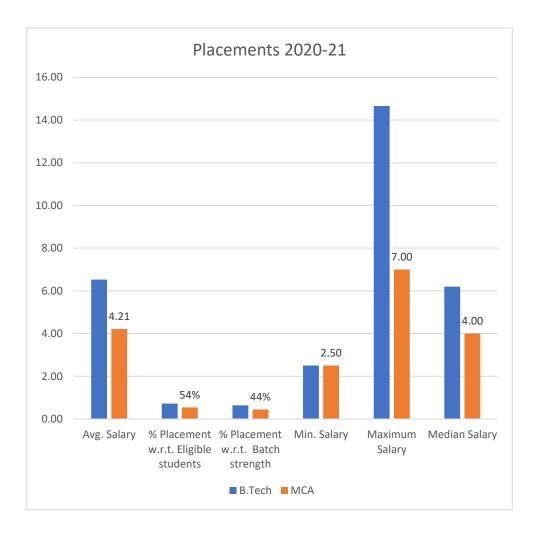
Placements 2019-20





PLACEMENT

Placements 2020-21		
	BTech	MCA
Avg. Salary	6.53	4.21
% Placement w.r.t. Eligible students	72%	54%
% Placement w.r.t. Batch strength	64%	44%
Min. Salary	2.50	2.50
Maximum Salary	14.66	7.00
Median Salary	6.20	4.00

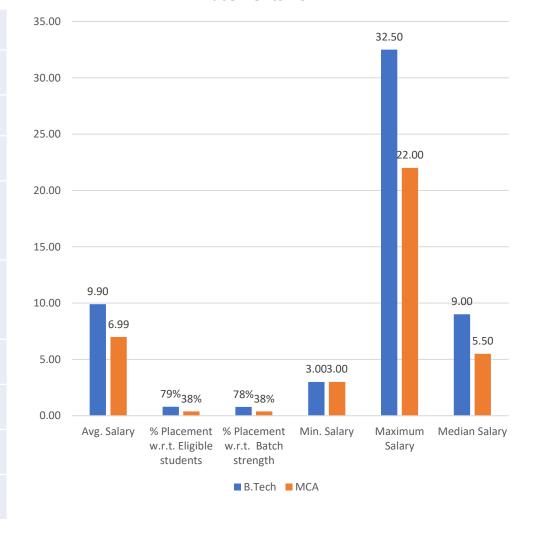




PLACEMENT

Placements 2021-22		
	BTech	MCA
Avg. Salary	9.90	6.99
% Placement w.r.t. Eligible students	79%	38%
% Placement w.r.t. Batch strength	78%	38%
Min. Salary	3.00	3.00
Maximum Salary	32.50	22.00
Median Salary	9.00	5.50

Placements 2021-22





Recruiters of BIT Jaipur

adani	amadeus [*] Your technology partner	amdocs	AU SMALL FINANCE BANK verit surch suig
AUTODESK.	BYJU'S THE CONTINUE AND	CELEBAL TECHNOLOGIES	cognizant intuition engineered
Collabera ©	Condé Nast	2 daffodil	docquity
Building a better working world	## ERICSSON	FEDERAL BANK YOUR PERFECT BANKING PARTNER	FCO _a Decisions
Futures First	GEMINI SOLUTIONS	genpact Transformation Roppens Here	gsk GlaxoSmithKline
Hashedin by Deloitte	Maps for Life	Set yourself free	SOLUTIONS



Recruiters of BIT Jaipur

Recruiters of BIT Jaipur

INFO	Infosys®	 Infrrd	interra	pwc	Reliance	SAPERP	SIGMOID
JUSPAY	KMK Consulting	KPING cutting through complexity	Lowe's	simplilearn Get Certified. Get Ahead.	SYNORIQ **SYNORIQ **SANORIQ** **SANORIQ**	TATA CLiQ	Tech Mahindra
MAQ Software	MAXVAL	Mind <i>Tickle</i> .	Healthcare Inspire Transform Transcend	TEG[ANALYTICS]	vm ware	vodafone	wipro
nbc flexible solutions	NOMURA Connecting Markets East & West	NUCLEUS SOFTWARE	[] ONEPLUS	Microsoft	amazon	mi xiaomi	⊗YAMAHA
ORACLE	Persistent	Pinnacle INFOTECH	PORTER — good for goods —	ZS	ZYCUS COGNITIVE PROCUREMENT	VÖYLLA" FASHION JEWELRY	TRACTION AND On Demand



Alumni

Anshul Dhawan	LEAD PRODUCT MANAGER AT ZYNGA, US
Charu Pandey	SENIOR ASSOCIATE AT SAPIENT
Siddharth Sharma	Indian Army
Arvind Kumar	Assistant Engineer Jaipur Vidyut Vitran Nigam Ltd - Rajasthan
Aashish Singh	Program Director - Digital Transformation and Services Transition, at HCL America Inc
Harshit Malaviya	Deputy Vice President -Commercial Banking & Government Banking at AU SMALL FINANCE BANK



TECHNICAL CLUBS & SOCIETIES

- Data Science and Machine Learning Club
- IOT and Cloud Computing Club
- Programming, Robotics, Microprocessors and Microcontrollers
- Signal Processing, Telecommunication Systems and networking, Micro-electronics and Embedded Systems, Power Electronics and Devices, Mechatronics,
- Fin Pro A Vision of Finance
- Markothan The Marketing Club
- To get HR A Vision of Human Recourse Management, Library Club

- Animated Games
- Animated Movies
- Alternate Sources of Energy
- Green Environment
- Scientific Computing
- Plasma Applications
- CSI Student Chapter
- IETE Chapter



Computer Society of India - Students Chapter

S.	Name of the Activity
No.	
1	Coding Ninjas Freshmen: Programming Competition for freshers
2	Version Control: Workshop for Version control and tools and techniques.
3	Git and Github Workshop: Workshop on how to use git and github.
4	Learn to Code: Python programming classes for BTech & MCA students
5	Tech Talk: An online meet with Abhinav Parashar (CEO of DIGIO)
6	Chat Bot workshop: A workshop on development of intelligent chat bot.
7	Game Development Workshop
8	Tech Talk: A session on Block Chain and applications





ISF Participations and Achievements IETE

Event

Participation in 1st International Conference on Innovative Advancements in Engineering & Technology (IAET-2014)

Secured 1st position "Cyber Security: Threats & Measures", in IETE North Zone Seminar & ISF Congress

Secured 1st position for the presentation on the auspicious occasion of 66 th IETE Foundation Day Celebration

Achieved 2nd position in software and hardware models/papers presentation in the 5th International Conference on Microelectronics Computing & Communication System (MCCS-2019)

Hackathon, HackBITJ (4 days event), National level LED expo IETE Student Day

National level Technical paper and poster presentation Techtalk-National level Technical paper poster presentation







TechVibes – Annual Techno-Management Fest

- It's a platform to hone and showcase the scientific quotient, application orientation and technical aptitude equipped by young minds.
- Techvibes events like *Ideate*, *Pitch Start*, *Tech-X* and programming-based events
- CodeWars, Webster's Hackathon, Fresher's codezone, etc.
- In recent years, Techvibes has expanded manifolds and gained versatility by incorporating various Animation, Management, Entrepreneurship and Business-related events
- Ad-Mad, IPL Auction, and Business Quiz
- *Meet-the-Grad* event connected the alumni with the students



TechVibes – Annual Techno-Management Fest









TechVerse – Online Techno-Management Fest



Event (Stream)	Brief Description	
Tech Talk	Presentation on technology related	
(Engineering)	project/ research work	
Photo Editing	Theme related photography and	
(A&M)	editing in a given time slot	
Short Film Making	Theme related short film making in	
(A&M)	24hrs time	
Case In-Point	Presentation of strategy to solve real	
(Management)	life situation faced by a company	
Creative Minds	Prepare advertisement for given	
Advert	product specification	
(Management)		
Clash of Minds	Debate that requires students to	
(Management/	formulate, research and deliver	
Communication)	persuasive comments	



SPORTS ACTIVITIES

- Volley Ball
- Kho-kho
- Badminton
- Chess
- Carrom
- Table Tennis

- Basketball
- Cricket
- Gully cricket
- Race 100 m
- Tug of war
- Long jump



















Cultural Activities 2022

- Celebrated "Republic Day"
- Worshiped "Goddess Saraswati" on Basant Panchami
- Celebrated "World Earth Day" (19 April 2022 22 April 2022):
- Rangoli making, Poster making, Poetry, Environmental Quiz,
- Plantation, Literary Talk, Your Green Sight
- "Durga Puja" was celebrated on 1 October 22
- Celebrated "Dandiya" on 17 October 22
- **Tiger talk** by Mr. Wicky David on 18 to 20 October 22
- Eye check up by Titan eye+ on on 19 and 20 October 22











Women Entrepreneurship Workshop

A Two day International Workshop on "Opportunities for Women & Girls in Entrepreneurship", by BIT Mesra Off-Campus Jaipur in collaboration with Watson Institute Colorado.(11-12 June 2022)







Independence Day

The event started with the Flag hosting ceremony and the National anthem following the skit "Vicharon ki Swatranta", Patriotic dance and music performed by the students. The event ended with the National song and sweets distribution.











Blood Donation Camp

- Every year a blood donation camp is organized at the campus in the memory of Late Dr. Rakesh Kumar Popli, Professor in Physics, BIT Mesra.
- Students from all the streams participate in a great number with full enthusiasm and dedication in this noble activity.
- It is organized at BIT Jaipur Campus in association with Lions Club, HDFC Bank and SDM Hospital Jaipur.









Notable MOUs in last one year

- M/s Danish Private Limited.
- M/s Omega Electronics, Jaipur.
- M/s Genus Power Infrastructures.
- M/s Prime Telelink Private Limited, Jaipur.
- M/s Continental Engineers, Jaipur.
- Birla Institute Of Scientific Research, Jaipur.
- Malviya National Institute Of Technology.

(Under Process)

- The Palace School. (Under Process)
- Palace Museum. (Under Process)





Various committees

- Institute Quality Assurance Cell
- Social Media Cell
- Intellectual Property Rights Cell
- Institute Innovation Council
- Anti Ragging Committee
- Anti Ragging Squad
- Skill India Mission Council
- Internal Complaint Committee

- Grievance Redressal Committee(For students)
- Grievance Redressal Committee(For Faculty/Staff)
- SC/ST Cell
- Institute Industry Cell
- MOOC Implementation
- Committee



BITOSA RAJASTHAN - "CONNECT" 9th Sept 2022



Event "Connect" is an initiative to reunite the everlasting bond by a get-together showcasing BIT Jaipur, Students & alumni on the same platform. After a gap due to the global pandemic, it brings a great opportunity for all of us to meet, greet and get to know each other. In addition to this, BITOSA Rajasthan, via this event, is also bringing the entrepreneurs and startups of BIT Alumni roof for under one an interaction with students and alumni.









Summer Training 4th July 2022 – 12th Aug 2022





TRAINING MODULES

- PYTHON
- Website Designing and Digital Marketing
- Microprocessor and Microcontroller
- Communication Skill ,Entrepreneurship and IPR



The duration of the program was of 45 days and a total number of 100 students enrolled themselves in the program. The program helped students to gain tremendous amount of knowledge and also helped them to solve real-life problems and acquired some practical knowledge











Future Plan for Jaipur Campus

- A OAT
- Hostel for Boys and Girls
- Annual International Conference
- 1000 Square meter of Additional Space Creation
- Out Reach Activity
- Quality Research Output
- International Collaboration
- Developing Sports Activity Area



ACADEMIC DEPARTMENTS

- COMPUTER SCIENCE AND ENGINEERING
- ELECTRONICS & COMMNUCATION ENGINEERING
- ELECTRICAL & ELECTRONICS ENGINEERING
- MECHANICAL ENGINEERING
- MANAGEMENT
- ANIMATION and DESIGN
- BIO TECHNOLOGY
- REMOTE SENCING
- PHYSICS, CHEMISTRY, MATHEMATICS



Department of Computer Science & Engineering

The objective of various courses is to impart quality education through a curriculum in accordance with the challenging software needs of the industry and to provide excellent technical knowledge and computing skills .Based on excellent knowledge base and technical competence the students of the department have an impressive placement record. Many of graduates choose to join some of the best institutions of higher learning around the world, whereas many of them join the reputed IT and leading software industries such as Microsoft, Amazon, Oracle, Samsung, Verizon etc.

- B.Tech. CSE 60*
- BCA with specialization 60
 - (i) Data Sciences
 - (ii) AI and ML
- MCA 45

Number of Laboratories : 4

Number of Faculty Members: 15 Senior Scientific Officer:1 Technical Assistant: 3



Gems of the Department



Dr. Madhavi Sinha Associate Prof. and Incharge, CSE department



Dr. Shripal Vijayvargiya Associate Professor



Dr. M. M. Agarwal Assistant Professor



Dr. Archana Bhatnagar Associate Professor



Dr. Seema Gaur Associate Professor



Dr. Vivek Gaur Associate Professor



Gems of the Department



Mr. B. Pathak Assistant Professor



Dr. P. K. Sharma Assistant Professor



Mr. Subhash C. Gupta Assistant Professor



Dr. Piyush Gupta Assistant Professor



Dr. Vishwambhar Pathak Assistant Professor



Dr. Alok Pandey Assistant Professor



Gems of the Department



Dr. Anju Sharma Assistant Professor



Mr. Santosh Kr. Sharma Assistant Professor



Mr. Santosh Kr. Agarwal Associate Lecturer



Mr. Prateek Sharma, Senior Scientific Officer & In Charge Library



Faculty List with Area of Interest and Additional Responsibilities

S.N	Faculty Name	Area of Interest	Additional Responsibilities	
1	Dr. Madhavi Sinha	Intelligent systems, Algorithm design, Language Computing	In-charge, CSE department, Purchase Committee Member Grievance redressal Cell, technical club, Women Cell	
2	Dr. Shripal Vijayvargiya	Soft computing, Machine learning, Computational Biology, Data analytics	Website management, Works committee, MS teams coordinator, Grievance redressal Cell, technical club, CSI Chapters	
3	Dr. M. M. Agarwal	Mobile Computing, AI and Machine learning, Mobile Ad-Hoc networks, Data Analytics	Admission cell, ERP, Library, GP Birla Scholarship Committee, TechVibes	
4	Dr. Archana Bhatnagar	Software Engineering, Data Analytics, Algorithm Design	Registration, Training and Placement, Cavorts, Technical Club, Conducting Student Projects, Seminar	
5	Dr. Seema Gaur	Data Mining, Computer Graphics, Computer system architecture, Digital logic design	Registration(Btech CSE), Anti Ragging committee, Conducting Workshop ,Technical Club ,Cultural Committee	



Faculty List with Area of Interest and Additional Responsibilities Cont...

S.N.	Faculty Name	Area of Interest	Additional Responsibilities
6	Dr. Vivek Gaur	Cloud Computing, Distributed Systems, Software Engineering Data Analytics	T&P Cell, Tech-vibes, PhD Coordination, Technical Club, Projects
7	Mr. B. Pathak	Information technology, Web technology, Ontology, DBMS, Operating System, Data analytics	AICTE, IQAC, ERP System MOOC Courses, Technical Club
8	Mr. Subhash C. Gupta	Soft Computing, Machine learning, Nature inspired computing, Computer Vision	Purchase Committee Scrap disposal Committee Technical Club, Summer Training dept. website management
9	Dr. Vishwambhar Pathak	Machine Learning, Data analytics	Project work, Technical committee
10	Mr. P. K. Sharma	Soft computing, Data Analytics Simulation and Modeling, Software Engineering	Technical Club



Faculty List with Area of Interest and Additional Responsibilities Cont...

S.N.	Faculty Name	Area of Interest	Additional Responsibilities
11	Dr. Piyush Gupta	Cloud computing, Data analytics, Relational Database Management system, Oracle and SQL, MIS	AICTE, IQAC, Publication Cell, Technical Club Anti Ragging Committee Cavorts, Blood Donation
12	Dr. Alok Pandey	Computer networks, Network security, Cyber Forensics, E-commerce, Internet of things	System Administrator
13	Dr. Anju Sharma	Communication and networking, Distributed Systems, DBMS, Wireless Communication	Examination cell, Technical club, Hindi cell, Anti ragging squad, Conducting workshop
14	Mr. Santosh Kr. Sharma	Software Engineering, Computer Graphics, Machine Learning	Technical club, Anti ragging swad, trainings and placement, conduction seminar and workshop, Techvibes, summer Training
15	Mr. Santosh Kr. Agarwal	Computer System Architecture, DBMS, Web Application, C & Java programming	Examination cell, Cavorts committee, Blood donation committee, Technical Club



LABORATORIES

LAB: CL1 Total No Of computers: 60







LAB: CL2 Total No Of computers: 60



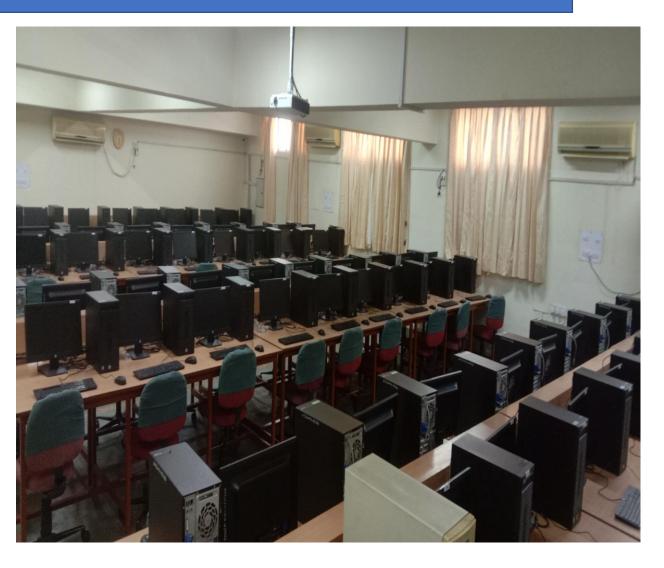




LABORATORIES

LAB: CL3 Total No Of computers: 45







LAB: Internet Lab Total No Of computers: 34







List of Softwares

- Windows 8.1
- Windows 10
- Antivirus
- MS Office
- Matlab

- NetSim
- Rational Rose
- Tally
- Systat
- R
- Oréll



THRUST AREA OF THE DEPARTMENT

Cognitive Machine Learning

- Dr. Madhavi Sinha
- Dr. Shripal Vijayvargiya
- Mr. Subhash Gupta

Smart Systems based on Internet of Things (IoT)

- Dr. Alok Pandey
- Dr. Madan Mohan Agarwal
- Dr. Vishwambhar Pathak

Applications of Cloud Computing and Big Data Analytics

- Dr. Piyush Gupta
- Dr. Archana Bhatnagar
- Dr. Anju Sharma
- Mr. Santosh Kumar Sharma
- Dr. Seema Gaur
- Mr. P.K. Sharma
- Mr. B. Pathak
- Mr. Santosh Kumar Agarwal



Technical Clubs

Data Science and Machine Learning Club

- Dr. Shripal Vijayvargiya
- Dr. Madhavi Sinha
- Mr. Subhash Gupta
- Dr. Anju Sharma
- Dr. Seema Gaur
- Mr. B. Pathak

IOT and Cloud Computing Club

- Dr. Alok Pandey
- Dr. Madan Mohan Agarwal
- Dr. Vishwambhar Pathak
- Dr. Vivek Gaur
- Dr. Piyush Gupta
- Mr. P.K. Sharma

Programming Club

- Dr. Archana Bhatnagar
- Mr. Santosh Kr. Sharma
- Mr. Santosh Kr. Agarwal



ACTIVITIES UNDER THE CLUBS

The activities of the cub have been well formulated to develop interest and competence of the students in the Learning through technical magazines and journals

- To analyze issues and challenges of designing data science and machine learning
- Design and development of techniques of data science and machine learning.
- Development of software projects using machine learning techniques.
- Paper writing and presentation
- Quiz and group discussions of the club theme related topics.
- Conduction of workshops and practical training sessions
- Interaction with eminent industrial and academic experts in the domain of club theme.
- Industrial and institutional tours



Details of Candidates awarded Ph.D. Degree (CSE)

S.No.	Name of the scholar	Name of Guide	Name of Coguide (s)	Title of PhD Thesis	Year of Award
1.	M.M. Agarwal	Dr. Madhavi Sinha	Dr. M.C. Govil. Dr. Anuj Jhankal	Energy efficient routing in MANET: probabilistic and fuzzy based approach	2018
2.	Anju Sharma	Dr. Madhavi Sinha		Design and Analysis of Differential Evolution based Routing Protocol for MANET	2021
3.	Saurabh Singh	Dr. Madhavi Sinha		Enhancement of Dimensionality Reduction Techniques for Pattern Construction of Biometric Authentication Systems	2021
4.	Ms. Rinkey	Dr. Piyush Gupta	Dr. Archana Bhatnagar	Development of Cloud based Architecture for Performance Enhancement of E-learning Systems	2021



Details of Candidates awarded Ph.D. Degree (CSE) cont..

