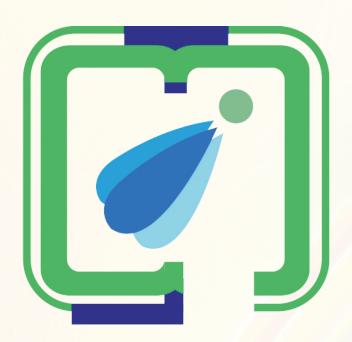
Annual Report 2022-23



Pandit Dwarka Prasad Mishra
INDIAN INSTITUTE OF INFORMATION TECHNOLOGY,
DESIGN AND MANUFACTURING, JABALPUR

(An Institute of National Importance established by an Act of Parliament)

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Virector's Desk





Welcome IIITDM Jabalpur friends & fraternity!

This is one of the finest moments to be revered as we share our academic, research and technical credentials we have achieved in 2022-23. This year has been really fruitful as we have significantly produced many doctorates in all our technical and natural sciences disciplines. With a total strength of 2281 students hailing across all disciplines in undergraduate, postgraduate, and doctoral programmes, we happily march towards setting new goals in all possible areas of our institutional development.

PDPM IIITDM Jabalpur has a unparalleled history of collaborating with Japan through an MOU signed between the prime ministers of the two countries. IIITDM Jabalpur holds an annual meeting of the Steering Committee to review the status of collaboration and prospects of strengthening the international cooperation further with Japan. Furthermore, MOU has been signed with many reputed national and international organizations.

Our institution rejuvenates with pride in organizing various cocurricular and extracurricular events throughout the year and our students have become seamless in bringing several accolades from both intracollege and intercollegiate festivals. Saanjh'22, Leher'22 and Nukkad Natak are cultural programs that have been really popular and has witnessed the real zeal of our students. Saanjh'22 was an event organized by all the cultural clubs of the IIITDM Institute including "SAAZ", "AVARTAN", "ABHIVYAKTI", "SAMVAAD" "JAZBAAT", and

Director's Desk



"SHUTTERBOX" Lasting for three days and being attended by over 1500 students, these events were widely appreciated and commended by all. The event, SAAZ organized three different themed sub-events. Rihaayi: The Solo Performances and Ghazal Night, Eximius: The Instrumental Contest and Bandish: The Band War.

Science & Technology Clubs like Racing Club, The Programming Club, Astronomy and Physics Society, Automotive and Fabrication Club, Electronics & Robotic Club, CAD & 3D Printing Club and Business and Management Club have hosted series of techno festivals throughout the year. Sports Club helped the students to keenly participate in 5th inter IIIT Sports Meet 2023 held at IIITDM Kancheepuram during March 14-17, 2023. Students participated in sports competitions such as Cricket, Badminton, Volleyball, Men's lawn tennis, Men's Basketball, Chess, Football and Kabaddi. IIITDMJ has won the overall champion by winning total no. of 21 trophies.

Hindi Pakhwada- 2022 was celebrated in the Institute. Various competitions were organized for the staff and students and the winners were facilitated with prizes during the Hindi Pakhwada.

The Institute organized various successful campus placement activities and held campus recruitment drives both online and offline. The highest package offered in the year 2022-23 is Rs. 82 LPA by Atlassian. For the current session overall UG average package has been increased by 150%. About 74% of students have received offer of more than Rs. 10 LPA. Institute also allows the students to undertake internship for 6 months to gain sufficient technical knowledge and practical exposure about the corporate workplace culture.

This 2022-23 has been a year of full of promise and hope. In this post pandemic times, in addition to the regular on campus courses, we have been continuing with several hybrid courses too. We have been consistently supporting the students to undertake innovation and entrepreneurial activities. We continuously motivate our students to involve in those individual, pair and group projects that could be really beneficial to our society. To render steadfast commitment and tireless service to our nation and society, let us all earnestly work together with integrity to reach the pinnacle of our success in every endeavour we have logged in.

> (Bhartendu K. Singh) Director

The Institute



Brief Historical Background

Pandit Dwarka Prasad Mishra Indian Institute of Information Technology, Design & Manufacturing Jabalpur (PDPM IIITDM) was established by the Ministry of Human Resource Development, Government of India on January 24, 2005, under Madhya Pradesh Society Registration Act 1973. The foundation stone of the Institute was laid by Late Shri Arjun Singh Ji, the then Minister of Human Resource Development (MHRD) on February 7, 2005. The first academic session of PDPM IIITDM Jabalpur started from August 2005. The Institute started operating from the temporary location at the IT Bhawan of Jabalpur Engineering College. Prof. Sanjay G. Dhande, Director, IIT Kanpur was given the additional charge as the Director of the Institute. Simultaneously, efforts were on to find suitable land where the campus of the new Institute could be developed. On May 3, 2006, a land of 250 acres near Dumna Airport of Jabalpur was identified by the State Government of M.P. and was handed over to the Institute. Construction work of phase I buildings was started in 2007.

PDPM IIITDMJ & Japan Collaboration

Distinct from many other technical institutions in India IIITDM Jabalpur has an international collaboration with Japan through an MOU signed between the prime ministers of the two countries. IIITDMJ-Japan relationship is an aspect of wider partnership which include : (i) Universities and Industries in consortium, (ii) Institute's participation in various programs such as JENESYS, JICA Innovative Asia Program, JST funded Sakura Science Program, (iii) Infrastructural support from Japan, (iv) Placement and Internship in Japan, (v) Joint programs and events such as Execution of Joint research projects and Design Workshops (DeW) etc. IIITDM Jabalpur holds an annual meeting of the Steering Committee to review the status of collaboration and prospects of strengthening the international cooperation further with Japan.

Vision

PDPM Indian Institute of Information Technology, Design and Manufacturing (IIITDM) Jabalpur shall emerge as a Global Knowledge Hub for quality research and teaching under the broad area of Design and Manufacturing through cross disciplinary, innovative, futuristic and dynamic approaches.

Mission

To create an environment of high quality research and training that:

- Provides maximal opportunities for intellectual and creative development.
- Provides exposure to solve real life problems through interdisciplinary approaches.
- Encourages students to learn through inquiry and hands on experience rather than simple transmission of knowledge through classroom teaching.

Values

Besides continuing its ongoing activities, the Institute seeks to act in a manner that is guided by a deep rooted sense of shared values and aspirations for its future planning. Working under such a sound frame of reference, the Institute:

- Seeks to establish and maintain an environment enabling academic community to take intellectual and creative risks and to embrace changes that will lead to the technological innovations and development in future years.
- Encourages, recognizes and rewards high performance in learning, teaching, scholarship, research and other creative activities by promoting intellectual curiosity and protecting the basic principles of academic freedom.
- Provides an environment that imbibes respect for nature and environment, culture and human values.
- Aspires to build an environment of tolerance and reasoned debate without any gender, caste, religious, regional or cross country bias by affirming the worth and personal dignity of every constituent member of the Institute and by contributing to a campus climate of civility.

Institute at a Glance



No. of Faculty	67		
No. of Officers	12 (09 - Administrative Officers, 03 - Technical Officers)		
No. of Support Staff	49		
No. of Students	UG - 2014, Masters - 85, Ph.D 182		
Academic Programs	B.Tech Computer Science and Engineering		
	2. B.Tech.	- Electronics and Communication Engineering	
	3. B.Tech Mechanical Engineering		
	4. B.Tech.	- Smart Manufacturing	
	5. B.Des	Design	
	6. M.Tech.	- Computer Science and Engineering	
	7. M.Tech.	- Electronics and Communication Engineering	
	8. M.Tech.	- Mechanical Engineering	
	9. M.Tech.	- Mechatronics Engineering	
	10. M.Tech.	- Smart Manufacturing	
	11. M.Des.	- Design	
	 Ph.D Computer Science and Engineering Ph.D Electronics and Communication Engineering Ph.D Mechanical Engineering Ph.D Design Ph.D Natural Science (Mathematics) Ph.D Natural Science (Physics) 		
	18. Ph.D I	Liberal Arts (English)	
Campus	1000000 Sqmt. 124039 Sqmt. 2697 Sqmt.		
Functional Building (Plinth Area)			
Building under Construction (Plinth Area)			
	Major	01 Administrative Block	
	Occupied	01 Core Lab Complex + Workshop Annexe	
	Building	01 Lecture Hall and Tutorial Complex	
		01 Library cum Computer Centre	
		03 Hostels (Capacity 1400)	
		01 Girls' Hostel (Capacity 256)	

Institute at a Glance



		01 Visitor's Hostel 01 Mess and Dining Hall 01 Narmada Residency - II (55 Nos. 2 BHK Flats)			
			01 Narmada Residency - III (60 Nos. 2 BHK Flats)		
		01 Rewa Residency-2 (Block A&B) (72 Nos. 2 BHK Flats)			
		02 Type V Quarters (2 Nos. 2 BHK Flats)		Flats)	
		01 Primary Health Center			
		01 Security Barra	ack		
		01 Electrical Substation			
	Students	01 Basket Ball Court (Indoor)			
	Activity	01 Lawn Tennis Court			
	Center	01 Volley Ball Ground			
	Other building under construction				
Total Institutional Project Rs. 2600 Lakh					
Total Research Project		Rs. 1139.22 Lakh			
Income (FY 2022-23)	Grant in Aid	unspent Balance of FY- 2022-23			
(Rs. in Lakh)	5565.00	NIL			
Expenditure (FY 2022-23) (Rs. in Lakh)	Capital (Head 35)	General (Head 31)	Salary (Head 36)	Total	



Administration and Governance: The Institute is now governed under the IIIT Act 2014. Under the said Act the following are the Administrative Authorities of the Institute:

- Board of Governors (BOG)
- * Senate
- Finance Committee (FC)
- \star Building & Works Committee (BWC)

Board of Governors



Chairman **Shri Deepak Ghaisas** Chairman **Gencoval Strategic Services** Pvt. Ltd., Mumbai



Member (Ex-officio) Dr. Jaideep Kumar Mishra Joint Secretary and **Group Coordinator** Ministry of Electronics & Information Technology (01 Apr 2022 - 21 Feb 2023)



Member (Ex-officio) Shri Manish Rastogi **Principal Secretary** Dept. of Science & Technology, Govt. of M.P. (01 Apr 2022 - 02 Jan 2023)



Member (Ex-officio) Shri Bhuvnesh Kumar Additional Secretary and Group Coordinator Ministry of Electronics & Information Technology (22 Feb 2023 onwards)



Member (Ex-officio) Shri Nikunj Srivastava **Principal Secretary** Dept. of Science & Technology, Govt. of M.P. (03 Jan 2023 onwards)



Member Prof. R. V. Rajakumar Director IIT, Bhubaneshwar



Member (Ex-officio) Shri Rakesh Ranjan Additional Secretary (Technical Education) Ministry of Education, Government of India 01 Apr 2022 - 14 Mar 2023)



Member **Prof. Shailendra Singh** Director IIM, Ranchi



Member (Ex-officio) **Smt. Saumya Gupta** Joint Secretary (IIITs) Ministry of Education, Government of India (15 Mar 2023 onwards)



Member Ms. Atreyee Borooah Thekedath Founder Director Web.com (India) Pvt. Ltd. Guwahati





Member **Shri Prashant Pole** Director Disha Consultants, Jabalpur



Member **Prof. Prashant Jain** Professor PDPM IIITDM, Jabalpur



Member Shri Subrahmanya S. V. Former Vice President Infosys Ltd., Bengaluru



Member (Ex-officio) Prof. P.N. Kondekar **Acting Director** PDPM IIITDM, Jabalpur



Member Prof. Sanjeev N. Sharma Professor PDPM IIITDM, Jabalpur



Secretary (Ex-officio) Smt. Swapnali D. Gadekar **Acting Registrar** PDPM IIITDM, Jabalpur

Two meetings of the BOG were held during the year 2022-23.

Senate



Chairperson Prof. P. N. Kondekar **Acting Director** PDPM IIITDM, Jabalpur



Member (Ex-officio) **Prof. Prabin Kumar Padhy** Dean (Academic) PDPM IIITDM, Jabalpur (01 Apr 2022 - 23 Jan 2023)



Member (Ex-officio) Prof. P. N. Kondekar Dean (Planning & Development) PDPM IIITDM, Jabalpur



Member Prof. Sanjeev N. Sharma Dean (Academic) PDPM IIITDM, Jabalpur (24 Jan 2023 onwards)



Member (Ex-officio) **Prof. Tanuja Sheorey** Dean (Student Affairs) PDPM IIITDM, Jabalpur (01 Apr 22 - 24 Jan 2023)



Member (Ex-officio) **Prof. Prashant Jain** Dean (RSPC) PDPM IIITDM, Jabalpur (01 Apr 2022- 19 Jan 2023)



Member (Ex-officio) **Prof. Prashant Jain** Dean (Student Affairs) PDPM IIITDM, Jabalpur (25 Jan 2023 onwards)



Member (Ex-officio) **Prof. Dinesh Kumar Vishwakarma** Dean (RSPC) PDPM IIITDM, Jabalpur 20 Jan 2023 onwards





Member (Ex-officio) **Prof. Prashant Jain** Head (ME Discipline) PDPM IIITDM, Jabalpur (01 Apr 2022 - 23 Jan 2023)



Member (Ex-officio) Dr. Mohd. Zahid Ansari Head (ME Discipline) PDPM IIITDM, Jabalpur (24 Jan 2023 onwards)



Member (Ex-officio) Dr. Anil Kumar Head (ECE Discipline) PDPM IIITDM, Jabalpur (01 Apr 2022- 23 Jan 2023)



Member (Ex-officio) Dr. Matadeen Bansal Head (ECE Discipline) PDPM IIITDM, Jabalpur (24 Jan 2023 onwards)



Member (Ex-officio) Dr. Prabir Mukhopadhyay Head (Design) PDPM IIITDM, Jabalpur



Member (Ex-officio) Dr. Atul Gupta Head (CSE Discipline) PDPM IIITDM, Jabalpur (01 Apr 2022- 22 Jan 2023)



Member (Ex-officio) Dr. V.K. Jain Head (CSE Discipline) PDPM IIITDM, Jabalpur (23 Jan 2023 onwards)



Member (Ex-officio) Dr. Mukesh Kumar Roy Head (Natural Science) PDPM IIITDM, Jabalpur (01 Apr 2022- 23 Jan 2023)



Member (Ex-officio) Dr. Lokendra K. Balyan Head (Natural Science) PDPM IIITDM, Jabalpur (24 Jan 2023 onwards)



Member (Ex-officio) **Dr. Sunil Agrawal** Head (Liberal Art) PDPM IIITDM, Jabalpur



Member Prof. Aparajita Ojha Professor PDPM IIITDM, Jabalpur



Member **Prof. Puneet Tandon** Professor PDPM IIITDM, Jabalpur



Member **Prof. Tanuja Sheorey** Professor PDPM IIITDM, Jabalpur (25 Jan. 2023 onwards)



Member Prof. V. K. Gupta **Professor** PDPM IIITDM, Jabalpur



Member **Prof. Pritee Khanna Professor** PDPM IIITDM, Jabalpur



Member **Prof. Prabin Kumar Padhy** Professor PDPM IIITDM, Jabalpur





Member Dr. Atul Gupta Professor PDPM IIITDM, Jabalpur



Member **Prof. Sushil Kumar** Professor IIM, Lucknow



Member **Prof. B. K. Chakravarthy** Professor IIT, Bombay



Member Shri Rajeev Kumar Singh Global Head Talent Acquisition Wipro Ltd. Pune



Member Prof. K. K. Biswas Professor IIT, Delhi



Secretary (Ex-officio) Smt. Swapnali D. Gadekar **Acting Registrar** PDPM IIITDM, Jabalpur

Member (Representative of Counselling)

Two meetings of the Senate were held during 2022-23.

Various Standing Committees of the Senate

Students Advisory Committee of the Senate (SACS) (From 01/04/2022 to 17/07/2022)

1.	Dr. Prashant K. Jain, Dean (Students)	Convener (Ex-officio)
2.	Prof. Aparajita Ojha, Head Counselling	Member (Ex-officio)
3.	Dr. Manu Srivastava	Member (Warden, Hall-1)
4.	Dr. Harpreet Singh	Member (Warden, Hall-3)
5.	Dr. Pankaj Sharma	Member (Warden, Hall-4)
6.	Dr. Ravi Panwar	Member (Warden, PG Hostel)
7.	Dr. Preeti Khanna	Member (Faculty other than Warden)
8.	Mr. Ghulam Ahmed, Roll No. (1913103)	Member (Student Senate Representative)
9.	Ms. Aayushi Gupta, Roll No. (2018511)	Member (Student Senate Representative)
10.	Ms. Poornima S. Thakur, Roll No. (1811603)	Member (Representative of Counselling)

(From 19/07/2022 to 01/02/2023)

Mr. Vyom Sharma, Roll No. (2017297)

	(From 18/0//2022 to 01/02/2023)	
1.	Prof. Tanuja Sheorey, Dean (Students)	Convener (Ex-officio)
2.	Prof. Aparajita Ojha, Head Counselling	Member (Ex-officio)
3.	Prof. Prashant K. Jain	Member 28/10/2022 onwards
4.	Dr. Sraban Kumar Mohanty	Member (Warden Hall-1)
5.	Dr. Harpreet Singh	Member (Warden, Hall-3)
6.	Dr. Manu Srivastava	Member (Warden, Maa Saraswati Girls Hostel)
7.	Dr. Matadeen Bansal	Member (Faculty other than Warden)

7.	Dr. Matadeen Bansal	Member (Faculty other than Warden)
8.	Mr. Anmol (Roll no. 2019208)	Member (Student Senate Representative)
9.	Mr. Kumar Satyam (Roll no. 2019278)	Member (Student Senate Representative)
10.	UG Coordinator, Counselling Service	Member (Ex-officio)

PG Coordinator, Counselling Service Member (Ex-officio) 11.



(From 02/02/2023 to 31/03/2023)

1. Dr. Manoj Singh Parihar, Associate PIC (Students) Convener

2. Dr. Deepmala, Head Counselling Services Member (Ex-officio)

3. Dr. Irshad Ahmad Ansari, Member, Warden (Vasishtha Hostel) Dr. Tushar Choudhary, Member, Warden (Panini Hostel) 4.

5. Dr. Manu Srivastava Member Warden (Maa Saraswati Girls Hostel)

Member (Faculty other than Warden) 6. Dr. Matadeen Bansal Mr. Om Sharma (Roll no. 20BCS148) 7. Member (Student Senate Representative) 8. Mr. Samarth Raj (Roll no. 21BEC094) Member (Student Senate Representative)

9. **UG** Coordinator, Counselling Service Member (Ex-officio) PG Coordinator, Counselling Service Member (Ex-officio) 10.

2. Scholarship and Prize Award Committee of Senate (SPACS) (From April 01, 2022 to Mar 31, 2023)

Dr. Rakesh Kumar Jha Convener (From 01/04/2022 to 23/01/2023) 1. Dr. Neeraj Kumar Jaiswal 2. Convener (From 24/01/2023 onwards) 3. Dr. Rakesh Kumar Jha Member (From 24/01/2023 onwards)

4. Dr. R. Seetharam Member 5. Dr. Vijaypal Singh Rathore Member 6. Dr. Amrita Bhattacharjee Member 7. Dr. Anil Kumar Member

3. **Academic Programme Committee of Senate (APCS)** (From April 01, 2022 to Mar 31, 2023)

Constituted a committee for APCS for 3 years w.e.f. August 14, 2020.

Director Chairman 1. 2. Head (CSE) Member 3. Head (ECE) Member 4. Head (ME) Member 5. Head (Design) Member 6. Head (NS) Member

7. Professor-in-Charge (Academic) Member, Secretary

Other Committee

Institute Library Committee (From April 01, 2022 to Mar 31, 2023)

Dr. Mukesh Kumar Roy Convener From (01/04/2022 to 30/06/2022) 1. 2. Dr. Asish K. Kundu Convener From (01/07/2022 to 17/08/2022)

Dr. M. Amarnath Convener 18/08/2022 onwards 3.

4. Dr. Neelam Dayal Member (CSE) Dr. Pankaj Sharma Member (ECE) 5. Dr. Tushar Choudhary Member (ME) 6. 7. Dr. Tripti Singh Member (Design) 8. Dr. Yashpal Singh Katharria Member (NS)



Finance Committee



Chairman (Ex-officio) **Shri Deepak Ghaisas** Chairman Gencoval Strategic Services Pvt. Ltd., Mumbai



Member (Ex-officio) Smt. Saumya Gupta Joint Secretary (IIITs) Ministry of Education, Government of India (15 Mar 2023 onwards)



Member (Ex-officio) Shri Rakesh Ranjan Additional Secretary (Technical Education) Ministry of Education, Government of India (01 Apr 2022 - 14 Mar 2023)



Member (Ex-officio) **Shri Anil Kumar** Director (Finance) Ministry of Education, Government of India



Member Ms. Atreyee Borooah Thekedath Founder Director Web.com (India) Pvt. Ltd., Guwahati



Member (Ex-officio) Prof. P.N. Kondekar **Acting Director** PDPM IIITDM, Jabalpur



Member **Shri Prashant Pole** Director Disha Consultants, Jabalpur



Secretary (Ex-officio) Smt. Swapnali D. Gadekar Deputy Registrar PDPM IIITDM, Jabalpur

Two meetings of the Finance Committee were held during the year 2022-23.

Building and Works Committee



Chairperson Prof. P.N. Kondekar **Acting Director** PDPM IIITDM, Jabalpur



Member Er. Jayant Kumar Gupta EE (Civil) CPWD, Bhopal



Member **Shri Atul Kumar Pandey** Project Engineer-cum-**Estate Officer** IIT, Indore



Member **Er. Sunil Trivedi** SE (Electrical) MPPKVVCL, Jabalpur (Feb. 22, 2022 - till date)



Member **Shri Prashant Pole** Director Disha Consultants, Jabalpur



Secretary (Ex-officio) Smt. Swapnali D. Gadekar Acting Registrar & OIC (Estate) PDPM IIITDM, Jabalpur



Member Prof. P. N. Kondekar Dean (Planning & Development) PDPM IIITDM, Jabalpur

Two meetings of the B&WC were held during the year 2022-23.

Office Administration •





Mr. R P Dwivedi Joint Reaistrar MCA, MPM, LLB (Relieved on 24/02/2023 to join as Registrar at IIPE, Visakhapatnam)



Mrs. Menika Patel Assistant Librarian Library MLib



Mrs. Swapnali D. Gadekar Acting Registrar & Secretary (BOG) Deputy Registrar, Finance and Accounts. First Appellate Authority (RTI) MBA



Mr. Shailesh Sharma Assistant Registrar Research, Sponsored Projects & Consultancy (RSPC) Purchase and Store, OIC VH M.Com, MCA, LL.B., MA (Hindi)



Mr. Rizwan Ahmed Deputy Registrar Establishment Internal Audit **General Administration** M.Sc., PGDHRM, LL.B.



Mr. Omvir Singh Bhadauria Assistant Registrar Placement cum Public **Relation Officer** ME, PGDBA



Mr. Vijay Kumar Dubey Executive Engineer (Civil) BE (Civil), MBA



Mrs. Priti Patel Assistant Registrar Academics, International Affairs, IIC & PCC MBA, MCA



Mr. Santosh Mahobia Assistant Registrar Student Affairs, CPIO Official Language Officer, MBA

Technical Officers



Shri Awadhesh Kumar Singh **Technical Officer** Mechatronics, MEMS and NEMS ME From Asian Institute of Technology, Thailand



Shri Aditya Sharma Technical Officer Computer Science & Engineering M.Tech. (CS), Jodhpur National University



Shri D S Ramteke Technical Officer Machine Design Pursuing PhD – IIT Indore

Office Administration



GROUP 'B' STAFF

No.	Name	Designation
1.	Shri R. K. Mishra	Assistant Engineer (Civil)
2.	Shri Sunil Jat	Assistant Engineer (Civil)
3.	Shri Ashok Kumar	Superintendent
4.	Shri Aloysius Beenu Michael	Junior Superintendent
5.	Mrs. Megha Kushwah	Junior Technical Superintendent (Library)
6.	Shri Sandeep Awasthi	Junior Superintendent
7.	Shri Anil Kumar	Junior Superintendent
8.	Shri Dev Krishna Jha	Junior Superintendent
9	Shri Kanhaiya Lal Barmaiya	Junior Superintendent
10.	Shri Nishant Karda	Junior Superintendent
11.	Dr. Sapna S. Tayade	Junior Technical Superintendent (Library)
12.	Shri Mayank Sharma	Junior Engineer (Civil)
13.	Shri Piyush Jain	Junior Engineer (Civil)
14.	Shri Santosh Kumar Gouda	Junior Engineer (Electrical)
15.	Shri Sourav Garari	Junior Engineer (Electrical)
16.	Smt. Savita Shah	Staff Nurse (on contract)

GROUP 'C' STAFF

No.	Name	Designation
1.	Shri Praveen Armo	Senior Assistant
2.	Shri Kamlesh S Warkade	Senior Assistant
3.	Shri Jitendra Bahadur Singh	Senior Assistant
4.	Shri Pankaj Prajapati	Senior Assistant
5.	Shri Simanta kar Gupta	Senior Assistant
6.	Shri Prashant Agnihotri	Senior Assistant



7.	Shri Rajesh Kumar	Senior Assistant
8.	Shri Adesh Kumar	Senior Assistant
9.	Shri Rajesh	Senior Assistant
10.	Shri Abhishek Bawane	Senior Assistant
11.	Shri Richard Saberio	Senior Assistant
12.	Shri Rahul Kumar Deshmukh	Senior Assistant
13.	Smt. Aishwarya Pradhan	Senior Assistant
14.	Shri Akhilesh Shrivastava	Senior Technician
15.	Shri Alok Kulkarni	Senior Technician
16.	Smt. Bharti Kewat	Senior Technician
17.	Shri Piyush Kumar Usrethe	Senior Technician
18.	Shri Ram Dularey Vishwakarma	Senior Technician (upto 03/10/2022)
19.	Shri Anup Bajpai	Senior Technician
20.	Shri Ghanshyam Meshram	Senior Technician
21.	Shri Mayur S. Mungole	Senior Technician
22.	Shri Anupam Shukla	Senior Technician
23.	Shri Varun Dubey	Senior Technician
24.	Smt. Aayesha B. Mansoori	Senior Technician
25.	Shri Milind P. Bobde	Senior Technician
26.	Shri Robinson George Markam	Senior Technician
27.	Shri Anup kumar Gupta	Senior Technician
28.	Shri Tabish Khan	Senior Technician
29.	Shri Manoj Tigga	Senior Technician
30.	Shri Sumit Vishwakarma	Junior Assistant (from 29/12/2022)
31.	Ku. Neha Sharma	Junior Technician
32.	Shri Mohd. Izrael Khan	Driver
33.	Shri Ganesh Prasad Kashyap	Driver

Computer Science and **Engineering**

epartment of Computer Science and Engineering (CSE) offers designcentric programs such as B.Tech in CSE, M.Tech in CSE with two specializations (AI & ML and Data Science), and Ph.D. programs in various research areas. The CSE discipline hosts around 1100 outstanding young minds not only from across the country but also from abroad to stride towards innovation, research, and development in various areas and nurture them to become good citizens to contribute to society.

The department laboratories are well equipped with powerful state-of-the-art Workstations, HPC Servers, Debian Linux servers, and network infrastructures such as the ISDN equipment, network distribution switches, firewall, and redundant wireless access controller to cater to the computing needs of the institute research and professional efforts, and to give exposure of the latest technological advances to the students in various fields of Computer Science and Engineering. The curriculum is being regularly upgraded to allow students to be equipped with the necessary skills required for efficient hardware-software interaction and system development. The graduates find broad scope in IT and product manufacturing-related industries in addition to application development avenues and higher studies.

The department has highly qualified faculty members, who graduated from reputed Universities/Institutions, and are involved in cutting-edge teaching and research in AI and Computational Intelligence, IOT and Embedded Systems, Networking and Security, and Image and Vision Engineering domains. The department has organized many national and international conferences, workshops, and national-level training programs.