S.No.	Name of the scholar	Name of Guide	Name of Co- guide (s)	Title of PhD Thesis	Year of Award
5.	Ms. Mona Batra	Dr. Archana Bhatnagar		Design and Analysis of Requirements Engineering Process Model for Software Development	2021
6.	Mr. Kashinath Chandelkar	Dr. Piyush Gupta	Dr. Shripal Vijayvargia	Design of Cloud based Content Management System	2022
7.	Mr. Sudhir Sharma	Dr. Shripal Vijayvargiya		Modeling of Software Project Effort Estimation Using Soft Computing Techniques	2022



Details of candidates perusing Ph.D. (CSE)

S.No.	Roll No.	Name	Area/Topic	Admission Year	Guide
1	PHD/CS/10059/20	Ashish Thomas	Development of Missing Data Imputation using Machine Learning	2021	Dr. M.M. Agarwal
2.	PHD/CS/10063/20	Rahul Verma	Building the Framework for Road Accident Preduction using Machine Learning Techniques	2021	Dr. M.M. Agarwal



Projects completed

Research Project/Collaboration	National/ International	PI/Co-PI	Funding Agency / Collaborative Agency	Amount Sanctioned
Soft modeling of group dynamics: A cognitive psychology perspective (2009-2011)	National	PI: Dr. Madhavi Sinha Co-PI: Dr. G.S. Malhotra	Department of Science & Technology, Ministry of Science & Technology, Government of India.	Rs. 11,29,440/-



On Going Project

Research Project/Collaboration

Development of Distributed Deep Learning based Dynamic Causality Analysis Model for Predicting Epilepsy and Simulation of Epileptic Brain (2020-2022)

PI: Dr. Vishwmbhar Pathak

Co-PI: Dr. Vivek Gaur

Funding Agency / Collaborative Agency

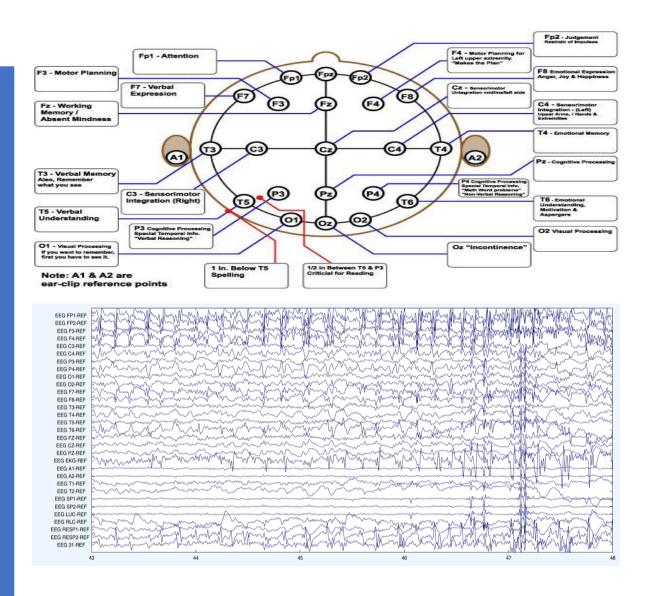
Dept of Science &

Technology under Cognitive Science

Research Initiative (CSRI)

Amount Sanctioned

Rs. 16,88040/-





Publications in Journals:

- 1. Sharma, S., & Vijayvargiya, S. (2022). An optimized neuro-fuzzy network for software project effort estimation. IETE Journal of Research, 1-12.
- 2. Sharma, S., & Vijayvargiya, S. (2022). Modeling of software project effort estimation: a comparative performance evaluation of optimized soft computing based methods. International Journal of Information Technology, 1-10.
- 3. Sharma, S., & Vijayvargiya, S. (2021). Soft Computing Approaches for Software Project Effort Estimation (SPEE) -A Review. International Journal of Grid and Distributed Computing, 13(2), 1788 -1799.
- 4. Mona Batra, Archana Bhatnagar, "A Requirements Engineering Process Model for Software Development", International Research Journal of Engineering and Technology (IRJET), Vol-07 Issue: 07, July 2020
- 5. Sharma, S., & Vijayvargiya, S. (2020). Enhancing Software Project Effort Estimation (SPEE) Using Neuro-Fuzzy System. Solid State Technology, vol.63 (6), 2986-2998.
- 6. Kashinath Chandelkar and Piyush Gupta. "*India towards Global Ranking standards: A move towards data Curation*" International Journal of Innovative Technology and Exploring Engineering (IJITEE) ,Vol. 9, Issue.3, Jan. 2020.
- 7. Ankit Kumar & Madhavi Sinha, "Design and analysis of an improved AODV protocol for black hole and flooding attack in vehicular ad-hoc network (VANET)", Journal of Discrete Mathematical Sciences and Cryptography, 22(4), pp :453-463, 2019
- 8. Ankit Kumar & Madhavi Sinha, "Design and development of new framework for detection and mitigation of wormhole and black hole attacks in VANET", Journal of Statistics and Management Systems 22 (4), PP: 753-761, 2019
- 9. Anju Sharma, Madhavi Sinha, "A differential evolution-based routing algorithm for multi-path environment in mobile ad hoc network", International Journal of Hybrid Intelligence (Inderscience), volume 1, Issue 1, May 2019, pp. 23-40.
- 10. Mona Batra, Archana Bhatnagar, "A Research Study on Critical Challenges in Agile Requirements Engineering", International Research Journal of Engineering and Technology (IRJET), Volume: 06 Issue: 06, June 2019, e-ISSN: 2395-00562.
- 11. Mona Batra, Archana Bhatnagar, "An Automated Tool for Inspection of Requirements Engineering Techniques", International Journal of Recent Technology and Engineering (IJRTE), Volume-8, Issue-2S11, September 2019, ISSN: 2277-3878 (Non-Paid SCOPUS Indexed Journal)



Publications in Journals:

- 12. Rinkey, Piyush Gupta, Archana Bhatnagar, "Architecture of Modern E-learning Education System using Cloud Computing", International Journal of Engineering and Advanced Technology, Volume-8 (6), pp:5132-5137, August 2019
- 13. Anju Sharma, Madhavi Sinha," Enhanced Discrete Differential Evolution For Optimized Routing In Mobile Ad-hoc Network", ciencia e tecnica vitivinicola (SCI), vol 33 no. 9, 2018, pp. 16-34
- 14. S Singh and Madhavi Sinha, "Pattern recognition based on specific weights", International Journal of Applied Pattern Recognition 5 (1), PP: 1-10, 2018
- 15. Vishwambhar Pathak, Prabhat Mahanti, Analysis of Directional Functional Connectivity During Perceptual Decision Making Using Autoregressive Immune System, Journal of Next Generation Information Technology (JNIT), 9(1), 22-31, Convergence Information Society(CIS), Korea, 2018
- 16. Seema Gaur, Praveen Dhyani, Vishwambhar Pathak, Reformation of Co-Author Communities with Metagraph, International Journal of Engineering Science Invention (IJESI), 7(3), 47-50, e-ISSN: 2319 6734, 2018
- 17. Rinkey, .Piyush Gupta, Archana Bhatnagar, "Implementation of Cloud based E-learning Architecture. " Journal of Advance Research in Dynamical & Control Systems, Volume10(14), pp: 1886-1893, November 2018. (SCOPUS)
- 18. Rinkey, Piyush Gupta , Archana Bhatnagar," Performance Analysis of E-Learning Websites Using Online Tool", Volume 6(2), pp:662-668, April 2018.
- Mona Batra, Archana Bhatnagar, "A Comparative Study of Requirements Engineering Process Model", International Journal of Advanced Research in Computer Science, Volume 8, No. 3, March April 2017, ISSN No. 0976-5697
- 20. Vishwambhar Pathak, Prabhat Mahanti, Estimating Cointegration and Forecast of Multiple Time-Series Using Autoregressive T-Cell-Receptors Algorithm, Advanced Information Sciences and Service Sciences(AISS) Volume9, Number2, 2017
- Rinkey, Piyush Gupta "Impact of Cloud Computing in E-Learning: A Study. International Journal on Recent and Innovation Trends in Computing and Communication", Volume5(5), pp: 912-922, May 2017.
- 22. Rinkey, Piyush Gupta, Archana Bhatnagar," Performance Evaluation of E-Learning Sites." International Journal of Current Engineering and Scientific Research, Volume4 (9), pp: 18-22,2017



Publications in Proceedings: (International/National)

- 1. Vishwambhar Pathak, Prabhat K Upadhyay, Vivek Gaur, Deep Learning Framework for Causal Connectivity based Epileptic Neuromarkers from Multi-channel EEG, ACCS8: 8th Annual Conference of Cognitive Science, 20-22 Jan 2022, Amrita Mind Brain Center, Amrita Vishwa Vidyapitham, Amritapuri.
- Mona Batra, Archana Bhatnagar, published a paper on "Requirements Elicitation Technique Selection: A Five Factors Approach" in International Conference on Recents Advancements in Engineering and Technology (ICRAET-18) Siddhartha Institute of Technology & Sciences, Telangana, India, pp 1332-1341, May, 2019. (SCOPUS Indexed Journal)
- 3. Kashinath Chandelkar, Piyush Gupta "Technology Enhanced Learning: A simulated cloud based initiative for smart university" Accepted for publication in *IEEE Explorer*, Scopus Publication, IconDSC, Christ University Bangalore, 1-2 march 2019.
- 4. Mona Batra, Archana Bhatnagar, presented a paper on "An Experimental Survey to Find Application Specific Elicitation Technique", in IEEE conference Proceedings of the 11th INDIACom; INDIACom-2017; IEEE Conference ID: 40353 2017 4th International Conference on "Computing for Sustainable Global Development", 01st 03rd March, 2017 (BVICAM), New Delhi (INDIA)
- 5. Vishwambhar Pathak, Deep Autoregressive Immune System Learning Neural Correlates of Decision Making, Presented in the 5th International Conference on Business Analytics and Intelligence, held from December 11 to 13, 2017 at IIM, Bangalore



Book Chapter(s) in Edited Book

- 1. Vishwambhar Pathak, Praveen Dhyani, Prabhat Mahanti, Vivek Gaur, Tracking Slow modulations of Effective Connectivity for Early Epilepsy Detection: A Review. In Knowledge Modelling and Big Data Analytics in Healthcare, CRC Press, Taylor and Fransis, December 2021, pp 229-255
- 2. Sharma, S., & Vijayvargiya, S. (2021). Applying Soft Computing Techniques for Software Project Effort Estimation Modelling. In Nano-electronics, Circuits and Communication Systems, vol. 692, pp. 211-227, Springer, Singapore.
- 3. Gupta, A., Dhyani, P., Rishi, O.P, and Pathak, V., A Framework for e-Governance Using Federation of Cloud, in Proceedings of Smart Systems and IoT: Innovations in Computing, Springer Nature Singapore Pte Ltd, 2019



PATENTS

S.No	Patent Title	Applicant name	Patent No.	Award Date	Agency/Country	Status
1.	BITCOIN PRICE	Dr. Saroj Kumar, Shehab	202111061406	29/12/2021(published)	India Patent Office,	published
	PREDICTION	Mohamed Beram, Dr.			India	
	TECHNIQUE	Kirti Khanna, Dr Anurag				
	USING	Srivastav, Dr. Sumira				
	ARTIFICIAL	Malik, Dr. Jayasri				
	INTELLIGENCE	Murali, Santosh Kumar				
	AND MACHINE	Sharma, Dr Sumanta				
	LEARNING	Bhattacharya				



ACHIEVEMENTS OF STUDENTS



GOLD MEDALISTS OF BIT MESRA From JAIPUR CAMPUS

POORVI AGARWAL -2013 ANUSHREE JANGID -2014

Saloni Solanki scored 99.91 percentile in IIFT exam Namrata Jain 94 rank in GATE Shubham Israni scored 99.33 percentile in CAT.



Notable Alumni of CSE Dept.

S.No.	Name	Campus Placement	HIGHER STUDY	CURRENT POSITION
1	ANSHUL DHAWAN	INFOSYS	MS FROM UNIVERSITY OF SOUTHERN CALIFORNIA	LEAD PRODUCT MANAGER AT ZYNGA, US
2	ASHISH RANJAN			WORKING WITH SAP
3	CHARU PANDEY	IBM	-	SENIOR ASSOCIATE AT SAPIENT
4	KHYATI SHARMA	TECH MAHINDRA	-	VICE PRESIDENT IN GOLDMAN SACHS
5	AYUSHI GARG	INFOSYS/ MICROSOFT	-	SOFTWARE ENGINEER IN MICROSOFT
6	NIDHI KAUSHAL	ARICENT / ORACLE	-	SR. TECHNICAL STAFF IN ORACLE BANGALORE



Notable Alumni of CSE Dept.

S.No.	Name	Campus Placement	HIGHER STUDY	CURRENT POSITION
7	MRADUL SAXENA	ARICENT	MS FROM UNIVERSITY OF SOUTHERN CALIFORNIA	SENIOR SOFTWARE ENGINEER AT APPLE, USA
8	RAHUL SHARMA	SAMSUNG	-	SDE IN MICROSOFT
9	SHANTANU CONSUL	BIRLA SOFT	MBA FROM IIM INDORE	SR. CONSULTANT PWC INDIA
10	SHIVANGI SINHA			INTEGRATION DEVELOPER, TORONTO , ROYAL BANK OF CANADA
11	PRATIBHA RANI	HEADSTRONG/ SAMSUNG	-	CLEARED CIVIL SERVICES EXAM 2018 WITH 73 RANK. IAS OFFICER IN 2018 BATCH
12	S M SAURABH	INFOSYS	-	SOFTWARE DEVELOPER AT AMAZON



Notable Alumni of CSE Dept.

S.No.	Name	Campus Placement	HIGHER STUDY	CURRENT POSITION
13	NAMAN MITTAL	TECH. MAHINDRA	MS FROM STONY BROOK UNIVERSITY, NEW YORK	SOFTWARE DEVELOPMENT ENGINEER IN AMAZON
14	ISHTI GUPTA	-	-	SOFTWARE ENGINEER AT GOOGLE
15	KHARANSH U SAINI	-	_	INSPECTOR IN INCOME TAX DEPARTMENT, MYSORE
16	PURU RAJ JAIN	MICROSOFT	-	WORKING WITH MICROSOFT





PULKIT SHARMA AND AANKIT ROY

BE CSE 2010-2014

22 AUGUST 2020

10:00-11:00 AM



>Mr. Pulkit Sharma and Mr. Aankit Roy Cofounders of Khabri, a digital audio platform. >Khabri is Popularly regarded as YouTube for Audio. With more than 20K creators and 1M downloads. This app has organically grown and already #2 Trending on the playstore. >They together have won the AntahPrerana 4.0 for

Khabri.





ACHIEVEMENTS OF FACULTY MEMBERS

- (i) Dr. Madan Mohan Agarwal: Internship SAMSUNG PRISM from March '2021 to August '2021 in work-let "AI, ML | Video Summarization on the Resource Constrained Devices". This project work-let received an excellent award among all the projects. There were two students.
- (ii)Dr. Madhavi Sinha, talk on "Applications of NLP" & "MT: Issues and Challenges" in FDP on Natural Language Processing and its Applications organized by Dept of Computer Science, PGDAV college, University of Delhi (March 5- March 11, 2022)
- (iii) Dr. Madhavi Sinha, talk on "Use of Artificial Intelligence in Wearables" in AICTE ISTE Sponsored Online Six days Induction/Refresher program on "Applications of Artificial Intelligence Using Machine Learning & Deep Learning" organizing by Poornima Institute of Engineering & Technology, Jaipur, December 18-December 24, 2021



ACTIVITIES OF THE DEPARTMENT (LAST ONE YEAR)



Workshop on Data Analytics using R

1. Introduction and description:

The workshop covered basics of data visualization, data processing, and data mining functions using R programming environment. Participants were introduced to the case studies in data analysis related to different domains of business and scientific applications and data repositories like Kaggle.

2. Faculty coordinator(s):

Dr. Seema Gaur, Dr. Vishwambhar Pathak

3. Date of activity: Aug 24-28, 2022







Webinar on "Edge Computing & Enabling Technologies"

- Jaipur Campus organized a webinar on 11th May, 2022 to celebrate the National Technology Day of India
- Professor Mahesh Chandra Govil, Director, NIT Sikkim, was the speaker of the event.
- He explained the applications of edge computing in industry, agriculture and healthcare sector.
- He also explained that how edge computing help in developing Smart City and relevant applications.
- During his talk, he presented the key enabling technologies for edge computing like, EC Processor Architecture, Nanotechnology and Quantum Computing.





Prof. Govil holds vast administrative and academic experience spanning over thirty years. He was the founder Head of the Department of Computer Science and Engineering, and Information Technology at MNIT Jaipur. He served as the founder Principal of Government Women Engineering College, Ajmer. Concurrently, he held the post of Principal (Additional Charge) of Government Engineering Colleges at Ajmer, Banswara and Bhilwara. He has been committee member of National Board of Accreditation (NBA) and AICTE. Prof. Govil obtained his B.Tech. degree from MNIT Jaipur (MREC), M.Tech. and Ph.D. degree from IIT Roorkee.

SPEAKER: PROF. MAHESH CHANDRA GOVIL DIRECTOR, NIT SIKKIM MAY 11, 2022



Workshop on Android App development

1. Introduction and description:

Android Application development workshop aimed at providing technical training on the concepts and programming methodologies used to develop various Android Applications.

- 2. Faculty coordinator: Dr. Anju Sharma
- 3. **Date**: 22/06/2022 23/06/2022





Engineer's Day 2022





Shikshak Parv Week (5-9 Sept 2022)





"SHIKSHAK PARV WEEK" (05-09 September, 2022)

Invited Talk
On
Topic- "NATIONAL EDUCATION POLICY"

Date: 7th September 2022 Time: 12:00-1:00 PM

Venue: Seminar Hall, Jaipur Campus



Eminent Speaker
Dr. Ghanshyam Singh
Professor, Department of
Electronics and Communication
Engineering, MNIT Jaipur

Faculty Coordinator
Dr. Madhavi Sinha
Mr. Santosh Kumar Sharma
Department of Computer Science & Engineering
Birla Institute of Technology, Mesra, Jaipur Off Campus



Department of Mechanical Engineering

About the department:

This departments caters to the basic courses of engineering related to mechanical engineering subject

- 1. Basics of Mechanical Engineering
- 2. Workshop Practice Lab
- 3. Engineering Graphics Lab

Courses with sanctioned intake: Caters to CSE, ECE, EEE

No. of laboratories: 02

Number of faculty members: 01

Others:



S. No.	Name	Research Area	Other Responsibilities	
1	Vikas Sangwan	Bearing life prediction, IOT	Time Table Incharge Sports Incharge	





Workshop









Department of Electronics and Communication Engineering

About the department: The Department of Electronics & Communication Engineering in the institution conforms to the global scenario with its knowledge base, experience and infrastructure. The department has learned teaching faculty qualified at M.Tech and Ph.D. Levels. It has excellent lab infrastructure in the area of Basic Electronics, Control System & Instrumentation, Integrated Electronics, Analog & Digital Circuits, Semiconductor & Microelectronics, VLSI, DSP, Microcontroller & Microprocessor, Analog & Digital Communication, Optical Communication, Microwaves and Antenna.

To give students exposure to software based designing, the department has well equipped simulation lab having software simulation tools like CADENCE, MATLAB, MULTISIM, COMSIM, Code Composure Studio for DSP, Lab view with ELVIS Hardware, HFSS Antenna Simulator, Xilinx's ISE Foundation for VLSI design, System Vue, Open IT Guru, etc

Courses with sanctioned intake: B.Tech. (75), No. of laboratories: 5, Number of faculty members: 6





Mrs. Jyoti Sharma Assistant Professor Research Area: VLSI Design, Nanotechnology, Analog Circuit Design



Mr. Puneet Sharma Assistant Professor Research Area: Flexible Sensors



Mr. Ankur Agarwal Assistant Professor Research Area: Image Processing, Signal Processing



Mr. Deepak
Chaturvedi
Assistant Professor
Research Area:
Microwave
Communication



Mr. Snehanshu Shekhar Assistant Professor Research Area: Microelectronics, NEMS



Mr. Gaurav Jain Assistant Professor Research Area: Artificial Intelligence, Deep learning



S. No.	Name	Research Area	Other Responsibilities
1.	Mrs. Jyoti Sharma	VLSI Design, Nanotechnology, Analog Circuit Design	 Member, Training & Placement Committee Member, IIC Cell Member, GP Birla Scholarship Committee Member, AICTE Committee Member, Techvibes Committee
2.	Mr. Puneet Sharma	Flexible Sensors	 Incharge, NABL Lab Member, Training & Placement Committee Departmental Students Project
3.	Mr. Ankur Agarwal	Image Processing, Signal Processing	1. Entrepreneurship cell
4.	Mr. Deepak Chaturvedi	Microwave Communication	 Attendance Coordinator Registration Coordinator



S. No.	Name	Research Area	Other Responsibilities
5.	Mr. Snehanshu Shekhar	Microelectronics, NEMS	1. Coordinator, IETE Students Chapter
6.	Mr. Gaurav Jain	Artificial Intelligence, Deep learning	



LABORATORIES

S. No.	Code	Laboratory Name	Location	
1	EC 102	Electronics and Communication Lab	EL-02	
2	EC 202	Electronic Devices Lab	EL-02	
3	EC 208	Electronic Measurement Lab	EL-03	
4	EC 254	Analog Circuits Lab	EL-03	
5	EC 354	Communication System Lab	EL-03	
6	EC 352	Fiber Optic Communication Lab	EL-03	
7	EC 204	Digital System Design Lab	EL-03	
8	EC 402	Microwave Lab	EL-01	



LABORATORIES

S. No.	Code	Laboratory Name	Location	
9	EC 404	Advance Communication Lab	EL-01	
10	EC 304	Microprocessors and Microcontrollers Lab	EL-04	
11	EC 406	Industrial Automation Lab	EL-04	
12		PCB Design Lab	EL-04	
13	EC 306	Signal Processing Lab	EL-05	
14	EC 320	VLSI System Lab	EL-05	
15	EC 202	Electronic Devices Lab (TCAD)	EL-05	



MAJOR EQUIPMENTS

S.No.	Some major Equipment's	
1	SENSEnuts Mesh Kit (Wireless Lab)	KEYSIGHT NAZOBE Zentrin Angow that 20 Cm.
2	Spectrum Analyzer with tracking generator (6 ghz)	TO STATE OF THE PARTY OF THE PA
3	Vector Network Analyzer ZVL 13.6 Make Rohde & Schwarz	
4	IP Telephony Setup (AVAYA AURA).	



MAJOR EQUIPMENTS

5	Xilinx's ISE Foundation for VLSI design	
6	Code Composure Studio for DSP	
7	Lab view with ELVIS Hardware.	
8	NI MY DAQ Card 5 Bundle	
9	Advance Pneumatic Trainer With PLC with compressor	
10	U-Tube manometer	
11	The microwave lab is also equipped with microwave test bench in X-band and Microstrip trainer kit in S- band	





MAJOR SOFTWARES

1	CADENCE Software
2	TCAD Software
3	HFSS Antenna Simulator
4	OPTI Fiber Software
5	MATLAB.
6	Ethernal Network Analyzer
7	Code Composer Studio 3.3v and 5.3v for DSP
8	Xilinx's ISE Foundation for VLSI design



THRUST AREA OF THE DEPARTMENT

- The department is looking forward to enhance core skill set through research and development in the emerging technologies like Communication Systems & Networks, Software Defined Radio, Microelectronics & VLSI, Microwave & Millimeter Wave Circuits, Optical Networks & Photonics, Microstrip Antennas, Control & Automation, Signal Processing, Virtual Reality, etc.
- The faculty and the students of the department has been constantly carrying out research on many cutting edge technologies and regularly publishes in IEEE, Science Direct(Elsevier), Springer, Optical Society (OSA) and other top international journals and conferences.
- The department also undertakes research projects sponsored by both the government and the industry.



PATENTS APPLIED

Sr. No.	Name of the Inventor	Title of the Invention	Application / Patent No. (As applicable)	Year	Short Description about the patent
1	Snehanshu Shekhar	System on Chip Controller for Battery Charging for Electric Vehicle Applications	202211028719	27/05/2022	The primary object of the present invention is system on chip controller for battery charging for electric vehicle applications.



PUBLICATIONS(LAST FIVE YEARS)

- **Jyoti Sharma**, Gaurav Kumar Sharma, Tarun Varma and Dharmendar Boolchandani, "A high speed phase detection circuit with no dead zone suitable for minimal jitter and low power applications," Journal of Circuits, Systems and Computers, doi: 10.1142/S021812662250267X (**SCI Indexed**).
- **Gaurav Jain**, Dr. Amit Mahesh Joshi, Dr. M. Ravi Kumar, Dr. Santosh Kumar (December 2021) .title: A Review of Non-Invasive HbA1c and Blood Glucose Measurement Method. 2021 IEEE International Symposium on Smart Electronic Systems (iSES). *ISBN* 978-1-7281-8753-2
- **Jyoti Sharma,** Tarun Varma and Dharmendar Boolchandani, "A brief review of the various phase-frequency detector architectures," 2021 IEEE International Symposium on Smart Electronic Systems (iSES), Dec. 2021, pp. 74-78, DOI: 10.1109/iSES52644.2021.00028.
- **Jyoti Sharma**, Ritambra Parashar and Avireni Srinivasulu, "A Novel CNFET Based CCCDTA and Its Application as a Schmitt Trigger", Advances in Smart Grid Automation and Industry 4.0, April 21, Vol. 693, pp. 93-101, ISBN: 978-981-15-7674-4(Print), 978-981-15-7675-1(Online), https://doi.org/10.1007/978-981-15-7675-1_9 (SCOPUS Indexed).
- **Jyoti Sharma**, Mohd. Samar Ansari and Sudip Kundu, "Tunable Universal Filter in ±0.5V 32nm CNFET for ISM 2.4 GHz Bluetooth/Zigbee Transceivers," Advances in Intelligent Systems and Computing book series of Springer, Vol. 624, 2018, Pp. 23-32 Print ISBN 978-981-10-5902-5 Online ISBN 978-981-10-5903-2 , DOI: 10.1007/978-981-10-5903-2 3, https://link.springer.com/chapter/10.1007/978-981-10-5903-2 3 (SCOPUS Indexed).
- **Jyoti Sharma** and Mohd. Samar Ansari, "Low THD ±0.75V 32nm CNFET Quadrature VCO for PLL and Costas-Loop Applications," Advances in Intelligent Systems and Computing book series of Springer, Vol. 479, 2017, ISBN: 978-981-10-1707-0 (Print) 978-981-10-1708-7 (Online) http://link.springer.com/book/10.1007%2F978-981-10-1708-7 (SCOPUS Indexed).



- Mrinalini Kumawat, Anushree Mathur, **Jyoti Sharma** and Avireni Srinivasulu, "A Novel Integrator using Voltage Differencing Transconductance Amplifier", International Conference on Recent Trends in Computing(ICRTC 2020), 3-4 July, 2020, SRM Institute of Science and Technology, Delhi-NCR Campus, Ghaziabad.
- Anushree Mathur, Mrinalini Kumawat, **Jyoti Sharma** and Avireni Srinivasulu, "A Schmitt Trigger by means of a Voltage Differencing Transconductance Amplifier", International Conference on 'Emerging Trends for Smart Grid Automation and Industry 4.0', 5-7 December, 2019, BIT Mesra, Ranchi.
- Apoorva Agarwal and **Jyoti Sharma**, "CMOS cum CNFET Based High Performance Differential Amplifier for Nanoelectronics", International Conference on Recent Innovations in Engineering and Technology, 18-19 February, 2017, MAIET, Jaipur.
- **Ankur Agarwal**, Shaswat Mishra, "Peak to average power ratio reduction in subcarrier Index modulated OFDM using selective mapping", International Conference on Computer, Communications and Electronics, 2017.



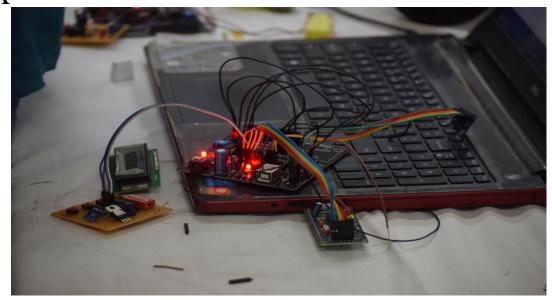
ACHIEVEMENTS OF STUDENTS

STUDENTS RESEARCH PROJECT

Department of Science and Technology Rajasthan Government sponsored student project:

"Design and development of 'NIRBHAYA'

a women safety device" sponsered by Department of Science & Technology, Rajasthan Government in the session 2017-18.





ACHIEVEMENTS OF STUDENTS

- The National Engineering Industries Ltd organised NEI IDEA FACTORY CONTEST 2019-2020. BIT Jaipur Campus students won the contest and got a cash prize amount of RS 1.5 lakh.
- ISF: Student achievements: Navneet and Shivangi of ISF BIT Mesra Jaipur Campus was awarded the 1st prize for presentation.
- ISF: Sudhir Sharma of ISF BIT Mesra Jaipur campus achieved 2nd position in software and hardware models/papers presentation.
- A Gowtham Kumar (ECE) and Rajdeep (CSE) won 3rd position in India Innovation Series hackathon conducted by incubate Ind and Arya College of Engineering and IT, Jaipur on 28-29 September 2019.
- BIT Jaipur Campus Students won Innovate to inspire hackathon 2019 at MNIT Jaipur on 8-9 June 2019: Pravar Jain Harsh Khatod Nitesh Jyotishi BIT Jaipur Campus students awarded with cash prize amount of Rs 10000/- and google cloud storage of 150



ACTIVITIES OF THE DEPARTMENT

S. No.	Activities	Photos
1	Seminar on Electric vehicles under the label "Trust EV: Awareness Oath- Empowering Women" By Er. Neha Sakka on 25/May/2022	WHAT IS HAPPENING? RESERVABLE EXHIGY TO THE PROPERTY OF THE P
2	hackathon event, "HackBITJ" Organised at BIT Jaipur campus between July 29, 2022 and August 01, 2022 in Hybrid mode under ISF chapter	And
3	"Fourier decomposition method for nonlinear and non-stationary time series analysis and applications". On 29 June 2022	### 1000 1



Department of Electrical and Electronics Engineering

The Department of Electrical and Electronics Engineering at BIT Jaipur campus conforms to international standards with its knowledge base, experience and infrastructure. The department has learned teaching faculty qualified at M.Tech and Ph.D. Levels. It has excellent lab infrastructure in the area of Control System & Instrumentation, Power Electronics, Power Systems, Electrical Machines, Transmission & Distribution of Electrical Power, Switch Gear and Protection, Basic Electronics, Integrated Electronics, DSP and Microprocessor.

The department has well equipped laboratories and having software simulation tools like MATLAB, MULTISIM, LabView with ELVIS, My Power, ETAP, Ansys Electromagnetic Suite, Infoletica MagNet 2D etc.

Courses with sanctioned intake: B.Tech. (60)

No. of laboratories: 4

Number of faculty members: 3





Dr. P. S. Rathore
Assistant Professor
Research Area: NonConventional Energy
Resources, Energy
Management



Dr. Aprajita Pandey
Assistant Professor
Research Area: Circiut
Analysis, Smart grid,
Computer Networking,
Blockchain



Dr. Deepak Verma
Assistant Professor
Research Area: Solar
Photovoltaic
Technology, Power
Electronics and Drives



S. No.	Name	Research Area	Other Responsibilities	
1.	Dr. P. S. Rathore	Non-Conventional Energy Resources, Energy Management	 Incharge, EEE Incharge, ECE Incharge, Electrical Maintenance 	
2.	Dr. Aprajita Pandey	Smart grid, Computer Networking, Blockchain	 Member, T&P Member, SARC Member, Admission 	
3.	Dr. Deepak Verma	Solar Photovoltaic Technology, Power Electronics and Drives	 Member, Electrical Maintenance Co-coordinator, T& P Member, Techvibes Member, IIC Cell 	



LABORATORIES

S. No.	Laboratory Name	Picture
1.	Electrical Machine Lab (DC)	
2.	Electrical Machine Lab (AC)	
3.	Power System Lab	
4.	Simulation Lab	



LABORATORIES

S. No.	Laboratory Name	Picture
5.	Electronic Measurement Lab	
6.	Power Electronics Lab	
7.	Control System Lab	



MAJOR EQUIPMENTS

S.N.	Equipment	Picture
1.	Fluke 434 II Energy Analyzer	
2.	Fluke battery analyzer BT521	
3.	Software	 HFSS (ANSYS ACADAMIC -5 TASK) MATLAB R2013b MATLAB R2014b ETAP SOFTWARE 50 BUS, 1 USER LAN MAGNET 2D v7.7.1 1 User ANSYS Acadamic Reasearch EM 1 Task



THRUST AREA OF THE DEPARTMENT

- The department ensures that the students graduate from here are not only well conversant with the conceptual knowledge of the subject but also practically trained in operation of basic electrical machines, software based design skills and technology adaptation.
- The department is looking forward to enhance core skill sets through research and development in the emerging technologies like; Optimized Power Transmission System, Smart Grid, Solar Energy Systems, Mechatronics, Miniaturization and Automation, Computerized Network, etc. programmes.



PATENTS APPLIED

S.No	Patent Title	Patent No.	Award Date	Agency/Country	Status
1.	An Efficient Power	202010436	03/03/2021	IP Australia:	Granted
	Distribution Based on IOT-	5		Australian	
	Fog Resource for Effective			Government	
	Proxy Negotiation for Traffic				
	Reduction				
S.No	Patent Title	Application	Publication	Agency/	Status
S.No	Patent Title	Application No.	Publication Number &	Agency/ Country	Status
S.No	Patent Title				Status
	Patent Title System on Chip Controller for	No.	Number & Date		Status Published
		No. 2022110287	Number & Date	Country	



PUBLICATIONS(LAST FIVE YEARS)

International Journals (Dr. Deepak Verma):

- **Deepak Verma**; Nema, S.; Agrawal, R.; Sawle, Y.; Kumar, A. A Different Approach for Maximum Power Point Tracking (MPPT) Using Impedance Matching through Non-Isolated DC-DC Converters in Solar Photovoltaic Systems. Electronics 2022, 11, 1053. https://doi.org/10.3390/electronics11071053. [SCI and SCOPUS indexed]
- Deepak Agrawal, Rajneesh Kumar Karn, **Deepak Verma** and Rakeshwri Agrawal "Hardware Implementation of Integrated-Topology of DC/DC Converter for LED Driver" International Journal of Emerging Trends in Engineering Research, 2020, 8(7), pp. 3428–3432.https://doi.org/10.30534/ijeter/2020/88872020 [SCOPUS indexed]
- Deepak Agrawal, Rajneesh Kumar Karn, **Deepak Verma** and Rakeshwri Agrawal "DC-DC Converter Topologies for LED Driver Circuit: A Review" International Journal of Circuits, Systems and Signal Processing, 2020, 14, pp. 542–547. DOI: 10.46300/9106.2020.14.70 [SCOPUS indexed]
- Kumar, N, Nema, S, Nema, RK, **Deepak Verma**,. A state-of-the-art review on conventional, soft computing, and hybrid techniques for shading mitigation in photovoltaic applications. Int Trans Electr Energ Syst. 2020; 30:e12420. https://doi.org/10.1002/2050-7038.12420[SCI and SCOPUS indexed]
- Shilpa Kalambe, Sanjay Jain, **Deepak Verma**, "Enhanced Loadability and Inapt Locations" International Journal of Recent Technology and Engineering, Volume-8 Issue-4, November 2019. [SCOPUS indexed]



PUBLICATIONS(LAST FIVE YEARS)

- **Deepak Verma**, Nikhil Kumar, Shilpa Kalambe, "Tracking of Maximum Power Point in Solar PV (SPV) Systems using Perturb & Observe (PO) and Incremental Conductance (IC) Method" International Journal of Innovative Technology and Exploring Engineering, Volume-8, Issue-12, October 2019. [SCOPUS indexed]
- Anand Kumar Singh, Nalin Harsh Vardhan, **Deepak Verma**, "Simulation and Experimentation of a Single Stage Boost Inverter" International Journal of Engineering and Advanced Technology (IJEAT), Vol-8 No-6, 2019: 1767-1774. [SCOPUS indexed]
- Amarnath, R.K. Nema, **Deepak Verma**, "Modeling and Simulation of Solar Photovoltaic Application Based Multilevel Inverter with Reduced Count Topology for Stand-alone System." Electrical & Computer Engineering: An International Journal (ECIJ) 6 (2017):1-12
- Das, Soubhagya K., **Deepak Verma**, Savita Nema, and R. K. Nema. "Shading mitigation techniques: State-of-the-art in photovoltaic applications." Renewable and Sustainable Energy Reviews 78 (2017): 369-390. [SCI and SCOPUS indexed]



International Conferences

(Dr. Deepak Verma):

- N. Gupta and **Deepak Verma**, "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. Location: India
- S. Tiwari, R. Agrawal, D. Agrawal and **Deepak Verma**, "Performance Analysis of DVR and UPQC to Improve Power Quality of Three-Phase Distribution System," 2021 IEEE 2nd International Conference On Electrical Power and Energy Systems (ICEPES), 2021, pp. 1-5, doi: 10.1109/ICEPES52894.2021.9699503. Location: India
- Mohit Sharma, Akshiv Agrawal and **Deepak Verma** "Sensing in Lithium-Ion Based Battery Management System". In National Conference on Advancements in Mechanical, Electronics and Electrical Engineering (AMEEE 2021), MANIT Bhopal, April 15-16, 2021. Location: India
- Khushi Jain and **Deepak Verma** "A State-of-the-art Review of Different Implementation on LED drivers". In National Conference on Advancements in Mechanical, Electronics and Electrical Engineering (AMEEE 2021), MANIT Bhopal, April 15-16, 2021 Location: India
- S. Sharma and **Deepak Verma**, "Impact of COVID-19 and Nine-Minute Call on Indian Power Sector: Study of Blackout Prevention," 2020 International Conference on Technology and Policy in Energy and Electric Power (ICT-PEP), 2020, pp. 301-305, doi: 10.1109/ICT-PEP50916.2020.9249866. Location: Gadjah Mada University Yogyakarta, Indonesia
- Keshav Gupta, Monika Sharma, **Deepak Verma**, "Design and fabrication of two stage 2 kVA inverter using push-pull topology" 10th IEEE International Conference on Communication and Signal Processing [ICCSP 2020], TN, India, 9-11th April 2020. Location: India



- J. Majhi, S. Nema and **Deepak Verma**, "Simulation and Analysis Of Solar Based Water Pumping System For Hydraulic Actuated Load," 2019 2nd International Conference on Power and Embedded Drive Control (ICPEDC), Chennai, India, 2019, pp. 333-341. Location: India
- **Deepak Verma**, S Nema, R K Nema, "Implementation of Perturb and Observe Method of Maximum Power Point Tracking in SIMSCAPE/MATLAB" IEEE International Conference on Intelligent Sustainable Systems, Palladam, Tamil Nadu, Dec 2017. Location: India
- Amarnath, R.K. Nema, **Deepak Verma**, "Harmonics Mitigation of P&O MPPT Based Solar Powered Five-Level Diode-Clamped Multilevel Inverter" IEEE International Conference on Innovations in Control, Communication and Information System 2017. Location: India

Book Publication

A. Book Chapter and Conference Paper

• Gupta A., **Deepak Verma.** (2021) "A Review of Recent Technology Development in Multilevel Inverter and Their Application in PV Systems" In: Patnaik A., Kozeschnik E., Kukshal V. (eds) Advances in Materials Processing and Manufacturing Applications. iCADMA 2020. Lecture Notes in Mechanical Engineering. Springer, Singapore, pp 57-67.

https://doi.org/10.1007/978-981-16-0909-1_7

Publisher Name: Springer, Singapore

Print ISBN: 978-981-16-0908-4 Online ISBN: 978-981-16-0909-1

https://link.springer.com/chapter/10.1007/978-981-16-0909-1_7



• Gupta D.N., Sharma A., **Deepak Verma** (2022) "Distribution Automation and Energy Management System in Smart Grid". In: Tomar A., Malik H., Kumar P., Iqbal A. (eds) Machine Learning, Advances in Computing, Renewable Energy and Communication. Lecture Notes in Electrical Engineering, vol 768. Springer, Singapore, pp 183-194.

https://doi.org/10.1007/978-981-16-2354-7_17

Publisher Name: Springer, Singapore, Print ISBN: 978-981-16-2353-0

Online ISBN: 978-981-16-2354-7

 Deepak Verma, Nikhil Kumar, Savita Nema, (2020) "Maximum Power Point Tracking in Sola PV Systems: A State of the Art" In Maurice Hébert (eds) Maximum Power Point Tracking Background, Implementation and Classification. Nova Science Publishers, Inc., NY, USA ISBN: 978-1-53618-164-7



ACHIEVEMENTS OF FACULTY MEMBERS

- Dr. Deepak Verma recognized among **Stanford University's World's Top Scientists** List (in India 25562)
- Member, Editorial Board (Dr. Deepak Verma)
- i) GUEST EDITOR/SUBJECT EDITOR: Frontiers in Energy Research SCI Indexed Journal Impact Factor 4.008, CiteScore 2.6
- ii) EDITORIAL BOARD MEMBER: International Journal on Emerging Technologies (IJET) IJET has been Indexed in **Scopus** and Abstracted in many National and International Indexing Databases.
- **Dr. Deepak Verma** co-ordinated IPR awareness/training program under the special mission called "National Intellectual Property Awareness Mission (NIPAM)" at Birla Institute of Technology Mesra Ranchi, Jaipur off-campus on 28/04/2022, conducted by The Office of Controller General of Patents, Designs and Trade Marks



Projects completed

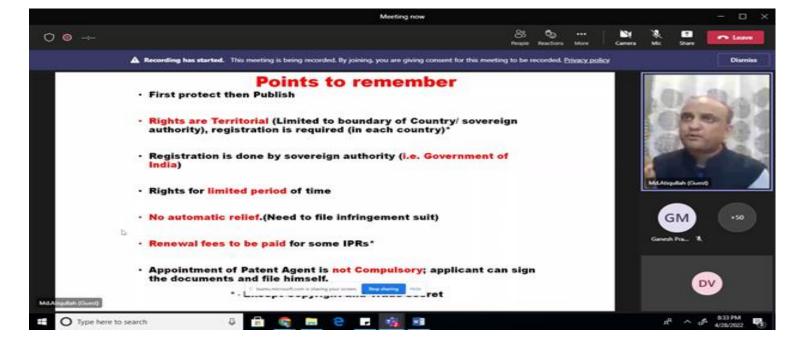
Research Project/Collaboration	National/ International	PI/Co-PI	Funding Agency / Collaborative Agency	Amount Sanctioned
			Conaborative Agency	Sanctioned
Development of a Microcontroller based technology of a pressure sensitive bed for immovable patients to reduce the risk of bedsore	National	PI: Dr. P. S. Rathore Co-PI: Dr. Aparajita Pandey	Indian Council for Medical Research ICMR, New Delhi	9,65,941/-



ACTIVITIES OF THE DEPARTMENT

1. **Dr. Deepak Verma** co-ordinated IPR awareness/training program under the special mission called "National Intellectual Property Awareness Mission (NIPAM)" at Birla Institute of Technology Mesra Ranchi, Jaipur off-campus on 28/04/2022, conducted by The Office of Controller General of Patents, Designs

and Trade Marks





2. Dr. Aparajita Pandey coordinated a seminar with Commodore Praveen Kumar Singh on the topic "Applications of Engineering Concepts in Defence". He talked about Generation, Radar, Communication, SONAR, Degaussing and Signal Processing.