Faculty CSE





Aparajita Ojha PhD - RDVV Jabalpur Professor CAGD, Finite Elements, Spline Theory, Approximation Theory, Wavelet Analysis



Pritee Khanna PhD - Kurukshetra University Professor Computer Graphics, Dbms, Data Structures, Algorithms, Computer Enabled **Product Design**



Atul Gupta PhD - IIT Kanpur Professor Software Engineering, Machine learning



Sraban Kumar Mohanty PhD - IIT Guwahati Assistant Professor (Grade I) I/O Efficient algorithms for Matrix Computations



Vinod Kumar Jain PhD - ABV-IIITM Gwalion Assistant Professor (Grade I) Location Estimation in Indoor Wireless Networks



Manish Kumar Bajpai PhD - IIT Kanpur Assistant Professor (Grade I) Parallel Algorithms, Image Reconstruction



Ayan Seal PhD – Jadavpur University Assistant Professor (Grade I) Thermal Face Recognition for Biometric security System (Image Processing and Computer Vision)



Munesh Singh PhD – NIT Rourkela Assistant Professor (Grade I) Wireless Sensor Network



Kusum Kumari Bharti $PhD-ABV\hbox{-} Indian\ Institute\ of\ Information$ Technology Management, Gwalior Assistant Professor (Grade II) Text Clustering



Neelam Dayal Ph.D. - MNNIT Allahabad Assistant Professor (Grade II) Software Defined Network Security



Durgesh Singh PhD - IIT BHU Assistant Professor (Grade II) **Image Processing**



Abhishek Verma PhD - NIT Kurushetra Assistant Professor (Grade II) Internet of things

Faculty CSE





Avinash Chandra Pandey PhD - JIIT Noida Assistant Professor (Grade II) Machine Learning and Computational Intelligence



Vijaypal Singh Rathor PhD - ABVIIITM Gwalior Assistant Professor (Grade II) Design for Trust Techniques for Trustworthy System Design

Journals

- 1. Sawan Rai, Ramesh Chandra Belwal, Atul Gupta, "A review on source code documentation, ACM Transactions on Intelligent Systems and Technology (TIST)", 13(5), 1-44, 21-06-22, https://doi.org/ 10.1145/3519312, 2022.
- 2. Sawan Rai, Ramesh Chandra Belwal, Atul Gupta, "Is the Corpus Ready for Machine Translation? A Case Study with Python to Pseudo-Code Corpus, Arabian Journal for Science and Engineering", 1-14, 19-07-22, https://doi.org/10.1007/s13369-022-07049-0, 2022.
- 3. Ramesh Chandra Belwal, Sawan Rai, Atul Gupta, "Extractive text summarization using clustering-based topic modeling, Soft Computing", 1-18, 04-10-22, https://doi.org/ 10.1007/s00500-022-07534-6, 2022.
- 4. Sawan Rai, Ramesh Chandra Belwal, Atul Gupta, "Generating class name in sequential manner using convolution attention neural network, Expert Systems and Applications", 199, 01-08-22, https://doi.org/10.1016/ j.eswa.2022.116854, 2022.
- 5. Amit Bhati, Neha Gour, Pritee Khanna and A. Ojha, "Discriminative Kernel Convolution Network for Multi-label Ophthalmic Disease

- Detection on Imbalanced Fundus Image Dataset", Computers in Biology and Medicine, 153 (2023), 106519, doi: https://doi.org/ 10.1016/j.compbiomed. 2022.106519.
- 6. P. Bamoriya, G. Siddhad, H. Kaur, Pritee Khanna and A. Ojha, "DSB-GAN: Generation of Deep Learning based Synthetic Biometric Data", Displays, 74, 102267, 2022, doi: https://doi.org/ 10.1016/j.displa. 2022.102267.
- 7. Gourav Siddhad, and Pritee Khanna. "Maxmin threshold-based cancelable biometric templates for low-end devices." Journal of Electronic Imaging 31, no. 3 (2022): 033025.
- 8. Sushil Tiwari, Vinod Kumar Jain, A novel step detection technique for pedestrian dead reckoning based navigation, ICT Express, Volume 9, Issue 1, 2023, Pages 16-21, ISSN 2405-9595, DOI:10.1016/j.icte.2022. 10.004.
- 10. Abdul Atif Khan, Sraban Kumar Mohanty, "A fast spectral clustering technique using MST based proximity graph for diversified datasets", Information Sciences, Volume 609, Pp 1113-1131, 2022.
- 11. Madhuri Gokhale, Sraban Kumar Mohanty, Aparajita Ojha, "A stacked autoencoder based gene selection and cancer



- classification framework", Biomedical Signal Processing and Control, Volume 78, Pp-103999, 2022 (https://doi.org/ 10.1016/ j.bspc.2022.103999).
- 12. Surbhi Soni, Ayan Seal, Anis Yazidi, Ondrej Krejcar, "Graphical representation learningbased approach for automatic classification of electroencephalogram signals in depression", Computers in Biology and Medicine, Vol. 145, pp. 105420, 2022.
- 13. G. Sahu, A. Seal, D. Bhattacharjee, M. Nasipuri, P. Brida and O. Krejcar, "Trends and Prospects of Techniques for Haze Removal From Degraded Images: A Survey," in IEEE Transactions on Emerging Topics in Computational Intelligence, 6(4), pp. 762-782, doi: 10.1109/TETCI.2022. 3173443, 2022.
- 14. Mohan Karnati, Ayan Seal, Geet Sahu; Anis Yazidi, Ondrej Krejcar, "A Novel Multi-Scale Based Deep Convolutional Neural Network for Detecting COVID-19 from X-rays", Applied Soft Computing, Elsevier, vol. 125, pp. 109109, 2022.
- 15. Ayan Seal, Rishabh Bajpai, Mohan Karnati, Jagriti Agnihotri, Anis Yazidi, Enrique Herrera-Viedma, Ondrej Krejcar, "Benchmarks for Machine Learning in Depression Discrimination using Electroencephalography Signals", Applied Intelligence, Springer, 2022.
- 16. Mohan Karnati, Ayan Seal, Anis Yazidi, Ondrej Krejcar, "FLEPNet: Feature Level Ensemble Parallel Network for Facial Expression Recognition", IEEE Transactions on Affective Computing, vol. 13, no. 4, pp. 2058 - 2070, 2022, 10.1109/TAFFC.2022. 3208309.
- 17. Chinmaya Panigrahy, Ayan Seal, Nihar K. Mahato, "Parameter adaptive unit-linking dual-channel PCNN based infrared and visible image fusion, Neurocomputing", 514, 21-38, https://doi.org/10.1016/ j.neucom.

- 2022.09.157, 2022.
- 18. Krishna Kumar Sharma, Ayan Seal, Anis Yazidi, and Ondrej Krejcar, "A New "Adaptive Mixture Distance-based Improved Density Peaks Clustering for Gearbox" Fault Diagnosis", IEEE Transactions on Instrumentation & Measurement, 71, 10.1109/TIM.2022.3216366,2022.
- 19. Geet Sahu, Ayan Seal, Anis Yazidi, and Ondrej Krejcar, "A "Dual-Channel Dehaze-Net for Single Image Dehazing in Visual Internet of Things" using PYNQ-Z2 Board", IEEE Transactions on Automation Science and Engineering, 1-15, 10.1109/TASE. 2022.3217801, 2022.
- 20. Geet Sahu, Ayan Seal, Debotosh Bhattacharjee, Robert Frischer, and Ondrej Krejcar, A Novel Parameter Adaptive Dual Channel MSPCNN-based Single Image Dehazing for Intelligent Transportation Systems, IEEE Transactions on Intelligent Transportation Systems, 24(3), 3027 - 3047, 10.1109/TITS.2022.3225797, 2022.
- 21. Mohan Karnati, Ayan Seal, Debotosh Bhattacharjee, Anis Yazidi, Ondrej Krejcar, Understanding Deep Learning Techniques for Recognition of Human Emotions using Facial Expressions: A Comprehensive Survey, IEEE Transactions on Instrumentation & Measurement, 72, 10.1109/TIM.2023.3243661, 2023.
- 22. Chinmaya Panigrahy, Ayan Seal, Consuelo Gonzalo-Martín, Pooja Pathak, Anand Singh Jalal, "Parameter adaptive unit-linking pulse coupled neural network based MRI-PET/SPECT image fusion, Biomedical Signal Processing and Control", 83, 104659, https://doi.org/10.1016/j.bspc.2023.10465 9,2023.
- 23. Surbhi Soni, Ayan Seal, Sraban Kumar Mohanty, Kouichi Sakurai, "Electroencephalography "signals-based sparse networks integration using a fuzzy



- ensemble technique for "depression detection", Biomedical Signal Processing and Control, 85, 104873, https://doi.org/ 10.1016/j.bspc.2023.104873, 2023.
- 25. Raghvendra Mishra, Manish Bajpai, "Hybrid Multiagent Based Adaptive Genetic Algorithm for Limited View Tomography Using Oppositional Learning", Biomedical Signal Processing & Control, Elsevier, Accepted, (Impact Factor: 3.880).
- 27. D. Singh, S.K. Singh & S.S. Udmale, An efficient self-embedding fragile watermarking scheme for image authentication with two chances for recovery capability. Multimed Tools Appl 82, 1045-1066 (2023). https://doi.org/ 10.1007/s11042-022-13270-8.
- 28. D. Singh, S.S. Udmale & S.K. Singh, Integer wavelet transform based an effective fragile watermarking scheme for exact authentication and restoration. J Ambient Intell Human Comput (2022). https://doi.org/10.1007/s12652-022-04369-9.
- 29. A. Singh, A. Dwivedi, D. Agrawal, et al. Identifying issues in adoption of AI practices in construction supply chains: towards managing sustainability. Oper Manag Res (2023). https://doi.org/ 10.1007/s12063-022-00344-x.
- 30. M. Singh, K.S. Sahoo and A. Nayyar, 2022. Sustainable IoT Solution for Freshwater Aquaculture Management, IEEE Sensors Journal. 22/16, 16563-16572 (2022), 10.1109/JSEN.2022.3188639.
- 31. A. Natarajan, V. Krishnasamy and M. Singh, 2022. Occupancy detection and localization strategies for demand modulated appliance control in Internet of Things enabled home energy management system. Renewable and Sustainable Energy Reviews, 167, p.112731.

- 32. Anisha Natarajan, Vijayakumar Krishnasamy and Munesh Singh. "Device Free Human Motion Detection using Single Link WiFi Channel Measurements for Building Energy Management." IEEE Embedded Systems Letters (2022).
- 33. Girish Sharma, Jyoti Grover and Abhishek Verma. "Performance evaluation of mobile RPL-based IoT networks under version number attack." Computer Communications 197 (2022): 12-22.
- 34. Roop Singh, Mukesh Saraswat, Ashok Alaknanda, Himanshu Mittal, Ashish Tripathi, Avinash Chandra Pandey and Raju Pal. "From classical to soft computing based watermarking techniques: A comprehensive review." Future Generation Computer Systems (2022).
- 35. Avinash Chandra Pandey, Ankur Kulhari, Himanshu Mittal, Ashish Kumar Tripathi, and Raju Pal. "Improved exponential cuckoo search method for sentiment analysis." Multimedia Tools and Applications (2022): 1-51.
- 36. Raju Pal, Ashish Kumar Tripathi, Avinash Chandra Pandey, Mohammad Ayoub Khan, Varun G. Menon, and Himanshu Mittal. "A N2CNN-Based Anomaly Detection Method for Cardiovascular Data in Cyber-Physical System." IEEE Transactions on Network Science and Engineering (2022).
- 37. Himanshu Mittal, Ashish Kumar Tripathi, Avinash Chandra Pandey, Mohammad Dahman Alshehri, Mukesh Saraswat and Raju Pal. "A new intrusion detection method for cyber-physical system in emerging industrial IoT." Computer Communications 190 (2022): 24-35.
- 38. Himanshu Mittal, Ashish Kumar Tripathi, Avinash Chandra Pandey, P. Venu, Varun G. Menon and Raju Pal, "A novel fuzzy clustering-based method for human activity



- recognition in cloud-based industrial IoT environment". Wireless Netw (2022).
- 39. Madhuri Gokhale, Sraban Kumar Mohanty, Aparajita Ojha, "GeneViT: Gene Vision Transformer with Improved DeepInsight for cancer classification, Computers in Biology and Medicine", Volume 155, 2023, 106643.

Conference Publications

1. S. Jain, V.K. Jain and S. Mishra, "Vehicular Traffic Offloading Through Intelligent RSU

- Selection in VANET," 2022 IEEE 6th Conference on Information and Communication Technology (CICT), Gwalior, India, 2022, pp. 1-5, doi: 10.1109/ CICT56698.2022.9997858.
- 2. M. Singh, V. S. Rathor, K. Sagar Sahoo and A. H. Gandomi, "Cooperative Geometric Scheme for Passive Localization of Target in an Indoor Environment," 2022 IEEE Symposium Series on Computational Intelligence (SSCI), Singapore, Singapore, 2022, pp. 238-245, doi: 10.1109/ SSCI51031.2022.10022273.

Electronics and Communication Engineering

he discipline of Electronics and Communication Engineering (ECE) has a perfect combination of teaching and research activities pertaining to field of Electronics and Communication. Since its inception the main objective of discipline is to impart quality education, hands-on training and research in the frontier areas of Electronics & Communication Engineering with broad focus on IT enabled design and manufacturing. The research and teaching expertise of the faculty members of the discipline cover the broad domain of applied and fundamental aspects of Electronics and Communication Engineering. Interdisciplinary research between the research groups of the discipline and with other disciplines and institutes is also in practice. The broad areas of research and academic activities in the discipline are:

- RF & Microwave Engineering
- Communication Engineering
- Signal and Image Processing
- Micro & Nano Electronics
- Power and Control Systems

The Discipline offers four years B. Tech programme to cater to the ever challenging needs of technical excellence in field of Electronics and Communication. In addition, it has strong research programmes leading to M.Tech and Ph.D. degree in all major areas of Electronics and Communication Engineering. Currently a large number of Ph.D. and M.Tech students are engaged in cutting edge research in the Discipline. The Discipline has several state of the art facilities for assisting teaching and research and development in RF & Microwave, Printed RF circuits, Wireless Communication, Digital Signal & Image processing, Nano-electronics and VLSI, Drives & Devices etc.

Faculty ECE •





P N Kondekar PhD - IIT Bombay Professor Microelectronics, VLSI-CMOS level design, Nano electronics devices and Semiconductor power devices, **Technology for Education**



Prabin Kumar Padhy PhD - IIT Guwahati Professor **Control Systems**



Dinesh Kumar Vishwakarma PhD – IISc Bangalore Professor Electromagnetics, Antennas, Microwave, Applied Photonics, Photonic crystals and **Optical Communication**



Sanjeev Narayan Sharma PhD - Thapar University, Patiala . Professor Signal Processing, Computational **Genomics & Proteomics**



Anil Kumar PhD - IIT Roorkee Associate Professor Multirate signal processing



Varun Bajaj PhD From IIT Indore Associate Professor Applied Signal Processing



Rakesh Kumar Jha PhD – NIT Surat Associate Professor Wireless Communications



Manoj Singh Parihar Ph.D. – IIT Delhi Assistant Professor (Grade I) **Reconfigurable Printed Circuits**



Sachin Kumar Jain PhD – IIT Kanpur Assistant Professor (Grade I) Power Quality



Trivesh Kumar PhD - IIT Kanpur Assistant Professor (Grade I) RF, Microwave and Antennas



Matadeen Bansal PhD - ABV-IIITM Gwalior Assistant Professor (Grade I) Wireless Communications & Networking



Biswajeet Mukherjee PhD - IIT Bombay Assistant Professor (Grade I) Microwave and Antenna Engineering

Faculty ECE •





Ravi Panwar PhD - IIT Roorkee Assistant Professor (Grade I) **Broadband Radar Absorbing Materials** Using Fractal Frequency Selective Surface (FSS) for stealth application.



Dip Prakash Samajdar PhD – University of Calcutta Assistant Professor (Grade II) Electronic Science (Material Science)



Atul Kumar PhD - IIT Guwahati Assistant Professor (Grade II) Chaotic Communication, Wireless Communication



Irshad Ahmad Ansari PhD - IIT Roorkee Assistant Professor (Grade II) Image Processing



Pankaj Sharma PhD – IIT Indore Assistant Professor (Grade II) Nanoelectronics, Photovoltaics, IoT, VLSI



Koushik Dutta PhD - IIEST, Shibpur Assistant Professor (Grade II) Metal Oxide Based Gas Sensors



Amit Vishwakarma PhD – IIT Guwahati Assistant Professor (Grade II) **Computer Vision**



Pushpa Raikwal PhD – DAVV Indore Assistant Professor (Grade II) VLSI Design



Journals

- 1. P. Saini, L.K. Balyan, A. Kumar, et al. Comparative analysis of post-processing on spectral collocation methods for nonsmooth functions. SIViP (2022).
- 2. S. Bhalerao, I.A. Ansari & A. Kumar, Reversible ECG Watermarking for Ownership Detection, Tamper Localization, and Recovery. Circuits Syst Signal Process (2022).
- A. Kumar, V. Bajaj and G.K. Singh. "A 3. compact fuzzy min max network with novel trimming strategy for pattern classification." Knowledge-Based Systems 246 (2022): 108620.
- 4. Anil Kumar Sachchisanand and Pankaj Sharma. "Performance Investigation of Organic/Inorganic Bottom Cell on Lead-Sb Br9 Based All-Perovskite Free Cs Tandem Solar Cell." IEEE Transactions on Electron Devices (2022).
- H. Singh, Anil Kumar and L. K. Balyan. 5. "Fractional-order Differintegral based Multiscale Retinex Inspired Texture Dependent Quality Enhancement for Remotely Sensed Images." Multimedia Tools and Applications (2022).
- P. Saini, L.K. Balyan, A. Kumar, et al., 6. "Modification of Chebyshev pseudospectral method to minimize the Gibbs oscillatory behaviour in resynthesizing process." Circuits Syst Signal Process (2022).
- 7. H.S. Pal, A. Kumar, A. Vishwakarma, et al., "Electrocardiogram signal compression using tunable-Q wavelet transform and meta-heuristic optimization techniques." Biomedical Signal Processing and Control (2022).
- 8. A. Kumar, A. Kumar, A. Vishwakarma, et al., "An improved segmentation technique for multilevel thresholding of crop image using cuckoo search algorithm based on recursive minimum cross entropy."IET Signal Processing (2022).

- H. Singh, Himanshu Gupta and Anil 9. Kumar,"Adaptive Conductance Function based Improved Diffusion filtering and Bidimensional Empirical Mode Decomposition based Image Denoising", Multidimensional Systems & Signal Process (2022).
- 10. A. Kumar, A. Kumar, A. Vishwakarma, et al., "Multilevel thresholding for crop image segmentation based on recursive minimum cross entropy using a swarmbased technique."Computers and Electronics in Agriculture (2022).
- A. Kumar, V. Bajaj and G. K. Singh. "A 11. compact fuzzy min max network with novel trimming strategy for pattern classification." Knowledge-Based Systems 246 (2022): 108620.
- 12. Kapil Gupta, Varun Bajaj and Irshad Ahmad Ansari. "An improved deep learning model for automated detection of BBB using ST spectrograms of smoothed VCG signal." IEEE Sensors Journal 22, no. 9 (2022): 8830-8837.
- Kapil Gupta, Varun Bajaj, Irshad Ahmad 13. Ansari and U. Rajendra Acharya. "Hyp-Net: Automated detection of hypertension using deep convolutional neural network and Gabor transform techniques with ballistocardiogram signals." Biocybernetics and Biomedical Engineering 42, no. 3 (2022): 784-796.
- 14. Smith K. Khare, Nikhil B. Gaikwad and Varun Bajaj. "VHERS: A Novel Variational Mode Decomposition and Hilbert Transform-Based EEG Rhythm Separation for Automatic ADHD Detection." IEEE Transactions on Instrumentation and Measurement 71 (2022): 1-10.
- 15. Kapil Gupta and Varun Bajaj. "A Robust Framework for Automated Screening of Diabetic Patient Using ECG Signals." IEEE Sensors Journal 22, no. 24 (2022): 24222-24229.
- 16. Anurodh Kumar, Amit Vishwakarma, Varun Bajaj, CRCCN-Net: Automated framework



- Biomedical Signal Processing and Control 79 (January 1, 2023): 104172. https://doi.org/10.1016/j.bspc.2022.104 172.
- Himanshu Gupta, Himanshu Singh, Anil Kumar and Amit Vishwakarma. "Adaptive Conductance Function Based Improved Diffusion Filtering and Bi-Dimensional Empirical Mode Decomposition Based Image Denoising." Multidimensional Systems and Signal Processing 34, no. 1 (October 13, 2022): 81-125. https://doi.org/10.1007/s11045-022-00850-y.
- 32. Amit Vishwakarma, "Denoising and Inpainting of Sonar Images Using Convolutional Sparse Representation." IEEE Transactions on Instrumentation and Measurement, January 1, 2023, 1. https://doi.org/10.1109/tim.2023.32465
- 33. Kapil Gupta, Varun Bajaj and Irshad Ahmad Ansari. "A support system for automatic classification of hypertension using BCG signals." Expert Systems with Applications 214 (2023): 119058.
- 34. Paridhi Singhai, Anil Kumar, A. Ateek, Irshad Ahmad Ansari, G. K. Singh and Heung No Lee. "ECG Signal Compression Based on Optimization of Wavelet Parameters and Threshold Levels Using Evolutionary Techniques." Circuits, Systems, and Signal Processing (2023): 1-29.
- Rishi Sinhal and Irshad Ahmad Ansari. "Machine learning based multipurpose medical image watermarking." Neural Computing and Applications (2023): 1-22.
- 36. Kapil Gupta, Varun Bajaj and Irshad Ahmad Ansari. "An improved deep learning model for automated detection of BBB using ST spectrograms of smoothed VCG signal." IEEE Sensors Journal 22, no. 9 (2022): 8830-8837.
- 37. Gupta, Kapil, Varun Bajaj, Irshad Ahmad Ansari, and U. Rajendra Acharya. "Hyp-

- Net: Automated detection of hypertension using deep convolutional neural network and Gabor transform techniques with ballistocardiogram signals." Biocybernetics and Biomedical Engineering 42, no. 3 (2022): 784-796.
- Siddharth Bhalerao, Irshad Ahmad Ansari and Anil Kumar. "Reversible ECG Watermarking for Ownership Detection, Tamper Localization, and Recovery." Circuits, Systems, and Signal Processing 41, no. 9 (2022): 5134-5159.
- Rishi Sinhal and Irshad Ahmad Ansari. 39. "Tunable Q-Factor Wavelet Transform-Based Robust Image Watermarking Scheme Using Logistic Mapping and Antlion Optimization." Circuits, Systems, and Signal Processing 41, no. 11 (2022): 6370-6410.
- Rishi Sinhal and Irshad Ahmad Ansari. "A 40. multiple transform based approach for robust and blind image copyright protection." Concurrency and Computation: Practice and Experience 34, no. 28 (2022): e7362.
- Sachchidanand, Anil Kumar, Pankaj 41. Sharma, "Performance Investigation of Organic/Inorganic Bottom Cell on Leadfree Cs3Sb2Br9 based All Perovskite Tandem Solar Cell, IEEE Transactions on Electron Devices 69, 3462 (2022).
- Akash Patnaik, Neeraj K. Jaiswal and Pankaj Sharma, "Role of Device Parameters in Optimizing 2DEG Charge Density in ?-(AlxGa1?x)2O3/Ga2O3 HFET: An Analytical Approach" IEEE Transactions on Electron Devices 69, 3876 (2022).
- Roshan Sharma, Akash Patnaik, Pankaj Sharma, "Impact of doping concentration and recess depth to achieve enhancement mode operation in β-Ga2O3 MOSFET", Microelectronics Journal 135, 105755 (2023).
- Rakesh Kumar Jha, Mittal K Pedhadiya, 44. Anutusha Dogra, Haneet Kour, "Joint resource and power allocation for 5G



- for classification of colorectal tissue using histopathological images, Biomedical Signal Processing and Control, Volume 79, Part 2, 2023, 104172.
- Kapil Gupta and Varun Bajaj. "Deep learning models-based CT-scan image classification for automated screening of COVID-19." Biomedical Signal Processing and Control 80 (2023): 104268.
- 18. Kapil Gupta, Varun Bajaj and Irshad Ahmad Ansari. "A support system for automatic classification of hypertension using BCG signals." Expert Systems with Applications 214 (2023): 119058.
- 19. Smith K. Khare, Varun Bajaj and U. Rajendra Acharya. "SchizoNET: a robust and accurate Margenau-Hill timefrequency distribution based deep neural network model for schizophrenia detection using EEG signals." Physiological Measurement 44, no. 3 (2023): 035005.
- 20. A. Rajput and B. Mukherjee (2023) "Electronically Tunable UWB band stop filter using varactor diode," AEU -International Journal of Electronics and Communications, 164, p. 154610. Available at: https://doi.org/10.1016/ j.aeue.2023.154610.
- M. Mishra, et al. (2022) Low profile, wideband, high gain CDRA with microstrip feed for ISM and C band applications, Progress In Electromagnetics Research C. EMW Publishing. Available at: https://test.jpier.org/PIERC/pier.php?pap er=22091402 (Accessed: April 25, 2023).
- 22. A. Rajput, and B. Mukherjee (2022) "An electronically reconfigurable single to dual-band bandstop filter for RFID and Modern Wireless Communication Application," IEEE Journal of Radio Frequency Identification, 6, pp. 534–539. Available at: https://doi.org/ 10.1109/jrfid.2022.3202364.
- 23. Sanghmitra et al. (2022) "Y- shaped dielectric resonator MIMO antenna for omnidirection Radiation pattern,"

- Electromagnetics, 42(3), pp. 157–167. Available at: https://doi.org/ 10.1080/02726343.2022.2085894.
- 24. M. Agrawal & T. Kumar (2023). A substrate integrated waveguide (SIW) based selfquadruplexing antenna for Ku-band applications. International Journal of Microwave and Wireless Technologies, 15(2), 289-297. doi:10.1017/ S1759078722000265.
- 25. Shailendra Singh and Matadeen Bansal. "On the performance of STBC-NOMA assisted overlay cognitive system under CEEs and imperfect SIC." Vehicular Communications 39 (2023): 100546
- 26. Prashant Dwivedy, Vipul Dixit and Atul Kumar, "Cooperative VLC system usingOOK modulation with imperfect CSI," Physica Scripta, 98, pp. 1-10, 2023".
- Vipul Dixit and Atul Kumar, "Error 27. performance of an L-PPM modulated ADR based MIMO-VLC system with and without channel estimation error," Applied Optics, 62 (10), pp. 2501-2509, 2023.
- Hardev Singh Pal, Ashok Kumar, Amit 28. Vishwakarma and Mitul Kumar Ahirwal. "Electrocardiogram Signal Compression Using Tunable-Q Wavelet Transform and Meta-Heuristic Optimization Techniques." Biomedical Signal Processing and Control 78 (September 1, 2022): 103932. https://doi.org/10.1016/j.bspc.2022.103 932.
- 29. Anil Kumar, Anil Kumar, Amit Vishwakarma, and H. Lee. "An Improved Segmentation Technique for Multilevel Thresholding of Crop Image Using Cuckoo Search Algorithm Based on Recursive Minimum Cross Entropy." let Signal Processing 16, no. 6 (August 8, 2022): 630-49. https://doi.org/10.1049/ sil2.12148.
- 30. Ashok Kumar, Amit Vishwakarma and Varun Bajaj. "CRCCN-Net: Automated Framework for Classification of Colorectal Tissue Using Histopathological Images."



- enabled D2D networking with NOMA", Computer Networks, 222, 109536, 02-01-2023, https://doi.org/10.1016/i.comnet. 2022.109536.
- Misbah Shafi and Rakesh Kumar Jha. "Recent Security Issues and Countermeasures on IoHT." In Smart and Secure Internet of Healthcare Things, pp. 127-136. CRC Press, 2022.
- 46. Himani Sharma and Rakesh Kumar Jha. "Successive Light Interference Cancellation and Allocation (SLICA) Algorithm for Indoor VLC System: A Backbone for 6G Network." IEEE Access (2022).
- 47. Misbah Shafi, Rakesh Kumar Jha and Sanjeev Jain. "LGTBIDS: Layer-wise Graph Theory Based Intrusion Detection System in Beyond 5G." IEEE Transactions on Network and Service Management (2022).
- 48. Rashika Raina and Rakesh Kumar Jha. "Intelligent and Interactive Healthcare System (I 2 HS) Using Machine Learning." IEEE Access 10 (2022): 116402-116424.
- Misbah Shafi, Rakesh Kumar Jha and Sanjeev Jain. "Behavioral Model for Live Detection of Apps Based Attack." IEEE Transactions on Computational Social Systems (2022).
- 50. Himani Sharma and Rakesh Kumar Jha. "VLC Enabled Hybrid Wireless Network for B5G/6G Communications." Wireless Personal Communications 124, no. 2 (2022): 1741-1771.
- 51. I. Sil, B Chakraborty, K Dutta, H. Awasthi, S. Goel, and P. Bhattacharyya. 2022. "Capacitive Mode Vapor Sensing Phenomenon in ZnO Homojunction: An Insight Through Space Charge Model and Electrical Equivalent Circuit." IEEE Sensors Journal 22 (10): 9483-90. https://doi.org/10.1109/JSEN.2022.3165 812.
- Prashant Kumar, Meena Panchore, Pushpa Raikwal and Kanchan Cecil. "Performance

- Investigation of Ge DLTFET Based Digital Integrated Circuit." International Journal of Electronics Letters 7(2022): 1-7.
- 53. Kapil Gupta, Varun Bajaj and Irshad Ahmad Ansari. "A support system for automatic classification of hypertension using BCG signals." Expert Systems with Applications 214 (2023): 119058.
- 54. Rashika Raina and Rakesh Kumar Jha. "Intelligent and Interactive Healthcare System (I 2 HS) Using Machine Learning." IEEE Access 10 (2022): 116402-116424.
- 55. Misbah Shafi and Rakesh Kumar Jha. "Artificial Dust Based Attack Modelling: A Threat to the Security of Next Generation WCN." IEEE Transactions on Network Science and Engineering 9, no. 6 (2022): 4001-4016.

Conference Publications

- M. Dwivedi and D. K. Vishwakarma, "Study of Axial Ratio Response of the Dual feed Rectangular Patch Antenna Array in E plane," URSI RCRS 2022, IIT Indore, India, 1-4 December, 2022.
- 2. Amit Sharma and Dinesh K. Vishwakarma. "Graphene based Turnstile Antenna for Terahertz (6G) Applications." URSI RCRS 2022, IIT Indore, India, 1 - 4 December, 2022.
- 3. D. Sahu, S. Maurya, M. Bansal and Dinesh K.V., "An Optimal Relay Selection and Precoder Designing in MIMO Multi-Relay Cognitive Networks," 2022 IEEE 6th Conference on Information and Communication Technology (CICT), Gwalior, India, 2022, pp. 1-4, doi: 10.1109/CICT56698.2022.9997886.
- D. Sahu, S. Maurya, M. Bansal and D. K. V., 4. "A Low Complexity Deep Learning Based Precoder Designing for Enhanced Throughput in Underlay Network," 2022 IEEE 6th Conference on Information and Communication Technology (CICT), Gwalior, India, 2022, pp. 1-5, doi: 10.1109/CICT56698.2022.9997831.



- A. Sharma and D.K. Vishwakarma, 5. "Circularly Polarized Diamond Shaped Graphene Plasmonic Antenna Array for Terahertz Communication," 2022 IEEE 6th Conference on Information and Communication Technology (CICT), Gwalior, India, 2022, pp. 1-5, doi: 10.1109/CICT56698.2022.9997848.
- R.K. Baudh, M.S. Parihar and D.K. 6. Vishwakarma, "Design of a Rectangular Broadband Antenna for Defense Application," 2022 IEEE 6th Conference on Information and Communication Technology (CICT), Gwalior, India, 2022, pp. 1-4, doi: 10.1109/CICT56698.2022. 9997846.
- S. Sahu, R.K. Baudh, M.S. Parihar and D.K. Vishwakarma, "Slotted Trapezoidal Shaped Bandwidth Enhanced Microstrip Antenna for Bluetooth/WiMAX Applications," 2022 IEEE 6th Conference on Information and Communication Technology (CICT), Gwalior, India, 2022, pp. 1-5, doi: 10.1109/CICT56698. 2022.9997884.
- 8. M. Dwivedi and D.K. Vishwakarma, "Comparative Study of Conformal Hybrid HIS based Antennas Performance in 5G band," 2022 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting

- (AP-S/URSI), Denver, CO, USA, 2022, pp. 1870-1871, doi: 10.1109/AP-S/USNC-URSI47032.2022.9886473.
- Priyank Sharma, Atul Kumar and Matadeen Bansal, Performance Analysis of Downlink NOMA System with Diversity Combining Schemes over k-µ Fading Channel, 6th IEEE Conference on Information and Communication Technology (CICT-2022), Gwalior, pp. 1-5, 2022.
- 10. Haneet Kour and Rakesh Kumar Jha. "A Comparative Performance Analysis of OpenFlow based Network and Legacy Switching Network." In 2023 International Conference for Advancement in Technology (ICONAT), pp. 1-6. IEEE, 2023.
- 11. Anutusha Dogra, Rakesh Kumar Jha and Kumud Ranjan Jha. "Intelligent routing for enabling haptic communication in 6G Network." In 2023 15th International Conference on COMmunication Systems & NETworkS (COMSNETS), pp. 419-422. IEEE, 2023.
- Mantisha Gupta, Rakesh Kumar Jha and 12. Manish Sabraj. "Touch-Interfacing Middleware Network Design in 6G." In 2023 15th International Conference on COMmunication Systems & NETworkS (COMSNETS), pp. 345-349. IEEE, 2023.

Mechanical Engineering

echanical Engineering Discipline has started journey in the year of 2005. Over the last decade, we have grown our expertise and competence in the core Mechanical Engineering curriculum and research.

We have a strong undergraduate program in Mechanical Engineering. At the postgraduate level, we offer Master and Doctoral programmes. Several sponsored candidates from industries and research laboratories carry out their postgraduate studies in our department.

The primary focus of our pedagogy is to impart technical know-how to students, promote their problem solving and innovation skills and keep them abreast with new technologies. The department offers a wide spectrum of optional courses to the students to pursue their interest. The course contents are periodically updated to keep them in line with the global developments. Undergraduate students are encouraged for hands-on-training, in the form of course projects and participate in various sponsored research projects. The department is known for maintaining active research groups to carry out funded collaborative and interdisciplinary research. We have state of the art research facilities to support our academic programs and research. The research funding will help us to maintain and modernize our research infrastructure.









Faculty ME





Puneet Tandon PhD - IIT Kanpur Professor Computer Aided Design, computer Aided manufacturing, Rapid Prototyping & Tooling Technologies, Reverse Engineering, Product Innovation, Design and Development



Tanuja Sheorey PhD - IIT Kanpur Professor CFD, Algorithm Development, Parallel Computation.



Vijay Kumar Gupta PhD – IIT Bombay Professor Mechanical Engineering (Design)



Prashant Kumar Jain PhD - IIT Delhi Professor Rapid Prototyping & Tooling, CNC machining, Geometric Modeling, CAD/CAM Integration, Computational geometry, Nano Technologies in Manufacturing



Sunil Agarwal PhD – IIT Kanpur Associate Professor Industrial Engineering



Mohd Zahid Ansari PhD - Inha University, Korea Associate Professor MEMS, Biosensor, Mechanical Design, Optimization



M Amarnath PhD - IIT Madras Assistant Professor (Grade I) Condition based maintenance, Tribology



H Chelladurai PhD – IIT Kanpur Assistant Professor (Grade I) Design & Manufacturing



Sujoy Mukherjee PhD – IISc Bangalore Assistant Professor (Grade I) Smart Materials and Structures, Structural Dynamics, Aeroelasticity, Flapping Wing MAV



Himansu Sekhar Nanda PhD - National Institute for Materials Science, Japan (Degree awarded from University of Tsukuba, Japan Assistant Professor (Grade I) Advanced Health Care Material Manufacturing (scaffold based biomaterials for tissue engineering and drug delivery)



Ponappa K PhD - IIT Delhi Assistant Professor (Grade I) (Casting of Metal Matrix Composites & Machining) Fabrication of Magnesium Based Metal Matrix Composites by two step Stir Casting Process and their Grindability Studies.



Shivdayal Patel PhD - IIT Delhi Assistant Professor (Grade II) Progressive Damage Modelling, Composites, Stochastic Finite element Analysis, Impacts, Probabilistic Design, Sensitivity based Design Optimization

Faculty ME





Manu Srivastava PhD - Delhi University Assistant Professor (Grade II) Additive Manufacturing



R Seetharam Ph.D. – NIT, Warangal Assistant Professor (Grade II) Metal Forming - Bulk/Sheet Metal Forming Metal flow analysis and micro structure modeling of hot upset Al-B4C composite



Tushar Choudhary Ph.D. - NIT, Jamshedpur Assistant Professor (Grade II) CFD, FEA, Automobile, Thermodynamics, I.C. Engine, Manufacturing

Journals

- 1. Yuvaraj Natarajan, K.L. Raj and Puneet Tandon. "Measurement and analysis of pocket milling features in abrasive water jet machining of Ti-6Al-4V alloy." Archives of Civil and Mechanical Engineering 23, no. 1 (2023): 1-16.
- 2. Amita Sahu, Aniket Nagargoje and Puneet Tandon. "Feature Segmentation of Multifeatured Freeform Geometries for Incremental Sheet Forming." Digital Manufacturing Technology (2022): 65-77.
- 3. Gangaram Mandaloi, Aniket Ramnath Nagargoje, Anand Prakash Mall, Ankit Kumar Gupta, Mithilesh Kumar Tiwari, Abhay Kumar Dubey and Puneet Tandon. "Feature-based double-sided deformation machining approach for manufacturing freeform monolithic components." The International Journal of Advanced Manufacturing Technology 123, no. 5 (2022): 2107-2121.
- 4. Gangaram Mandaloi, Aniket Nagargoje, Gaurabh Banerjee, Ankit Gupta and Puneet Tandon. "Assessment of response parameters of the bending mode of deformation machining for manufacturing of impeller blades." Journal of the Brazilian Society of Mechanical Sciences and Engineering 44, no. 11 (2022): 1-16.

- 5. KL Naresh Raj, N. Yuvaraj and Puneet Tandon. "Insights On Abrasive Water jet Milling of Blind Pockets." Surface Review and Letters (SRL) 29, no. 11 (2022): 1-17.
- 6. Ankit Kumar Gupta, Satwik Priyadarshi, Denis Pustovoytov, Manuele Dabala, Hailiang Yu, Alexander Pesin and Puneet Tandon. "Effects of heat treatment on the surface quality and improvement in formability of deformation machined products of Al 6061." Journal of Manufacturing Science and Engineering 144, no. 12 (2022): 124501.
- 7. Ankit Kumar Gupta, Harshal Shahare, Pavan Kumar, Abhay Kumar Dubey, Denis Pustovoytov, Hailiang Yu, Alexander Pesin and Puneet Tandon. "Effect of tool path strategy and tooltip profile on geometrical feature and surface quality of Al-6061 alloy during deformation machining in bending mode." Advances in Materials and Processing Technologies (2022): 1-18.
- 8. Gangaram Mandaloi, Aniket Nagargoje, Ankit Kumar Gupta, Gaurabh Banerjee, Harshal Y. Shahare and Puneet Tandon. "A comprehensive review on experimental conditions, strategies, performance and applications of incremental forming for deformation machining." Journal of Manufacturing Science and Engineering 144, no. 11 (2022): 110802.



- 9. Balaji Vasudevan, Yuvaraj Natarajan, Vinothkumar Sivalingam, Grzegorz Krolczyk and Puneet Tandon. "Insights into drilling film cooling holes on ceramic-coated nickelbased superalloys." Archives of Civil and Mechanical Engineering 22, no. 3 (2022): 1-30.
- 10. Sunidhi Dayam, Puneet Tandon and Satwik Priyadarshi. "Development of paste extrusion-based metal additive manufacturing process." Rapid Prototyping Journal ahead-of-print (2022), no. 28(10): 1920-1932.
- 11. Mohit Sharma, Vijay Kumar Gupta and Puneet Tandon. "Numerical Analysis of the effects of Ultrasonic Vibrations and Elevated Temperature in Incremental Sheet Forming." Proc. IMechE, Part C: Journal of Mechanical Engineering Science.
- 12. Y. Wu, J. Liu, Z. Zhang, C. Kong, Y. Wang, Puneet Tandon, Alexander Pesin and Hailiang Yu. "High mechanical properties of medium entropy alloy CrCoNi produced by asymmetric cryorolling." Transactions of Nonferrous Metals Society of China.
- 13. Mohit Sharma, Vijay Kumar Gupta and Puneet Tandon, Numerical analysis of the effects of ultrasonic vibrations and elevated temperature in incremental sheet forming, Proc IMechE Part C: J Mechanical Engineering Science, (DOI: 10.1177/ 09544062221085907).
- 14. Roopendra Kumar Pathak, Shivdayal Patel and Vijay Kumar Gupta, Efficient design of Kevlar/basalt hybrid composite laminates under ballistic impact Efficient design of Kevlar/basalt hybrid composite laminates under ballistic impact, Advanced Composite Materials, (https://doi.org/10.1080/ 09243046.2022.2076022).
- 15. Roopendra Kumar Pathak, Shivdayal Patel and Vijay Kumar Gupta, A novel design of hybrid ceramic composite plate under ballistic impact, Mechanics of Advanced Materials and Structures, (https://doi.org/

- 10.1080/ 15376494.2022.2111623), 44570.
- 16. Roopendra Kumar Pathak, Shivdayal Patel, Vijay Kumar Gupta and Aswani Kumar Bandaru, A Computational Analysis of the High-velocity Impact Performance of Lightweight 3D Hybrid Composite Armors, Applied Composite Materials, (https://doi.org/10.1007/s10443-023-10112-0).
- 17. Kirtan Kumar Sahu and Vijay Kumar Gupta, Effect of wear rings on buckling load capacity of Two-Stage hydraulic cylinder, Structures, 50, (https://doi.org/10.1016/j.istruc. 2023.02.114), 1965-1979.
- 18. Aftab Alam Ansari, Aleksandra Golebiowska, Madhusmita Dash, Prasoon Kumar, Prashant Kumar Jain, Syam Nukavarapu, Seeram Ramakrishna and Himansu Sekhar Nanda. "Engineering biomaterials to 3D-print scaffolds for bone regeneration: practical and theoretical consideration." Biomaterials Science (2022).
- 19. Sagar Kailas Gawali, Girish Chandra Pandey and Prashant Kumar Jain. "Experimental investigations on effect of graphite loading on melt flow behaviour of ABS-Gr composite for fused filament fabrication (FFF) process." Advances in Materials and Processing Technologies (2022): 1-11.
- 20. Sinha, Abhinav Anand, Tushar Choudhary, Mohd Zahid Ansari, and Anoop Kumar Shukla. "Energy, exergy, and sustainability a novel comparison of conventional gas turbine with fuel cell integrated hybrid power cycle." International Journal of Hydrogen Energy 47, no. 80 (2022): 34257-34272.
- 21. Sinha, Abhinav Anand, Tushar Choudhary, and Mohd Zahid Ansari. "Estimation of exergy-based sustainability index and performance evaluation of a novel intercooled hybrid gas turbine system." International Journal of Hydrogen Energy (2022).



- 22. Abhinav Sharma, MZ Ansari and C. Cho, Ultrasensitive flexible wearable Pressure/Strain sensors: Parameters, materials, mechanisms and applications, Sensors and Actuators: A. Physical. 347, https://doi.org/10.1016/j.sna.2022. 113934, 113934.
- 23. J. Pandey, Husain A, Ansari MZ. Artificial neural network and numerical analysis for performance enhancement of hybrid microchannel-pillar-jet impingement heat sink using Al2O3-water and CuO-water nanofluids. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science. 2022;236(17):9814-9827.
- 24. V. Gunasegaran, M. Amarnath, H. Chelladurai, I.R.Praveen Krishna, Assessment of local faults in helical geared system using vibro-acoustic signals based on higher order spectrum analysis, Applied Acoustics, Volume 204, https://doi.org/ 10.1016/j.apacoust.2023.109237, 109237.
- 25. Santhosh Kumar Kamarapu, Amarnath Muniyappa, Suresha Bheemappa, BS Ajay Vardhaman, Ramkumar. J & Dinesh Rangappa, Tribological and vibration characteristics of the palm-mineral blend as a sustainable lubricant in steel-steel contacts, Biomass Conversion and Biorefinery - Springer, Volume 12, https://doi.org/10.1007/s13399-022-03603-w, 1-31.
- 26. Sateesh Kumar, P., Amarnath, M., Devaraj, S., Tribological Performance Enhancement of Bronze Alloy through Microwave Irradiation: Fundamental Tribo-Tests and Real-Time Journal Bearing Applications, Journal of Materials Engineering and Performance, Volume 31, https://doi.org/10.1007/ s11665-022-07734-z, 1-16.
- 27. Sangharatna M Ramteke, H Chelladurai, M Amarnath, Ajay Vardhaman, J Ramkumar, Juned A Siddiqui, Condition assessment of in-service SAE 10W-30 lubricating oil using spectroscopic and rheological analyses,

- S?dhan? Springer, 47/4, https://doi.org/ 10.1007/s12046-022-01988-y, 1-14.
- 28. B.S. Ajay Vardhaman, M.Amarnath, J.Ramkumar, Experimental investigations to enhance the tribological behaviour of biodegradable oil by using manganese doped ZnO/FMWCNTs nanomaterials as lubricant additive, "Diamond and Related Materials, 127, https://doi.org/10.1016/ j.diamond.2022.109155, 109155.
- 29. V. Gunasegaran, M. Amarnath, H. Chelladurai, I.R.Praveen Krishna, "Assessment of local faults in helical geared system using vibro-acoustic signals based on higher order spectrum analysis", Applied Acoustics, Volume 204, 109237, 2023, https://doi.org/10.1016/j.apacoust.2023.1 09237.
- 30. S. Bose, A. Prakash, H. Chelladurai, K. Ponappa, "Submerged ultrasonic plastic welding: A computational and experimental investigation. Proceedings of the Institution of Mechanical Engineers," Part L: Journal of Materials: Design and Applications. 2023, . doi:10.1177/14644207231156303.
- 31. S.M. Ramteke, H. Chelladurai, M. Amarnath, et al. Condition assessment of in-service SAE 10W-30 lubricating oil using spectroscopic and rheological analyses. Sādhanā 47, 218 (2022). https://doi.org/10.1007/s12046-022-01988-y.
- 32. Dhirendra Prajapati, H. Chelladurai, Fuli Zhou andrew W.H. Ip and Saurabh Pratap, "Sustainable multi-products delivery routing network design for two-echelon supplier selection problem in B2B e-commerce platform", RAIRO-Oper. Res., 56 4 (2022) 2115-2137, DOI: https://doi.org/10.1051/ ro/2022072.
- 33. Dhirendra Prajapati, Felix T. S. Chan, H. Chelladurai, Lakshay Lakshay and Saurabh Pratap. 2022. "An Internet of Things Embedded Sustainable Supply Chain Management of B2B E-Commerce" Sustainability 14, no. 9: 5066. https://doi.org/10.3390/su14095066.



- 34. Patel S N and Mukherjee S, Physics based modelling and analysis of IPMC vibration energy harvester, Journal of Mechanical Science and Technology, Vol. 36, No. 8, http://doi.org/10.1007/s12206-022-0720-7,3983-3993.
- 35. Rakesh Pemmada, Aishwarya Shrivastava, Madhusmita Dash, Kuiyan Cui, Prasoon Kumar, Seeram Ramakrishna, Yubin Zhou, Vinoy Thomas and Himansu Sekhar Nanda. "Science-based strategies of antibacterial coatings with bactericidal properties for biomedical and healthcare settings." Current Opinion in Biomedical Engineering (2022): 100442.
- 36. Jonathon T. Intravaia, Trevon Graham, Hyun S. Kim, Himansu S. Nanda, Sangamesh G. Kumbar and Syam P. Nukavarapu. "Smart Orthopedic Biomaterials and Implants." Current Opinion in Biomedical Engineering (2022): 100439.
- 37. HS Nanda*, Yang L*, Hu J, Mao H and Jiang S (2022) Editorial: Biodegradable Polymers for Biomedical Applications. Front. Mater. 9:944755.
- 38. Aftab Alam Ansari, Aleksandra Golebiowska, Madhusmita Dash, Prasoon Kumar*, Prashant Kumar Jain*, Syam Nukavarapu, Seeram Ramakrishna and Himansu Sekhar Nanda*. "Engineering Biomaterials to 3D-Print Scaffolds for Bone Regeneration: Practical and Theoretical Consideration." Biomaterials Science (2022).
- 39. S. Shankar, R. Nithyaprakash, K. Selvamani, K. Ponappa, M. Uddin and B. Santhosh, "Effect of Radial Clearance, Corner Radius and Micro-Lateralization on Contact Stress of Metallic and Ceramic Hip Prosthesis-A Finite Element Analysis," Defence Science Journal, vol. 72, no. 3, 2022.
- 40. A. Prakash, S. Bose, K. Ponappa and H. Chelladurai, "Numerical investigation of composite materials thermo-mechanical behaviour during ultrasonic welding in different mediums," Materials Today:

- Proceedings, 2022.
- 41. Y. Panchal, "Functionally graded materials: A review of computational materials science algorithms, production techniques and their biomedical applications," Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, vol. 236, no. 22, pp. 10969-10986, 2022.
- 42. Bheekam Gaur, Murlidhar Patel, Shivdayal Patel (2023) Strain Rate Effect on CRALL under High-Velocity Impact by Different Projectiles Journal of the Brazilian Society of Mechanical Sciences and Engineering. DOI: 10.1007/s40430-023-04031-1 (Accepted).
- 43. R.K. Pathak, S. Patel and V.K. Gupta, (2023), A computational analysis of the high velocity impact performance of lightweight 3D hybrid composite armors. Applied Composite Materials (Accepted). https://doi.org/10.1016/j.matpr.2023. 02.031.
- 44. Anand Kumar Sah, Roopendra Kumar Pathak, Shivdayal Patel (2023) Design and Analysis of Hybrid Composite Panels under Ballistic Impact. Materials Today Proceeding (Accepted). https://doi.org/10.1016/ j.matpr.2022.10.301.
- 45. S. Joshi, M. Kumar, N. Goyal, S. Patel, R. Panwar (2022), Multifunctional Carbon-Basalt Hybrid Composites Against Bird Strike Materials Today Proceeding https://doi.org/ 10.1016/j.matpr.2022.10.301.
- 46. M. Patel and S. Patel (2022), Effect of honeycomb cell size on blast performance of sandwich panels, Materials Today Proceeding, https://doi.org/10.1016/ j.matpr.2022.10.283.
- 47. M. Patel and S. Patel (2022) Influence of honeycomb core height on the blast mitigation of sandwich panel, Materials Today Proceeding https://doi.org/10.1016/ j.matpr.2022.09.530.
- 48. R.K. Pathak, S. Patel and V.K. Gupta (2022) Novel hybrid design of composite armour



- under ballistic impact ;Materials Today Proceeding https://doi.org/10.1016/ j.matpr.2022.09.178.
- 49. M. Patel and S. Patel (2022) Novel Design of Honeycomb Hybrid Sandwich Structures under Air-Blast, Journal of Sandwich Structures and Materials, 24(8) 2105–2123. IF: 3.477 https://doi.org/10.1177/ 10996362221127.
- 50. R.K. Pathak, S. Patel and V.K. Gupta (2022), "A Novel Design of Hybrid Ceramic Composite Plate under Ballistic Impact. Mechanics of Advanced Materials and Structures, DOI: 10.1080/15376494.2022. 2111623.
- 51. Bheekam Gaur, Murlidhar Patel, Shivdayal Patel (2022) Strain Rate Effect Analysis of Hybrid Composites under The High-Velocity Impact, Materials Today Proceeding, https://doi.org/10.1016/j.matpr.2022. 07.082.
- 52. Rashmi Sawant, Murlidhar Patel, Shivdayal Patel (2022) Numerical Analysis of Honeycomb Sandwich Structure under Blast Load, doi:10.1016/j.matpr.2022.09.547.
- 53. Abhinath Shukla and Shivdayal Patel (2022), Fatigue Failure Analysis of Spur Gear under Moving Load, Materials Today Proceeding (Accepted) https://doi.org/10.1016/ j.matpr.2022.07.025.
- 54. R.K. Pathak, S. Patel and V.K. Gupta (2022), Efficient Design of Kevlar/Basalt Hybrid Composite Laminates under Ballistic Impact, Advanced Composite Materials, 1-22. https://doi.org/10.1080/09243046.2022.2 076022.
- 55. K. Maharshi, S. Patel (2022) A study of the Flexural Properties of Jute Fabric Reinforced Epoxy Composite: Experimental and Uncertainty Analysis. Journal of Natural Fibers, 1-12 (Accepted) IF: 5.32, https://doi.org/10.1080/15440478.2022.2 068176.
- 56. M. Singh, A. Singh and S. Patel (2022) "Fault

- Analysis of Spur Gear using XFEM" Journal of Engineering Failure Analysis, :134, 106060, https://doi.org/10.1016/j.engfailanal.2022. 106060, IF: 3.114.
- 57. Manu Srivastava, Sandeep Rathee, Vivek Patel, Atul Kumar, Praveennath Koppad (2022). A review of various materials for additive manufacturing: Recent trends and processing issues. Journal of Materials Research and Technology.
- 58. Manu Srivastava, Sandeep Rathee, Ankit Tiwari, Mehul Dongre, "Wire arc additive manufacturing of metals:" A review on processes, materials and their behaviour, Materials Chemistry and Physics, Volume 294, 2023, 126988, ISSN 0254-0584, (https://www.sciencedirect.com/science/ar ticle/pii/S0254058422012949)".
- 59. Abhinav Anand Sinha, Gaurav Saini, Anoop Kumar Shukla, Mohd Zahid Ansari, Gaurav Dwivedi and Tushar Choudhary. "A novel comparison of energy-exergy and sustainability analysis for biomass-fueled solid oxide fuel cell integrated gas turbine hybrid configuration." Energy Conversion and Management 283 (2023): 116923.
- 60. Himanshu Pachori, Tushar Choudhary and Tanuja Sheorey. "Analytical study of thermal performance of the solar air heater integrated arc-shape roughness collector." Materials Today: Proceedings (2023).
- 61. Abhinav Anand Sinha, Tushar Choudhary, Mohd Zahid Ansari and Kriti Srivastava. "A comparative study of the entropy generation by an integrated fuel cellintercooled gas turbine." Materials Today: Proceedings (2023).
- 62. Aman Singh Rajpoot, Tushar Choudhary, H. Chelladurai, Shivam Mishra and Vikas Shende. "Performance analysis of a CI engine powered by different generations of biodiesel; Palm oil, Jatropha and microalgae." Materials Today: Proceedings (2023).
- 63. Abhinav Anand Sinha, Tushar Choudhary



- and Mohd Zahid Ansari. "Estimation of exergy-based sustainability index and performance evaluation of a novel intercooled hybrid gas turbine system." International Journal of Hydrogen Energy (2022).
- 64. Pavan Sai Dosawada, Meeta Sharma, Anoop Kumar Shukla and Tushar Choudhary. "Review on influence of nanomaterials on thermal energy storage methods." Materials Today: Proceedings (2022).
- 65. Abhinav Anand Sinha, Tushar Choudhary, Mohd Zahid Ansari and Anoop Kumar Shukla. "Performance comparison and entropy generation of simple gas turbine with hybrid power cycle." Materials Today: Proceedings (2022).
- 66. Abhinav Anand Sinha, Tushar Choudhary, Mohd Zahid Ansari and Anoop Kumar Shukla. "Energy, exergy and sustainability a novel comparison of conventional gas turbine with fuel cell integrated hybrid power cycle." International Journal of Hydrogen Energy (2022).
- 67. Pranjal Kumar, Tushar Choudhary and M. Z. Ansari. "Thermodynamic assessment of a novel SOFC and intercooled GT integration with ORC: Energy and Exergy Analysis." Thermal Science and Engineering Progress (2022): 101411.
- 68. Narendra Kumar Patel, Vaibhav Mishra and Tushar Choudhary. "Fabrication and characterization of epoxy composites reinforced with jute fibers and coconut fibers: A mechanical study." Materials Today: Proceedings (2022).
- 69. Bibhu Prasad Ganthia, R. Dharmaprakash, Tushar Choudhary, T. Vijay Muni, Essam A. Al-Ammar, A. H. Seikh, M. H. Siddique and Abdi Diriba. "Simulation Model of PV System Function in Stand-Alone Mode for Grid Blackout Area." International Journal of Photoenergy 2022 (2022).
- 70. Mithilesh Kumar Sahu, Shivam Mishra, Tushar Choudhary and Sanjay. "Exergo-

- economic analysis and optimization of cooled CGAM cycle: A gas turbine based co-generation cycle." International Journal of Engine Research (2022): 14680874221104634.
- 71. Deepak Kumar, Santosh Kumar Rajak, R. Seetharam and Harpreet Singh. "Effects of hBN and Y2O3 Addition on Mechanical and Tribological Behavior of SiC Ceramic Matrix Composites Prepared by Spark Plasma Sintering." Silicon 15, no. 5 (2023): 2297-2311.
- 72. R. Seetharam, S. Kanmani Subbu, M.J. Davidson, K. R. Ramkumar and Pagidi Madhukar. "Influence of reinforcement particles on dynamically recrystallized grain of hot upset sintered Al-B4C composites." Journal of Materials Engineering and Performance 31, no. 11 (2022): 9083-9096.