Distinguished Alumni from EEE Department

В	atch	Student Name	Working at
2	2019	Sachin Adarsh B.	M.Tech from IIT, Delhi
2	2018	Vaibhav Kumar Sharma	GATE All India Rank 60 In 2020
2	2018	Anand Kr Singh	M.Tech from BITS Pilani
2	2018	Prachi Agrawal	Ph.D from RWTH Aachen University
2	2018	Rahul Parnami	Master of Science Electrical Engineering and Information Technology, Darmstadt, University of Applied Sciences Germany
2	2018	Tripti Katara	Master of Science Electrical Engineering and Information Technology, Darmstadt, University of Applied Sciences Germany
2	2018	Siddharth Sharma	Indian Army
2	2017	Dikshant Jeswani	M.Tech from NIT, Surathkal under L&TBuild India Scholarship
2	2017	Pratishtha Shukla	Masters Student at University Of Melbourne
2	2017	Promit Saha	Ph.D. Student from ISM, Dhanbad
2	2016	Aakar Gupta	M.Tech in Energy systems IIT , Bombay
2	2016	Navneet Kishor	M. Tech. Construction Technology and Management from NIT Tiruchirappalli under L&T Build India Scholarship
2	2016	Samar Singh	RWTH Achen University, Germany
2	2016	Lakshya Gupta	GATE All India Rank, Selected In NTPC, ONGC, IOCL
2	2016	Arvind Kumar	Assistant Engineer Jaipur Vidyut Vitran Nigam Ltd - Rajasthan
2	2015	Varun Faujdar	Electrical Engineer at National Fertilizers Ltd (A Mini Ratna Company)



Distinguished Alumni from EEE Department

Batch	Student Name	Working at
2015	Anmol Sharma	MBA, SP JAIN , Mumai
2015	Anurag Swarnkar	M.Tech From IIT Madras
2015	Apoorv Pareek	M.Sc. In Renewable Energy, Carl Vonn Ossietzky University of OldenBurg, Germany
2015	Lakshya Sharma	M.Tech. in Energy Studies, IIT Delhi
2015	Prateek Gupta	Masters in Electrical Power Engineering, Unuversity of Siegen, Germany
2015	Rajat Sinha	M.Tech + PhD In Nano-Science From IISC Bangalore
2015	Varun Faujdar	M.Tech From, IIT, BHU
2014	Ashirvad Pandey	MS in Power & Control, University of Houston
2014	Khyati Rawat	Assistant Engineer Jaipur Vidyut Vitran Nigam Ltd - Rajasthan
2014	Divyanshu Malhotra	Assistant Engineer Jaipur Vidyut Vitran Nigam Ltd - Rajasthan
2014	Palak Mittal	Flying Officer in Indian Air Force, Best Cadet Award
2014	Shivam Agrawal	Got Selection in HPCL/IOCL/Power Grid Corporation
2014	Vipasha Parul	Indian Forest Service



Department of Management

About the Department:

The Department of Management was established with the aim of serving the growing need for qualified professionals. The Department has continuously strived to achieve this aim by maintaining the highest standards in the Under Graduate (BBA), Post Graduate (MBA) and Doctoral Programmes offered by it.

Courses Offered:

Doctor of Philosophy (Ph.D)

Master of Business Administration (MBA): Intake: 60

The MBA programme structure comprises of 4 semesters. The curriculum of the first two semesters provides the foundation in "basic management" courses. The curriculum of third and fourth semester focuses on imparting indepth training in conceptual and practical aspects of functional specialization and integrating courses. The programme is implemented with a very flexible choice-based credit system. The curriculum offers dual Functional Specialization.

Functional Specialization courses are offered in the following broad areas:

Marketing, Finance, Human Resource Management, IT & Operations Management & Business Analytics



Department of Management

Bachelor of Business Administration (BBA): Intake: 60

The 3 years full time program adopts a Semester system comprising of two semesters (Monsoon and Spring) in an academic year. The course structure includes Core Management subjects along with Functional electives. The curriculum offers dual Functional Specialization. The program follows a combination of Progressive and End Semester Evaluation of student performance.

Functional Specialization courses are offered in the following broad areas:

Finance, Marketing, Human Resources, IT, Business Analytics and Digital Marketing

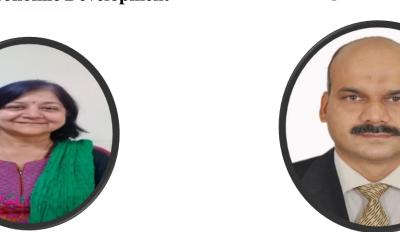
Gems of the Department



DR. ROOPALI SHARMA **Professor and In charge International Trade & Business, Finance Socio-economic Development**



DR. G.P.MISHRA Professor Leadership and **Organizational Effectiveness**



MRS. PANKAJ SHARMA **Assistant Professor Finance and Accounting**



DR. JYOTI KUMAR CHANDEL **Assistant Professor Marketing Management, Tourism Management, Digital Business**



Er. SUBH CHANDRA MISHRA **Associate Professor Industrial Engg, Operations and Supply Chain Management**



DR. RITU PAREEK **Assistant Professor Communication Skills, Technical English, Literature**



Gems of the Department



DR. PRIYANSHU
SHARMA
Associate Lecturer
Accounting and Finance



MS. PURVI MATHUR Associate Lecturer Marketing



DR. KUSUM LATA
MISHRA
Associate Lecturer
Management &
Economics



LIST OF FACULTY MEMBERS

S. No.	Name	Research Area	Other Responsibilities
1	Dr. Roopali Sharma	International Trade & Business, Finance & Socio-economic Development	In Charge - Overall Academic Coordination of the Department, Member of Student & Staff Grievance Cell, Member of Women Cell, Member of Academic Council.
2	Dr. G.P Mishra	Leadership and Organizational Effectiveness	Student Result Analysis, Coordinator International Relations, Member Anti-Ragging Cell.
3	Er. S.C.Mishra	Industrial Engg, Operations and Supply Chain Management	Member of Student & Staff Grievance Cell
4	Mrs. Pankaj Sharma	Finance and Accounting	Member of Student Registration Committee, Member of Training & Placement activities, Member of SARC.
5	Dr. Jyoti Kumar Chandel	Marketing Management, Tourism Management, Digital Business	Members of Sports Committee, Member of IQAC, Member of Training & Placement activities.
6	Dr. Ritu Pareek	Communication Skills, Technical English, Literature	Member of Student Registration Committee, Member of Training & Placement activities.
7	Dr. Priyanshu Sharma	Accounting and Finance	Member of Examination Department, Members of Sports Committee.
8	Dr. Kusum Lata Mishra	Management & Economics	Member of Vibration Committee.
9	Mrs. Purvi Mathur	Marketing	Student Short Attendance Record, News, Member of Publication & Social Media



LABORATORIES

Computer Lab

For analytical research work, the Department has dedicated SYSTAT -V12, TALLY software lab along with shared computer network and software tools facilities of the institution.





LABORATORIES

• Language Lab

The language lab with ORELL Software is equipped with latest version of system assisted language learning and adaptation which assist in learning of foreign languages.





THRUST AREA OF THE DEPARTMENT

1) Socio-Economic Analysis & International Business:

Dr. Roopali Sharma, Professor

Mrs. Pankaj Sharma, Assistant Professor

Dr. Ritu Pareek, Assistant Professor

Dr. Priyanshu Sharma, Associate Lecturer

2) Organizational Leadership:

Dr. G.P. Mishra, Professor, Department of Management

Dr. Kusum Lata Mishra, Associate Lecturer

3) Designing and Testing of Services Marketing Models:

Dr. Jyoti Kumar Chandel, Assistant Professor

Er. S. C. Mishra, Associate Professor

Ms.Purvi Mathur, Associate Lecturer



RESEARCH SCHOLARS IN THE DEPARTMENT

S. No	Name	Research Topic	Guides	Status
1	Diksha Sinha PHD/MB/10001/19	Analysis of Structural Changes and related Foreign Trade Prospects in Indian Floriculture Industry	Guide : Dr. Roopali Sharma Professor Department of Management	Ongoing
2	Neha Saini PHD/MB/10015/14	Analysis of the Food Processing Industry and its Role in Indian Economy	Guide: Dr. Roopali Sharma Professor Department of Management	Awarded
3	Mukesh Kumar Singh PHD/MB/10016/12	A study to Analyse the Impact of Emerging Managerial Practices on Performance of the Hotel Industry in Jaipur Region	1	Awarded
4	Dharmendra Kumawat PHD/MB/10017/12	A study of Public Private Partnership in Operation and Maintenance of Urban Drinking Water Supply System	•	Awarded
5	Santosh Kumar PHD/MB/10018/12	A Study of the Performance of Indian Stock Exchanges During the Period of Global Financial Crisis	*	Awarded



RESEARCH ACTIVITIES IN THE DEPARTMENT

1. Research Project titled "Oil Exploration in the District of Barmer of Rajasthan: Employment Generation and Sectoral Mobilization of Working Force- Some Projections" sanctioned by Ministry of Labour & Employment (Planning Unit), Government of India.

Dr. Roopali Sharma

Project Grant: Rs. 4,97,145/-,



Photograph of Mangla Processing Terminal taken by Research Team



RESEARCH ACTIVITIES IN THE DEPARTMENT

2. Undertaken a Research Project titled "Feasibility study of setting up of Food Processing Zone near by the Irrigated Region of Sri Ganganagar District of Rajasthan and its Socio-Economic Implications" sanctioned by Ministry of Food Processing Industries, Government of India.

Principal Investigator : Dr. Roopali Sharma

Project Grant: Rs. 3,00,000/-, Project Duration 2011-13

(Sanction letter no.- File No. 1-33/2009- Study dated 27/1/2011)



Photograph related to food processing process in Sri Ganganagar region



SPONSORED PROJECTS (APPLIED) IN LAST ONE YEAR: 02

- 1) Title of the Project: "Post-Covid Changing Dimensions of Tourism Industry: A Case Study of Rajasthan"
- Applying Agency: ICSSR (Minor Project)
- Project Director: Dr. Roopali Sharma
- Co-Project Director: Dr. Ritu Pareek & Dr. Priyanshu Sharma
- Application Number: ICSSR-RMM-2022-10812
- 2) Title of the Project: A survey to know the critical challenges faced by around 400 MSME's in the state of Rajasthan and suggests remedies including policy framework in light of the newly launched MSME policy 2022
- Applying Agency: ICSSR (Major Project)
- Project Director: Dr. G.P. Mishra
- Co-Project Director: Dr. Jyoti Chandel
- Application Number: ICSSR-RMM-2022-7811



Technical Clubs Functional in the Department of Management

1) FinPro- A Vision of Finance

(Mentor: Dr. Roopali Sharma;

Co-Mentors : Mrs. Pankaj Sharma & Dr. Priyanshu Sharma)

2) TogetHR- A Vision of Human Resource Management

(Mentor: Dr. G. P Mishra;

Co-Mentor : Dr. Kusum Lata Mishra)

3) Markothan- A Vision of Marketing

(Mentor: Dr. J.K Chandel;

Co-Mentor : Mrs. Purvi Mathur)

4) Literary Club

(Mentor: Dr. Ritu Pareek)



- 1. Saini Neha & Sharma Roopali, Statistical Analysis Impact of Food Processing Industry on Indian Economy, in an International Journal of Health Sciences, 6(S1), page no. 2097-2105 (2022)
- 2. Singh Mukesh, Sharma Roopali & Arora Ritu, Opinion of Employees towards Learning Orientation, and its impact in Firm Performance: An Exploratory Factor Analysis, in Empirical Economics Letters- A monthly International Journal of Economics, Special Issue-2, Volume 20 (September 2021)
- 3. Saini Neha & Sharma Roopali, To Study the Status and Growth Drivers of Food Processing Industry, in International Journal of Agricultural Science & Research, Vol 11, Issue 2, Page no. 91-96, (2021)
- 4. Saini Neha, Sharma Roopali & Arora Ritu, Time Series Analysis of Trends in production and Its impact on the Price of red Chili, in an International Journal of Agricultural and Statistical Science, Volume 16, page 347-353 (2020)
- 5. Singh Mukesh Kumar, Sharma Roopali & Arora Ritu, Employees perception towards market orientation and its impact on firm performance: exploratory factor analysis, in Journal of Advanced Research in Dynamical and Control Systems, Volume 12, Page no. 1824-1829, (2020)
- 6. Kumawat Dharmendra & Sharma Roopali, An Empirical Study for Sustainable policy intervention in urban drinking water supply management using performance indicators, in International Journal of Business Continuity and Risk Management, Volume 9, No. 4, Page no 362-384, (2019)
- 7. Kumawat Dharmendra & Sharma Roopali, Clustering of water Reservoirs based on Water Chemical Analysis, International Journal of Research in Advent Technology, Volume 7, No 65, Page no 274-277, (2019)



- 8. Kumar Santosh, G Pant & Sharma Roopali ,Analysis of Key Barriers in Retirement Planning: An Approach Based on Interpretive Structural Modelling, Journal of Modelling in Management (JM2) , Journal of Modelling in Management, Emerald Publishing Limited, Page no. ,Volume 14, Issue 4. (2019) SCOPUS
- 9. Kumar Santosh & Sharma Roopali, Key Barrier in Growth of Rural Health Care: An ISM MICMAC Approach, Benchmarking: An International Journal, Emerald Publishing Limited, Volume 25, Issue 7, ISSN: 1463-5771. (2018) SCOPUS
- 10. Kumar Santosh & Sharma Roopali, A Test of Herding in Investment Decision: Evidence from Indian Stock Exchange, Pacific Business Review International, Page no.27-34, Volume 10, Issue 11. (2018) SCOPUS Mishra. G.P. & Mishra, K.L. (2022), "Hatch's cultural dynamic theory- Understanding organizational leadership between mechanistic and organismic leading allegories" *DOI-* https://ijssmr.org/current-issue/
- 11. Mishra. G.P. & Mishra, K.L. (2021), "Metaphors of an organization: A research note of an organization as a motherly earth", Chapter contribution for book titled "Business sustainable development and other emerging issues", Red Shine Publication, U.K., DOI. 10.25215/1257005057, ISBN- 978-1-257-00505-5
- 12. Mishra, G.P. & Mishra, K.L. (2020), "Testing A Model of Business Leader's Inclination toward A Promising Prospective Endeavour A Study", Indian Journal of Commerce and Management Studies, Volume XI, Issue 1, DOI: 10.18843/ijcms/v11i1/03, DOI URL: http://dx.doi.org/10.18843/ijcms/v11i1/03 (ISSN: 2249-0310, EISSN: 2229-5674)



- 13. Mishra, G.P. & Mishra, K. L. (2020), Understanding an entrepreneurial option and a preferred choice of microentrepreneurs as a start-up- An exploratory study, Chapter contribution in book titled "Sustainable Entrepreneurship in India", 207-222, Publisher- Research Forum, ISBN No- 978-81-937493-8-8
- 14. Mishra, G.P. & Mishra, K. L. (2019). Organizational change and effectiveness A study of an overview of different authors, International Journal of Recent Advances in Multidisciplinary Research, Vol. 06, Issue 01, 4366-4368.
- 15. Mishra, G.P. (2019). Review of Research paper in Academic Journal "Educational Research and Reviews" Manuscript titled "The Principals' Leadership Practice and Teachers' Motivation in General Secondary Schools Of Hadiya Zone, Southern Ethiopia."
- 16. Mishra, G.P. and Mishra, K. L. (2018). "Role of cultural and status factors in Leadership style and organizational effectiveness An overview", International Journal of Business and Management Invention, Volume 7 Issue 5 Ver. IV.



- 17. Mishra, G.P. and Mishra, K.L. (2018). An overview of literature on co relational field studies and multiple criteria of organizational effectiveness, International Journal of Economics, Business and Management Research, Vol. 2, No. 03.
- 18. Preeti Bhatt, Ritu Pareek. "Feminist Reworking of Folk and Fairy Tales in Angela Carter's Short Stories" *IUP Journal of English Studies*12.2, 68-80. 2017. Scopus Indexed
- 19. Pareek, Ritu. Teaching English: Issues and Challenges published in Exploring English Language Teaching in India: Theory and Practice published by Shanlax Publications, Page No. 98-101. ISBN No. 978-93-91373-97-9. 2021
- 20. Pareek, Ritu. Effective Classroom Pedagogy: A Requisite of the Time published in English Language Teaching Today: Contexts and Issues published by ABS Books, Page No. 106-112. ISBN No. 978-93-91002-36-7. 2021
- 21. Pareek, Ritu. "LSRW Skills: An Imperative Component in Students' Life." *English Language Teaching in the New Normal*. 2022. 24-42.
- 22. Pareek, Ritu. "Effective Classroom Pedagogy: A Requisite of the Time." *Literary Voice*. Art Cave: Ludhiana. 2022. 77-81. Indexed with Web of Science ESCI. Impact factor: 5.46



- 23. Chandel, J. K. (2022). Understanding Adventure Tourists' Profile: A Case Study from Himachal Pradesh (India). *Turizam*, 26(1), 36–56. [Indexed in UGC Approved List at the time of publication]
- 24. Chandel, J. K., Mohiuddin, S. A., & Mishra, G. P. (n.d.). The Drivers of Customer Satisfaction and Loyalty in Automotive Aftermarket Industry. *International Journal of Business Excellence*, (In press). https://doi.org/10.1504/IJBEX.2020.10031317 [Indexed in Scopus at the time of submission]
- 25. Chandel, K., & Chandel, J. K. (2021). Performance Evaluation of Index and Exchange Traded Funds in India During COVID-19 Pandemic. *International Journal of Management and Social Science Research Review*, 8(8). [**Peer reviewed**]
- 26. Chandel, J. K. (2021). Relationships Between Service Quality, Service Value, Equity, Satisfaction and Behavioural Intentions in Adventure Tourism. *International Journal of Tourism & Hotel Business Management*, *3*(1), 430–434. [**Peer reviewed**]
- 27. S. Mishra, G. P., Chandel, J. K., & Mishra, K. L. (2020). Leadership Role and its Effectiveness for Exploring Benefits of Implementing Human Resource Development Programs. *Orissa Journal of Commerce*, *XXXXI*(2), 157–166 [Indexed in UGC Approved List at the time of publication].