Conference Publications

- 1. A. Gupta, A. Nagargoje, A.K. Dubey and P. Tandon, "A Numerical Investigation to Compare Point Cloud and STL based Toolpath Strategies for 5-Axis Incremental Sheet Forming." ASME 2022 International Mechanical Engineering Congress and Exposition (IMECE2022), Columbus, OH, USA, 30 October - 3 November 2022.
- 2. V.V. Bhandarkar, I.G. Patil, H.Y. Shahare and P. Tandon, "Understanding the Influence of Process Parameters for Minimizing Defects in 3D Printed Parts Through Remote Monitoring." ASME 2022 International Mechanical Engineering Congress and Exposition (IMECE2022), Columbus, OH, USA, 30 October - 3 November 2022.
- 3. S.K. Rajak, D. Kumar, R. Seetharam and P. Tandon, "Mechanical and sliding wear analysis of Porcelain reinforced SAE660 Bronze bearing alloy composite fabricated by stir casting method." 13th Symposium on Plasticity and Impact Mechanics (IMPLAST-2022), August 21-26, 2022.
- 4. H. Bedarkar, A. Gupta, R. Seetharam and P.



Tandon, "Effect of Incremental Sheet Forming Process Parameters on Surface Roughness in Inconel 625 Sheets." 13th Symposium on Plasticity and Impact Mechanics (IMPLAST-2022), August 21-26, 2022.

- 5. A. Ahmed Ishfaq, Vijay K. Gupta and Anubhav Tiwari, Modelling of Temporomandibular Joint, Proceedings of CAD'22, Beijing, China, (2022).
- 6. Mayur Patil, Rahul Kumar Choubey and Prashant K. Jain, Influence of coil shapes on temperature distribution in induction heating process, 2nd International Conference on Sustainable materials, Manufacturing and Renewable Technologies (i-SMaRT), Federal Institute of Science And Technology (FISAT), Kerala, May 25-27, 2022.
- 7. Rahul Kumar Choubey, Gourav Kumar Sharma, Prashant Kumar Jain, On the identifying suitable substrate medium for induction heating-based metal wire additive manufacturing, International Conference on Recent Advances in Materials, Manufacturing and Thermal Engineering (RAMMTE-2022), Department of Mechanical Engineering , DTU and HBTU, July 8-9, 2022.
- 8. Abhinav Anand Sinha, Tushar Choudhary, Mohd Zahid Ansari and Anoop Kumar Shukla. "Performance comparison and entropy generation of simple gas turbine with hybrid power cycle." Materials Today: Proceedings (2022).
- 9. Tomar A and Mukherjee S., Feedback positioning controller for biomimetic IPMC propulsor, International Conference on Recent Advances in Mechanical Engineering 2022 (ICRAM2022), Indian Institute of Technology Jodhpur, Rajasthan, Paper ID 4430, 25 - 27 August 2022.
- 10. Anand Prakash, Sandeep Bose, Ponappa. K and H. Chelladurai, Numerical Investigation of Composite materials Thermo-Mechanical

- Behaviour During Ultrasonic Welding in Different Medium, 2nd International Conference on Sustainable Materials, Manufacturing and Renewable Technologies 2022 (i-SMaRT 2022), King Mongkut's University of Technology North Bangkok (KMUTNB), Thailand, 25-27, May 2022.
- 11. Murlidhar Patel and Shivdayal Patel, "Investigation of air-blast mitigation by single-V and multi-V shape face sheets used honeycomb sandwich panels, Proc. ""An international conference on Advances In Smart Materials, Chemical & Biochemical Engineering (CHEMSMART-2022)".
- 12. Rashmi Sawant and Shivdayal Patel (2023), Numerical Analysis of Composite Honeycomb core Sandwich Structure under Blast Loading. Proc. 2nd International Conference on Recent and Advanced Composite Materials (ICRACM 2023) from 22nd to 24th February 2023.
- 13. S. Joshi, M. Kumar, N. Goyal, S. Patel and R. Panwar (2022), Multifunctional Carbon-Basalt Hybrid Composites Against Bird Strike, 3rd International Conference on Recent Advances in Mechanical Engineering Research and Development (ICRAMERD-22), Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, India, August 11-13, 2022.
- 14. Murlidhar Patel and Shivdayal Patel (2022), Effect of honeycomb cell size on blast performance of sandwich panels, 3rd International Conference on Recent Advances in Mechanical Engineering Research and Development (ICRAMERD-22), Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, India, August 11-13, 2022.
- 15. David Navratan, Shivdayal Patel and Sujoy Mukherjee (2022), "Strain rate effect on composite sandwich structure under low velocity impact" Proc. International Conference On Advanced Functional Materials: Future Perspectives (AFMFP-



- 2022), NIT Jalandhar, India, August 6-8, 2022.
- 16. Murlidhar Patel and Shivdayal Patel (2022), Influence of honeycomb core height on the blast mitigation of sandwich panel, International Conference On Advanced Functional Materials: Future Perspectives (AFMFP-2022), NIT Jalandhar, India, August 6-8, 2022 (Accepted).
- 17. M.S. Raghav and S. Patel, "Effect of Spalling on the Fatigue Life of Spur Gear" International Conference on Recent Advances in Mechanical Engineering 2022, ICRAM 2022, Indian Institute of Technology Jodhpur, 25-27 August 2022 (Accepted).
- 18. Murlidhar Patel and Shivdayal Patel (2022), A Novel Design of Blast Proof Sandwich Structure With Hybrid Skin, Proc. of IMPLAST-2022: 13th Symposium on Plasticity and Impact Mechanics, IIT Madras Chennai, India, August 21-26, 2022.
- 19. Rashmi Sawant, Murlidhar Patel and Shivdayal Patel (2022), Numerical Analysis of Honeycomb Sandwich Structure under Blast Load, Proce. of IMPLAST-2022: 13th Symposium on Plasticity and Impact Mechanics, IIT Madras Chennai, India, August 21-26, 2022.
- 20. Roopendra Kumar Pathak, Shivdayal Patel and Vijay Kumar Gupta (2022), Ballistic Performance of 3D Kevlar/Basalt Hybrid Composite Armors, Proc. of IMPLAST-2022: 13th Symposium on Plasticity and Impact Mechanics, IIT Madras Chennai, India, August 21-26, 2022.
- 21. Anand Kumar Sah, Roopendra Kumar Pathak and Shivdayal Patel (2022), Design and Analysis of Hybrid Composite Panels under Ballistic Impact, Proc. of IMPLAST-2022:

- 13th Symposium on Plasticity and Impact Mechanics, IIT Madras Chennai, India, August 21-26, 2022.
- 22. Abhinath Shukla and Shivdayal Patel (2022), Fatigue Failure Analysis of Spur Gear under Moving Load, Proce. of 2nd International Conference on Sustainable materials, Manufacturing and Renewable Technologies (i-SMaRT 2022), King Mongkut's University of Technology North Bangkok (KMUTNB), Bangkok Campus, Thailand.
- 23. Bheekam Gaur, Murlidhar Patel and Shivdayal Patel (2022), Strain Rate Effect Analysis of Hybrid Composites under The High-Velocity Impact, Proce. of 2nd International Conference on Sustainable materials, Manufacturing and Renewable Technologies (i-SMaRT 2022), King Mongkut's University of Technology North Bangkok (KMUTNB), Bangkok Campus, Thailand.
- 24. Deepak Kumar, Santosh Kumar Rajak, R Seetharam, Harpreet Singh, Synergetic effect of hBN and Additive Y2O3 on the Mechanical and Wear behaviour of SiC-hBN ceramic matrix composite, IMPAST, IIT Madras, 21-08-2022.
- 25. Santosh Kumar Rajak, Deepak Kumar, R. Seetharam, Puneet Tandon, Mechanical and sliding wear analysis of Porcelain reinforced SAE660 Bronze bearing alloy composite fabricated by stir casting method, IMPAST, IIT Madras, 21-08-2022.
- 26. Gaurav Rathore, R. Seetharam, Investigation of Mechanical Properties of Glass Fibre/SiC-B4C Reinforced Hybrid Polymer Composite, IMPAST, IIT Madras, 21-08-2022.

Design

he Design Discipline at PDPM Indian Institute of Information Technology, Design and Manufacturing, Jabalpur offers a "holistic" design program. The discipline offers four years Bachelors in Design (BDes), two years Masters in Design (MDes) and PhD in Design programmes. The curriculum is a unique blend of design and technology so as to ensure that they are well equipped when they finally graduate from the Institute. The uniqueness of the curriculum is that, all the students have to mandatorily learn different areas of design in the initial semesters. In the advanced semesters, students are given a choice to choose electives mainly in three major domains; product, space and communication design. The students have the liberty to pursue Bachelors / Master's thesis in their domain of interest. Thus, the students graduating from the discipline have a good understanding of different facets of design, different technologies related to design and at the same time specializes along one of the major domains namely product, space or communication design, giving them an advantage of convenient and efficient switches from one domain to another.

The discipline, which started in the year 2008, has produced many good designers who have excelled in different facets of design as practising designers, design entrepreneurs and design educators. The students of our discipline are trained in a manner that facilitate them taking up any challenging role which demands design intervention. On behalf of the discipline, we wish them all the best with this hope and trust that they will play a pivotal role in applying their knowledge of design in different sectors in the country as well as globally. We are confident that the discipline trains them adequately well to meet the aspirations of design recruiters.



Faculty Design





Puneet Tandon PhD - IIT Kanpur Professor Computer Aided Design, computer Aided manufacturing, Rapid Prototyping & Tooling Technologies, Reverse Engineering, Product Innovation, Design and Development



Prabir Mukhopadhyay PhD - University of Limerick, Ireland Associate Professor Ergonomics



Sangeeta Pandit PhD – IIT Guwahati Assistant Professor (Grade II) **Design Ergonomics**



Tripti Singh PhD - Banasthali University Assistant Professor (Grade II) Visual Communication, New Media



Amrita Bhattacharjee PhD – IIT Guwahati Assistant Professor (Grade II) Lighting Design and Visual Perception



Journals

- 1. T. Singh, S. Tripathi, A. Dwivedi, et al. Post-COVID green supply chain management of used products: a study towards awareness for vaccination. Environ Sci Pollut Res (2022). https://doi.org/10.1007/s11356-022-21321-8.
- 2. Dhirendra Prajapati, Fuli Zhou, Ashish Dwivedi, Tripti Singh, Lakshay Lakshay and Saurabh Pratap. 2022. "Sustainable Agro-Food Supply Chain in E-Commerce: Towards the Circular Economy" Sustainability 14, no. 14: 8698. https://doi.org/10.3390/su14148698.
- 3. R. Kamble, S. Pandit, A. Sahu, Occupational ergonomic assessment of MSDs among the artisans working in the Bagh hand block printing industry in Madhya Pradesh, India. Int J Occup Saf Ergon. 2022 Aug 4:1-7. doi: 10.1080/10803548.2022.2090120. Epub ahead of print. PMID: 35713151.
- Vimal Vinu, Rajat Kamble and Sangeeta Pandit. "Comparative ergonomic assessment of manual harvesting of unlodged and lodged paddy crops posttropical cyclone in India." International Archives of Occupational and Environmental Health 96, no. 3 (2023): 367-376.
- Sangeeta Pandit, Avinash Sahu, Suyash Krishna, Rajat Kamble and Bangaru Sai Prakash. "O-342 Occupational ergonomic study on the control panel of WAP7 locomotive & design intervention on Indian railway." (2023): A76-A77.
- Rajat Kamble, Harshit Sharma, Sangeeta Pandit, Avinash Sahu and Bangaru Sai Prakash. "P-331 Occupational problem identification on artisans of Jodhpur wooden handicraft and design intervention." (2023): A56-A57.
- 7. Sangeeta Pandit, Rajat Kamble and Avinash Sahu. "O-308 Comparative assessment of musculoskeletal pain among artisans of three handicraft sectors

- of India because of commercialization-a study on unorganized sector." (2023): A72-A72.
- 8. Bangaru Sai Praksh, Sangeeta Pandit, Avinash Sahu and Rajat Kamble. "O-294 Occupational risk assessment on hands among gardeners involved with commercial plant nursery industryunorganized sector of Jabalpur, India." (2023): A30-A30.
- 9. Rajat Kamble, Sangeeta Pandit, Avinash Sahu and Bangaru Sai Prakash. "P-250 Occupational risks assessment among workers involved in loading fish crates in trucks, post fish harvesting at the Dockyards." (2023): A49-A49.
- 10. Bangaru Sai Praksh, Sangeeta Pandit, Rajat Kamble and Avinash Sahu. "O-341 Occupational health problem assessment of workers involved in cotton harvesting of Haryana." (2023): A33-A33.
- 11. Bhakti Maruti Kirdat and Sangeeta Pandit. "O-203 Identifying the need for gamified habit-building mobile application for PCOS management in female students in Jabalpur, India." (2023): A19-A19.

Conference Publications

- 1. Sangeeta Pandit, Shubham Kumar Thakur, Trushna Gopalrao Khalode, Aakriti, Avinash Sahu and Rajat Kamble. "Ergonomic Risk Assessment Among the Welders Working in Darbhanga District of Bihar." In Recent Trends in Product Design and Intelligent Manufacturing Systems: Select Proceedings of IPDIMS 2021, pp. 71-76. Singapore: Springer Nature Singapore, 2022.
- 2. Sangeeta Pandit, Gaurav Pralhad Chindarkar, L. Dillieshwar Rao, Siddharth Das, Avinash Sahu and Rajat Kamble. "A Study on Musculoskeletal Disorders in Elderly Female Farmers in the Village Baruva, Srikakulam District of Andhra Pradesh." In Recent Trends in Product Design and Intelligent Manufacturing



- Systems: Select Proceedings of IPDIMS 2021, pp. 63-70. Singapore: Springer Nature Singapore, 2022.
- 3. Supriya Bawiskar, Avinash Sahu, Sangeeta Pandit, Bhakti Kirdat, Rajat Kamble, Saad Ahmed, Chetan Gohil and Sanjuman Sinku. "Identification of Postural Load on Sculptors of Sculpting Industry of India." In Recent Trends in Product Design and Intelligent Manufacturing Systems: Select Proceedings of IPDIMS 2021, pp. 77-82. Singapore: Springer Nature Singapore, 2022.
- 4. Sangeeta Pandit, Rajat Kamble, Avinash Sahu, Bangaru Sai Prakash and Vishal Patil. "Instructions for the Preparation Intervention of Shoulder Load Carrier for Porters Working in Vegetable Mandi of Jabalpur." In Recent Trends in Product Design and Intelligent Manufacturing Systems: Select Proceedings of IPDIMS 2021, pp. 13-20. Singapore: Springer Nature Singapore, 2022.
- 5. Suyash Krishna, Sangeeta Pandit, Rajat Kamble and Jigyasa Hemant Patankar. "Analysis of Secondary Tasks Performed and Psychosocial Factors of Railway Loco Pilots." In Recent Trends in Product Design

- and Intelligent Manufacturing Systems: Select Proceedings of IPDIMS 2021, pp. 3-11. Singapore: Springer Nature Singapore, 2022.
- 6. Rajat Kamble, Neha, V. J. Vinu Vimal, and Sangeeta Pandit. "Ergonomic Study on Farmers Involved with Cotton Harvesting in Haryana." In International Conference of the Indian Society of Ergonomics, pp. 889-896. Cham: Springer International Publishing, 2021.
- 7. A. Sahu, R. Kamble & S. Pandit (2021, December). Identification of ergonomic risk factors in dhokra bell metal handicraft industry of Chhattisgarh, India. In International Conference of the Indian Society of Ergonomics (pp. 1327-1336). Cham: Springer International Publishing.
- 8. Rajat Kamble, Sangeeta Pandit and Avinash Sahu. "Contributing Towards Blue Economy with Ergonomic Assessment of Musculoskeletal Disorder (MSD) Among Workers Involved in Harvesting Living Resources." In International Conference of the Indian Society of Ergonomics, pp. 569-579. Cham: Springer International Publishing, 2021.

Natural Sciences

atural Sciences are the integral part of IIITDM Jabalpur since its inception. The fields of Natural Sciences, already integrate various other disciplines of the Institute with some emerging fields such as Materials engineering, Nanomaterials, Biomedical Physics, Numerical Analysis & Scientific Computing, Image processing etc. Moreover the applications of various science and technology based knowledge emerges out of Natural Sciences.

The basic purpose of interdisciplinary curriculum of the Institute is expanding the knowledge and applications overlapping different fields of experts. Learning process cannot be restricted to a limited space and therefore Natural Sciences coupled with other disciplines to follow the same. The intellectual growth through liberal education would fulfill the desire of satisfaction qualitatively rather than quantitatively. Research and development is the key to future generation and prosperity of a nation through an academic Institution with interdisciplinary curriculum. The source of basic science knowledge is the foundation of all other disciplines inventions as well as applications. Having Physics and Mathematics as an integral part of the UG & PG curriculum directly play an important role in the growth of research and development at IIITDM Jabalpur.

Physics

Physics discipline has six faculty members who undertake cutting edge research on various fields of application in the field of science and technology. Some of these areas are Magnetic materials, Multiferroics, Nanomaterials for magnetism and other applications, Biomedical Physics and Electrodeposited magnetic thin films.

Mathematics

Mathematics discipline has six faculty members and discipline would focus in various fields of Parallel Computing, Computational Fluid Dynamics, Hyperbolic IBVP, Spectral Method and Probability Theory and Topological study of Wireless Networks and Wireless Communication.

Faculty Natural Sciences •





Asish Kumar Kundu PhD - INCASR Deemed University Associate Professor **Solid State Physics**



Subir Singh Lamba PhD – IIT Kanpur Assistant Professor (Grade I) Parallel Computing, Spectral Method and



Mukesh Kumar Roy PhD - IIT Kanpur Assistant Professor (Grade I) Nuclear Physics Technique, Material Science



Bhupendra Gupta PhD - IIT Kanpur Assistant Professor (Grade I) **Probability Theory**



Lokendra Kumar Balyan PhD - IIT Kanpur Assistant Professor (Grade I) Spectral Methods, High Performance Computing, Elliptic Partial Differential Equations



Nihar Ranjan Jena PhD - Banaras Hindu University Assistant Professor (Grade I) Molecular modelling of structures and interactions of biomolecules, complexes and clusters



Amaresh Chandra Mishra PhD – IIT Kharagpur Assistant Professor (Grade I) Electrodeposited magnetic film coated wires for GMI (Giant magneto-impedance) sensor applications



Nihar Kumar Mahato PhD – IIT Kharagpur Assistant Professor (Grade I) Applied Functional Analysis and optimization



Manoj Kumar Panda PhD - IIT Kanpur Assistant Professor (Grade I) Mathematical Modelling of Bio-Fluid Dynamics (Phototactic bioconvection), CFD, Hydrodynamic Instability



Neeraj Kumar Jaiswal PhD - ABV-IIITM Gwalior Assistant Professor (Grade I) **Applied Physics**



Deepmala PhD - Pt. Ravishankar Shukla University, Raipur Assistant Professor (Grade I) Fixed Point theory and Applications, Dynamic Programming, Integral Equations, Nonlinear Analysis



Yashpal Singh Katharria PhD - Jawaharlal Nehru University/ Inter-University Accelerator Centre, New Delhi Assistant Professor (Grade I) **Experimental Condensed Matter Physics**



Journals

- Babban Kumar Ravidas, Mukesh Kumar Roy and Dip Prakash Samajdar. "Investigation of photovoltaic performance of lead-free CsSnI3-based perovskite solar cell with different hole transport layers: First Principle Calculations and SCAPS-1D Analysis." Solar Energy 249 (2023): 163-173.
- Saurabh Yadav, Amit Kumar Singh, M K Roy and Y. S. Katharria, "Dielectric and structural properties of pure and Sn-mixed Ga2O3 compounds", Journal of Materials Science: Materials in Electronics 34 (2023) 632.
- 3. Amit Kumar Singh, Saurabh Yadav, P. K. Kulriya and Y. S. Katharria , "Sapphire substrate induced effects on β-Ga2O3 thin films", Journal of Materials Science: Materials in Electronics 337 (2022) 12629-12637.
- 4. AK Mittal, LK Balyan, KK Sharma, "A spectrally accurate time - space pseudospectral method for viscous Burgers' equation" Numerical Methos of Partial differential equations, https://doi.org/ 10.1002/num.23011.
- AK Mittal and LK Balyan, "An improved pseudospectral approximation of coupled nonlinear partial differential equations"", Int. J. Computing Science and Mathematics, 15(2) 155-167 (2022)."
- P. Saini, L.K. Balyan, A. Kumar, et al. Modification of Chebyshev Pseudospectral Method to Minimize the Gibbs Oscillatory Behaviour in Resynthesizing Process. Circuits Syst Signal Process (2022). https://doi.org/ 10.1007/s00034-022-02081-9.
- 7. H. Singh, A. Kumar and L.K. Balyan, Fractional-order Differintegral based multiscale Retinex inspired texture dependent quality enhancement for

- remotely sensed images. Multimed Tools Appl (2022). https://doi.org/ 10.1007/ s11042-022-13265-5.
- Pramod Kumar Shah, Nihar R. Jena and Pradeep Kumar Shukla. "Reactions of Ru (III)-drugs KP1019 and KP418 with guanine, 2'-deoxyguanosine and guanosine: a DFT study." Journal of Molecular Modeling 28, no. 10 (2022): 291.
- Pramod Kumar Shah, Nihar R. Jena and Pradeep Kumar Shukla, "A theoretical characterization of mechanisms of action of osmium (III)-based drug Os-KP418: hydrolysis and its binding with guanine." Structural Chemistry 34, no. 3 (2023): 995-1003.
- 10. Suyash Pant and Nihar R. Jena, "C-Terminal Extended Hexapeptides as Potent Inhibitors of the NS2B-NS3 Protease of the ZIKA Virus." Frontiers in Medicine 9 (2022): 921060.
- 11. Shubham Kumar and Deepmala, "A Note on Unique Solvability of the Generalized Absolute Value Matrix Equation." National Academy Science Letters 46, no. 2 (2023): 129-131.
- 12. Bharat Kumar, Deepmala and A. K. Das, "Projected fixed point iterative method for large and sparse horizontal linear complementarity problem." Indian Journal of Pure and Applied Mathematics (2023):
- 13. Bharat Kumar, Deepmala and Arup Kumar Das, "On general fixed point method based on matrix splitting for solving linear complementarity problem." Journal of Numerical Analysis and Approximation Theory 51.2 (2022): 189-200.
- 14. Bharat Kumar, Deepmala, A. Dutta and A. K. Das, "More on matrix splitting modulusbased iterative methods for solving linear complementarity problem." OPSEARCH (2023): 1-18.



- 15. Shubham Kumar and Deepmala, "On unique solvability of the piecewise linear equation system." Journal of Numerical Analysis and Approximation Theory 51, no. 2 (2022): 181-188.
- 16. Shubham Kumar and Deepmala, "The Unique Solvability Conditions for a New Class of Absolute Value Equation." Yugoslav Journal of Operations Research (2022).
- 17. Shubham Kumar and Deepmala, "A note on the unique solvability condition for generalized absolute value matrix equation." Journal of Numerical Analysis and Approximation Theory 51, no. 1 (2022): 83-87.
- 18. T. Kundu, Deepmala and P K Jain, A hybrid salp swarm algorithm based on TLBO for reliability redundancy allocation problems, Applied Intelligence, 52(15):1-38 DOI:10.1007/s10489-021-02862-w.
- 19. A.P. Kotti, R. Sahu, P. Tandon and A. C. Mishra, "Tunable microwave susceptibility of thin truncated conical permalloy nanodisks: a micromagnetic investigation" Journal of nanoparticle research 25 (2023): 41.
- 20. P. Tandon, R. Sahu, A. C. Mishra, K. Singh, K. Srikanti and R. Goaplan, "Magnetoimpedance effect in electrodeposited NiFe/Cu wire using trisodium citrate additive in plating bath" Journal of Magnetism and Magnetic Materials 570 (2023): 170490. https://doi.org/10.1016/j.jmmm.2023. 170490.
- 21. P. Tandon, R. Sahu, R. Venkatesh and A. C. Mishra, "Influence of chromium doping on the magnetoimpedance of electrodeposited NiFeCr/Cu thin films for sensor applications" Thin solid films 768 (2023): 139696. https://doi.org/ 10.1016/ j.tsf.2023.139696.

- 22. R. Maheshwari, S. K. Mohanty and A. C. Mishra. "DCSNE: Density-based Clustering using Graph Shared Neighbors and Entropy" Pattern Recognition 137 (2023): 109341. https://doi.org/10.1016/j.patcog.2023. 109341.
- 23. A.K. Kar, A.C. Mishra and S. K. Mohanty, "An Efficient Entropy based Dissimilarity Measure to Cluster Categorical Data"" Engineering Applications of Artificial Intelligence 119 (2023): 105795. https://doi.org/ 10.1016/j.engappai. 2022.105795".
- 24. R. Sahu, P. Tandon and A. C. Mishra, "In plane magnetization reversal in nanosized thin truncated conical double-disks of permalloy" Modelling and Simulation in Materials Science and Engineering 30 (2022): 85008. https://doi.org/10.1088/ 1361-651X/ac9b7a.
- 25. P. Tandon, R. Sahu and A.C. Mishra, "Enhanced soft magnetic properties and magnetoimpedance effect in Mo-doped electrodeposited NiFe/Cu wire" "Journal of materials science 57 (2022): 19631-19649. https://doi.org/ 10.1007/s10853-022-07808-2".
- 26. P. Tandon and A.C. Mishra, "The Effect of Magnetic Field Orientation on the Magnetoimpedance of Electroplated NiFeCo/Cu Wire " Journal of Materials Science: Materials in Electronics 33 (2022): 18311-18326 https://doi.org/ 10.1007/ s10854-022-08686-9.
- 27. R. Sahu, P. Tandon and A.C. Mishra, "Micromagnetic simulation in 1-D chain of nanosized thin truncated conical disks" IEEE transactions in magnetics 58 (2022): 7100611. https://doi.org/ 10.1109/TMAG. 2022.3207913.
- 28. R. Sahu, P. Tandon and A.C. Mishra, "Tailoring of effective biaxial anisotropy in a



- 2-D array of thin truncated conical nanodisk" Journal of magnetism and magnetic materials 562 (2022): 169843. https://doi.org/10.1016/j.jmmm.2022. 169843.
- 29. P. Tandon, R. Sahu and A.C. Mishra, "Giant magnetoimpedance effect in electrodeposited CoNiFe/Cu composite wire: Experimental study and analytical modelling " Physica B: Condensed matter 642 (2022): 414131. https://doi.org/ 10.1016/j.physb.2022.414131.
- 30. R. Sahu and A.C. Mishra, "Magnetization reversal in crossed double elliptic permalloy nanodisks studied by micromagnetic simulation ".Journal of magnetism and magnetic materials 556 (2022): 169356. https://doi.org/ 10.1016/j.jmmm.2022. 169356.
- 31. Ankita Nemu and Neeraj K. Jaiswal. ""DFT based investigations for the structural and electronic properties of coved zigzag BP nanoribbons."" Journal of Molecular Graphics and Modelling 121 (2023): 108453."
- 32. Saurabh Kharwar, Sangeeta Singh, Neeraj K. Jaiswal and Mustafa KA Mohammed, "Nanointerconnect design based on edge fluorinated/ hydrogenated zigzag borophene nanoribbons: an ab initio analysis." Physical Chemistry Chemical Physics 25, no. 6 (2023): 5122-5129."
- 33. Ankita Nemu and Neeraj K. Jaiswal, "Firstprinciples investigations for the electronic and transport properties of zigzag SiC nanoribbons with Fluorine passivation/ adsorption." "Journal of Molecular Graphics and Modelling 120 (2023): 108416."
- 34. Ravindra Kumar, Ajay K. Rakesh, Rachana

- Yogi, Anil Govindan and Neeraj K. Jaiswal, "First-principles study of CO adsorption on zigzag ZnO nanoribbons towards nanosensor application."" Journal of Molecular Graphics and Modelling 116 (2022): 108232."
- 35. Neha Tyagi and Neeraj K. Jaiswal. "Enhancing the performance of BN nanosheets as promising anode material for Li-ion batteries with carbon-doping." Journal of Molecular Graphics and Modelling 115 (2022): 108213."
- 36. Chinmaya Panigrahy, Ayan Seal and Nihar Kumar Mahato, "Parameter adaptive unitlinking dual-channel PCNN based infrared and visible image fusion." Neurocomputing 514 (2022): 21-38.
- 37. Nihar Kumar Mahato, Rahul, Sumati Kumari Panda, A. Manar, Algudah and Thabet Abdeljawad, "An existence result involving both the generalized proportional Riemann-Liouville and Hadamard fractional integral equations through generalized Darbo's fixed point theorem." AIMS Math. 7 (2022) 15484.4.
- 38. Bhupendra Gupta and Subir Singh Lamba. "Structure-aware adaptive bilateral texture filtering." Digital Signal Processing 123 (2022): 103386.
- 39. Riya Ruhela, Bhupendra Gupta and Subir Singh Lamba. "An efficient approach for texture smoothing by adaptive joint bilateral filtering." The Visual Computer 39, no. 5 (2023): 2035-2049.
- 40. Riya Ruhela, Bhupendra Gupta and Subir Singh Lamba. "A new non-convex low rank minimization model to decompose an image into cartoon and texture components." Computers & Mathematics with Applications 123 (2022): 1-12.



Conference Publications

- B.K Ravidas, M.K. Roy and D.P. Samajdar, Photovoltaic Performance Metrics of CsSnI3 Perovskite Solar Cells using SCAPS-1D, IEEE 6th Conference on Information and Communication Technology (CICT), Gwalior, India, 1-5, 18-20 November 2022.
- P. Saini, L.K. Balyan, A. Kumar and G.K. Singh, Noise Reduction Through Thresholding Process Over the Space of Orthogonal Polynomials, Proceedings of Second International Conference on Computational Electronics for Wireless Communications. Lecture Notes in Networks and Systems, vol 554. Springer,

- Singapore, India, 605-614, June 9-10, 2022.
- 3. P. Saini, L.K. Balyan, A.Kumar, G.K. Singh, Performance Analysis of Different Filters For Gibbs Phenomenon Minimization: A Comparative Study, IEEE 6th Conference on Information and Communication Technology (CICT), India, 1-6, November 18-20, 2022.
- H.S. Pal, A. Kumar, A. Vishwakarma, L. K. Balyan, A Hybrid 2D ECG Compression Algorithm using DCT and Embedded Zero Tree Wavelet, IEEE 6th Conference on Information and Communication Technology (CICT), India, 1-6, November 18-20, 2022.

Liberal Arts

DPM IIITDMJ founded the department of Liberal Arts with induction of Humanities on 13th August, 2021. But since the founding of the Institute in 2006, Humanities courses have been given very valuable weightage aiding the goals of the students in the technical courses. Humanities has played a critical role in the placement of the students by developing their interpersonal skills through communication strategies and soft skills. The personality of the students was further shaped by popular courses like Culture and Human Values and Indian Philosophy. Students also get a professional edge in their fields by pursuing the courses like Science and Culture, Culture and Technology. Many students have engineered designs of engineering products inspired through poems.

PhD English program is the crown of the Liberal Arts department. The maiden researches of the research scholars in English have won international and national acclaims. The scholars are vetting their research ideas in the field of Consciousness studies, Cognitive Sciences, Cultural Studies, Language and Literature along with newly emerging areas of critical importance like medical humanities.

Liberal Arts





Sunil Agarwal PhD – IIT Kanpur Associate Professor **Industrial Engineering**



Mamta Anand PhD – Banasthali Vidyapith, Rajasthan Fulbright Fellow, Harvard University (USA) Assistant Professor (Grade I) Cultural Studies, Language, Literature, Communication & Cognitive Science



J. Al Muzzamil Fareen PhD - Anna University Chennai Assistant Professor (Grade II) Applied Linguistics, ESP, Needs Analysis, Language, Literature & Communication

Journals

1. Dr. J. Al Muzzamil Fareen & Farhana, M. A. M. The upshot of aberrant knowledge, erratic learning and blind experimenting: Frankenstein's drive to desolation between humanism and nonhumanism, 9(2), 70-78, Dec-22.

Conference Publications

- Farhana M. A. M. & Fareen, J. A. M. (2023). "Shift to online learning: A better alternative?" at International Conference on Emerging Trends in Online Teaching, Assessment and Learning (ETotal), February 24 & 25, 2023 Organized by State Project Directorate, Rashtriya Uchchatar Shiksha Abhiyan, Tamil Nadu.
- Sarkar, D. & Fareen, J. A. M. (2023). "Is It Really True As We Believe: Disenchanting Memory Politics and Addressing Trauma in Joy Kogawa's Obasan" at 6th International Interdisciplinary Online Conference, University of Gda?sk, Poland, & Norwegian University of Science & Technology on Memory, Forgetting and Creating Organized by InMind Support on 19-20 January 2023."

- Farhana M. A. M. & Fareen, J. A. M. (2022). "The upshot of aberrant knowledge, erratic learning and blind experimenting: Frankenstein's drive to desolation between humanism and nonhumanism" (pp. 70-78) in hybrid mode two-day 4L International Conference, Learning, Language & Literature for Life organized by National College, Trichy on 9th & 10th September, 2022.
- Sarkar, Dwitiya. & Fareen, Jabbar. Exploring Memory and Culture Through Archival Paradigm in Vikram Seth's Two Lives: A Traumatic Self-discovery. Memory in a Digital Age. Memory in a Digital Age, (2021): 43.
- 5. Fareen, Jabbar. & Farhana, Mubarak. Use of Internet and ICT Skills in Developing Language and Higher Education in the COVID-19 Pandemic: A Review. Biruni University 2nd International Congress on Teaching and Teacher Education (iCOTTE-2022), (2022): 15-21.
- Mamta, Anand. "Creativity and Innovation through Human Values". MG University (Feb 23) 7.

Book, Books Chapters and Monographs



- Design and analysis of Single Screw 1. Extruder for Hybrid Manufacturing Process, In: Advances in Manufacturing, Automation, Design and Energy Technologies (Chapter 41). Eds: N. M. Sivaram et al., Lecture notes of Mechanical Engineering, Springer Nature, ISBN 978-981-99-1287-2, Kausadikar, S., Tiwari, M.K, Ponappa, K. and Tandon, P., 2023.
- 2. A Review on Process Limitations and Recent Advancements in Single Point Incremental Sheet Forming, In: Metal Forming Processes. Eds: Kakandikar, G. M., Agrawal, A., Kumar, D. R., CRC Press, Boca Raton, pp183-198, ISBN 9781003226703, Shrivastava, P. and Tandon, P., 2022
- Quantitative and Qualitative Study on Lifestyle of Polycystic Ovarian SynDr.ome or Disease (PCOS/PCOD) Patients, In: Ergonomics for Design and Innovation. HWWE 2017. Chakrabarti, D., Karmakar, S., Salve, U.R. (eds). Lecture Notes in Networks and Systems, vol 391. Springer, Cham, DOI: 10.1007/978-3-030-94277-9 16, Gohil, Y. and Tandon, P., 2022.
- Toolpath Generation of a Human Anatomical Shape for Double-Sided Incremental Forming, In: Recent Advances in Operations Management Applications. Lecture Notes in Mechanical Engineering, Eds: Sachdeva, A., Kumar, P., Yadav, O.P., Tyagi, M., Springer, Singapore, DOI: 10.1007/978-981-16-7059-6_23, Sahu, A., Jain, P.K., and Tandon, P., 2022.

- 5. Overview of Current Additive Manufacturing Technologies for Titanium Bioimplants, In: Nanoscale Engineering of Biomaterials: Properties and Applications, Eds: Lalit M. Pandey and Abshar Hasan, Springer, Chapter 5, DOI: 10.1007/978-981pp.117-130 16-3667-7, ISBN 978-981-16-3666-0 ISBN 978-981-16-3667-7 (eBook), Telang, V.S., Pemmada, R., Ramakrishna, S., Tandon, P. and Nanda, H.S., 2022.
- 6. 3D Printing for Functional Tissue Engineering, In: Tissue Engineering: Current Status and Challenges" (Eds: ChanDr.a P Sharma, Thomas Chandy, Vinoy Thomas and Finosh G Thankam), Academic Press, Elsevier pp. 415-430, DOI: 10.1016/C2020-0-01183-7, ISBN 978-0-12-824064-9, Pemmada, R., Telang, V.S., Dash, M., Richard, J.L.C., Tandon, P., Ramakrishna, S. and Nanda, H.S., 2022.
- Recent Advances in Machines and 7. Mechanisms: Select Proceedings of iNaCoMM 2021, Springer, 978-981-19-3716-3, Prof. C. Amarnath, Prof. Puneet Tandon, Prof. Tanuja Sheorey, Dr. M.Zahid Ansari, 2022.
- 8. Toolpath Generation of a Human Anatomical Shape for Double-Sided Incremental Forming, Recent Advances in Operations Management Applications 2022 (pp. 299-316). Springer, Singapore, 978-981-16-7059-6, A. Sahu, P.K. Jain and P. Tandon, 2022.

Book, Books Chapters and Monographs



- Materials for Lightweight Construct-9. ions, CRC Press, 9781003252108, Yash Panchal, 2022.
- 10. Ballistic Impact Behavior of 3D Hybrid Composite Laminates, Springer, https://doi.org/10.1007/978-981-19-3716-3 58., Roopen Dr. A Pathak, V.K. Gupta, 2023.
- 11. Design and Development of Double Air Suction Resuscitation Device Using Scotch Yoke Mechanism., Springer, https://doi.org/10.1007/978-981-19-3716-3_37, T. Sheorey, 2023.
- 12. Numerical Analysis on Hexagonal Honeycomb Sandwich Structure Under Air-Blast Loading., Springer, https://doi.org/10.1007/978-981-19-3716-3_59, Murlidhar Patel, 2023.
- 13. Crack Propagation Analysis of Spur Gear " In book: Advances in Manufacturing Engineering Part of the Lecture Notes in Mechanical Engineering book series (LNME) Springer DOI: 10.1007/978-981-19-4208-2_30., Springer, DOI: 10.1007/978-981-19-4208-2_30, MahenDr.a Singh Raghav, Amandeep Singh, 2023.
- 14. Fatigue Failure Analysis of Spur Gear, CRC Press, Accepted, Amandeep Singh, 2022.
- 15. Low Velocity Impact Analysis of Corrugated Sandwich Structure, Springer, https://doi.org/10.1007/ 978-981-16-9523-0_11, Vikrant Sen, 2022.

- 16. Experimental Uncertainty Analysis of Failure Strains for Jute Fiber Composites, CRC Press, Accepted, Kumar Maharshi, 2022.
- 17. Natural fiber constituted electromagnetic wave absorbing composites: A short review, CRC Press, Accepted, Sarang Joshi, Ravi Panwar, 2022.
- 18. Corrugated sandwich structure modeling under low velocity impact, Springer, Accepted, Vikrant Sen, 2022.
- 19. High velocity impact analysis of CFRP composite, Springer, https://doi.org/ 10.1007/978-981-16-9523-0 12, Sajal Soni, Roopen Dr. A Pathak, 2022.
- 20. Ballistic performance of 3D hybrid composite laminates, Springer, https://doi.org/10.1007/978-981-16-9523-0 13, Roopen Dr. A Pathak, 2022.
- 21. Experimental and Statistical analysis of the Jute fabric composites under tensile loading, Springer, https://doi.org/10.1007/978-981-16-9523-0_15, Kumar, Maharshi, 2022.
- 22. Chapter Integrated Fuel Cell Hybrid Technology in Hybrid Power Cycle Arrangements for Lower Emissions, CRC Press (Taylor & Francis Group) USA, 9781003213741, 2022.
- 23. Ergonomics Principles in Design: An Illustrated Fundamental Approach(BOOK), CRC Press, ISBN 9781032299617, 2022, None, 12th September 2022.

Book, Books Chapters and Monographs



- 24. Visual Ergonomics for Communication Design: A Laypersons Approach (Book), CRC Press, ISBN 9781032436876, 2022, None, 21st December, 2022.
- 25. Ergonomics in Fashion Design: A Laypersons Approach (Book), Springer, ISBN: 978-981-19-4534-2, 2022, None, 2nd September 2022.
- 26. Outage Performance Comparison of DF/AF Cooperative Relaying System with SC/MRC Diversity Techniques, Springer, 978-3-031-04320-8, 2022, Shailendra Singh, Book chapter in the book "Towards a Wireless Connected World: Achievements and New Technologies", Published on 22 May 2022.

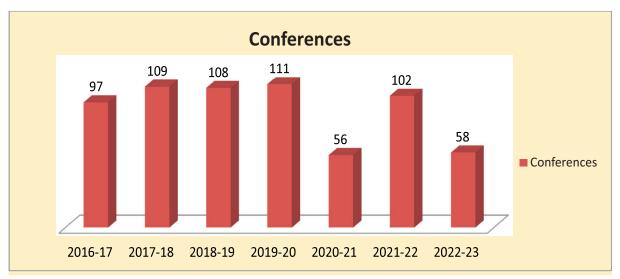
- 27. Dielectric Resonator Antennas, Artech House, 978-1-63081-870-8, 2022, M. Chauhan, Book, Published in May 2022.
- 28. "Image Processing and Intelligent Computing Systems", CRC Press, 781032213149, 2023, Prateek Singhal, Abhishek Verma, Prabhat Kumar Srivastava, Virender Ranga, Ram Kumar, Book, January 21, 2023.
- 29. Advances in Cyber Security and Intelligent Analytics, CRC Press, 9781032216003, 2022, Jitendra Kumar, Hari Mohan Gaur, Vrijendra Singh, Valentina Emilia Balas, Book, December 21, 2022.

Patents & Publication

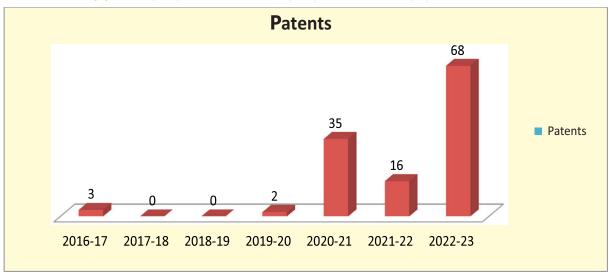


Publications





Patents: Applied (22) / Published (44) / Granted (2)



Academic and Research Activities • • •



The institute offers following academic programs:

1. **Undergraduate Programmes:**

The Institute has a unique undergraduate curriculum for imparting education in the following Discipline of engineering:

١. B.Tech. Computer Science and Engineering (CSE)

ii. B.Tech. Electronics and Communication Engineering (ECE)

B.Tech. Mechanical Engineering (ME) iii.

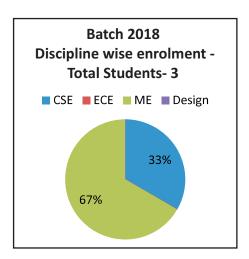
Smart Manufacturing (SM) B.Tech. iv.

V. B.Des. Design (DS)

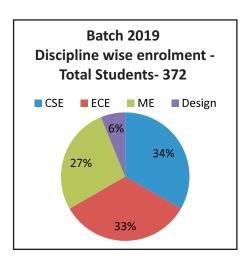
Different statistics related to UG students are as follows:

(1) The details of student enrolment (batch wise) are as follows on academic year 2022-23:

2018 Batch									
Discipline	ine OP EWS OB SC ST Tota								
CSE	1	0	0	0	0	1			
ECE	0	0	0	0	0	0			
ME	2	0	0	0	0	2			
Design	0	0	0	0	0	0			
Total	3	0	0	0	0	3			



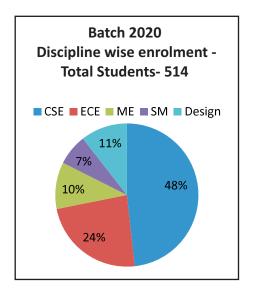
2019 Batch									
Discipline	e OP EWS OB SC ST Total								
CSE	54	10	34	18	8	124			
ECE	40	17	39	19	9	124			
ME	35	8	35	15	8	101			
Design	Design 11 0 8 2 2 23								
Total	140	35	116	54	27	372			



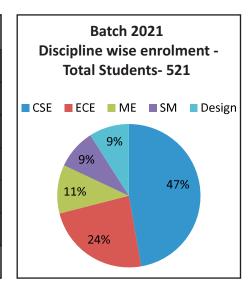
Academic and Research Activities —



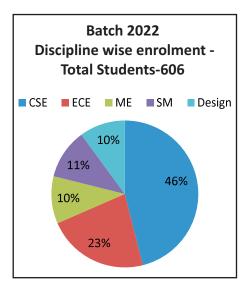
2020 Batch										
Discipline	ОР	OP EWS OB SC ST Tot								
CSE	98	33	63	37	18	249				
ECE	43	15	35	19	9	121				
ME	11	8	23	9	3	54				
SM	9	5	11	9	2	36				
Design	21	5	16	9	3	54				
Total	182	66	148	83	35	514				



2021 Batch										
Discipline	ОР	OP EWS OB SC ST Total								
CSE	87	37	67	36	19	246				
ECE	41	23	32	19	9	124				
ME	10	11	22	9	5	57				
SM	4	9	21	8	5	47				
Design	18	4	12	8	5	47				
Total	160	84	154	80	43	521				



2022 Batch										
Discipline	ОР	OP EWS OB SC ST Total								
CSE	104	37	77	40	21	279				
ECE	37	26	42	21	10	136				
ME	22	9	18	9	5	63				
SM	21	10	20	11	5	67				
Design	27	5	18	9	2	61				
Total	211	87	175	90	43	606				



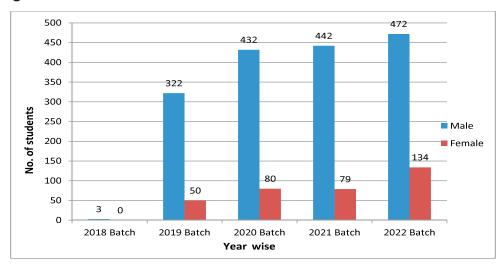
Academic and Research Activities •



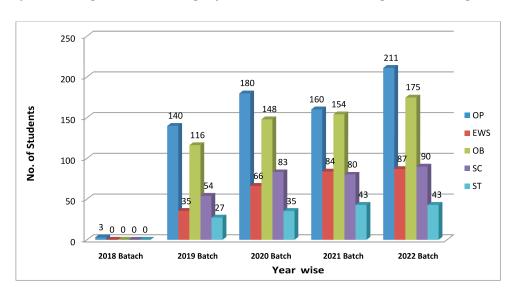
For B.Tech. Programme - Academic Performance Evaluation Committee Report (II) **Undergraduate Semester II (2021-22)**

Batch	No. of Register Students	No. of students Passed	No. of Students Terminated/Withdrawal
2017	299	299	0
2018	298	294	1(Withdrawal)
2019	374	372	2(Withdrawal)
2020	515	512	3(Withdrawal)
2021	531	521	10(Withdrawal)

(III) **Graph Showing Status of Male and Female Students in the Undergraduate** Programme.



(IV) **Graph Showing Status of Category wise Students in Undergraduate Programme**



Academic and Research Activities •—



2. **Postgraduate Programmes**

The institute offers Master's degree Programme in: -

M.Tech. i.

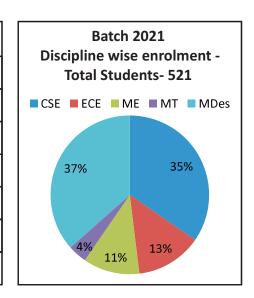
- Computer Science & Engineering (CSE)
 - a. Al and ML
 - b. Data Science
- (ii) Electronics & Communication Engineering (ECE)
 - a. Communication System Design
 - b. Nanoelectronics and VLSI Design
 - c. Power and Control
- (iii) Mechanical Engineering (ME)
 - a. Design
 - b. CAD/CAM
 - c. Smart Manufacturing and Automation
- (iv) Mechatronics

Master of Design (M.Des.) II.

Different statistics related to PG students are as follows:

(I) The details of student enrolment (batch wise) are as follows:

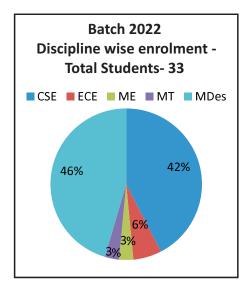
2021 Batch									
Discipline	ne OP EWS OB SC ST To								
CSE	13	1	1	3	0	18			
ECE	6	0	0	0	1	7			
ME	3	0	1	2	0	6			
MT	2	0	0	0	0	2			
Mdes	9	1	6	1	2	19			
Total	33	2	8	6	3	52			



Academic and Research Activities



2022 Batch										
Discipline	OP EWS OB SC ST Total									
CSE	10	1	0	3	0	14				
ECE	2	0	0	0	0	2				
ME	0	0	1	0	0	1				
MT	1	0	0	0	0	1				
Mdes	4	0	4	5	2	15				
Total	17	1	5	8	2	33				

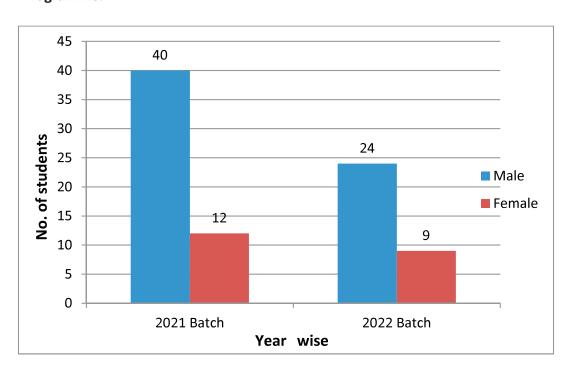


(II) Postgraduate - Academic Performance Evaluation Committee Report

Post Graduate Semester I (2021-22)

Batch	No of Student	No of Pass	No of Terminated/Withdrawal
2020	90	90	0
2021	60	57	3 (withdrawal)

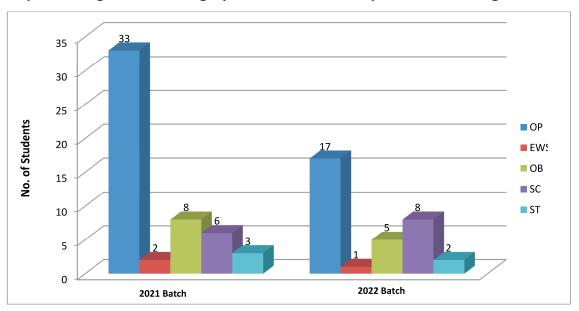
(III) **Graph Showing Status of Male and Female Students in the post Graduate** Programme.



Academic and Research Activities



(IV) **Graph Showing Status of Category wise Students in the post Graduate Programme.**



3. **Ph.D. Programs**

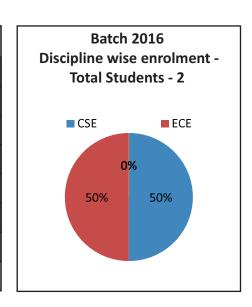
The Institute offers Ph.D. in following Discipline:

- (i) Computer Science & Engineering (CSE)
- (ii) Electronics & Communication Engineering (ECE)
- Mechanical Engineering (ME) (iii)
- (iv) Design (Design)
- (v) Natural Science (Physics, Mathematics)
- (vi) Liberal Arts (English)

Different statistics related to Ph.D. students are as follows:

(I) Students Enrolment in Ph.D.