- 28. Chandel, J. K., Bansal, S. P., & Gattoufi, S. (2018). Examining the Relationships among Antecedents of Behavioural Intentions in Adventure Sports Context. *Polish Journal of Sport and Tourism*, 25(1), 39–47. [Indexed in Scopus at the time of publication]
- 29. Kumar Santosh, Dudey Rakesh and Sharma Priyanshu, Yoga –An Adjunct therapy to Elude COVID-19, Journal of Xi'an University of Architecture & Technology, Volume XII, Issue XI, 525-530, ISSN No: 1006-7930, (2020).
- 30. Kumar Santosh, Chaudhuri Salineeta, and Sharma Priyanshu, Income Diversification and its Impact on Profitability of Banks, International Journal of Recent Technology and Engineering (IJRTE), Vol-12(4), :11575 11585. ISSN: 2277-3878.(2019)



PUBLICATIONS IN CONFERENCE/ SEMINAR PROCEEDINGS: 06 (LAST FIVE YEARS)

- 1. Kumawat Dharmendra & Sharma Roopali, Pathways to Sustainability Initiatives in the Floriculture Sector, in International Conference on Sustainability: Research, Education and Practice organized by the Department of Management Birla Institute of Technology Mesra, Jaipur, Lalpur, Noida, Patna, May 30-31, 2022, pp 88-89, ISBN: 978-8-19465-875-7
- 2. Sinha Diksha & Sharma Roopali, Capturing Benefits of Digital Transformation for Sustainable Urban Drinking Water Supply, in International Conference on Sustainability: Research, Education and Practice organized by the Department of Management Birla Institute of Technology Mesra, Jaipur, Lalpur, Noida, Patna, May 30-31, 2022, pp 75-76, ISBN: 978-8-19465-875-7
- 3. Sharma Roopali, Impact Analysis of COVID-19 on Floriculture Industry in India, in National Seminar on South Asia: Emerging Challenges and Opportunities, March 24-25, 2021.



PUBLICATIONS IN CONFERENCE/ SEMINAR PROCEEDINGS (LAST FIVE YEARS)

- 4. Kumawat Dharmendra & Sharma Roopali, Drinking Water Security in India: Linking roles of institutions, human resources and policy for sustainability of operations and maintenance, in International Conference on Innovations in Technology and Management for Achieving Sustainable Development Goals, conducted by J K Lakshmipati University, Jaipur on February 1-3, 2019
- 5. G.P. Mishra, Research paper presented at the national convention on Atmanirbhar Bharat: Series of memorial lectures, organized by Indian Institute of Public Administration, New Delhi titled "Development of corporate leadership for Atmanirbhar Bharat- A quasi-experimental study" scheduled 28-29 Dec 2021.
- 6. Purvi Mathur & V K Mathur, Wastage is caused by Consumer Anxiety about Food Shortages & Promotions-Pragmatic Review, in Conference on Excellence in Research & Education (CERE_2022) organized by IIM, Indore, June 3-5, 2022, page no. 13, ISBN No. 978-93-90951-43-7



PUBLICATIONS IN BOOK CHAPTERS

- 1. Mishra, G.P. & Mishra, K. L. (2020), Book Name- Sustainable Entrepreneurship in India, topic-Understanding an entrepreneurial option and a preferred choice of micro-entrepreneurs as a start-up- An exploratory study, 207-222, Publisher- Research Forum, ISBN No- 978-81-937493-8-8
- 2. Chandel, J. K., & Sharma, P. (2020). Cultural Heritage and Tourism Development: A Case Study of Rajasthan. In Queirós, A. D. (Ed.), Examining a New Paradigm of Heritage with Philosophy, Economy, and Education (pp. 194-204). IGI Global. http://doi:10.4018/978-1-7998-3636-0.ch014 (Chapter in IGI Global)



NOTABLE ALUMINI OF THE DEPARTMENT







Harshit Malaviya	MBA (HR and	2009-11	Deputy Vice President
	Marketing)		-Commercial Banking
			& Government
			Banking at AU SMALL
			FINANCE BANK



Saurabh	MBA	Major, Indian Army
Poddar		

NOTABLE ALUMINI OF THE DEPARTMENT



Garvit Bothra	BBA +MBA	2008-11	Treasury Analyst at Wells
		2012-14	Fargo



Shubhi Kirti	IMBA	2015-20	Sales Channel Manager at
Saksena			Tata AIG General Insurance
			Company Limited



Khushboo	IMBA	2011-16	Soft Skill Trainer
Bharadwaj			



Gaurav	BBA +MBA	2011-16	Specialist Officer (Credit)
Agarwal			Indian Bank



NOTABLE START UP's



Pranay Mathur	BBA	2004-07	Wedigtech, Real
			Time Accelerator
			Fund, Jaipur



Sanchit Taksali	MBA	2012-14	Kedia Capital
			Services Private
			Limited , Jaipur



NOTABLE START UP's



Bhavin	BBA	2011-	Owner at
Tanwar	+MBA	16	Purple Saffron
			Restaurant,
			Udaipur



Nimit Gupta	BBA	2003-	Rajasthan
		06	Electric
			Industries,
			Jaipur



ACHIEVEMENTS OF FACULTY MEMBERS

- Dr. Roopali Sharma acted as a Member of Area academic council (AAC) for Area of Finance at Jaipuria Institute of Management, Jaipur
- Dr. G.P Mishra was a resource person in a webinar titled "Accelerating Innovation through WIN", organized by "The office of sponsored research cell & Institute Innovation Centre", BIT Mesra on 6th April 2022.
- Dr. G.P Mishra chaired a session and acted as a Resource person for AICTE-ISTE sponsored online one week Faculty Development Program on "Outcome based education: NBA approach", organized by Gitarattan International Business School, scheduled 4th -10th Jan 2022.
- Dr. G.P Mishra chaired a session and acted as a resource person for an online one-week Faculty Development Program on "Inclusive growth and affirmative action in India- A road map", organized by Indian Institute of Planning and Administration, New Delhi, scheduled 17-23, 2022



ACHIEVEMENTS OF FACULTY MEMBERS

- Dr. Ritu Pareek Chaired a session and acted as a Resource person for AICTE-ISTE sponsored online one week Faculty Development Program on "Outcome based education: NBA approach", organized by Gitarattan International Business School, scheduled 4th -10th Jan 2022.
- Dr. Ritu Pareek Chaired a session and acted as a resource person for an online one-week Faculty Development Program on "Inclusive growth and affirmative action in India- A road map", organized by Indian Institute of Planning and Administration, New Delhi, scheduled 17-23, 2022
- Dr. Ritu Pareek Served as a Resource Person in a seven-day International Short Term Training Programme on Soft Skills for Capacity Building organized by Department of English, SKIT Jaipur from 6 August -12 August 2021
- Dr. Ritu Pareek Served as a Resource Person in Winter School for Students on Enhancing LSRW Skills in English from 1 February- 15 February 2022 organized by Department of English, SKIT Jaipur.
- Dr. Ritu Pareek Served as a Speaker in the Plenary Session in the Virtual Conference on Crisis in Values or Values in Crisis: Value Education Under the Imprint of Covid-19 Pandemic organized by International Internship University- Philippines on 18th February 2022
- Dr. Ritu Pareek Acted as a Resource Person during the International Conference on "Literature Epitomizing Society & Justice, 2021 organized by Knowledge Steez in association with Lomonosov Moscow State University, and Brics Law Journal held on 21st March 2021 via online medium.



RECRUITERS









Deloitte.

































ACTIVITIES CONDUCTED BY THE MANAGEMENT DEPARTMENT (LAST ONE YEAR)



BUSINESS BUZZ 2022

Department of Management organized a Business Quiz- Business Buzz 2022 on August 30, a gathering that was open to all Departments There were 18 teams in total, each with two members.

Three rounds were conducted, covering every aspect of management. The round ended with elimination of some teams and the remaining proceeded to the next round which involved questions related to basic knowledge.

Zahid Jabbar Khan & Monit Parashare of ECE & CSE bagged the 1st position and Heena Jethwani and Sanya Jain bagged the second one.





An Invited Talk 06 September 2022

An Invited Talk on "What Brought You Here, Will not Take You There" was conducted by Mr. Harshit Malviya, Deputy Vice-President & Head HR- Commercial Banking & Government Banking, AU Small Finance Bank on 06 September 2022. Dr. Roopali Sharma-In charge Management Department, welcomed the guest. Mr. Harshit talked about significance of choosing the right career path. He motivated the students to make the best of campus life. Ms. Anmol Agarwal and Ms. Saumya Taneja of BBA semester V.





INDUSTRIAL VISIT

An industrial visit to JAIPUR DAIRY was organized by the department of management on 16th September 2022 in which the undergraduate and post graduate students of the department of management participated. The students interacted with the HR and got the insights of all the products prepared by the dairy like paneer, chhach butter, the procurement of raw material, market for finished products etc was discussed with the students.





Orientation MBA & BBA-2022 Batch, August 8, 2022

The new batch of BBA students was warmly welcomed by the Department of Management- BIT Jaipur Campus. The event started with Saraswati Vandana followed by an institutional prayer. Dr. Roopali Sharma, also welcomed new budding managers with her motivating words.

Mr. Vinod Purohit, RAS, Secretary, Rajasthan State Text Book Board, Jaipur. He highlighted the importance of positive thinking throughout life. In his talk he focused on importance of managerial skills like time management, leadership qualities





International Conference on Sustainability: Research, Education and Practice (SREP-2022),

30-31 May, 2022

The Department of Management of BIT Mesra, Jaipur, Lalpur, Noida, and Patna is hosting the two days International Conference on Sustainability: Research, Education and Practice on 30-31May, 2022.





Webinar: Digital Transformation and Service Transition, 19th March, 2022

A Webinar on "Digital Transformation and Service Transition" was conducted by Mr. Aashish Singh, The Program Director, HCL America Inc. on 19th March, 2022.

Mr. Aashish talked about the digital transformation and its utility. The areas where digital transformations are taking place being identified in IT Process, Operations- Business Model, HR Procurement and Organization Culture.





Webinar on "Marketing of Financial Services"

The Department of Management, BIT Jaipur Campus conducted a Webinar on "Marketing of Financial Services" on January 29, 2022. The event was conducted by Ms. Shubhi Kirti Saksena, Senior Channel Manager in Tata AIG General Insurance Co. Ltd. meeting the motor insurance needs in Pune.





Webinar on Extracurricular Activities, Academic Achievement and Skills Development for the Sustainable Growth in Corporate World

An Interactive Webinar Session held on July 24, 2021 with Mr. Garvit Bothra, a Senior Data Analyst in Nielson IQ in Vadodara, Gujarat. During this session, he highlighted the relationship between Extracurricular Activities, Academic Achievement and Skills Development for the sustainable growth in corporate world.





FUTURE PLAN

- To promote Research Activities in the Department by focusing more on funded research projects and Ph.D research.
- To make Management programmes popular by revising syllabi of existing courses and increasing student activities.



Department of Sciences

- The Department of Sciences of BIT Mesra, Off-Campus Jaipur is an integral part of Institute.
- It combines the important streams of Science i.e. Physics, Mathematics, Chemistry & Environmental Science.
- The department supports in teaching of UG & PG courses of Engineering and Management.
- The department is extensively engaged in basic and applied research activities in Physics, Mathematics & Chemistry in various specializations.

Number of Labs – 03 (Physics Lab, Plasma Lab, Chemistry Lab) Number of faculty members – 08 (Physics-03, Mathematics-03, Chemistry/Env. Sc. -02)



Courses offered:

The department of Sciences offers Ph.D. program in Physics, Mathematics and Chemistry in following specialization,

Subject	Research Area/Specialization	Course Intake
Physics	Plasma Physics, Industrial Plasma Applications, Micro-strip Antenna	8
Mathematics	Heat and Mass Transfer in Boundary layer flows, Fluid Dynamics	14
Chemistry	Ground Water Analysis and Environmental Pollution	4



Gems of the Department Physics

Name of Faculty	Designation	Research Area	
Dr. Anand Kumar Srivastava	Assistant Professor and In-charge	Plasma Physics, Industrial Plasma Applications	
Dr. Dheeraj Bhardwaj	Assistant Professor	Microstrip Patch Antennas and RF Systems	
Dr. Ravindra Kumar	Associate Lecturer	Plasma-Based Surface Modification, Material Science	



Gems of the Department Mathematics

Name of Faculty	Designation	Research Area	
Dr. Gurminder Singh Malhotra	Associate Professor	Heat and Mass Transfer in Boundary layer flows	
Dr. Indra Kumar Dadheech	Assistant Professor	Fluid Dynamics	
Dr. Bhawna Agarwal	Assistant Professor	Fluid Dynamics	



Gems of the Department Chemistry & Environmental Science

Name of Faculty	Designation	Research Area	
Dr. Ranjana Agrawal	Assistant Professor	Ground Water Analysis and Environmental Pollution	
Mrs. Nidhi Singh	Associate Lecturer	Environmental Science & Biological Science	
Dr. Rajni Agarwal	Technical Superintendent (Chemistry)	Industrial water pollution, soil & environmental studies	



Thrust Area for Research

Physics: Plasma Physics, Industrial Plasma Applications, Plasma-based surface modification, Material Science, Micro-strip Patch Antenna design and RF Technology

Mathematics: Heat and Mass transfer in boundary layer flows, Fluid Dynamics

Chemistry: Ground water Analysis, Environmental Pollution, Environmental & Biological Science, Industrial water pollution.



Departmental Labs

Physics Lab

- 1. Newton's ring Apparatus
- 2. Spectrometer Setup for diffraction grating
- 3. Single Slit Diffraction Experiment
- 4. Fresnel's Biprism Experiment
- 5. Polarimeter Setup, Carey Foster's Bridge Setup
- 6. Sonometer, Cathode Ray Oscilloscope (CRO), Potentiometer
- 7. Callender and Barne's Apparatus
- 8. Post Office Box, L-R Circuit
- 9. Refractive index of Prism







Physics/Material Science Lab:

- 1. Hall Effect
- 2. Four Probe Setup
- 3. Searle's Experiment
- 4. Hysteresis Loop Tracer
- 5. Mass Susceptibility by Quinkes's Method
- 6. Thermistor
- 7. Photocell
- 8. P-N junction Diode





Plasma Research Lab

1. Plasma Nitriding System (Under DST Sponsored Project- 2007)

Objective - Popularization of plasma nitriding process in Rajasthan state.





Ultrasonic Cleaner



Sample Polishing Machine



Hardness Tester



Plasma Research Lab

2. DC Glow Discharge Plasma SystemBasic experiments of Plasma formation.

3. Simulation Software

IDL

E-STAT





Chemistry Lab

- 1. To study the kinetics of acid-catalysed hydrolysis of ethyl acetate and to evaluate the value of the rate constant.
- 2. To determine the rate law for the reaction between iodide and hydrogen peroxide in an acidic environment and to determine the effect of a catalyst on the rate of reaction.
- 3. Preparation of Diazoamino Benzene and report the yield of product.
- 4. To draw the pH-titration curve of strong acid vs strong base and to find out the strength of given acid solution.
- 5. Qualitative detection of special elements in organic compound (Nitrogen, sulphur and halogens are usually detected by Lassaigne's test)
- 6. Quantitative estimation of Ca2+ and Mg2+ ions by complexometric titration using Na2-EDTA.
- 7. To verify Beer's Law using cobalt solution by spectrophotometer/colorimeter and to determine the concentration of a given unknown cobalt solution.
- 8. To determine Alkalinity of given water sample.
- 9. To determine Flash and Fire point in the given sample of oil.
- 10. To determine viscosity of the given sample of oil.







Chemistry Lab Equipment

S.No.	Name of equipment	Make
1.	UV-VIS Spectrophotometer	Systronics
2.	VIS Spectrophotometer	Systronics
3.	Flame Photometer	Elico
4	Flame Photometer	Esico
5	Bomb Calorimeter	Advance
6	Muffle Furnace	Ambassador
7	Oven	SEW
8	Oven	Тетро
9	Digital conductivity meter	Systronics
10.	Digital conductivity meter	Systronics
11	pH Meter (2 Nos)	Elico
12	pH Meter	Systonics
13.	pH Meter	Systronics
12.	Water analyzer kit -2	Century /Naina
13.	Nephlo-Turbidity meter	Systronics
14.	pH-ion Analyser	Toshcon
15.	Single pan balance (mechanical)	Dhona
16	Electrical balance single pan CAP 200 GM	K-ROY
17	Weighing Mechine	SHIMADZU
18	Weighing Mechine	Adair Dull
19.	Centrifuging machine	Remi
20.	Shaker	Тетро
21	Hot plates and heating mantles (4 Nos)	
22	Mechanical Stirrer	Remi
23.	Water distillation unit	
24.	Redwood Viscometer	
25	Redwood Viscometer	
26	Flash point apparatus	
27	Flash point apparatus	Sigma
28	Microwave	LG
29	Motor-1/4 HP	Shalimar motor works
30	Motor -1 HP	Crompton greaves
31	Pump motor	Leakless
32	Graph O pH meter 327	Systronic
33	Conductivity meter	Toshniwal



Spectrophotometer



Digital weighing machine



Flame photometer



Penksy Martin and Viscometer



List of Publications (2018-2022)

Journal Publications:

Physics: 10

- 1. Malay B. Chowdhuri, R. Manchanda, A. K. Srivastava et. al, "Impurity Behaviour in high performance ADITYA tokamak Plasmas", Plasma and Fusion Research, Vo. 17, 2402011 (2022).
- 2. Akanksha Gupta, Komal Sharma, Manish Kumarand Dheeraj Bhardwaj, Array of E-Shaped Patch Electromagnetic Gap Coupled Microstrip Antenna with air gap for Wireless Communication, International Journal of Electronics (communicated in SCIE journal) Paper id-TENTN-200-0129. Date of submission-31-1-2022.
- 3. Akanksha Gupta, Komal Sharma, Manish Kumar, Pranav Saxenaand Dheeraj Bhardwaj, Array of E-Shaped Four Corner Truncated Patch Electromagnetic Gap Coupled Wideband Enhanced Gain Microstrip Antenna with air gap for Microwave S- Band Applications, Journal of Computational Electronics, (Communicated in SCIE journal), Paper id JCEL-D-22-00083. Date of submission-28-1-2022.
- 4. R. Kumar, Y. Chandra Sharma, V. V. Sagar and D. Bhardwaj, "Characterization of Low Temperature Plasma Ion Nitriding (PIN) of Inconel 600 and 601 Alloys" Iranian Journal of Materials Science & Engineering, Vol. 17, No. 2, June 2020. (SCIE & Scopus Indexed).
- 5. Dheeraj Bhardwaj, Komal Sharma, Satyarth Sharma and Anubhav Jain, "Dual Frequency Dual Band OM Shape Microstrip Patch Antenna for Wi-Max Applications" Ciencia e Technica Vitivinicola Journal, Vol. 34 (n. 9, 2019). ISSN:2416-3953, Publication Date: 25 December 2019. (SCIE Journal).



List of Publications (2018-2022)

Journal Publications:

- 6. Dheeraj Bhardwaj, Komal Sharma and Satyarth Sharma," Bandwidth Enhancement of Circular Microstrip Patch With Phi Shape Gap Coupling Slot By Varying Air Gap" Ciencia e Technica Vitivinicola Journal, Vol. 34 (n. 9, 2019). ISSN:2416-3953, Publication Date: 25 December 2019. (SCIE Journal).
- 7. S. Patel, A. K. Srivastava, M.B. Chowdhuri, R. Manchanda, J. Ghosh, A. Bhattacharya, J. Raval, U. Nagora, P.K. Atrey, R. L. Tanna and Aditya Team, "Study of Iron impurity behaviour using VUV spectroscopy in ADITYA and ADITYA-U Tokamak" NUCLEAR FUSION, IOP Publishing, Vol. 59, 086019(2019).
- 8. Anand Kumar Srivastava, "Selection of Dielectric Material for Producing Diffuse Dielectric Barrier Discharge Plasma at Atmospheric Pressure", Materials Today: Proceedings, Elsevier, Vol 18, 1033-1038 (2019).
- 9. Ravindra Kumar, Dheeraj Bhardwaj and Y. C. Sharma, A Review on Plasma Ion Nitriding (PIN) Process. Journal on Material Science, 6 (1), 31-44, (2018).
- 10. Kumar, R. Sharma, Y. C. Sagar, V. V. and Bhardwaj, D. (2019). Wear Behavior of Plasma Nitrided Inconel 690 Alloy. Scopus Indexed AIP Conference Proceedings, 2115, 030282, p(1-4). 20531591.