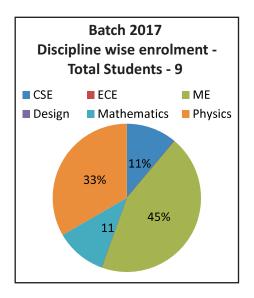
2016 Batch								
Discipline	OP	EWS	ОВ	sc	ST	Total		
CSE	1	0	0	0	0	1		
ECE	1	0	0	0	0	1		
ME	0	0	0	0	0	0		
Mathematics	0	0	0	0	0	0		
Physics	0	0	0	0	0	0		
Design	0	0	0	0	0	0		
Total	2	0	0	0	0	2		



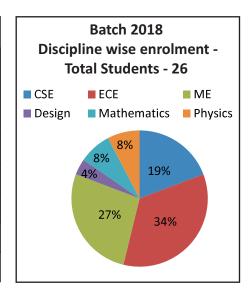
Academic and Research Activities —



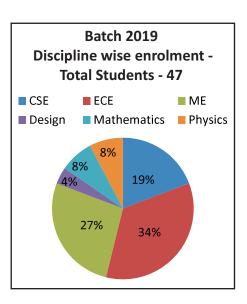
2017 Batch								
Discipline	OP	EWS	ОВ	sc	ST	Total		
CSE	1	0	0	0	0	1		
ECE	0	0	0	0	0	0		
ME	3	0	1	0	0	4		
Design	0	0	0	0	0	0		
Mathematics	0	0	1	0	0	1		
Physics	1	0	2	0	0	3		
Total	5	0	4	0	0	9		



2018 Batch								
Discipline	OP	EWS	ОВ	sc	ST	Total		
CSE	4	0	1	0	0	5		
ECE	5	0	3	1	0	9		
ME	5	0	1	1	0	7		
Design	1	0	0	0	0	1		
Mathematics	0	0	2	0	0	2		
Physics	1	0	1	0	0	2		
Total	16	0	8	2	0	26		



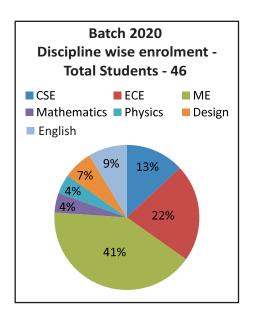
2019 Batch									
Discipline	OP	EWS	ОВ	SC	ST	Total			
CSE	3	0	0	1	0	4			
ECE	5	0	6	1	0	12			
ME	8	0	6	5	1	20			
Design	0	0	1	1	2	4			
Mathematics	1	0	4	0	0	5			
Physics	1	0	1	0	0	2			
Total	18	0	18	8	3	47			



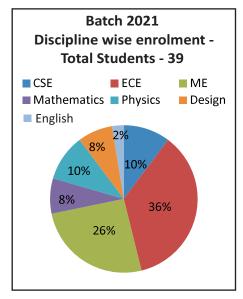
Academic and Research Activities •—



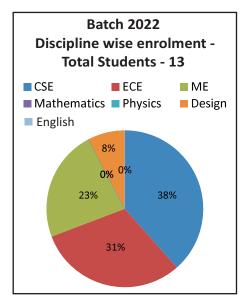
2020 Batch										
Discipline	ОР	EWS	ОВ	SC	ST	Total				
CSE	1	0	4	1	0	6				
ECE	6	0	4	0	0	10				
ME	13	0	4	2	0	19				
Design	1	0	1	0	0	2				
Mathematics	0	1	1	0	0	2				
Physics	1	0	2	0	0	3				
English	1	0	3	0	0	4				
Total	23	1	19	3	0	46				



2021 Batch									
Discipline	OP	EWS	ОВ	SC	ST	Total			
CSE	3	0	1	0	0	4			
ECE	5	1	6	2	0	14			
ME	6	1	3	0	0	10			
Design	0	0	2	1	0	3			
Mathematics	1	1	1	1	0	4			
Physics	2	0	0	1	0	3			
English	1	0	0	0	0	1			
Total	18	3	13	5	0	39			



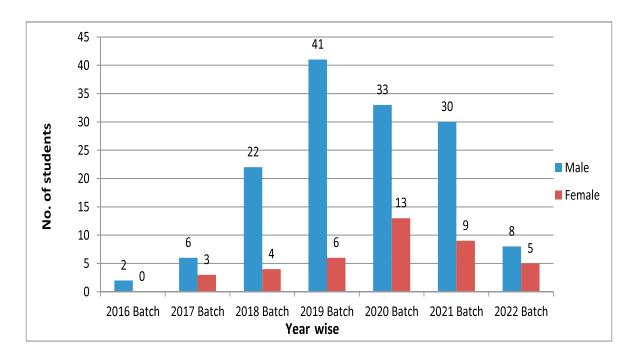
2022 Batch								
Discipline	OP	EWS	ОВ	SC	ST	Total		
CSE	3	0	0	2	0	5		
ECE	4	0	0	0	0	4		
ME	2	0	1	0	0	3		
Design	0	0	0	0	0	0		
Mathematics	0	0	0	0	0	0		
Physics	1	0	0	0	0	1		
English	0	0	0	0	0	0		
Total	10	0	1	2	0	13		



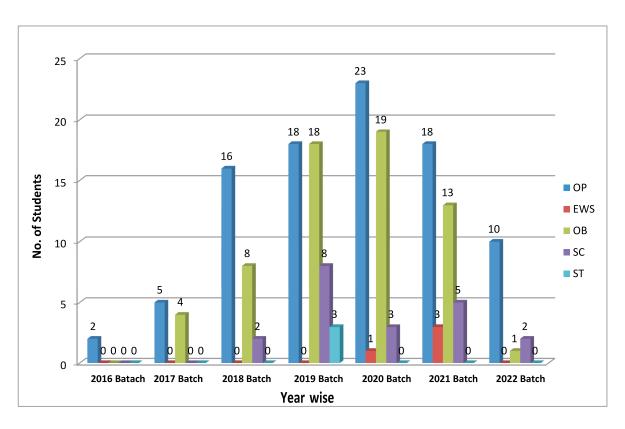
Academic and Research Activities



Graph Showing Status of Male and Female Students in the Ph.D. Programme. (II)



(III) Graph Showing Status of Category wise Students in the Ph.D. Programme



Academic and Research Activities •— []



Graduating Students Details

Total 413 students have completed their program requirements. The program wise details are as follows: -

Bachelor of Technology (B.Tech.)

Sr. No.	Discipline	Total
1.	Computer Science & Engineering	98
2.	Electronics & Communication Engineering	90
3.	Mechanical Engineering	85
4.	B.Des.	22
	Total	295

Master of Technology (M.Tech.)

Sr. No.	Discipline	Total
1.	Computer Science & Engineering	19
2.	Electronics & Communication Engineering	20
3.	Mechanical Engineering	20
4.	Mechatronics Engineering	9
5.	Master of Design	24
	Total	92

Doctor of Philosophy (Ph.D.)

Sr. No.	Discipline	Total
1.	Computer Science & Engineering	6
2.	Electronics & Communication Engineering	9
3.	Mechanical Engineering	8
4.	Natural Science (Mathematics)	1
5.	Natural Science (Physics)	0
	Total	26

Dual Degree (Mtech. + Ph.D.):

	Sr. No.	Discipline	Total
I	1.	Computer Science & Engineering	2

Projects



Financial Year 01/04/2022 to 31/03/2023

(i) Institutional Projects

S. No.	Project Title	Duration	Project Investigator / Coordinators	Funding Agency	Total Sanctioned Amount Rs. in Lakh	Status
1.	Electronics & ICT Academy	2015-23	Prof. Aparajita Ojha, Prof. V.K. Gupta, Prof. P.N. Kondekar, Dr. Atul Gupta, Dr. P.K. Jain	Ministry of Communications and Information Technology, DEIT HRD Division	Rs. 2,500.00	Ongoing
2.	National Initiative for setting up DIC Hub / Spoke Model	2016-23	Prof. Tanuja Sheorey and Dr. Atul Gupta	MHRD, Govt. of India through RDVV JABALPUR	Rs. 100.00	Ongoing



(ii) Research Projects

SI. No.	Project Title	Duration	Project Investigator / Coordinators	Funding Agency	Total Sanctioned Amount in Rs. Lakh	Status
1.	Smart Manufacturing and Condition Monitoring	2018-23	Prof. Vijay K Gupta, Prof. P.Tandon	DST-FIST	194.40	On Going
2.	Establishment of Research facility for Advanced Microwave and Communication Engineering	2018-23	Prof. Dinesh Kumar V, Dr. Manoj S Parihar, Dr. Matadeen Bansal.	DST-FIST	205.20	On Going
3.	Modelling suspensions of active swimming micro-organisms under external gradients via Bio convection	2019-23	Dr. Manoj Kumar Panda	SERB	21.92	On going
4.	Scientific and Industrial Applications of Bio convection Via Mathematical Modelling	2019-23	Dr. Manoj Kumar Panda	CSIR	5.47	On going
5.	Mathematical and Computational modelling of Epidemic Forecast and Disease Transformation	2019-23	Dr. Manish Kumar Bajpai	SPARC	48.90	On going
6.	Prediction of Diseases through computer assisted diagnosis system using images captured by minimally-invasive and non- invasive modalities	2019-23	Dr. Ayan Seal	SPARC	47.69	On Going
7.	Investigation of sp2/sp3 edge functionalized GaNnanoribbons for spintronic device applications	2019-23	Dr. Neeraj Kumar Jaiswal	SERB	21.44	On Going



8.	Development of Multi- operational Microwave Heating Setup for the near net shape material processing	2019-23	Dr. Harpreet Singh	SERB	22.04	Completed
9.	Studies on electronic and optical Properties in Group III -V _ N Quaternary Semiconductor Quantum Dots Using Density Functional Theory And K Dot Method	2019-23	Dr. Dip Prakash Samjdar	CSIR	17.10	On going
10.	Design and Development of centralized database on scholarship/fellowships awarded in S&T Sector	2020-24	Dr. Manish Kumar Bajpai	DST	24.12	On going
11.	Ergonomic Intervention In the Classroom Environment for Enhanced Learning	2020-23	Dr. Prabir Mukhopadhyay	NCERT	07.98	On Going
12.	MI studies of electrodeposited nickel based thin film alloys for low magnetic field sensor application	2020-23	Dr. Amresh Chandra Mishra	BRNS	25.15	On Going
13.	Scale effect approach to evaluate the erosion mechanism and performance features in micro abrasive water jet machining process: A study of new approach based on process parameters and materials microstructures	2020-23	Prof. Puneet Tandon	SERB TARE	18.30	Completed
14.	Design and Development of ADHAAR (Autonomous Drone for Himalayan region Analysis, Assessment and Rescue)	2021-24	Dr. Irshad Ahmad Ansari	JCBRO	0.88	On going



15.	Investigation of Computational Intelligence Capabilities for Digital Signal Protection	2021-24	Dr. Irshad Ahmad Ansari	STEM Research Society	2.05	On going
16.	Low Profile Dielectric Resonator Antennas for Compact, Wideband and Conformal Applications	2021-24	Dr. Biswajeet Mukherjee	SERB	26.07	On going
17.	Computer Aided Design For Development of Hardware Prototype for Diagnosis of Diabetes Using ECG Signals	2021-24	Dr. Varun Bajaj	CSIR	6.97	On going
18.	Development of Fresh Water Pearl Culture Unit Based On IoT-Data Analytics	2021-23	Dr. Munesh Singh	DST	8.90	On going
19.	Bot Prevention in Cyber Physical Systems	2021-23	Dr. Neelam Dayal	IHUB- NTIHAC, IIT Kanpur	35.00	On going
20.	Discovery of Therapeutic Candidates for the Treatment of ZIKA Viral infection by using advanced computational techniques	2021-23	Dr. N.R.Jena	CSIR	7.75	On going
21.	Development of Li doped ZnO based electrolyte for low -temperature solid oxide fuel cell (SOFC)	2021-23	Dr. Pankaj Sharma	SERB	32.86	On Going
22.	Magnetron Sputtering Deposited Microwave Absorbing Thin Films for Stealth and Electromagnetic Shielding Applications	2022-25	Dr. Ravi Panwar	UGC –DAE, CSR	0.45	On Going
23.	Design and Development of Novel High Strength Ultra- Light weight Metal Matrix Nanocomposite Material for Aerospace Application by Hybrid Manufacturing Process	2022-25	Dr. R.Seetharam	SERB	37.78	On Going



24.	Study of Specific areas registering high failure rate of distribution transformers to analyze the cause of failure and suggest a solution to overcome this problem by applying IT technology and integrating it with metering solutions	2021-23	Dr. V.K. Jain & Dr. S.K.Jain	DSIR	22.22	On Going
25.	Development of the AI based Technique to Predict the Multiple Defects of the Two- stage Gearbox	2022-25	Prof. V.K. Gupta	SERB	30.91	On Going
26.	"Interface Investigation of ß- (A1xGa1-x)2O3/Ga2O3 Heterojunctions for High Electron Mobility Transistor Applications", funded by UGC-DAE CSR	2021-24	Dr. Pankaj Sharma	UGC-DAE, CSIR	7.29	Ongoing
27.	UAV- Assisted Wi-Fi Geofencing for UAV Tracking and Activity Monitoring in Restricted Perimeter.	2022-24	Dr. Munesh Singh, Dr. V.K. Jain Dr. Vijay Pal Singh Rathore, Dr. Abhishek Verma	TiHAN –IIT Hyderabad	15.70	Ongoing
28.	Development of ultra-fine grained novel metallic materials for defence applications via friction stir engineering and their characterization.	2022-25	Dr. Manu Srivastava	DST-SERB	40.81	On-Going
29.	Investigation of Quantum Communication in MIMO and cooperative System: A Roadmap for Future Communications.	2023-26	Dr. Atul Kumar	DST-SERB	19.72	On-Going
30.	Study and development of Information Entropy based distance measures for Categorical and Continuous Data in a Metric Space for Clustering	2022-25	Dr. Sraban Kumar Mohanty	DST-SERB	6.60	On-Going



31.	Prevailing Justice among Tribes of Central and Southern India: The reach of Policies in Health Systems, Utilization and their Barriers	2022-24	Dr. Sunil Agrawal	ICSSR	11.55	On-Going
32.	Development of low-cost 3D Printing technology for personalized nutritious food preparation	2023-26	Prof. Puneet Tandon	DST -SERB	38.61	On going
33.	Design and fabrication of Smart hybrid lot based solar dryer for food items.	2023-24	Dr. Tushar Choudhary, Dr. Munesh Singh	CSPC	5.00	On Going
34.	A Lightweight Hardware Logic Locking based Data Encryption Model for securing IoT Devices from Hardware and cyber-attacks.	2023-24	Dr. Vijaypal Singh Rathore	DSCI	6.00	On Going
35.	Empowering Girls to reduce the Gender Gap in IT and ITES sectors in south Asia Region : Training and E- Content development programme	2022-23	Prof. A. Ojha	TEIN* Coopera- tion Centre	100.30	On Going

• Faculty Achievements •



S. No.	Name	Awards / Achievements	Details	Awarded By	Date
1.	Prof. Pritee Khanna	Honour	Associate Editor, Engineering Applications of Artificial Intelligence	Engineering Applications of Artificial Intelligence, Elsevier	1 Nov 2022 onwards
2.	Prof. Pritee Khanna	Honour	Organizer, Special session on "Challenging Deepfake through Explainable AI" in the 29th International Conference on Neural Information Processing (ICONIP 2022) organized in India during Nov 22-26, 2022.	29th International Conference on Neural Information Processing (ICONIP 2022) organized in India during Nov. 22-26, 2022.	27 May 2022
3.	Dr. Munesh Singh	Best Paper Award	IEEE IATMSI-2022 to be held at ABV-IIITM Gwalior, India.	IEEE IATMSI-2022	23 Dec 2022
4.	Dr. Ayan Seal	Top 2% Scientists	Prof. John PA Loannidis and his colleagues at Stanford University published the list of the 2% Most Influential Scientists for 2022. The list consists of researchers from different countries and research fields. The list includes more than 2 lakh researchers from all over the world. This list includes more than 3500 Indian researchers. Dr. Ayan Seal is one of 3500 Indian researchers.	Stanford University	Oct 2022
5.	Dr. D P Samajdar	Elected as Life Fellow	Fellow Member of IETE	IETE	02 Aug 2022
6.	Dr. Amit Vishwakarma	LifeTime Access of latest MATLAB Software	Research Purpose	Indian Goverment	05 April 2022

• Faculty Achievements •



7.	Prof. Puneet Tandon	Award	2020 DUO-India Professor Fellowship Award with UNIVERSITA DEGLI STUDI DI PADOVA (UNIPD)	Asia-Europe Meeting (ASEM)	22 June – 21 July 2022
8.	Prof. Puneet Tandon	International Conference Organization	Topic Chair, ASME International Mechanical Engineering Congress & Exposition (IMECE) 2022	ASME IMECE	30 Oct 2022
9.	Dr. Manu Srivastava	Series Editor: Advanced Smart Manufacturing of Materials: Fundamentals, Advancements, and Applications	An international research collaboration initiative	CRC Press; Taylor and Francis Group	28 June 2022
10.	Prof. Vijay Kumar Gupta	Member Advisory Committee	International Conference on Advances in Mechanical Engineering ICAME-2022	G H Raisoni College of Engineering, Nagpur	May 27- 28, 2022

Conference Organised •



- Dr. Ayan Seal, Track Chair, COMSYS 2022, IIT Ropar, NA, 19th - 21st December 2022.
- Prof. Aditya Trivedi, Prof. Neetesh 2. Purohit, Prof. Dinesh Kumar V., General Chairs, CICT 2022, IIITM Gwalior, IEEE, 18-20 Nov 2022.
- Dr. Matadeen Bansal, TPC Chair, IEEE 3. CICT2022, ABV IIITM Gwalior, India, IEEE, November 18-20, 2022.
- 4. Prof. Puneet Tandon, Member, International Programme Committee (https://cpdm.iisc.ac.in/icord23/), 9th International Conference on Research into Design (ICoRD' 23), Centre for Product Design and Manufacturing (CPDM), Indian Institute of Science (IISc) Bangalore, INDIA, Design Research Society; The Design Society; IISc Bangalore, 9-11 January 2023.
- Prof. Puneet Tandon, Member National Advisory Committee, International Conference on Material Science, Mechanics, and Technology (ICMMT 2022), Sushila Devi Bansal College Indore, Sushila Devi Bansal College Indore, 23-24 December 2022.
- Prof. Puneet Tandon, Member, Technical Committee, The 8th International Conference on Digital Manufacturing and Automation (ICDMA 2022), China University of Geosciences (CUG), Wuhan, China, China University of Geosciences (Wuhan) and Wuhan Textile University, China, 18-20 November 2022.
- Prof. Puneet Tandon, Member, 7. Technical Programme Committee, International Conference on Innovations in Mechanical and Materials Engineering (IMME 2022), Motilal Nehru National Institute of

- Technology (MNNIT) Allahabad, Prayagraj, India, Motilal Nehru National Institute of Technology (MNNIT) Allahabad, Prayagraj, India, 4-6 November, 2022.
- 8. Prof. Puneet Tandon, Topic Chair, ASME International Mechanical Engineering Congress & Exposition (IMECE) 2022, Columbus, OH, USA, ASME IMECE, 30 October - 3 November, 2022.
- Prof. Puneet Tandon, Member, International Organizing Committee -Asia, The 19th International CAD Conference, CAD'22 (www.cadconference.net), Beijing, China, CAD Conferences, 11-13 July 2022.
- 10. Prof. Vijay Kumar Gupta, Co-Chair, 10th Anniversary International Conference on "Physics and Mechanics of New Materials and Their Applications", Divnomorsk, Russia, PHENMA, May 23-27, 2022.
- 11. Prof. Vijay Kumar Gupta, Member, Advisory Committee, International Conference on Advances in Mechanical Engineering ICAME-2022, G H Raisoni College of Engineering, Nagpur, G H Raisoni College of Engineering, Nagpur, May 27-28, 2022.
- 12. Dr. Shivdayal Patel, Scientific Program Committee, "2023 International Conference on "Physics and Mechanics of New Materials and Their Applications" (PHENMA 2023)", Surabaya, Indonesia, PHENMA, October 03-08, 2023.
- 13. Dr. Shivdayal Patel, Scientific Program Committee, 10th Anniversary International Conference on "Physics and Mechanics of New Materials and Their Applications", Divnomorsk, Russia, PHENMA, May 23-27, 2022.

Conference Organised



14. Dr. J. Al Muzzamil Fareen, Principal Coordinator, EICT FDP Professional Communication & Soft Skills, Online PDPM IIITDM Jabalpur, EICT Academy, 23 Aug - 03 Sep 2022.

Keynotes

- Dr. Varun Bajaj, Artificial Intelligence Application in Biomedical System, International Multidisciplinary Conference "International Conference on Emerging Trends in Multidisciplinary Research and Innovation: ICETMRI-2022.
- Prof. Puneet Tandon, Dieless 2. Manufacturing, 4th International Conference on Smart and Sustainable Developments in Materials, Manufacturing and Energy Engineering (SME-2022), 22-23 December 2022, Department of Mechanical Engineering, NITTE University and NMAM Institute of Technology, Udupi, Karnataka, India, 22 December 2022.

- 3. Prof. Puneet Tandon, Disruptive Disruption or Disruptive Innovation, Industry-Academia Conclave-2022, NMAM Institute of Technology, Udupi, Karnataka, India, 21 December 2022.
- Prof. Prashant K. Jain, Additive 4. Manufacturing: Innovative Applications and Future Technology Development, One Day Workshop on Prototype/Process Design and Development - Prototyping, Jointly Organized by Department of Mechanical Engineering, Delhi Technological University, Delhi, May 26, 2022.
- 5. Prof. Vijay Kumar Gupta, Current & future opportunities in Mechanical Engineering: Interdisciplinary Research, International Conference on Recent Advances in Materials, Manufacturing, Automobile & Thermal Engineering (RAMMAT-2023) , Sagar Institute of Science, Technology & Research, Bhopal, March 27, 2023.

Events Organized



S. No.	Name	Event Type	Name of Event	Sponsoring Agency	Venue	Role	Start Date	End Date
1.	Prof. Puneet Tandon	Conference	ASME International Mechanical Engineering Congress & Exposition (IMECE) 2022	Topic Chair	Columbus, OH, USA	Topic Chair	30 Oct. 2022	3 Nov 2022
2.	Prof. Puneet Tandon		Curriculum Development in the Light of NEP 2020	E&ICT Academy	PDPM IIITDM Jabalpur	Principal Coordinator	8 Aug. 2022	19 Aug 2022
3.	Prof. Puneet Tandon	GIAN Course	Designing Cyber- Physical Systems for general Societal and Personal Utilization	Ministry of Education, Govt. of India	PDPM IIITDM Jabalpur (online)	Coordinator	2 May 2022	13 May 2022
4.	Prof. Vijay Kumar Gupta	GIAN Course	Human Centered Robotics	GIAN	Online	Co- coordinator	09 May 2022	14 May 2022
5.	Prof. Vijay Kumar Gupta	GIAN Course	Designing Cyber- physical Systems For General Societal and Personal Utilization	GIAN	Online	Co- coordinator	02 May 2022	13 May 2022
6.	Prof. Vijay Kumar Gupta	Short Term Program	FDP on "Recent Trends in Robotics"	ICT Academy IIITDM Jabalpur (joint Program)	Online	Principle Coordinator	04 July 2022	15 July 2022
7.	Prof. P K Jain	FDP	Organized Two Week online FDP as Joint Principal Coordinator on "Additive Manufacturing and 3D Printing (AM & 3DP) Supported by Ministry of Electronics and Information Technology (Meity), Govt. of India, Jointly organized by four Electronics & ICT Academies, MNIT Jaipur, IIT Roorkee, IIITDM Jabalpur and NIT Patna, July 18-29, 2022		Jabalpur	Organizer	18 July 2022	29 July 2022

• Events Organized •



8.	Prof. P K Jain	FDP	Organized Two Week online FDP as Joint Principal Coordinator on "MATLAB Programming", Supported by Ministry of Electronics and Information Technology (Meity), Govt. of India, Jointly organized by Electronics & ICT Academies of MNIT Jaipur, NIT Patna and IIITDM Jabalpur, August 22- Sep 02, 2022		Jabalpur	Organizer	22 Aug. 2022	2 Sept 2022
9.	Dr. Manu Srivastava	FDP	Advances in Material Processing and Additive Manufacturing	ICT Academy IIITDM Jabalpur (joint Program)	Jabalpur	Principle Coordinator	01 Sept. 2022	10 Sept 2022
10.	Dr. Mamta Anand	IYD-22	IYD 2022	PDPM IIITDMJ	PDPM IIITDMJ	Committee member	15 June 2022	21 June 2022
11.	Prof. Aparajita Ojha and Prof. Pritee Khanna	Faculty Development Program	Capacity Building Program on "Artificial Intelligence and Machine Learning"	Asi@Connect	On-line mode	Coordinator	10 March 2023	23 March 2023
12.	Prof. Pritee Khanna and Prof. A. B. M. Alim Al Islam, Bangladesh University of Engineering and Technology, Bangladesh	Program	Capacity Building Program on "ICT Tools for Teaching and Research"	Asi@Connect	On-line mode	Coordinator	05 Dec 2022	17 Dec 2022
13.	Dr. Matadeen Bansal	FDP	Online FDP on 5G & B5G Wireless Technologies with MATLAB Practice	EICT Academy Jabalpur	IIITDM Jabalpur	Coordinator	25 July 2022	05 Aug 2022
14.	Dr. Varun Bajaj	Joint FDP	Smart Healthcare Technologies: Opportunities & Challenges" from 25 July – 5 Aug, 2022	EICT	Online	Joint Prinicple Coordinator	25 July 2022	05 Aug 2022



S. No.	Name	Presentation Type	Organzation Name	Title	Date
1.	Prof. Pritee Khanna	Expert Lecture	Central University of Rajasthan	Deep Learning Applications and Research Areas	31 March 2023
2.	Prof. Pritee Khanna	Expert Lecture	Central University of Rajasthan	CNN Architectures for Computer Vision	21 March 2023
3.	Prof. Pritee Khanna	Expert Lecture	PDPM IIITDM Jabalpur	CNN Architectures, Encoder Decoder Models for Image Segmentations	18 March 2023
4.	Prof. Pritee Khanna	Expert Lecture	PDPM IIITDM Jabalpur	Deep Learning, Deep Neural Networks, and Convolutional Neural Network	17 March 2023
5.	Prof. Pritee Khanna	Expert Lecture	Banasthali Vidyapith, Rajasthan	Al and Biometrics	13 March 2023
6.	Prof. Pritee Khanna	Expert Lecture	Shri Vishnu Engineering College for Women (A), Bhimavaram	Importance of Machine Learning	26 Dec 2022
7.	Prof. Pritee Khanna	Expert Lecture	Delhi University	Biometrics – Past, Present, and Future	21 Dec 2022
8.	Prof. Pritee Khanna	Expert Lecture	Indian Institute of Information Technology, Allahabad	Al in Biometrics	4 Nov 2022
9.	Dr. Munesh Singh	MP Skill Development	Gyan Ganga Institute of Technology, Jabalpur	Cyber Security Challenges in IoT	28 March 2023
10.	Dr. Munesh Singh	Skill Development Program on Internet of Things & Applications under Asi@connect project.	PDPM IIITDM Jabalpur	on Internet of Things & Applications under Asi@connect project.	22 Feb 2023
11.	Dr. Munesh Singh	E & ICT FDP	Francis Xavier Engineering College, Vannarpet, Tirunelveli, Tamil Nadu	Al Enabled Internet of Things for Engineering Application	10 August 2022
12.	Dr. Munesh Singh	EI & ICT FDP	Bharath Institute of Higer Education & Research, Chennai, Tamil Nadu	Development of AI and Data Science in Electrical Applications	08 Nov 2022
13.	Dr. Munesh Singh	FDP	VIT Vellore	Recent Advancements in Machine Learning & AI and IoT along with its Application	05 July 2022
14.	Dr. Munesh Singh	FDP	VIT Vellore	"Application of Machine Learning in Post Pandemic Era"	07-08 July 2022
15.	Dr. Abhishek Verma	Expert Lecture	Gyan Ganga Institute of Technology & Sciences, Jabalpur	Security Issues in Resource- Constrained Internet of Things	28 March 2023
16.	Dr. Abhishek Verma	Expert Lecture	SIRT Bhopal	Introduction to Research Methodology and LaTeX	29 July 2022



17.	Dr. Vijaypal Singh Rathor	Expert Lecture	Oriental Institute of Science and Technology, Bhopal	Security issues and Solutions for modern IoT and ML applications	29 June 2022
18.	Dr. Vijaypal Singh Rathor	Expert Lecture	Vellore Institute of Technology, Vellore Tamil Nadu	Hardware Security issues in modern IoT Devices	8 July 2022
19.	Prof. Aparajita Ojha	Invited Talk	Vijayanagara Sri Krishnadevaraya University, Ballari,	Artificial Intelligence for Environmental Safety: Wildfire Detection	22 Dec 2022
20.	Prof. Aparajita Ojha	Expert Lecture	NIT Hamirpur	Introduction to Machine Learning	15 Oct 2022
21.	Prof. Aparajita Ojha	Expert Lecture	NIT Raipur	Elements of Blockchain Technology	19 Sep 2022
22.	Prof. Aparajita Ojha	Expert Lecture	Manipal University, Jaipur	Explainable Artificial Intelligence	31 Aug 2022
23.	Prof. Aparajita Ojha	Lecture	IIT Kanpur	Introduction to Blockchain Technology	13-14 Aug 2022
24.	Prof. Aparajita Ojha	Lecture	IIT Kanpur	Developments in Blockchain Technology	19-20- Aug 2022
25.	Dr. Amrita Bhattacharjee	Webinar	G H Raisoni Institute of Business Management, Jalgaon Maharashtra	Lightning Innovative Design Thinking	30 May 2022
26.	Dr. Amrita Bhattacharjee	Expert Lecture	G H Raisoni Institute of Business Management, Jalgaon Maharashtra	Application of Design Thinking in Al	24 Sept 2022
27.	Dr. Prabir Mukhopadhyay	Expert Lecture	School Of Planning and Architecture Bhopal	Anthropometry in Ergonomics	05 Nov 2022
28.	Dr. Sangeeta Pandit	Expert Lecture	Department of Production Engineering. PSG college of Technology Coimbatore	Ergonomics for Sustainable Design	5 Aug 2022
29.	Prof. Puneet Tandon	Expert Lecture	NITTE University, Udupi, Mangalore	Effective Use of Technology in Education in the Light of NEP 2020	15 Nov 2022
30.	Prof. Puneet Tandon	Expert Lecture	Gyan Ganga Institute of Technology & Sciences, Jabalpur	Introduction to Profession: Computer Science and Design	12 Nov 2022
31.	Prof. Puneet Tandon	Expert Lecture	Automobile Engineering Department & Institute Innovation Council, MCKV Institute of Engineering, Howrah	Additive Manufacturing and its Applications in Automotive Technology	24 Sep 2022
32.	Prof. Puneet Tandon	Expert Lecture	PDPM Indian Institute of Information Technology, Design and Manufacturing, Jabalpur	Hybrid Manufacturing	06 Sept 2022