List of Publications (2018-2022)

Journal Publications:

- 11. Ranjana Agrawal, Rashmy Nair, Poonam Ojha. Access of Fluoride and Nitrate in ground water of Rajasthan- Their health hazards and remedial methods. Ecology, Environment and Conservation Journal May, 2022, PP(S574-S576) ISSN 0971-765X.
- 12. Kanika Joshi, Vivekanand Tiwari, Dheeraj Bhardwaj, <u>Design and Simulation of Nature-Inspired Patch Antenna with CPW Feed for Dedicated Short-Range Communication Technology Using HFSS EM Simulation Software</u>, Book Engineering Vibration, CIP, January 2019, pp-459-468, Springer, Singapore.
- 13. Anand Kumar Srivastava edited Book chapters in "Lean Problem Solving and QC Tools for Industrial Engineers", By Maharshi Samanta, CRC Press, Taylor & Francis Group, ISBN-10: 0367730049 978042944170 (2020).



News-Letter Publications (VIPNET, DST) Chemistry-02

- 1. An article titles "To ease chemistry for the students" is published in Vigyan Prasar's monthly newsletter "VIPNET Curiosity "by Dr. Ranjana Agrawal BIT Jaipur (July 2022 issue volume-5, PP 9 -10)
- 2. An article on "Conservation of Water is Today's Necessity "is published in Vigyan Prasar's monthly newsletter "VIPNET Curiosity "by Dr. Rajni Agarwal BIT Jaipur (October 2022 issue volume-3, PP 7-9.)

Patent Applications (2018-2022) Physics-02

- 1. Dr. Dheeraj Bhardwaj, Department of Physics, et al., Applied for an Indian Patent on the title of "A Smart Sun Tracking Solar Panels" Application No.- 358873-001 Applied on the date 20/02/22.
- 2. Dr. Dheeraj Bhardwaj, Department of Physics, et al., Applied for an Indian Patent on the title of "Novel 5G communication microstrip patch antenna for broadcasting and navigation application." Application No.- 202241051840Applied on the date 11/09/2022.

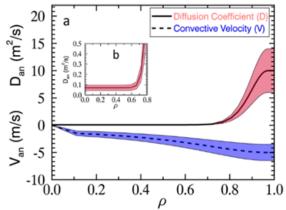


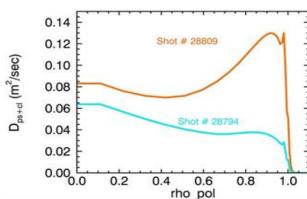
Sponsored Projects:

Plasma Physics Project (2017-2020)

P.I. - Dr. Anand Kumar Srivastava

- **Project title:** Studies of High Z impurity behavior using VUV spectral emissions from the tokamaks in IPR.
- Funding Agency: BRNS, Department of Atomic Energy, Govt. of India
- **Sanctioned Grant:** 25.6 Lakhs
- Important Outcomes:
- 1. Calculation of photon emissivity coefficients (PEC) for Iron ions using ADAS code.
- 2. Use if impurity transport code STRAHL for iron impurity in ADITYA tokamak.
- 3. A VUV spectrum for ADITYA-U tokamak was simulated under consideration of typical plasma parameter, diffusion coefficient (D) and convective velocity (v) profiles and impurities concentrations.
- 4. Spectral line emissions at 28.41 nm of Fe¹⁴⁺ and at 33.54 nm and 36.08 nm of Fe¹⁵⁺ from ADITYA tokamak were analyzed. Obtained diffusion coefficient of iron impurity explained in terms of Neo-classical transport.







Achievements of Faculty (2018-2022)

Dr. Anand Kumar Srivastava, Assistant Professor-Physics received "*Outstanding Reviewer Award 2018*" for review contribution of Journal of Physics D: Applied Physics from IOP Publishing, UK.



Outstanding Reviewer Awards 2018

This is to certify that

Dr Anand Kumar Srivastava

is recognised as an Outstanding Reviewer for

Journal of Physics D: Applied Physics

in 2018

We thank you for your invaluable service in upholding the quality and integrity of our publications.

Antonia Seymour Publishing Director IOP Publishing





Achievements of Faculty (2018-2022)

- **Dr. Anand Kumar Srivastava** reviewed manuscripts from following International journals,

 Journal of Applied Physics, Journal of Electrostatics- Elsevier, Journal of Physics D: Applied Physics

 IEEE Transactions on Plasma Sciences, Applied Physics Letters, Plasma Sources Science & Technology.
- **Dr. Anand Kumar Srivastava** delivered Invited talk entitled, "Stationary and Moving Pattern formation in Surface Dielectric Barrier Discharge Plasma" delivered at 106th Indian Science Congress, LPU Jalandhar, 5th January 2019.
- **Dr. Anand Kumar Srivastava** delivered Invited talk entitled, "Atmospheric Pressure Cold Plasma Sources for Biomedical Applications" delivered at 12th International Conference on Plasma Science and Applications (ICPSA-2019), University of Lucknow, 13 November 2019.
- **Dr. Anand Kumar Srivastava** delivered talk entitled, "Atmospheric Pressure Glow Discharge Plasma Devices for Bio-Medical Applications" at International Conference on Energy & Environment: Challenges and Opportunities for Industries, MNIT Jaipur, 29 December 2019.
- **Dr. Anand Kumar Srivastava** delivered Invited talk entitled, "Prospects of Plasma Science & Technology" at St. Anselm's Pink City School, Jaipur, 30 April 2022.
- **Dr. Dheeraj Bhardwaj**, Assistant Professor-Physics Reviewed the research paper for SCI Journal "Defence science journal" published by DRDO New Delhi in 2021.



Achievements of Students (2018-2022)

B.Tech.-CSE-II Semester Students **Kartik Sharma**, **Tanishq Sharma** and **Shubham Kumar Sain**, won the Second Prize in "*Think and Bring Idea Competition*" Organized by Institute of Advanced Research, Gandhinagar.

Project Title: Pollution Control of Metro City by DBD Plasma Filter.

Faculty Mentor: Dr. Anand Kumar Srivastava





Activities of the Department

1. Department of Physics, BIT Jaipur Campus has organized 36th National Symposium on Plasma Science and Technology (PLASMA-2021) during 13-15 December 2021 in association with Plasma Science Society of India.

Convener – Dr. Anand Kumar Srivastava







2. The Department of Physics has organised "IPR Scientific Outreach Programme on Plasma, Its Applications and Nuclear Fusion" (Plasma Gyaan-2022) during 22-26 August 2022 in association with Institute for Plasma Research, Gandhinagar.

Convener – Dr. Anand Kumar Srivastava



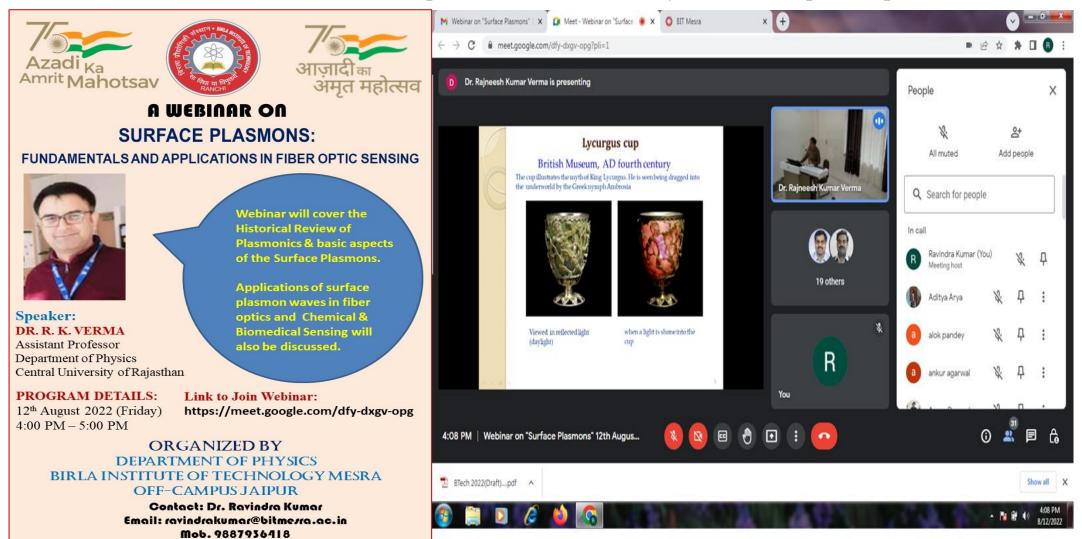




3. Department of Physics Conducted a Webinar on topic "Surface Plasmons: Fundamentals and Applications in Fiber Optic Sensing" on 12th August 2022, 04:00 PM - 05:00 PM.

Speaker: Dr. R. K. Verma, Assistant Professor, Department of Physics, Central University of Rajasthan

Coordinator: Dr. Ravindra Kumar, Department of Sciences (Physics), BIT Jaipur campus

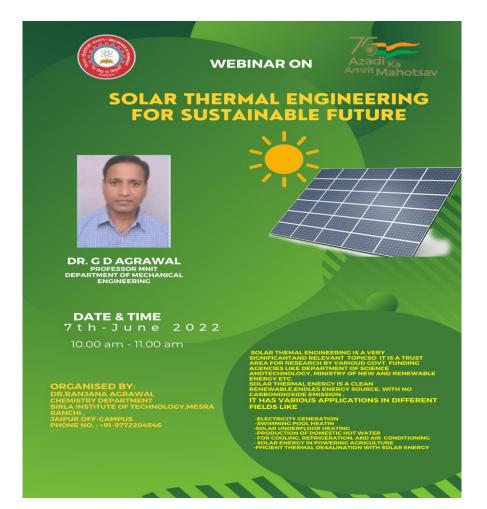




4. Department of Chemistry conducted a webinar on topic "Solar Thermal Engineering for Sustainable Future" on 7th June 2022, Tuesday at 10.00-11.00 AM.

Speaker: Dr. G D Agarwal, Professor, Mechanical Department, MNIT Jaipur

Coordinator: Dr. Ranjana Agrawal, Department of Sciences (Chemistry), BIT Jaipur Campus





5. Department of Sciences (Chemistry) organized a QUIZ on Environmental Studies on 11th October 2022. Coordinators: Dr. Ranjana Agarwal & Mrs. Nidhi Singh







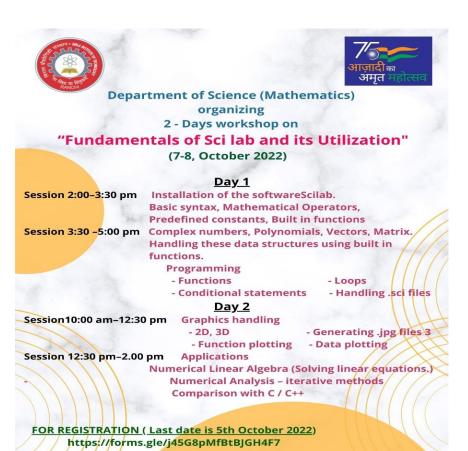






6. The Department of Sciences (Mathematics) conducted a 2-Days workshop on "Fundamentals of SCI Lab and its Utilization" during 7-8 October, 2022.

Coordinators: Dr. Bhawna Agarwal & Dr. Gurminder Singh



Faculty Coordinator
Dr. Bhawna Agarwal

Dr. Gurminder Singh Malhotra







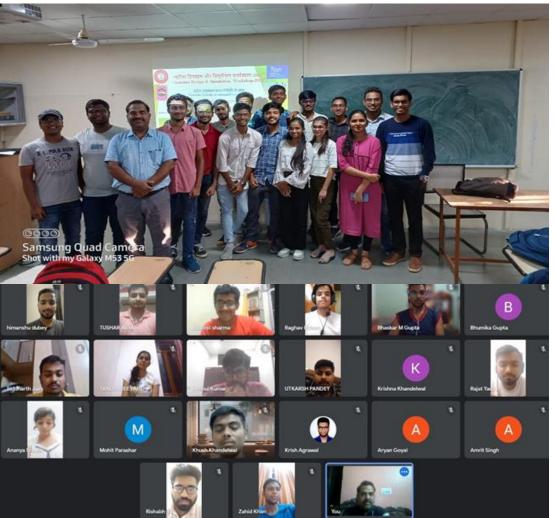




7. Department of Sciences (Physics) conducted a 5-days workshop for BIT Jaipur students on "Design Antennas using simulation tools for Research and Industrial Requirements" through hybrid mode, 10-14 October 2022.

Coordinator & Trainer – Dr. Dheeraj Bhardwaj







Technical Clubs under Department of Sciences

- Scientific Computing Club Mathematics
- Plasma Application Club Physics
- Antenna Research Club Physics
- Green Club Chemistry



DEPARTMENT OF ANIMATION & MULTIMEDIA

The fundamental philosophy of the course is to impart to the students a variety of skills and knowledge required for diverse range of career options in animation and multimedia.

- B.Sc. Animation & Multimedia -3 Years (Established in Year 2005) 40 Seats
- M.Sc. Animation Design (PG) 2 Years (Established in Year 2009) 10 Seats

No. of laboratories: 2 Labs

Number of faculty members: 5

Others: 3 Staff Members

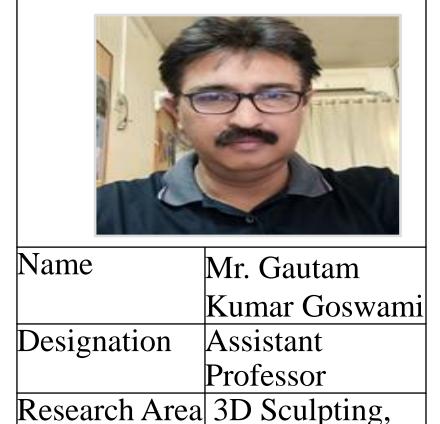








Name	Dr. Vibhuti
	Pandya
Designation	Assistant
	Professor
Research	Animation
Area	And Pre-
	Production



Visual Art, Art

History Mix-

Media







Name	Mr. Manish Kumar
Designation	Assistant Professor
	3D Modeling, Texturing, Lighting, Rigging, Rendering, Animation



Name	Dr. Rishika sharma
Designation	Associate Lecturer
	2D Designing
	& Multimedia :Graphic
	design, Digital painting
	and Advertising Art





Name	Mrs. Neerja
	Sharma
Designation	Scientific
	Officer
Research	Character
Area	Design &
	Museum
	Studies



Name	Mr. Rishi
	Pandey
Designation	Technical
	Assistant
Research	Digital
Area	Marketing &
	Multimedia



Name	Mr. Shyam
	Singh
Designation	Junior Artist
Key Area	Painting &
	Sculpting



Department Team

Other Experts Associated with the Department

The department is well associated with various National and International acclaimed artists and academicians, who occassionaly visit us for workshops and interaction programmes.



Prof. Vidhya Sagar Upadhyay Former Prof. Rajasthan School Of Art & Renowned



Prof. Prosenjit Ganguli Alumni - NID Animation Film Maker



Vaibhav Kumaresh Director - Vaibhay Studios, Renowned Animation Film Maker



Jiwan Kalia Well Known Educationist, Painter, Designer & Film Maker



Prof. Chinmoy Mehta Former Dean, Faculty Of Fine Arts. Rajasthan University. Well known Designer. Painter, Academician



Ranjan De Well Known Designer-Illustrator



Vivek Sharma Well Known Animation Film Maker



Bidyot Jyoti Baruah Well Known Animation Film Maker



Prof. I.U. Khan Associate Professor Dept. of Drawing & Painting, Rajasthan University



Prof. Subroto Mondol Professor, Visual Art Dept. Rajasthan University



Rajat Ojha CEO - The Awesome Game Studio, San Francisco, U.S.A., and Hyderabad



Nisha Trivedi Alumni - NSD, New Delhi, Well Known Performing Artist



Prof. Cara Hagan Internationally acclaimed Contemporary Artist & Academician at State University, U.S.A.



Vinay Sharma Exhibition Officer -Rajasthan Lalit Kala Academy, Jaipur. Renowned Painter



Vipul Kumar Sculptor



LABORATORIES OF ANIMATION & MULTIMEDIA DEPT.

1. Multimedia Lab

- This Lab is equipped with 35
 Computer Systems (Latest
 Version, i-7 with Graphic Card)
- Seven Apple iMac Machines for VFX, Compositing & Editing Process





2. 2D Animation Lab

 30 Animation Disks for Classical Animation









MAJOR SOFTWARES AVAILABLE IN ANIMATION & MULTIMEDIA DEPT.

- Adobe Photoshop
- Adobe Premiere Pro
- Adobe After Effects
- Adobe Animate
- Adobe Illustrator
- Adobe Indesign
- Monkey Jam
- Auto Desk Maya
- Unity, Unreal
- Blender









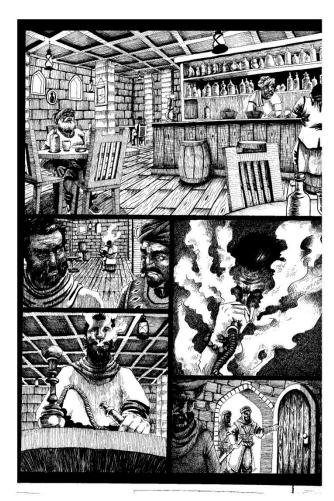


THRUST AREA OF THE DEPARTMENT

• 2D & 3D Digital Art, Character Design, Digital Illustrations, Animation, Visual Effects, Multimedia, Sequential

Storytelling, Graphic Novel, Comics, Stop motion and Animation Short Films.







- A. Implementation of Compositional Elements in New Media Art, Paper Presented in National Seminar on Compositional Elements of Indian Art organized by Dept. of Drawing & Painting, University of Rajasthan, Jaipur & UGC in March 19 by Dr. Vibhuti Pandya.
- B.The Impact of the Corona Epidemic on Contemporary Art, Literature and Society, Presented Paper in the National Webinar on the topic organized by Maharani Lakshmibai Govt. Girls College, Indore, MP on 20th May 2020 by Dr. Vibhuti Pandya.
- C.Evolution of Indian Graphic Novels, paper presented in the conference Innovation of Visual Art at Amity School of Fine Art, Amity University **by Mr. Gautam Kumar Goswami**. D.Compositional aliments in Indian modern Sculpture, paper presented in National seminar organized by Dept. of Drawing & painting, University of Rajasthan, Jaipur in association with U.G.C. **by Mr. Gautam Kumar Goswami**.
- E.Folk & Tribal Art of India: Future Prospects in Animation, presented a paper in one day online International Conference on Innovation in Visual Arts (ICIVA'21) organized by Amity School of Fine Arts, Amity University Uttar Pradesh on 18th November 2021 by Mr. Gaurav Chaudhary.
- F.Exploring the Mandana Art-An approach to jollification, Presented Paper in the National seminar organised by Dept. of Drawing & painting, University of Rajasthan, Jaipur in association with U.G.C. in March 2019 by Dr. Rishika Sharma.
- G.Art and Technology-An Exploratory Study, Paper presented in an International conference organised by VGU, Jaipur in association with MRSI.17-19 Oct.2019 by Dr. Rishika Sharma.
- H.Presented a research paper titled 'Use Of Modern & Contemporary Indian Art In Animation And Multi-Media 'in UGC Sponsored National Seminar held at Dept. of Fine Arts, Kurukshetra University, Kurukshetra. on 8th-9th Feb'14 by **Mr. Gaurav Choudhary**
- I.Presented a research paper titled 'The Journey of Phad A Folk Painting Style' in International seminar and workshop on "Art through different ages" with special reference to performing Folk and fine Art, organized by the Raja Mansingh Tomar Music and Arts University, Gwalior from 16th to 18th January, 2017 by Mr. Gaurav Choudhary.
- J.Presented a research paper titled 'Art, Entertainment and Innovation for Society: Virtual Reality and Augmented Reality 'in 'International Conference on Emerging Technology for Social Equity and Empowerment' held at Birla Institute of Technology (BIT), Noida from 16th to 18th March, 2017. The conference was sponsored by SERB, Government of India and was also supported by the Kent State University, Ohio, USA. **by Mr. Gaurav Choudhary**.
- K.Folk & Tribal Art of India: Future Prospects in Animation, presented a paper in one day online International Conference on Innovation in Visual Arts (ICIVA'21) organized by Amity School of Fine Arts, Amity University Uttar Pradesh on 18th November 2021 by Mr. Rishi Pandey.
- L.Analysis of how advertising art is playing an effective role to achieve the goal of urban and rural prosperity, presented a paper in International Conference on "Sustainable development through Cross-Culture Dimension" organized by Department of English and Department of Visual Arts, Graphic Era Hill University, Dehradun from 2nd to 4th December- 2021 by Mr. Rishi Pandey.
- M.Presented a research paper in 'International Conference on Emerging Technology for Social Equity and Empowerment' held at Birla Institute of Technology (BIT), Noida from 16th to 18th March, 2017. The conference was sponsored by SERB, Government of India and was also supported by the Kent State University, Ohio, USA. by Mr. Rishi Pandey.