33.	Prof. Puneet Tandon	Expert Lecture	Jawahar R-ABI RKVY RAFTAAR Agribusiness Incubator, IABM, JNKVV, Jabalpur	Product Design and Related Aspects	24 Aug 2022
34.	Prof. Puneet Tandon	Expert Lecture	PDPM Indian Institute of Information Technology, Design and Manufacturing, Jabalpur	Design Thinking Methods	19 Aug 2022
35.	Prof. Puneet Tandon	Expert Lecture	PDPM Indian Institute of Information Technology, Design and Manufacturing, Jabalpur	Elements and Perspectives of Design Thinking	18 Aug 2022
36.	Prof. Puneet Tandon	Expert Lecture	PDPM Indian Institute of Information Technology, Design and Manufacturing, Jabalpur	Institutional Restructuring and Consolidation	14 Aug 2022
37.	Prof. Puneet Tandon	Expert Lecture	PDPM Indian Institute of Information Technology, Design and Manufacturing, Jabalpur	Use of Technology in Education in the light of NEP 2020	12 Aug 2022
38.	Prof. Puneet Tandon	Expert Lecture	PDPM Indian Institute of Information Technology, Design and Manufacturing, Jabalpur	Product Design and Development	28 July 2022
39.	Prof. Puneet Tandon	Expert Lecture	PDPM Indian Institute of Information Technology, Design and Manufacturing, Jabalpur	Product Development through Additive Manufacturing and 3D Printing	28 July 2022
40.	Prof. Vijay Kumar Gupta	Expert Lecture	IIIT Kota	Role of wearable robotics for society and disabled persons	13 June 2022
41.	Prof. Vijay Kumar Gupta	Expert Lecture	PDPM IIITDM Jabalpur	Mechanics of Manipulator and wheeled mobile robot	05 July 2022
42.	Prof. Vijay Kumar Gupta	Expert Lecture	PDPM IIITDM Jabalpur	Role of multidisciplinary content in curricula	18 Aug 2022
43.	Prof. Vijay Kumar Gupta	Expert Lecture	IIITDM Kancheepuram	DH Rule	12 Dec 2022
44.	Prof. Vijay Kumar Gupta	Expert Lecture	AsiConnect program	lot: Physical Layer	23 Feb 2023
45.	Prof. P K Jain	Expert talk	Mechanical Engineering Department, National Institute of Technology Manipur, Imphal	Slicing Procedures and CLI files	3-7 Nov 2022
46.	Prof. P K Jain	Expert talk	Mechanical Engineering Department, National Institute of Technology Manipur, Imphal	Recent Research Trends in Additive Manufacturing	3-7 Nov 2023
47.	Prof. P K Jain	Expert talk	CCSIR-Human Resource Development Centre (CSIR- HRDC)	Future scope and challenges of Additive Manufacturing	26 April 2022



48.	Prof. P K Jain	Expert talk	Mechanical Engineering	Issues and Challenges in	04-15
			Department, Institute of Technology, Nirma University, Ahmedabad	using Induction Heating as alternative energy source for Metal Additive Manufacturing" during Organized by ,	July 2022
49.	Prof. P K Jain	Expert talk	School of Computer Science and Engineering, VIT-AP University, Amaravati, Andhra Pradesh	Introduction to MATLAB for Optimization Techniques	26-30 July 2022
50.	Dr. Shivdayal Patel	Invited Lecture	SRM College, Chennai, Tamil Nadu	Inroduction of Finite Element Analysis and Software based Application	12 Oct 2022
51.	Dr. Manu Srivastava	Expert speaker for FDP	Indian Intitute of Technology, Indore	Advances in Manufacturing Engineering and Materials	5-9 April 2022
52.	Dr. Manu Srivastava	Expert speaker	DXC Technologies	Innovation and Automation Convention	10 March 2023
53.	Dr. Manu Srivastava	Resource person for workshop	National Institute of Technology, Srinagar	High end workshop on 3D Printing, Nano-Tribology and Characterization of Materials: Functionally Graded materials	30 Aug 2022
54.	Dr. Manu Srivastava	Resource person for workshop	National Institute of Technology, Srinagar	High end workshop on 3D Printing, Nano-Tribology and Characterization of Materials : Classification and variants	29 Aug 2022
55.	Dr. Manu Srivastava	Expert speaker for FDP	PDPM Indian Institute of Informtaion Technology, Design and Manufacturing, Jabalpur	Advances in Material Processing and Additive Manufacturing: Hybrid Additive Manufacturing	05 Sept 2022
56.	Dr. Manu Srivastava	Expert speaker for FDP	PDPM Indian Institute of Informtaion Technology, Design and Manufacturing, Jabalpur	Advances in Material Processing and Additive Manufacturing: Additive Manufacturing: Introduction to AM, Classification of AM Processes	01 Sept 2022
57.	Dr. Manu Srivastava	Expert speaker for FDP	PDPM Indian Institute of Informtaion Technology, Design and Manufacturing, Jabalpur	Additive Manufacturing and 3D Printing (AM & 3DP)	19 July 2022
58.	Dr. Manu Srivastava	Expert Talk	Vehant Technologies, Noida	Technological Development of Rehabilitation Robotics	09 March 2023
59.	Dr. Tushar Choudhary	Online	OP Jindal univeristy, FDP Energy management in Power plant	Hybrid Gas Power cycle and Renewwable Energy Sources	8 Sept 2022
60.	Dr. Tushar Choudhary	Offline	MANIT Bhopal,	Research Ethics in Engineering	18 Nov 2022
61.	Dr. Y. S. Katharria	Expert Lecture	St. Aloysius College, Jabalpur	Atomic Force Microscopy: Concepts and Analyysis	23 Nov 2022



62.	Dr. Deepmala	Expert Lecture	GGITS, Jabalpur, MP, India	Mathematical modelling for Artificial intelligence with recent advances and applications	16 Feb 2023
63.	Dr. Neeraj K. Jaiswal	Invited Talk	ABV-IIITM Gwalior	Advancement in VLSI Interconnects and Nanoscale Devices	12 Oct 2022
64.	Dr. Mamta Anand	Expert Talk Conference	M.G. University, Kottayam	Human Values and Creativity	10 Feb 2023
65.	Dr. Mamta Anand	Reflections on Consciousness	Govt. Mahakoshal Arts College, Jabalpur	Scientific Reflections on Consciousness	28 Feb 2023
66.	Dr. J. Al Muzzamil Fareen	Onsite - TECHNICAL PROGRAMME of International Online Conference on Outcome- Based Education- STRIDE Supported (OBE – 2023) on Feb 10, 11 and 12, 2023	Organized by School of Energy Materials (SEM) Mahatma Gandhi University, P.D Hills P.O, Kottayam, Kerala, India & Beijing University of Chemical Technology, China & Wuhan University, Wuchang, School of Materials Science & Engineering, Republic of China	Preparing for knowledge or examination: How students react to strategic learning?	11 Feb 2023
67.	Dr. J. Al Muzzamil Fareen	AICTE ATAL sponsored Faculty Development Programme on 3D Printing in Industry 4.0, organized by the School of Mechanical Sciences of B S Abdur Rahman Crescent Institute of Science and Technology, Chennai from 5-16 December 2022 in Blended mode.	School of Mechanical Sciences of B S Abdur Rahman Crescent Institute of Science and Technology, Chennai from 5-16 December 2022 in Blended mode.	Indian Values & Ethos, Teaching Learning Psychology	10 Dec 2022
68.	Dr. Varun Bajaj	Expert Talk	One Week High-End Workshop On Wearable Intelligent Devices: Next- Generation Technology (SERB Sponsored), SMart and Innovative Laboratory for Energy devices (SMILE), 2023, IIITDM Kancheepuram, Chennai	Artificial Intelligence based healthcare systems	16 Feb 2023
69.	Dr. Varun Bajaj	Expert Talk	Dept. of Electronics and Communication Engg., Muthayammal Engineering College, Rasipuram	Signal processing and machine learning applications in healthcare system	14 Feb 2023



70.	Dr. Varun Bajaj	Expert Talk	In faculty Development Programme on Internet of things (IOT) organized by SIRT, Bhopal	Internet of things in medical field	26-28 Dec 2022
71.	Dr. Varun Bajaj	Expert Talk	Recent Trends and Advancements in Computer Science & Engg." (21st-25th November, 2022), SKIT, Jaipur, Rajasthan	Al Based Healthcare System	21 Nov 2022
72.	Dr. Varun Bajaj	Expert Talk	EICT, Join FDP, NITJ, IIIDMJ, NITP 02-8 Jan, 2022	AI Based Healthcare System	30 Jul 2022
73.	Dr. Matadeen Bansal	Expert Talk	PDPM IIITDM Jabalpur	Introduction to 5G and B5G Communication Technologies	25 July 2022
74.	Dr. Matadeen Bansal	Expert Talk	ABV IIITM Gwalior	6G for massive IoT	12 Aug 2022
75.	Dr. Trivesh kumar	Invited Talk (5 Day's Online Faculty Development)	Program Department of Electronics and Communication Engineering, Atria Institute of Technology, Bengaluru	"Advancement in RF, Microwave, Antenna, and 5G Applications"	28 March 2023
76.	Dr. Manoj Singh Parihar	Invited Talk	DAIT Pune	Rectifier Integrated Antennas for RF Energy Harvesting / Wireless Power Transfer under ATAL FDP programe	14 Oct 2022
77.	Dr. Koushik Dutta	Invited Talk in APSCON 2023	IEEE APSCON 2023, Conrad, Bengaluru, 23- 25th January, 2023	Potential of Impedance Spectroscopy Towards Quantified Analysis of Gas Sensors: A Tutorial	23 Jan 2023
78.	Dr. D. P. Samajdar	Invited Talk	GGITS Jabalpur	Nanostructured Solar Cells	15 Jan 2023
79.	Dr. Amit Vishwakarma	Online	Dept. of Computer Engineering, Sandip Institute of Engineering and Management (SIEM), Nashik, Maharashtra	FDP on AI-ML	8 May 2022
80.	Dr. Amit Vishwakarma	Online	University of Kashmir, Kashmir	Applications of Applied Signal Processing, Communications and Devices for IOT driven e-Health care	13 May 2022
81.	Dr. Amit Vishwakarma	Online	Ministry of Electronics and Information Technology, India	Medical Image Processing	22 Aug - 02 Sep 2022

Patents



Patent Filed (FY - 2022-23)

S. No.	Name of Inventor	Application No.	Title	Date of Filing	Year of Filing
1.	Prof. Puneet Tandon	362215-001	LIQUID PACKING CONTAINER	08-04-22	2022
2.	Dr. Prabir Mukhopadhyay	364480-001	BOARD GAME SET	20-05-22	2022
3.	Dr. Atul Gupta, Dr. M. K. Bajpai, Dr. Kusum K. Bharti	202221034528	SYSTEM FACILITATING HEALTH MONITORING AND METHOD THEREOF	16-06-22	2022
4.	Dr. Manish Kumar Bajpai, Dr. Shivdayal Patel	31 ,		30-09-22	2022
5.	Dr. Tripti Singh, Dr. Sangeeta Pandit 202221056283 AN APPARATUS FOR ALIGNING PLASTERING OVER A SURFACE		30-09-22	2022	
6.	Dr. Manish K. Bajpai	371869-001	LUGGAGE BAG	01-10-22	2022
7.	Dr. Manish K. Bajpai, Dr. Kusum K. Bharti	202221035867	A NON-BIOMETRIC TOUCH- FREE RAILWAY ATTENDANCE SYSTEM AND A METHOD FOR OPERATION THEREOF	22-06-22	2022
8.	Dr. Durgesh Singh	202221032324	SYSTEM FOR RECOMMENDING PRODUCTS AND METHOD THEREOF	06-06-22	2022
9.	Dr. Tanuja Sheorey	202221049356	MULTI-TIER SOLAR CABINET DRYING APPARATUS	30-08-22	2022
10.	Dr. Vijay Pal Singh Rathore	202221031928	SYSTEM AND METHOD FOR IMPLEMENTING INPUT DEPENDENT KEY-BASED LOGIC LOCKING TO SECURE INTEGRATED CIRCUIT	03-06-22	2022
11.	Prof. P K Padhy	202221040831	CONTROL SYSTEM AND METHOD FOR OPTIMIZING PARAMETRIC VARIATION IN AN AUTOMOBILE	18-07-22	2022
12.	Prof. Puneet Tandon & Dr. Ponappa K.	202221059835	AN IOT ENABLED THREE- DIMENSIONAL FOOD PRINTING SYSTEM AND A METHOD FOR OPERATION THEREOF	19-10-22	2022



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13.	Dr. Abhishek Verma	202321017100	SYSTEM AND METHOD FOR NON-INVASIVE CONTINUOUS GLUCOSE MONITORING OF DIABETIC PATIENTS	14-03-23	2023
14.	Prof. Puneet Tandon & Dr. K Ponappa	202221071229	A HYBRID ADDITIVE MANUFACTURING INCREMENTAL FORMING SYSTEM AND A METHOD FOR OPERATION THEREOF	09-12-22	2022
15.	Dr. Harpreet Singh	202221070532	A METHOD FOR PREPARING MAGNETIC ABRASIVES	07-12-22	2022
16.	Dr. Ravi Panwar	202221075919	A METHOD FOR DEVELOPING HETEROGENEOUS COMPOSITE FUSED PERFORATED MICROWAVE ABSORBER	27-12-22	2022
17.	Dr. Sangeeta Pandit	202321001254	A TOOL FOR HARVESTING CROPS AND ITS METHOD THEREOF	29-12-22	2022
18.	Dr. Varun Bajaj , Dr. Irshad Ahmad Ansari	202221077132	A VIBRATION RECORDING DEVICE FOR CONTROLLING THE AMBIENT TEMPERATURE AND A METHOD THEREOF	30-12-22	2022
19.	Dr. Sangeeta Pandit	374868-001	WORKTABLE FOR BELL MENTAL HANDICRAFT SECTOR	30-11-22	2022
20.	Dr. Amrita Bhattacharjee	202321018150	A PERSONAL MOBILITY VEHICLE AND ITS METHOD TO OPERATE THEREOF	17-03-23	2023
21.	Prof. V. K. Gupta	202321017102	DEVICE FOR KNEE SLIDING AND ROTARY MOTION MEASUREMENT	14-03-23	2023
22.	Prof. Puneet Tandon	379920-001	PORTABLE EXPERIMENTAL HEATING SETUP	23-02-23	2023

Patents



Patent Published (FY - 2022-23)

S. No.	Title	Name of Inventor	Application No.	Date of Filing	Year of Filing	Date of Published	Year of Published
1.	Dielectric Resonator Antenna (DRA) System And Method of Designing Thereof	 Dr. Biswajeet Mukherjee Ms. Monika Chauhan 	202021039785	14-09-20	2020	17-06-22	2022
2.	For Wireless Communication Using A Three Port Dielectric Resonator Antenna Mukherjee 2. Ms. Monika Chauhan		202021050396	19-11-20	2020	20-05-22	2022
3.	Beam Scanning Antenna and A Method Thereof	 Dr. Dinesh Kumar V. Dr. Manoj Singh Parihar Mr. Abhishek Pahuja 	202121001817	14-01-21	2021	15-07-22	2022
4.	A Device To Treat Pneumo-hydro Thorax	 Mr. Yogesh Kumar Bhanu Prof. Puneet Tandon Mr. Nimit Nitinbhai Shah Mr. Prasad Gadve Dr. Vipul Kalley 	202021042365	29-09-20	2020	29-09-22	2022
5.	System And Method For Harvesting Energy	 Mr. Tejkaran Narolia Prof. Vijay Kumar Gupta 	202121001943	15-01-21	2021	22-07-22	2022
6.	A Self Configurable Modular Transportation System	1. Mr. Nimit Nitinbhai Shah 2. Dr. Prabir Mukhopadhyay	202021042488	30-09-20	2020	01-04-22	2022
7.	Assistive Walker For Walking On Inclined Surfaces	 Mr. Nimit Nitinbhai Shah Mr. Prasad Gadve Mr. Yogesh Kumar Bhanu Dr. Prabir Mukhopadhyay 	202021051605	26-11-20	2020	27-05-22	2022



8.	A Collapsible Garment Hanger	1. Ms. Rishika Kedia 2. Prof. Puneet Tandon	202021041871	26-09-20	2020	17-06-22	2022
9.	Method For Manufacturing Radar Absorbing Material Using Microwave Heat Treated Electronic Waste	 Mr. Ravi Yadav Dr. Ravi Panwar Prof. Dharmendra Singh 	202021050272	18-11-20	2020	20-05-22	2022
10.	Process For Producing X-band Radar Absorbing Material	1. Mr. Ravi Yadav 2. Dr. Ravi Panwar	202021044157	09-10-20	2020	15-04-22	2022
11.	A Multipurpose Hand Tool	 Mr. Saurabh Yadav Prof. Vijay Kumar Gupta 	202121009802	09-03-21	2021	16-09-22	2022
12.	System And Method For A Walking Aid Providing Assisted Communication For A User	1. Ms. Shivangi Pande 2. Mr. Akshay Kenjale 3. Mr. Aditya Mathur 4. Mr. Puluguju Daniel Akhil Kumar 5. Ms. Maitrayee Gautami 6. Mr. Nikhil Krishna Reddy 7. Dr. Biswajeet Mukherjee	202121012746	24-03-21	2021	30-09-22	2022
13.	Automated External Cardiac Defibrillation System Based On High- current Rectilinear Biphasic Waveform And Method Of Operation	 Mr. Yogesh Kumar Bhanu Prof. Puneet Tandon 	202021052098	30-11-20	2020	03-06-22	2022
14.	"an Electric Plug And Its Method Of Unplugging"	 Mr. Yogesh Kumar Bhanu Prof. Puneet Tandon 	202121025733	09-06-21	2021	18-11-22	2022



15.	Two-point Oxygen And / Or Air Suction Cardio-pulmonary Resuscitation (cpr) Device	1. Dr. Shivdayal Patel 2. Prof. Tanuja Sheorey	202021053251	07-12-20	2020	10-06-22	2022
16.	Asymmetric Umbrella With A Strain Reducing Hand Band	1. Ms. Shivangi Pande 2. Mr. Puluguju Daniel Akhil Kumar 3. Dr. Biswajeet Mukherjee	202121012265	22-03-21	2021	23-09-22	2022
17.	For Assisting In Parking Of A Vehicle Lojia 3. Kushu Pyasi 4. Dr. Varun Bajaj		202121001774	14-01-21	2021	15-07-22	2022
18.	Fluid Dispensing Device	1. Mr. Nimit Nitinbhai Shah 2. Prof. Puneet Tandon	202021053250	07-12-20	2020	10-06-22	2022
19.	A Process For Producing A Customized Conformal Electromagnetic Interference Shielding Structure	1. Mr. Varun Chaudhary 2. Dr. Ravi Panwar	202121001685	13-01-21	2021	15-07-22	2022
20.	Storage Cum Bed System	1. Mr. Sachin Gupta 2. Dr. Prabir Mukhopadhyay	202121012756	24-03-21	2021	30-09-22	2022
21.	Water Purifier With On-demand Total Dissolved Solids And Consumption Tracking	1. Mr. Rajat Jaiswal 2. Dr. Irshad Ahmad Ansari	202121002300	18-01-21	2021	22-07-22	2022
22.	Cleansing Apparatus For One Hand Amputee	1. Mr. Suyash Satyakant Chavan 2. Ms. Manisha 3. Dr. Prabir Mukhopadhyay	202121012753	24-03-21	2021	30-09-22	2022



23.	Fluid Dispensing Cleaning Apparatus	 Ms. Krutika Shet Mr. Samanta Hire Mr. Shrunoti Tatiya Dr. Prabir Mukhopadhyay 	202121013355	26-03-21	2021	30-09-22	2022
24.	A System For Supporting Body Movements While Using A Toilet Seat	1. Mr. Yogesh Kumar Bhanu 2. Prof. Puneet Tandon	202121001563	13-01-21	2021	15-07-22	2022
25.	An Apparatus For Stripping Objects	1. Mr. Yoha Ashuthosh K 2. Dr. Sangeeta Pandit	202121026201	11-06-21	2021	16-12-22	2022
26.	A Wood Working Digital Marking Gauge	1. Mr. Kailas P 2. Dr. Sangeeta Pandit	202121017755	16-04-21	2021	21-10-22	2022
27.	Citrus Squeezer	Prof. Puneet Tandon	354533-001	08-12-21	2021	07-02-23	2023
28.	A Resting Platform And Method Of Designing Thereof	Prof. Puneet Tandon	202221009512	23-02-22	2022	01-04-22	2022
29.	System Facilitating Health Monitoring And Method Thereof	Dr. Atul Gupta, Dr. M. K. Bajpai, Dr. Kusum K. Bharti	202221034528	16-06-22	2022	01-07-22	2022
30.	A Multi-utility Luggage Bag With Ergonomic Seating	Dr. Manish Kumar Bajpai, Dr. Shivdayal Patel	202221056330	30-09-22	2022	14-10-22	2022
31.	An Apparatus For Aligning Plastering Over A Surface	Dr. Tripti Singh, Dr. Sangeeta Pandit	202221056283	30-09-22	2022	09-12-22	2022
32.	A Non-biometric Touch-free Railway Attendance System And A Method For Operation Thereof	Dr. Manish K.Bajpai, Dr. Kusum K. Bharti	202221035867	22-06-22	2022	15-07-22	2022
33.	System For Recommending Products And Method Thereof	Dr. Durgesh Singh	202221032324	06-06-22	2022	24-06-22	2022

Patents



34.	Multi-tier Solar Cabinet Drying Apparatus	Dr. Tanuja Sheorey	202221049356	30-08-22	2022	14-10-22	2022
35.	System And Method For Implementing Input Dependent Key-based Logic Locking To Secure Integrated Circuit	Dr. Vijay Pal Singh Rathore	202221031928	03-06-22	2022	17-06-22	2022
36.	Control System And Method For Optimizing Parametric Variation In An Automobile	Prof. P K Padhy	202221040831	18-07-22	2022	09-09-22	2022
37.	An lot Enabled Three-dimensional Food Printing System And A Method For Operation Thereof	Prof. Puneet Tandon & Dr. Ponappa K.	202221059835	19-10-22	2022	02-12-22	2022
38.	A Hybrid Additive Manufacturing Incremental Forming System And A Method For Operation Thereof	Prof. Puneet Tandon & Dr. K Ponappa	202221071229	09-12-22	2022	23-12-22	2022
39.	A Method For Preparing Magnetic Abrasives	Dr. Harpreet Singh	202221070532	07-12-22	2022	30-12-22	2022
40.	A Method For Developing Heterogeneous Composite Fused Perforated Microwave Absorber	Dr. Ravi Panwar	202221075919	27-12-22	2022	13-01-23	2023
41.	A Tool For Harvesting Crops And Its Method Thereof	Dr. Sangeeta Pandit	202321001254	29-12-22	2022	10-03-23	2023

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42.	A Vibration Recording Device For Controlling The Ambient Temperature And A Method Thereof	Dr. Varun Bajaj , Dr. Irshad Ahmad Ansari	202221077132	30-12-22	2022	27-01-23	2023
43.	Device For Knee Sliding And Rotary Motion Measurement	Prof. V. K. Gupta	202321017102	14-03-23	2023	31-03-23	2023
44.	System And Method For Non-invasive Continuous Glucose Monitoring Of Diabetic Patients	Dr. Abhishek Verma	202321017100	14-03-23	2023	31-03-23	2023

Patent Granted (FY-2022-23)

S. No.	Name of Inventor	Application Number	Title	Date of filing	Date of Granting (Patent no.)
1.	Prof. Puneet Tandon	201621038901	ENERGY EFFICIENT COOKING DEVICE	15-11-2016	16-08-2022 (403582)
2.	Prof. Puneet Tandon Mr. S.S. Panwar Ms. Ayushi Gupta Mr. M.A. Ahad Mr. T. Mathur Mr. Sahil Kolgaonkar	202021030820	A FRUGAL LAUNDRY SYSTEM AND METHOD OF ITS OPERATION THEREOF	20-07-2022	28-12-2022 (415695)

• Design Applied / Published •— 📝



Sr. No.	Application Number	Title	Inventor Name	Date of filing	Date of Publication	Application Status on June 13
1.	361771-001	Prosthetic hand	Dr. Manu Srivastava Dr. Sandeep Rathee Mr. Anubhav Mittal Mr. Ayush Kumar Mr. Rajat Kumar	1 st April 2022	27 th June 2022	Journal number: 27/2022 Journal date: July 8 th , 2022
2.	361772-001	monitoring o Mr. Yash Yogesh 2022 2022 3		Journal number: 32/2022 Journal date: August 12, 2022		
3.	361773-001	Apparatus for additive manufacturing to create composite structure	Mr. ASHISH Yadav Ms Pushkal Badoniya Dr. Manu Sivastava Dr. Prashant Jain	1 st April 2022	16 th June 2022	Journal number: 26/2022 Journal date: July 1 st , 2022
4.	361903-001	Apparatus to create three dimensional objects with enhanced traverse strength by depositing materials in layers	Mr. Gajanan Pradhan Dr. Manu Srivastava Dr. Sandeep Rathee	4 th April 2022	27 th Sept 2022	Journal number: 40/2022 Journal date: Oct 7 th , 2022
5.	361904-001	Apparatus to create three dimensional objects with precse temperature control set up by depositing materials in layers	Mr. Gajanan Pradhan Dr. Manu Sivastava Dr. Sandeep Rathee	4 th April 2022	15 th Sept 2022	Journal number: 38/2022 Journal date: September 23 rd , 2022
6.	362245-001	Prosthetic arm	Dr. Sandeep Rathee Dr. Manu Srivastava	9 th April 2022	9 th June 2022	Journal number: 25/2022 Journal date: June 24 th , 2022
7.	362260-001	Prosthetic rehabilitation device for neurologically disabled children	Dr. Sandeep Rathee Dr. Manu Srivastava Mr. Anurabh Mittal Mr. Ayush Kumar Mr. Rajat Kumar	9 th April 2022	27 th June 2023	Journal number: 27/2022 Journal date: July 8 th , 2022

• Design Applied / Published • • • []



8.	362618-001	Arc based additive manufacturing apparatus	Mr. Puskal Badoniya Mr. Ashish Yadav Dr. Manu Srivasava Dr. Prashant Kumar Jain	15 th April 2022	10 th Oct 2022	Journal Number: 41/2022 Journal Date: October 14 th , 2022
9.	338101-001	Design intervention in the field of Joghpur wooden	Mr. Mr. Harshit Sharma Dr. Sangeeta Pandit	28 th Jan 2021	23 rd Dec 2022	Design accepted and Published. Journal No is 51/2022 and Date is 23/12/2022.
10.	338277-001	Walking aid for elderly	Mr. Lovish Bandwal Mr. Pranoti Sonawane Mr. Yagnesh Gohil Dr. Prabir Mukhopadhyay	29 th Jan 2021	6 th Jan 2023	Design accepted and Published. Journal No is 01/2023 and Date is 06/01/2023.
11.	355522-001	Efficient solar installation for urban streetlights	Dr. Amrita Bhattacharjee	25 th Dec 2021	17 th Feb 2023	Design accepted and published, Journal No is 07/2023 and journal date is 17/02/2023.
12.	362215-001	Sustainable solution for milk packing and transporting	Prof. Puneet Tandon	8 th April 2022	23 rd May 2023	Exam report has been generated., online reply doc received. FER generated on May 23, 2023.
13.	354533-001	An efficient embodiment of citrus squeezer to help extract maximum juice with the least effort	Prof. Puneet Tandon	8 th Dec 2021	10 th Feb 2023	Design accepted and published, journal No is 06/2023 and journal date is 10/02/2023.
14.	355228-001	Bathing fixture for Indian context (bath pod)	Dr. Amrita Bhattacharjee	21 st Dec 2021	30 th Dec 2022	Design accepted and published, Journal No is 52/2022 and Journal date is 30/12/2022.