Mr. Gautam Kumar Goswami

International Conference on "Innovation in Visual Arts" (ICIVA'21)

Title of Paper: Evolution of Indian Graphic Novels, Organized by Amity School of Fine Art, Amity University, Noida Date: 18.11.2021 ISBN NO. 978-81-94086-00-5

Mr. Gaurav Chaudhary

Paper published in the proceeding of International Conference on "Innovation in Visual Arts" (ICIVA'21)

Title of Paper: Folk & Tribal Art of India: Future

Prospects in Animation

Organized by Amity School of Fine Art, Amity

University, Noida

Date: 18.11.2021

ISBN NO. 978-81-94086-00-5

Mr. Rishi Pandey

Article published in the Journal of the Asiatic Society of Mumbai.

Title of Article: Graphic Designs in Digital Marketing work on Consumers Buying Behaviour.

UGC Care Group-I Journal Volume: XCV, No:27, 2022 ISSN NO. 0972-0766

Mr. Rishi Pandey

Article published in the Journal of the Asiatic Society of Mumbai.

Title of Article: Analysing the Impact of Graphic Designs in Digital Marketing work on Consumers Buying Behaviour.

UGC Care Group-I Journal. XCV, No:27, 2022, ISSN NO. 0972-0766



- Dr. Rishika Sharma: A legate of traditional Aesthetic sensibility and authenticity-In context of Mandana Art, Research paper Published in Pal Arch, Vol. 16 Issue1 (Page No.1-16) 2019.
- Dr. Vibhuti Pandya: Comic Book Design "Meri Kahani Comics Ki Jubani" Published By Save the Children Foundation, Year 2016
- Dr. Vibhuti Pandya: An Illustrative Book Design "Bal Shoshan Kya Hai...?" Published By Save the Children Foundation, Year 2015
- Dr. Vibhuti Pandya: An Illustrative Story Book Design "Sajjanpur Ki Asha AurUchitPoshan" Published By Save the Children Foundation, Year 2010



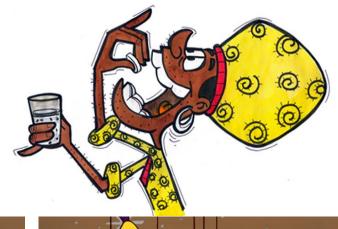
Animation Projects for Ministry of Health, Govt. of Rajasthan

- 1. The Animated Spot Film on BPL Card
- 2. The Animated Spot Film on Patient Counselor
- 3. The Animated Spot Film on Health Care Waste Management











These all films were being broadcasted in the Doordarshan & other local channels



- 26 Episodes Cartoon Series- Titlee in Jugmugland for Eden Animation Studios, Jaipur.
- 50 Short Films done by the students under the guidance of faculty members. Many projects have been screened in international and national film festivals.
- Short Animated Video on Contract Management for France based company- Linpico SARL.













ACHIEVEMENTS OF STUDENTS

Sonam Shekhawat) received a very prestigious award (Emmy Award, USA) 100 Episodes of "Chota-Bheem"

Ms. Joshita Sharma, India Book of Record" for creating the largest National Emblem using thread and nails.

Chandan Singh) received a best runner up award in SSFF (Student short film festival 2021) organized by IDC, IIT BOMBAY. Out of 95 films only two films were nominated in the live action film category.

Best Animation Film in Inspire Kalam International Short Film Festival.

- 2 Short Films "**Dhannjanni**" and "**Tribute**" honored in Sikhnet Film Festival, New Jersey, USA in Year 2013.
- •'Albelo Jaipur', a thesis film made in the Animation & Multimedia Department Year 2018





ACHIEVEMENTS OF FACULTY MEMBERS

- All the faculty members have exhibited their art work/ Films in National and International art and Film Festivals.
- (Dr. Vibhuti Pandya), One of the faculty member selected as one of the Jury Member in Jaipur International Film Festival Awards & New Delhi International Film Festival Awards in Year 2021 & 2022.
- Recently, (Dr. Vibhuti Pandya) One of the faculty member has shortlisted to showcase his art work in the National Exhibition of Masters and upcoming masters of India. This exhibition will be organized at the well-known place-Museum of Goa from 29th Oct. to 6th Nov. 2022.
- (Mr. Gautam Goswami) One of the faculty member was invited as an expert for fifteen days workshop on 3D Modeling by a foreign University "British Kazakh University", Kazakhstan from 5th to 20th March 2015.



PADHARO MAHRE DES

Size: 4x3 Feet

Vibhuti Pandya

(9) SNEHA ARTS Indian Masters & **Upcoming Masters** AT MUSEUM OF GOA MUSEUM OF GOA 79.Industrial Estate. Pilerne, Goa. 403511 CURATORS-SNEHLATA PRASAD & SANDEEP MURGAONKAR 29th oct -6th nov ,2022 Timings - 10 am - 6 pm 29th Oct 2022 @ 6pm Ramkinkar Baij, Nandalal Bose, Jogen Chowdhury, Badri Narayan, Jamini Roy, Raja Rayi Varma, Shakti Burman, Sunil Das, Harender Das, Krishen Khanna, K G Subramanyan, M F Husain, Akbar Padamsee, B Prabha, , Ram Kumar, Jatin Das, , Anjolie Ela Menon, Narayan Sridhar, Bendre, Thota Vaikuntam, G Shantosh, Ramesh Gojrala, Amol Pawar, Sanjib Gogoi, Snehlata Prasad, Leela Deewan. Arti Singhvi, Mullai Rajan, Madan Meena, Shiv Nandini Prasad, Vibhuti Pandya Babu Xavier, Sanjay Kumar, Renu Bala



ACTIVITIES OF THE DEPARTMENT

1. Mrs Mugdha Sinha, IAS, Secretary, DST, Government of Rajasthan, inaugurated Animation Design Exhibition at Animation & Multimedia department

This programme will be organized during 22-26 August 2022.

2. Workshop: "Script writing for Animation documentary films" on 27th August 2022.

Ms. Monika kowaleczko from Poland & Ms. Ivvana & Mr. Chandra Shekhar from Hungary were invited.

Ms. Monika showcased a documentary "The Good Maharaja".











ACTIVITIES OF THE DEPARTMENT

Prof. Pam Factor Professor of Epidemiology, USA, 14th Oct. 2022)

Well-Known educationist Mr. Sandeep Sethi, Director, City Palace Jaipur and Ms. Urvashi Varman, Principal, The Palace School 18th Oct. 2022.











ACTIVITIES OF THE DEPARTMENT

- Seminar on Documentary Film Making and Screening of International Animation Films. Invited Session by Internationally acclaimed Film Makers under Jaipur International Film Festival 2019 on 21st January 2019.
- 1. Harikrishna Anandan, from Switzerland
- 2. Hussain Nuri, from Iran
- 3. ArzuQaderi, from U.K.
- 4. Amr Gamal, from Yeman
- Organized departmental Exhibition during JIFF(Jaipur International Film Festival), inaugurated by the Honorable Chief Minister Mr. Ashok Gehlot. Also participated in Film Screenings, and interactive sessions during the Film Festival, during Jan 2020.











Department of Bioengineering & Biotechnology

The Department is involved in teaching, training and research in the broad area of Biotechnology. The department has conducted courses not only for Jaipur center but also Patna and Deogarh centers. The staff of the department are involved in research in microbial biotechnology, medical biotechnology and computational biology.

Courses: MSc (bioinformatics) being proposed from next academic year (40) Planned

No. of laboratories: 4

Number of faculty members: 3, Others: 1





Name: Krishna Mohan Medicherla

Designation: **Professor**

Research Areas: Microbial Ecology, Medical Genomics



Name: Raj Kumar Gothwal

Designation: Assistant Professor

Research Areas: Applied Microbiology, Microbial Enzymes, Plant-microbe interactions, Microbial Bioprospecting



Name: Pooran Singh Solanki

Designation: **Assistant Professor**

Research Areas: Bioinformatics, Computational Biology



Name: Alok Kumar Varsheney

Designation: **Technical Superindent**

Research Areas: Microbial Enzymes, Environmental Microbiology



LABORATORIES

- Bioprocessing Laboratory
- Microbiology and Molecular Biology Laboratory
- Bioinformatics Centre
- Remote Sensing and Environmental Laboratory









MAJOR SOFTWARES

- Discovery Studio Package from Accelrys
- GCG Sequence Analysis Package
- Exome Horizon from MASCON
- CLC workbench (License to be renewed)
- PDQuest Image Analysis for proteomics
- seeSar
- Ugene



THRUST AREA OF THE DEPARTMENT

Microbial Biotechnology

This thrust area includes microbial diversity analysis of drinking water, salt lakes and desert ecosystems, microbial metagenomics and characterization of industrially important enzymes.

Medical Biotechnology

• This thrust area includes functional genomics, screening mutations for genetic diseases and clinical phenotypes, next generation sequencing and systems understanding of regulatory networks.

Natural Resource Management

• This thrust area includes geo-spatial tagging of different ecosystems, impact assessment and monitoring of drinking water, health infrastructure and landuse/landcover using remote sensing approaches.



SPONSORED PROJECTS (Current)

- A rapid multiplex PCR based detection of water borne human bacterial pathogens". DST Grant Number: P.7 (3) DST/R&D/2016/2258 dated 27/3/2017 (Rs. 12.12 lakhs)
- Inferring regulatory role of LncRNAs associated with Prostate cancer subjects. Funded by Department of Science and technology (DST) under women scientist scheme A. The total project cost **Rs 27.75 lakhs**.
- Biomarkers for oral Cancer (RUHS) Rs. 12.00 Lakhs
- Aplastic Anemia (ICMR & SMS Medical College) Rs. 36 lakhs
- Microbiome studies on Rheumatoid Heart Disease (RUHS & S P Medical college, Bikaner) Rs. 7.5 Lakhs



SPONSORED PROJECTS (Current)

- Design Innovation Centre. Sponsored by MHRD, Gov of India, (March 31, 2026)
 Rs. 100 + 80 lakhs
 - Exploring bioinformatics based methods for screening of tandem repeats and antigenic proteins for development of potential vaccine candidates against *Plasmodium falciparum*.
 - To develop mAbs/drug rescuing to the biomarkers of obesity and diabetes linked to inflammation (eukaryotic translation initiation factor 5A (eIF5A) is catalyzed by deoxyhypusine synthase (DHS). The eIF5A intermediate is subsequently hydroxylated by deoxyhypusine hydroxylase (DHH), thereby converting the eIF5A precursor into a biologically active protein.)
 - Computer Assisted Drug Design Course in online mode (Sept, 21 Feb, 22)



PATENTS APPLIED

• "A novel dielectric barrier discharge (DBD) based portable UV/VUV source for water disinfection" reference No. 797DEL2015.



PUBLICATIONS(LAST FIVE YEARS)

- Vitamin K in human health and metabolism: A nutri-genomics review, 2022. Trends in Food Science & amp; Technology, Volume 119, Pages 412-427.
- Burden of Type 2 Diabetes and Associated Cardiometabolic Traits and Their Heritability Estimates in Endogamous Ethnic Groups of India: Findings from the INDIGENIUS Consortium. *Frontiers in Endocrinology*, section Clinical Diabetes. 14 April, 2022. https://doi.org/10.3389/fendo.2022.847692
- Metagenomic survey reveals more diverse and abundant antibiotic resistance genes in municipal wastewater than hospital wastewater. Frontiers in Microbiology (2021), 12: 1-9.
- Extraction of DNA and RNA from Formalin-Fixed Paraffin-Embedded Tissue Specimens" *Bio-101: e4095*. (2021) DOI: 10.21769/BioProtoc.4095
- The Omic Insights on Unfolding Saga of COVID-19. Front. Immunol. (2021) 12:724914. doi: 10.3389/fimmu.2021.724914
- Comparative study of synonymous codon usage in bacteria growing at extreme temperatures (2021) International Journal of Bioinformatics Research and Applications, Vol.17 No.1, pp.53 68, DOI: https://doi.org/10.1504/IJBRA.2021.113966.
- Comparative study of synonymous codon usage in bacteria growing at extreme temperatures, International Journal of Bioinformatics Research and Applications, 2021 Vol.17 No.1, pp.53 68, DOI: https://doi.org/10.1504/IJBRA.2021.113966
- Biomanagement of Fusarium spp. associated with pulse crops, Editor(s): Ajay Kumar, Samir Droby, Food Security and Plant Disease Management, Elsevier Publisher, 2021, Chapter 21, Pages 423-452. ISSN 9780128218433, doi https://doi.org/10.1016/B978-0-12-821843-3.00010-6



PUBLICATIONS(LAST FIVE YEARS)

- Bio-management of Fusarium spp. associated with oil crops", Editor(s): Vijay Kumar Sharma, Maulin P.Shah, Shobhika Parmar and Ajay Kumar, Fungi Bio-Prospects in Sustainable Agriculture, Environment and Nano-Technology, Elsevier Publisher, Volumw: 1: Chapter 19, Pages 475-505. ISSN: 978-0-12-821394-0, doi- https://doi.org/10.1016/B978-0-12-821394-0.00020-2
- Whole Exome Sequencing of Prostate Cancer in Indian Phenotype Reveals Distinct Polymorphisms". *Front Genet*. 2020; 11:874. Published 2020 Aug 25. doi:10.3389/fgene.2020.00874
- Clinico-epidemiological and genomic profile of first Zika Virus outbreak in India at Jaipur city of Rajasthan state. Journal of Infection and Public Health, 2020, Volume 13, Issue 12, Pages 1920-1926. ISSN 1876-0341, DOI https://doi.org/10.1016/j.jiph.2020.10.006. DOI: https://doi.org/10.1016/j.jiph.2020.10.006
- Transcriptome profiling reveals association of peripheral adipose tissue pathology with type-2 diabetes in asian Indians. Adipocyte. (2019) Vol 8: 125-136. DOI: 10.1080/21623945.2019.1595269
- Systems Genomics of Thigh Adipose Tissue from Asian Indian Type-2 Diabetics Revealed Distinct Protein Interaction Hubs. Front. Genet. (2019) doi.org/10.3389/fgene.2018.00679.
- A Molecular Docking and Pharmacokinetic Prediction of Thiazolidine-2, 4-dione Derivatives: Toward Novel Therapeutic Targets for Type-2 Diabetes Mellitus, International Journal for Computational Biology, Vol.8, No.1, Oct 2019, pp. 02-08 ISSN: 2278-8115, DOI: 10.34040/IJCB.8.1.2019.01
- In silico Prediction of Anti-plasmodial Activity of Spices: Targeting Malarial Proteases, 13(8), KC01-KC06.
- Isolation and Characterization of Thermo-tolerant Phosphate-Solubilizing Bacteria From a Phosphate Mine and Their Rock Phosphate Solubilizing Abilities, Geomicrobiology Journal, vol.32 No. 6, 475-481 (2014).



PUBLICATIONS(LAST FIVE YEARS)

- Congenital Pouch Colon: Role of Genetics or Environmental Influence? Pathobiology (2018) Vol 85(5-6):332-341. DOI: 10.1159/000492432
- Draft Genome Sequence of the Plant Growth-Promoting Rhizobacterium Pseudomonas protegens Strain BNJ-SS-45, Isolated from Rhizosphere Soil of Wheat (Triticum aestivum) Microbiol Resour Announc. (2018) 7:e00926-18; doi:10.1128/MRA.00926-18
- Genetics of Lipodystrophy: Can It Help in Understanding the Pathophysiology of Metabolic Syndrome? Biomolecules. (2018) 6;8(3).
- Draft Genome Sequence of a Fungus (Fusarium tricinctum) Cultured from a Monoisolate Native to the Himalayas. Genome Announc (2018) 6:e00365-18. https://doi.org/10.1128/genomeA.00365-18.
- Whole exome sequencing reveals rare variants linked to congenital pouch colon. Scientific Reports. (2018) 8:6646 DOI:10.1038/s41598-018-24967-y
- A Bioinformatics Pipeline for Whole Exome Sequencing: Overview of the Processing and Steps from Raw Data to Downstream Analysis. bioRxiv preprint (2018). DOI 10.1101/201145
- Application of Chromosomal Microarray for Evaluation of Idiopathic Short Stature in Asian Indian Children: A Pilot Study (2018) DOI10.4103/ijem.IJEM_202_17
- Dielectric Barrier Discharge based Mercury-free plasma UV-lamp for efficient water disinfection. (2017) Scientific Reports 7(1) DOI 10.1038/s41598-017-17455-2
- Histopathological and Immunohistochemical Findings in Congenital Pouch Colon: A Prospective Study. (2017) Pathobiology, DOI: 10.1159/000460821



ACHIEVEMENTS OF STUDENTS

- Bioinformatics based methods for screening of tandem repeats and antigenic proteins for development of potential vaccine candidates against *Plasmodium falciparum*.
 - Secured PDF position US
- To develop mAbs/drug rescuing to the biomarkers of obesity and diabetes linked to inflammation (eukaryotic translation initiation factor 5A (eIF5A) is catalyzed by deoxyhypusine synthase (DHS). The eIF5A intermediate is subsequently hydroxylated by deoxyhypusine hydroxylase (DHH), thereby converting the eIF5A precursor into a biologically active protein.)
 - Secured 1st prize in technical session at INAE youth conclave at Jodhpur 2022



ACHIEVEMENTS OF FACULTY MEMBERS

- V Agnihotrudu Memorial, Award by Mycological Society of India, November, 2017
- Member, BOS, Center for Converging Technologies, UOR, Jaipur
- Member, BOS, IIS University, Jaipur
- Member, Biosafety Committee, Birla Institute of Technology & Science, Pilani, Rajasthan.
- Founder Member, Metabolism and Molecular Research Society, India
- Life Member, Association of Microbiologists of India
- Life Member, Mycological Society of India



ACHIEVEMENTS OF FACULTY MEMBERS

- ➤ Genbank Submission :119 sequences (PoPSet)
 - Role of myocilin (TIGR) gene in primary open angle glaucoma: A clinical and molecular genetics Study, Accession Nos. EF152650 to EF152769 and EF151986 to EF152063.
 - Characterization of mineral phosphate solubilization by a thermo-tolerant rhizobacterium associated with *Commiphora wightii*, Accession No. KC534876.
 - Thermotolerant phosphate solubilizing bacteria from phosphate mines and characterization of their phosphate solubilizing abilities, Accession Nos. KC534873 to KC534875.
 - Biodiversity of phosphate solubilizing thermotolerant bacteria from phosphate mines of Rajasthan, Accession No. JX195720 to JX195722.
 - Optimization of culture conditions for phosphate solubilization by a thermo-tolerant phosphate-solubilizing bacterium *Brevibacillus thermoruber* BISR-HY65 isolated from phosphate mines of Rajasthan, Accession No. JX141618.
 - Optimization of culture conditions for a thermostable chitinase production from *Paenibacillus* sp. BISR-047, Accession No. JX049588, KC750085, KC847051, KR866375.



ACTIVITIES OF THE DEPARTMENT

- Taking Biological Science (BE101) Course at BIT Jaipur, BIT Patna and BIT Deogarh for BTech
- Taught Bioinformatics to MCA students (SP2020)
- Department is proposing a M.Sc Course in Bioinformatics
- Research Collaboration with other departments in BIT
- Organize an outreach program for school students to showcase the Biotechnology and its impact on the society.



Department of Remote Sensing

Remote Sensing in the field of earth sciences was started in the year 1984 with the establishment of Remote Sensing Center for Resource Development at Birla Institute of Scientific Research Jaipur.

The department is equipped with a state-of-the-art Remote Sensing and GIS analysis laboratory having adequate software and hardware resources to cater to the training cum research requirements of the graduate, post graduate students and researchers.



Gems of the Department

Faculty

- 1. DR MAHAVEER PRASAD PUNIA ADJUNCT PROFESSOR
- 2. ER. BINAY KUMAR SINGH SENIOR SCIENTIFIC OFFICER



DR MAHAVEER PRASAD PUNIA



DR. KUTUBUDDIN BEG



ER. BINAY KUMAR SINGH



DR. MANISH SONI

Other Staff

- 1. DR KUTUBUDDIN BEG SENIOR TECHNICAL SUPERINTENDENT
- 2. DR. MANISH SONI SENIOR TECHNICAL SUPERINTENDENT



Other Hardware's & Software's

Hardware	Software
Leica GPS GS20	Arc GIS
Trimble Juno SB (GPS)	Geomatica
Digital Camera	Erdas Imagine
High-End Workstations	ENVI
Desktop Computers	Leica Photogrammetry Suite



List of publications

- 1. Ila Agnihotri, **Punia M.P.**, and Sharma J.R. (2017); Estimation and Assessment of Spatial Variations in Water Availability in West Flowing River Basin of Kutch, Saurashtra and Marwar (WFR-KSM basin) using Geospatial Technology. International Journal of Advanced Remote Sensing and GIS 2017, Volume 6, Issue 1, pp. 1994-2000, Article ID Tech-678 ISSN 2320-0243.
- 2. Pradeep Kumar Sharma, Ritu Vijay, **Punia MP** (2015); Geostatistical evaluation of groundwater quality distribution of Tonk district, Rajasthan.; International Journal of Geomatics and Geosciences Volume 6, No,2015, ISSN 0976-4380.
- 3. Pradeep Kumar Sharma, Ritu Vijay, **Punia MP** (2015); Characterization of groundwater quality of Tonk District, Rajasthan, India using factor analysis. International Journal of Environmental Sciences Volume 6, No 4, 2015, ISSN 0976-4402.
- 4. Pradeep Kumar Sharma, Ritu Vijay, **Punia MP** (2016); Groundwater quality assessment using water quality index and GIS IN Rajasthan, India.; International Journal of Advancement in Remote Sensing, GIS and Geography IJARSGG(2016) Vol.4, No. 2, 12-26, ISSN 2321-9149.
- 5. Ila Agnihotri, **Punia M.P.**, and Sharma J.R. (2017); Trend Analysis of Precipitation Data And Its Spatio Temporal Assessment in West Flowing River Basin of Kutch, Saurashtra, And Marwar (WFR-KSM) Basin, India.; International Journal of Advance Research, Ideas and Innovations In Technology. ISSN: 2454-132X, Impact factor:2.295, Volume3,Issue2.
- 6. lla Agnihotri, **M.P. Punia**, and J.R. Sharma (2018); Assessment of spatial variations in temperature and precipitation extremes in west-flowing river basin of Kutch, Saurashtra and Marwar, India. current science, VOL. 114, No. 2.
- 7. Kumari Anamika, **M. P. Punia** and Chilka Sharma(2021); Jamwa Ramgarh Reservoir: Status and Future Prospects, Journal of Global Resources July 2021 Vol-&(02)
- 8. Ms. Neha Pandey, **Dr. M P Punia** and Chilka Sharma (2021); Status of Ground Water Quality in Bhilwara District of Rajasthan: A Geospatial approach, Book Chapter in Geospatial Technology and Smart Cities, Springer Nature, AG2021.



List of publications

- 9. Estimation of accumulated soil organic carbon stock in tropical forest using geospatial strategy; Pavan Kumar, Prem Chandra Pandey, **B.K. Singh**, Swati Katiyar, V.P. Mandal, Meenu Rani, Vandana Tomar, ShashikantaPatairiya; in National Authority for Remote Sensing and Space Sciences The Egyptian Journal of Remote Sensing and Space Sciences (Elsevier) (January 2016)
- 10. "An Efficient Hybrid Classification Approach for Land Use / Land Cover Analysis in Semi-Desert Area using ETM+ and LISS-III Sensor"; **Singh BK**, Rani Meenu, Kumar Pavan; Sensors Journal, IEEE, vol.13,no.6,pp. 2161, 2165, June 2013 doi: 10.1109/JSEN.2013.2251462
- 11. "An Associative Relational Impact of Water Qualityon Crop Yield: A Comprehensive Index Analysis Using LISS-III Sensor"; Kartar Singh, Pavan Kumar, and **Binay Kumar Singh** IEEE SENSORS JOURNAL, VOL. 13, NO. 12, DECEMBER 2013
- 12. "Evaluation of Urban Sprawl and Land use Land cover Change using Remote Sensing and GIS Techniques: A Case Study of Jaipur City, India"; **Singh BK**, Sankhla Sunil; International Journal of Emerging Technology and Advanced Engineering, ISSN 2250 2459, ISO 9001:2008 Certified Journal, Volume 4, Issue 1, January 2014
- 13. "Efficient Recognition of Forest Species Biodiversity by Inventory Based Geospatial
- 14. Approach Using LISS IV Sensor"; Pavan Kumar, Prem Chandra Pandey, Vipin Kumar, **B. K. Singh**, Vandana Tomar and Meenu Rani; IEEE Sensors Journal, 2014; Citation information: DOI 10.1109/JSEN.2014.2368394
- 15. "Comparison of Data Fusion Technique Using ALOS PALSAR and AVNIR- 2 Optical Data for Feature Identification"; **Singh B. K.**, Sharma Pankaj and Baru Deepika; International Journal of Essential Sciences; Vol.6 No.1 & 2, 2012; E ISSN: 2347 1840



List of publications

- 16. Accepted paper **Beg Kutubuddin**, Chaurey Ravi, (January, 2020) "Identification of Artificial recharge structures for rain water harvesting using Geoinformatics in Birsinghpur region, District Satna, Madhya Pradesh, India" (Reg. No- 6325-5727), 36th International Geological Congress (https://www.36igc.org).
- 17. Kumar Ashish, Chaurey R, Singh R, Panigrahi K, **Beg Kutubuddin**, (September, 2021) "Recharging of groundwater by the geophysical method based on resistivity meter, a case study of Naya Raipur Chhattisgarh" International Journal of Geography, Geology and Environment (P-ISSN: 2706-7483, E-ISSN: 2706-7491), V.3, Issue 2, pp 69-77. (https://www.geojournal.net/)
- 18. Chaurey Ravi, **Beg Kutubuddin**, (August, 2018) "Prioritization of Simrawal Subwatershed using remote sensing and GIS techniques" (Reg. Id-JETIR186460), JETIR Journal of Emerging Technologies and Innovative Research (2349-5162 An International Open Access Journal & UGC and ISSN Approved), Vol- 5, Issue- 8, P-864-869. (https://www.jetir.org)
- **19. Beg Kutubuddin** et. al (July, 2018) "A Hybrid classification approach for Land use /land cover change analysis of Birsinghpur Tehsil, District Satna (M.P.)" International Journal of Advanced Scientific Research and Management (ISSN 2455-6378 UGC Listed Journal 63502) IJASRM," (Paper ID: V3S7_727) Vol-3 issue-7, Page-289-295. (https://www.ijasrm.com)
- **20. Beg K**. et. al (June, 2018) "Assessment of soil fertility and nutrients status of Simrawal and part of Asrawal watershed, Ganga basin" International Journal of Advanced Scientific Research and Management (ISSN 2455-6378 UGC Listed Journal 63502) IJASRM. (Reg no V3S6_592) vol.-3, issue-6, p-78-85. (https://www.ijasrm.com)



Achievements of Remote Sensing Staff

Dr. M. P. Punia, Adjunct Professor

No.	Project name	Sponsoring Agency	Duration	Funding (in lacs)
1	One Day NRDMS Sansitization Workshop for Potential PIs	Department of Science and	2014	1.20
	of Rajasthan under NRDMS Programme at Jaipur	Technology, Govt. of India		
2	Summer / Winter School on Geo-spatial Technologies	Department of Science and	2014	10.00
		Technology, Govt. of India		
3	Summer / Winter School on Geo-spatial Technologies	Department of Science and	2015	10.00
		Technology, Govt. of India		
4	Summer / Winter School on Geo-spatial Technologies	Department of Science and	2017	10.00
		Technology, Govt. of India		
5	Training of Forest Officers on QGIS	Department of Forests, Government of	2017	1.54231
		Rajasthan		
6	Training of Forest Officers on QGIS	Department of Forests, Government of	2018	0.70635
		Rajasthan		
7	One Day NRDMS Sensitization Workshop for Potential PIs	Department of Science and	2018	1.50
	of Rajasthan under NRDMS Programme at Bikaner	Technology, Govt. of India		
8	Training of Forest Officers on QGIS	Department of Forests, Government of	2019	0.90
		Rajasthan		
9	Summer / Winter School on Geo-spatial Technologies	Department of Science and	2019	10.00
		Technology, Govt. of India		
10	Training of Forest Officers on QGIS	Department of Forests, Government of	2020	1.60
		Rajasthan		
	Total Sanction			47.44866



List of Projects – For BISR

	Title of Project	Sponsoring Agency	Year (From-	Fund Value
			to)	(in lacs)
1	Data Preparation for Space based information support for	NRSC, ISRO,	2012 to 2013	75.29192
	Decentralized Planning for Rajasthan State	Hyderabad		
2	Space based information support for Decentralized Planning	NRSC, ISRO,	2013 to 2018	401.00
	Land Use /Land Cover Mapping Project on 1:10,000 scale for	Hyderabad		
	Rajasthan State			
3	Controls of Runoff Parameters on Water Balance of Bishalpur	Department of Science	2015 to 2018	24.832
	Reservoir, Rajasthan and GIS Based catchment management	and Technology, Govt.		
	Protocol	of India		
4	Empowering Panchayati Raj Institutions spatially	NRSC, ISRO,	2016 to 2019	46.65103
		Hyderabad		
5	Satellite Data Processing and Content Generation of CompSat	NRSC, ISRO,	2016 to 2017	5.45187
	data	Hyderabad		
6	National Wasteland Updation Project for Gujarat State	NRSC, ISRO,	2016 to 2017	13.8425
		Hyderabad		
7	National Land Degradation Mapping Project (Second Cycle) for	NRSC, ISRO,	2016 to 2018	33.32
	Gujarat State	Hyderabad		
8	Land Use Land Cover Mapping Project for Gujarat State	NRSC, ISRO,	2016 to 2019	53.788
		Hyderabad		



List of Projects – For BISR

	Title of Project	Sponsoring Agency	Year	Fund Value
			(From-to)	(in lacs)
9	Development of Spatial Decision Support System	Department of Science	2016 to	5.20
	using open source tools	and Technology, Govt. of	2018	
		India		
10	Exploring possibilities of micro irrigation in Chambal	Department of Science	2019 to	43.5976
	and Mahi command area of Rajasthan	and Technology, Govt. of	2022	
		India		
11	Integrated Watershed Management Programme	NRSC, ISRO, Hyderabad	2017-2022	130.39
12	Space based information support for Decentralized	NRSC, ISRO, Hyderabad	2021 to	196.46
	Planning (update) for Gujarat State and Union Teritory		2023	
	of Chandigarh, Delhi, Dadra and Nagar Haweli,			
	Daman and Diu Project on 1:10,000 scales.			
13	GIS Mapping of Microbial Population for their	Department of Science	2021 to	26.95264
	Geographical Position, Geological and Geochemical	and Technology, Govt. of	2024	
	Habitats to Explore Oil and Gas Reservoirs in	India		
	Jaisalmer Sub-Basins of Thar Desert"			

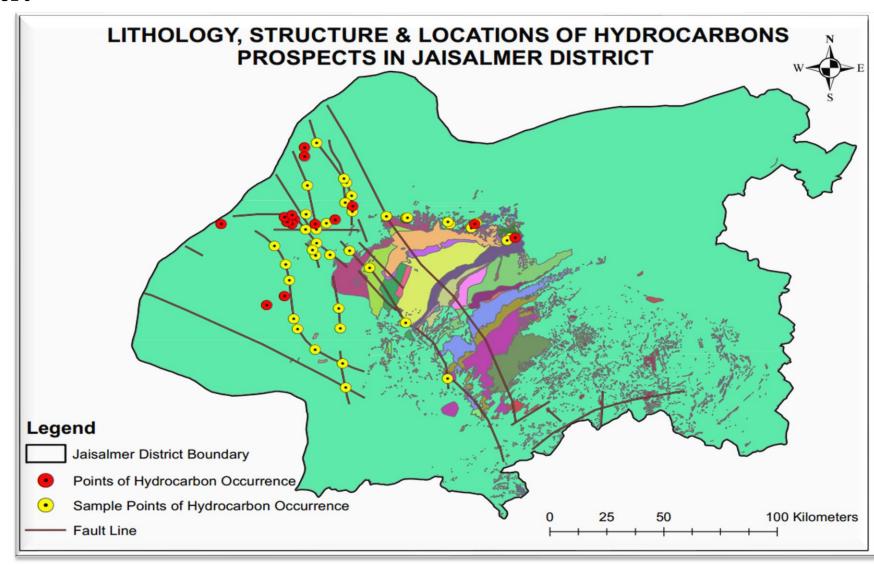


GIS Mapping of Microbial Population for their Geographical Position, Geological and Geochemical Habitats to Explore Oil and Gas Reservoirs in Jaisalmer Sub-Basins of Thar Desert

Sponsored by:
Department of Sc. &
Technology,
New Delhi

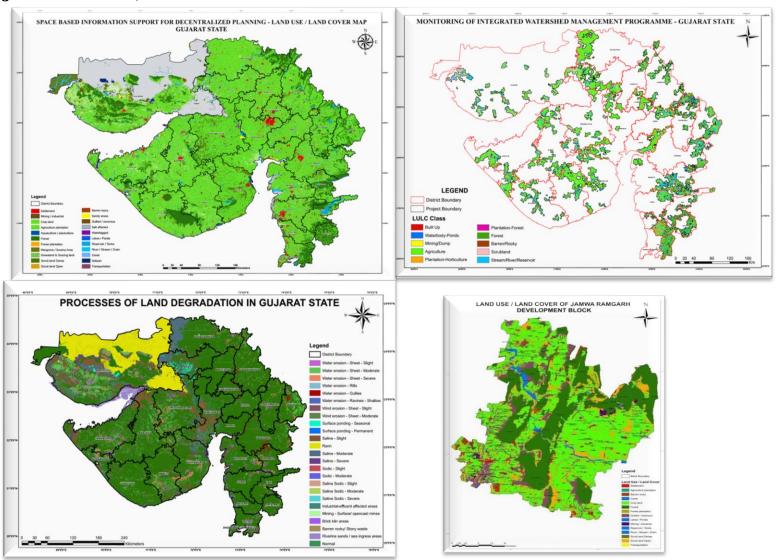
Year 2021:2024

Amount Rs.26.95264 Lacs





Space based information support for Decentralized Planning (update) for Gujarat State and Union Territory of Chandigarh, Delhi, Dadra and Nagar Haweli, Daman and Due Project on 1:10,000 scales.





Exploring possibilities of micro irrigation in Chambal and Mahi command area of Rajasthan

Exploring Possibility of Micro Irrigation System in Chambal Command

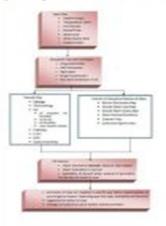
Objectives:

- 1. Estimation of demand of water by various sectors in command areas.
- Analysis of crop water demand by soil moisture detection and evepotranpiration modeling.
- 3. Estimation of watering schedule, time and quantity by soil moisture detection and evepotranpiration modeling.
- 4.Strategy for conjunctive use of surface and ground water for optimization of water supply through implementation of micro irrigation system in the command area as per requirements and feasibility including new probable areas available for irrigation in all major and medium.

Sponsored by:
Department of Sc. &
Technology,
New Delhi

Year 2019:2022

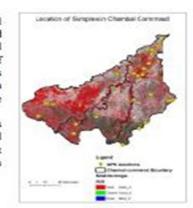
Amount Rs43.5976
Lacs



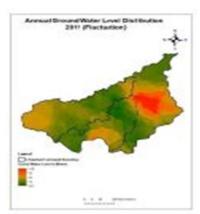
Outcomes: plan to bring additional area under irrigation using saved water from the existing irrigated areas due to implementation of micro irrigation systems. This additional area would produce extra food to add food security of the area.

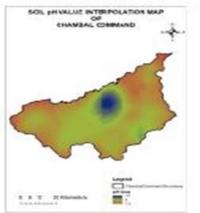
It is also observed that many areas within command are using ground water for irrigation and due to it soils in such areas is converting in to saline soils.

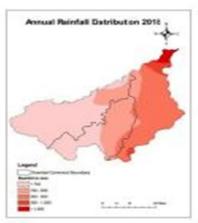


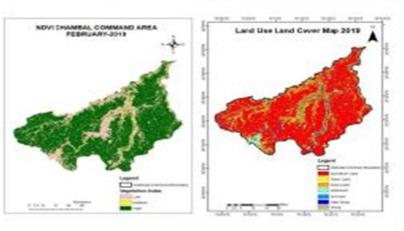














Achievements of Remote Sensing Staff

Er B K Singh

- 1. Conducted a Webinar on "Understanding Geospatial Technologies and Earth Observation Satellite Systems(EOS), Development & Challenges for Engineers" on 17th of September 2022. Dr. Vinod M Bothale, Ex-Associate Director at NRSC/ ISRO, Hyderabad was the eminent speaker of the Webinar
- 2. Got Certificate of Mentorship at IITB-AICTE Mapathon, an initiative of the FOSSEE (Free/Libre and Open Source Software in Education) Project. Indian Institute of Technology, Bombay in association with All India Council for Technical Education held between 22nd February to 29th March 2022.
- 3. Attended *TEQIP III* sponsored one week online FDP on "Cyber Security and Investigation Tools" organized by Department of Computer Science & Engineering Birla Institute of Technology MESRA Ranchi from 11th to 15th September 2020
- 4. Attended TEQIP III sponsored webinar on "IMPACT OF COVID-19 ON MENTAL HEALTH AND WELL BEING" organized by Department of Bioengineering, Birla Institute of Technology MESRA Ranchi 8th August 2020
- 5. Attended webinar on "COVID -19 Pandemic: Incidence and Containment" organized by Internal Quality Assurance Cell (IQAC), Prafull Chandra College Kolkata on 20th July 2020
- 6. Attended TEQIP III sponsored one day Webinar on "Battle against COVID-19: Challenges and Interventions" organized by Department of Bioengineering, Birla Institute of Technology MESRA Ranchi on 27th June 2020
- 7. Guest speaker at One Day National Symposium on 'Geospatial Technologies, Applications and Career Prospects' March 9, 2019, Department of Computer Science & Engineering, SCIT, University Jaipur.



List of Projects – For BIT

Title of Project		PI/Co-PI	Sponsoring Agency	Year	Fund Value	Status
				(From-to)		
Characterization of Land Coverusing Ku with C band data and its applications - SCATSAT-UP		1	SAC, ISRO, Ahmedabad	2017 to 2019	Rs. 10,92,500	Completed
		Prateek Sharma				
		(Co-PI)				
		BKSingh (PI)	SAC, ISRO, Ahmedabad	2013 to 2015	Rs. 7,09,000	Completed
Characterization of Lauusing SARAL-AltiKa Data						
	netric and erometric ubsurface		SAC, ISRO, Ahmedabad and JAXA Japan	2009 to 2011	Rs. 7,00,000	Completed

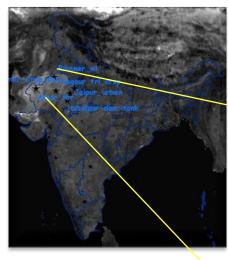


SCATSAT-UP: Characterization of Land Cover using Ku with C band data and its applications

Study Locations – Rajasthan

Objectives

- •Characterization of Spatial and Temporal signatures of land use / cover using Scatterometer backscatter coefficient (σ°).
- •Analysis of backscattering coefficient with brightness temperature and NDVI.
- Source •Open software development for scatterometer/SAR Applications.

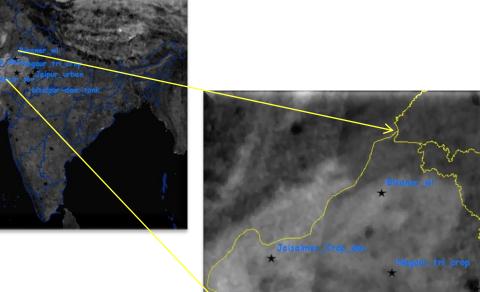


Sponsored by:Space Application Centre, ISRO, Ahmedabad.

10.925 Lacs Amount: Time Period:2017 - 2019

PI:Mr. B.K.Singh, Senior Scientific Officer,

Co-PI:Mr. Prateek Sharma, Senior Scientific Officer, Deptt of CSE



Urban – Jaipur

Bisalpur Dam -

Tonk

Sariska Forest

- Alwar

Triple Crop –

Nagaur

Wasteland – Bikaner

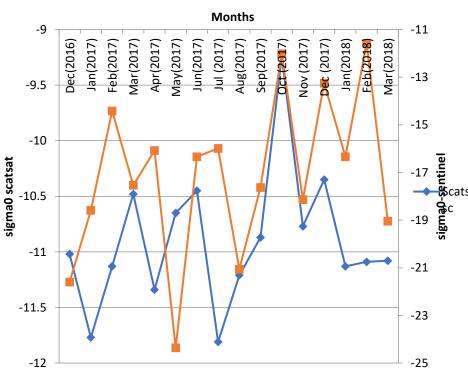
Crop/Desert -

Jaisalmer



SCATSAT-UP: Characterization of Land Cover using Ku with C band data and its applications

Jaisalmer - Crop













Thank You