• Design Applied / Published • — 💽



15.	364480-001	Money matter board games	Dr. Prabir Mukhopadhyay	20 th May 2022		Examination report has been generated, case is waiting for examination report reply (FER generated on 22/07/2022)
16.	371869-001	A novel process to reduce the radiation dose to object under scan in computed tomography (CT) using long-short term memory (LSTM)	Dr. Manish Bajpai	1 st Oct 2022	23 rd Dec 2022	Design accepted and published, journal no is 51/2022 and journal date is 23/12/2022.
17.	374868-001	Worktable for bell metal handicraft sector	Dr. Sangeeta Pandit	30 th Nov 2022		Examination Report has been Generated ,Case is Waiting for Examination Report Reply (FER generated on 27/01/2023)

Session Chaired •



- 1 Dr. Durgesh Singh, Session Chair, "International Conference on Intelligent Computing Systems and Applications, (ICICSA-2022)", 2022, 23 Sept. 2022.
- 2. Dr. Abhishek Verma, Internet of Things (IoT), 5th International Conference on "Emerging Technologies in Computer Engineering: Cognitive Computing and Intelligent IoT", 2022, 02 Apr. 2022.
- 3 Dr. Anil Kumar, Technical Program Committee, International Conference on Computer Vision & Machine Intelligence (CVMI-2022), IIIT Allahabad, 2022, 12-13 Aug. 2022.
- 4. Dr. B. Mukherjee, 1st IEEE International Conference on Innovations in High Speed Communication and Signal Processing (IEEE-IHCSP), 1st IEEE International Conference on Innovations in High Speed Communication and Signal Processing (IEEE-IHCSP), 2023, 4-5 March 2023.
- 5. Dr. B. Mukherjee, MIMO Antennas for 5G application, IEEE EuCAP 2022, 2022, 27 March - 01 April, 2022.
- 6. Prof. Dinesh Kumar V., S-15: Wireless Networks, IEEE CICT 2022, 2022, 18-20 Nov 2022.
- 7. Dr. Trivesh Kumar, TRACK- E2: Antennas & Propogation, Control, Instrumentation, IEEE I2CT conference 2022, 2022, 08-04-22.

- 8. Prof. Puneet Tandon, Session 02-07-01: Session #1: Innovative Product and Process Design, ASME 2022 International Mechanical Engineering Congress and Exposition (IMECE2022) (Track: Advanced Manufacturing), Columbus, OH, USA, 2022, Tuesday, 1 November 2022, PET: 10:15 am to 12:00 pm.
- 9. Prof. Puneet Tandon, Session 02-07-02: Session #2: Innovative Product and Process Design, ASME 2022 International Mechanical Engineering Congress and Exposition (IMECE2022) (Track: Advanced Manufacturing), Columbus, OH, USA, 2022, Tuesday, 1 November 2022, PET: 13:30 to 15:15 pm.
- 10. Dr. Tushar Choudhary, Fluids and Thermal Engineering, 3rd Biennial International Conference on "Future Learning Aspects of Mechanical Engineering", 2022, 3.8.2022.
- 11. Prof. Vijay Kuamr Gupta, Keynote Address, International Conference on Recent Advances in Materials, Manufacturing, Automobile & Thermal Engineering (RAMMAT-2023), 2023, 27-03-2023.
- 12. Dr. J. Al Muzzamil Fareen, Plenary Session, TECHNICAL PROGRAMME OF International Online Conference on Outcome-Based Education-STRIDE Supported (OBE - 2023), Feb 10, 11 and 12, 2023, Feb 11 2023.

Scholarship, Freeships & Financial Assistance



Academic year of students starts from the month of August & ends in the month of July.

Therefore, expenses have been made of MCM & Tuition Waiver are mentioned as follows:

- 1. From April 2021 to March 2022- for financial year 2021-22
- From April 2022 to March 2023- for financial year 2022-23 2.

1) Expenses incurred from April 2021 to March 2022 for FY 2021-22

S. No.	B.Tech batch	Total no. of students eligible to get MCM for F.Y. 2021-22	Total Amount paid @Rs. 1000/- per month (Batch 2018 for 7 months & B.Tech. 2019, 2020, 2021 for 12 months)	Tuition Waiver not applicable as it has already paid during the year (2021-22)	Total Amount Paid
1.	2018	74	7,000.00	0	5,18,000.00
2.	2019	94	12,000.00	0	11,28,000.00
3.	2020	92	12,000.00	0	11,04,000.00
4.	2021	79	12,000.00	0	9,48,000.00
				Total	36,98,000.00

Scholarship, Freeships & Financial Assistance



2) Expenses incurred form April 2022 to March 2023 for F.Y. 2022-23

S. No.	B. Tech. batch	Total no. of students eligible to get MCM for F.Y. 2022-23	Total Amount paid @Rs. 1000/- per month (Batch 2019 for 9 months & 2020, 2021, 2022 for 12 months)		Batch 2019 Tuition Waiver Rs.118580/- (Sem-I & II) Batch 2020 Tuition Waiver Rs. 118580/- (Sem-I & II) Batch 2021 Tuition Waiver Rs. 130440/- (Sem-I & II) Batch 2022 Tuition Waiver Rs.130440/- (Sem-I & II)		Total Amount Paid
			(A)			(B)	(A+B)
1.	2019	93	9000x93	8,37,000.00	93x118580	1,10,27,940.00	1,18,64,940.00
2.	2020	94	12000x94	11,28,000.00	94x118580	1,11,46,520.00	1,22,74,520.00
3.	2021	65 (64 General/ OBC+ 1 category)	12000x65	7,80,000.00	64x130440	83,48,160.00	91,28,160.00
4.	2022	60 (58 General/ OBC+ 2 category)	12000x60	7,20,000.00	58x130440	75,65,520.00	82,85,520.00
						Total	4,15,53,140.00

Total amount paid towards MCM Scholarship including Tuition Waiver is Rs. 36,98,000.00 + 4,15,53,140.00 = **Rs. 4,52,51,140.00**

Madhya Pradesh State Scholarship M.P. Portal Online 2.0 under the Scheme: Mukhyamantri Medhavi Vidhyarthi Yojna 2022-23

S.No.	No. of Students	Total Rs.	Year
1.	Nil	Nil	2022-23

Ministry of Social Justice and Empowerment, New Delhi (Payments of Students Scholarship Year 2022-23)

S.No.	Batch	No. of Students	Amount (in Rs.)
1.	2022	11	10,61,500.00
2.	2021	13	1437780.00
3.	2020	14	1353000.00
4.	2019	10	850000.00



Apart from concentrating on academic activities, the Institute also places emphasis on an allround development of its students. The Institute has, therefore, created excellent infrastructure for a variety of co-curricular and extra-curricular activities such as sports, student publications, Robotics as well as cultural and welfare programmes.

There are three areas of Students Gymkhana viz. Cultural, Science and Technology, and Sports. At present twenty three clubs of students gymkhana have been functioning and being administered by students under the guidance of faculty counsellors of respective area.

STUDENTS' GYMKHANA

Students' Gymkhana is constituted to evolve a disciplined self-governance for carrying out various extracurricular in-campus activities and to establish a responsible and accountable student body. Students' Gymkhana is governed by Student Senate which is constituted in a democratic way through elections among each discipline and batch of the students. Student Senate members are elected through direct ballot voting.

Student gymkhana is headed by Dean (Students). Dean (Students) chairs all the meetings of the Student Senate and guides student representatives in organizing gymkhana activities throughout the year. Apart from this, three faculty members designated as Sports, Cultural and Technical Counselors, look after sports, cultural and technical activities respectively and respective major festivals organized by the students' gymkhana.

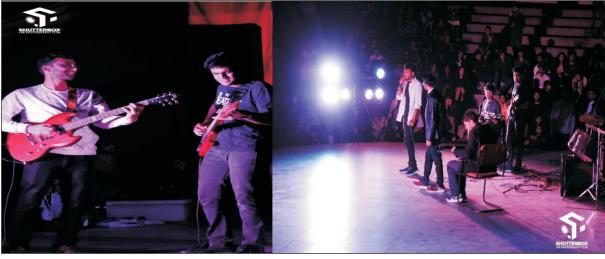
A. **Cultural Club:**

Participation in Cultural Fest

Saanjh'22 It was held from 11 September 2022 to 13 September 2022 This was an event organized by all the cultural clubs of the IIITDM Institute including







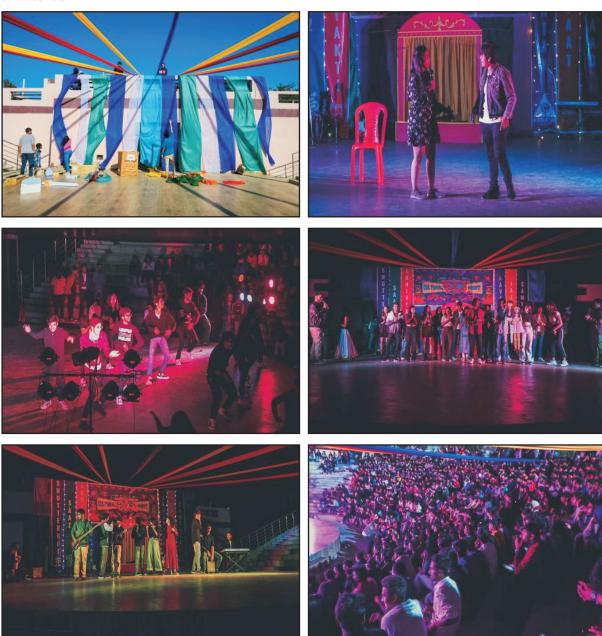


"SAAZ", "AVARTAN", "ABHIVYAKTI", "SAMVAAD" and "SHUTTERBOX". Lasting for three days and being attended by over 1500 students, the event was a huge success. This event, SAAZ organized three different themed sub-events. Rihaayi: The Solo Performances and Ghazal Night, Eximius: The Instrumental Contest and Bandish: The Band War.

LEHER-2.

Cultural Night 12 Feb, 2023 - LEHER Night was a vibrant celebration of diverse cultures, showcasing the talents of our college's students in music, dance, theater, and puppetry. The performances included classical dance, singing, comedy act, play, and a mesmerizing puppet show. The event concluded with a high-energy dance performance by a group of students showcasing different dance forms, ranging from hip hop to classical. The event was a perfect example of how cultural events can bring people together, promote creativity, and foster a sense of community.

This event was organized by following clubs Abhivyakti, Aavartan, Saaz, Jazbaat, Samvaad and Shutterbox.





Nukkad Natak: Institute's JAZBAAT Club (THE DRAMATIC SOCIETY) participated in the PEARL'23 during 31 March 2023 -2 April 2023 at BITS Hyderabad. Institute's Jazbaat club with a team of 20 students performed its street play: RAM YA RAVAN and won the first prize.

This nukkad was aimed around the topic: TOXIC MASCULINITY



Science & Technology Club: В.

IIITDMJ Racing Club - SUPRA SAE 2022 (Buddh International Circuit, Greater Noida)

Supra vehicle which has been built by IIITDMJ Racing team with passion, dedication and interest in activity was loaded in the truck. The event was held from 19 August 2022 to 25 August 2022.



IIITDMJ Racing EV Designare Challenge-2023

Kshitij IIT Kharagpur, West Bengal - EV Design Presentation which has been built by team with

passion, dedication. The event was held from 19 January 2023 - 22 January 2023. Total 09 members participated in the event. One of team member claimed third position and the other fourth.





The Programming Club, IIITDM Jabalpur - Can You Hack It? - Development Hackathon

The event was held from 21st-22nd January, 2023 at Tinkering Lab of IIITDM Institute. No. Of Attendees were 100+. The programming club organized - 'Can You Hack It' which was a 24-hours hackathon that challenges the participants to design and build a piece of software that is more than a project but a full fledged application. The Hackathon featured three tracks: Beginner:

Basic applications with limited functionality, Intermediate: An application with a functional backend using an API (or equivalent) and Advanced: A fullfledged application which must be deployed, scalable and efficient.

Astronomy and **Physics Society IIITDM Jabalpur**

Technex'23-It was

organized in IIT BHU Fest from 16th-21st March, 2023. 3 teams qualified for the third Round.



FlightFury (IIT Roorkee's Techfest)- The competition was held from $24^{\hbox{th}}$ - $26^{\hbox{th}}$ March, 2023. In IIT Roorkee. Two teams each of 5 members from the Institute had participated in this techfest.





Water Rocket Event - This Club of the Institute organized Water Rocket Event in which almost 59 teams participated in the event. The event was conducted on 5th of February 2023.

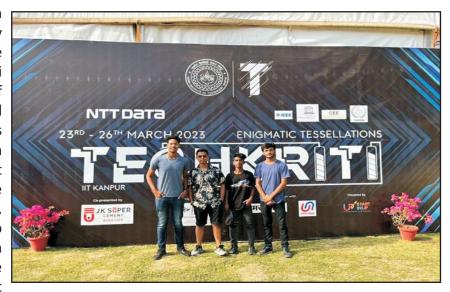






Electronics & Robotic Club:

Techkriti' - The Indian Institute of Technology (IIT), Kanpur hosts the annual Techkriti international festival of technology and entrepreneurship. This event was held from 23rd-26th March, 2023. It was a 11-day trip to the techfest of IIT Kanpur, where 16 of our club members went and won multiple accolades for the club and learnt a great deal.



7. CAD & 3D Printing Club- Eggdrop Challenge under Techkriti at IIT Kanpur

The team Eggzist having Amit Patil, Parth Patil, Satyansh Srivastava, Archi Rani as teammates.



There are three basic ways to safely drop an egg: Slowing decent speed, Cushioning the egg and Right orientation of landing the egg so that it lands on the strongest part of shell.

The team took the idea for making design from helicopter seeds so they mainly



focused on cushioning the egg for safely dropping it so what they created is basically a safelanding bag. In this students cushioned the egg by tying cotton balls around them with a rope. After that they made a tetrahedron structure using straws and rubber bands which held the cushioned egg. Finally, they dropped this tetrahedron structure with other cushioned egg that saved the egg from crash landing.

BUSINESS AND MANAGEMENT CLUB: 8.

Finance 101 was held in our Institute on 5th February, 2023; it was focused on the Finance department of the BMC club. The event was oriented to give basic financial knowledge to the students and guide them to excel in managing their investments smartly.

C. **SPORTS Club:**

Spardha-22 Fest at IIT BHU

On 14th October 2022, IIT (BHU) had organized its 3 day long annual sports fest, Spardha on the grounds of its evergreen campus. Total 40 colleges participated in Spardha. BHU had conducted events in almost all sports like cricket, athletics, chess, basketball, etc. Talking about Athletics, following events were conducted.



(i) Running events: 100m, 200m, 400m, 800m, 1500m,

5000m, 4X100m, 4X400m, 400H, 110H A 400m mud ground was there comprised of 8 lanes.

- (ii) Throwing events: Shot-put, Javelin, Discus
- (iii) Jumping events: High Jump, Long Jump, and Triple Jump.
- Participation in INTER IIIT Sports Meet 2023 held at IIIT Kancheepuram



A Overall Winning Champion trophies

PDPM IIIT Jabalpur has participated in 5th IIIT Sports meet - 2023, which was held in IIIT Kancheepuram during March 14-17, 2023. Students participated in sports competitions such as Cricket, Badminton, Volleyball, Men's lawn tennis, Men Basketball, Chess, Football and Kabaddi. IIITDMJ was the overall champion by winning total no. of 21 trophies.

Library



Introduction

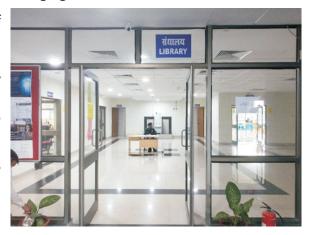
Institute Library is the knowledge hub of PDPM-IIITDM Jabalpur. Library extend support to academic & research activities of the Institute by procuring various types of reading materials, subscribing to electronic resources and providing various type of information services. The library provides all latest collection of books, articles, journals, etc. either in the form of online or



offline to its users. The said materials are available in the form of CD, DVD, on-line databases, e-journals and print materials related to engineering and technology, applied science, management, humanities, design and other new emerging areas.

During the year library continued its mission of facilitating the creation of new knowledge skill through the acquisition, organization and dissemination of library materials. The Library team is highly motivated, knowledgeable and always extend support to provide better service to the users.

Institute library not only proactively work on its collection building and infrastructural augmentation, but also put lot of emphasis on facilities for the users.



Statistical Representation of Library Collection

Collection development is one of the important functions of the library and plays a vital role in supporting, the academic curriculum and research activities of the users. The collection of books, journals, theses, reports, and other reading materials are the best and biggest asset of the Institute library. The total collection of library from 1st April 2022 to 31st March 2023 is as follows.

• Library •—



	Section A				
SI. No.	Medium	Collection	In Stock as on 31st March 2021	In Stock as on 31st March 2022	In Stock as on 31st March 2023
		Books	15001	15130	16550
		Gratis Books	923	1094	1122
	_	Subscribed Print Journals	11	11	11
1.	Documentary Sources (Print)	Project Reports/Theses	497	676	761
	(Fillic)	Gratis Project Reports/Theses	131	131	131
		Annual Reports	80	81	81
		Conference Reports	28	57	57
2.	Non Documentary Sources (Non Print)	CDs/ DVDs/ Floppy (Received with Project Reports, Books & Magazines)	2112 Books = 1369 Gratis Books = 17 Gratis Floppy= 02 Gratis Conference = 02 Project Theses = 427 Project Theses through email= 14 Magazine = 281 Total = 2112	Purchased Books CD = 1371 E-Book = 04 Gratis Books CD = 17 Gratis Books Floppy= 02 Project /Theses CD = 497 Project/ Theses received through email= 68 Gratis Project/ Theses CD = 0 Annual Report = 0 Conference Report CD = 03 Subscribed Magazine CD = 281 Total = 2243	2317 Purchased Books CD = 1371 E-Book = 04 Gratis Books CD = 18 Gratis Books Floppy= 02 Project / Theses CD = 522 Project/ Theses received through email= 116 Gratis Project/ Theses CD = 0 Annual Report = 0 Conference Report CD = 03 Subscribed Magazine CD = 281 Total = 2317
3.	Archives (old)	Bound Volumes of Journals	175	175	175
J. AII	(0/4)	Bound Volumes of Magazines	341	341	341

Section B					
SI. No.	Medium	Collection	Procured In 2020-21	Procured In 2021-22	Procured In 2022-23
1.	Print Materials	Subscribed News Papers		06 (E-3, H-3)	14 (E-5, H-9)
2.	iviateriais	Subscribed Magazines		09	13
3.	Non-Print Materials	Subscribed Online E- Resources (E-Journal)	48,871	49,741	49,097

Library



Hindi Collection

In addition to the regular procurement of course books, Institute library has procured the Hindi books like: Novels, Inspiration books, Story books, famous Autobiography books, awarded Hindi books etc. The total collection of Hindi books is 499 nos.

Section C				
	Hindi Books	432	400	
Hindi Collection	Gratis Hindi Books	67	499	
	Hindi CDs	32	32	

Book Bank

Institute Library is maintaining a Book Bank Section for SC/ST students. This section contains approximately 978 nos. of books, especially recommended as the text books and these books can be issued to SC/ST students only.



Circulation Desk and Reservation Counter

The circulation desk provides check-in and check-out services of reading materials to the users and also provides personal assistance for general enquires about the library. The library provides advance reservation facility for the users who utilize the learning resources which are already issued to other users. The library issues books to the users as per their designations. Details of number of books and their validity are given below:-

Loan Criteria for Library Users			
SI. No.	Member Category of the Institute Library	No. of books issued at a time	Loan duration
1.	Faculty Member	20	180 days
2.	Research Engineer	20	180 days
3.	All Non- Teaching Member	05	30 days
4.	Post graduate student (PG and PhD.)	07	30 days
5.	Under Graduate Student (UG)	07 (Including Semester books)	15 days



Reference Service

Various types of collections have been maintained by the Institute library in the reference section like, Encyclopedias, Handbooks, Dictionaries, Theses, Reports and Rare Books etc.

Reference section continues to help the library users to make full utilization of library resources and services. It renders necessary assistance to the users for searching the documents of their choice.



Digital Library

- 1. e-Resources in Institute Library: e-Shodh Sindhu (e-SS) established by Ministry of Education, and supported by INFLIBNET Centre, Gandhinagar, Gujarat. The consortia provided various e-resources to our Institute like ACM Digital Library, ASME Journals Online, Springer, JSTOR, JGate Plus (JCCC), etc. Apart from this, Institute subscribes various e-resources from the publishers directly. The individual titles under the collections are approximately 49,097.
- 2. Electronic Theses and Dissertation: Institute Library has preserved theses and project
- report submitted by the postgraduate and doctoral students in electronic format as well as print format. These reading materials have been maintained and preserved in a full-text database since 2008 on Intranet. Library users can access and download this facility 24x7.
- 3. National Digital Library (NDL) Resources: Ministry of Education, under its National Mission on Education through Information and Communication Technology has initiated the National Digital Library of



India (NDL, India). It is being developed at IIT Kharagpur. During the year, library users actively access the resources provided by the NDL.

List of NDL India e-Resources			
SI. No.	Name of Resources/ Journal	Mode of Resources/Journal	
1.	World e-Book Library	Online	
2.	South Asia Archive (SAA)	Online	



- WEB-OPAC: The WEB OPAC is one of the most heavily used databases of the library and 4. is accessible 24x7 through library web page. Besides listing all the documents available in the library, it allows on-line reservation, status of books, user details, overdue details, etc. Institute library is providing download facility of e-resources, CD-ROM of study materials on single platform.
- 5. Plagiarism Detection Software (PDS): The Ministry of Education, Govt. of India initiated a programme "Shodh Shuddhi" and provides a web based plagiarism detection software system "URKUND" for academic integrity and improving the quality of research in India. The Institute Library is availing the facility and has subsequently provided login facility to all the faculty members. In view of the importance of the research and seriousness of plagiarism in the research, Institute has subscribed another plagiarism detection software for the users named by "TURNITIN" for the users.
- Reprography: Institute library provides photocopy facility to the users on nominal 6. charges.
- **7**. **CCTV Camera**: Institute library has installed CCTV Camera for surveillance.
- 8. Wi-Fi: Institute library provides the Wi-Fi facility to the users in the library premises.

List of e-Resources

SI. No.	Name of e-Resource	Titles/Collection
1.	ACM Digital Library	1162
2.	ASME Journals Online	33
3.	Institute for Studies in Industrial Development (ISID) Database	The Institute for Studies in Industrial Development (ISID) has created On-line Indexes of Indian Social Science Journals (OLI) and Press Clippings on diverse social science subjects. It provides access to Indexes of 125 Indian Social Science journals and major newspaper articles, editorials and news features.
4.	JGate Plus (JCCC)	J-Gate Custom Content for Consortium (JCCC) is a virtual library of journal literature created as a customized e-journals access gateway and database solution. It acts as a one point access to 7900+ journals subscribed currently under UGC INFONET Digital library consortium as well as university libraries designated as Inter Library Loan (ILL) Centers besides index to open access journals. JCCC has facility to trigger e-mail request for article to inter library loan centers as well as to INFLIBNET Centre.
5.	JSTOR	3165
6.	Math SciNet	Provides database of reviews, abstracts and bibliographic information for much of the mathematical sciences literature

Library



7.	Oxford University Press	262
8.	Springer Link	1725
9.	Nature Journal	Nature the leading international weekly journal of science.
10.	Web of Science	Provides access to the world's leading citation databases which includes Science Citation Index Expanded (SCI-EXPANDED), Social Sciences Citation Index (SSCI) and Arts & Humanities Citation Index (A&HCI) with 20 year back-files on lease basis. Its Analyse Tool also helps in finding hidden trends and patterns, gain insight into emerging fields of research, identify leading researchers, institutions, and journals, and trace the history of a particular field of study.
11.	IEEE: IEL Level II	42,530
12.	AIP	19
13.	IOP	72

Library Services for Users

Library Opening and Closing Hours: Institute library opens on Institute holidays for providing best facility to the users and timings are as follows:

Library Timing			
Opening and C	Issue/re-issue/return timing		
Monday to Sunday (Including Institute Holiday)	09:00 am to 10:00 pm	09:00 AM to 05:30 PM (Monday to Saturday)	

- Study Room: The library has a "Study Room Facility" with more than 100 seating capacity for the users which are open 24 X 7 throughout the year.
- Online Payment System: Library users can make the library related payment through internet banking system on library bank account.

Provides Other Services

- **Book Locate Service :** Institute Library also helps library users who are unable to find the books. Staff of the library provides full support to the users for searching the required reading materials, if available.
- **Book Reservation Service:** Institute library is in receipt of various requests related to books







reservation through mail / telephone and the circulation desk duly reserves the same and provide to the respective user.

Information Alert Services: From time to time library alerts its users regarding latest information through e-mail and same is displayed on notice boards as well. The under mentioned alerts are provided to all the library users:

a)	New Arrival Books	b) New Subscribe e-Resources
c)	New Arrival other items	d) Faculty and Student publications
e)	Forthcoming conferences, seminar, workshop, other national and international events	f) Scholarship and fellowship information
g)	Workshop/lectures for e-resources usage	h) Trail/free access resources
i)	Remote access facility for online resources	

- Newspaper Clipping Services: Institute library has also preserved Institute related news published in subscribed newspapers and it is useful for ready reference in future. Institute library is planning newspaper clipping alert service on monthly basis through e-mail.
- **Users Orientation/Conferences/Workshop Services :** Institute has organized orientation program for new library users about collections, databases and services of the library. Library conducted the short training programs, workshop, etc. for "How to Use" electronic resources like IEEE, Elsevier etc. for faculty members, research scholars and students. This programme is useful for library user for their research purposes.

Future Plan

- Digital Library Section: 10 15 numbers of computers will be setup for digital library and users can easily access e-resources, e-journals, Institutional repositories, etc. during library timing.
- Library Trainees: In order to augment the services 2 nos. of library trainees shall be inducted in future.

Details of Expenditure					
SI.	Itomas	Expenditure	Expenditure	Expenditure	
No.	Items	2020-21	2021-22	2022-23	
1.	Newspapers	Rs. 3595.00	Rs. 7754.50	Rs. 15,338.00	
2.	Books	Rs. 0.00	Rs. 4,25,592.00	Rs. 17,47,045.00	
3.	Journals and Magazines	Rs. 1,30,32,839.00	Rs. 1,50,24,194.50	Rs. 68,14,823.48	
Total		Rs. 1,30,36,434.00	Rs. 1,54,57,541.00	Rs. 85,77,206.48	
		(Approx.)	(Approx.)	(Approx.)	

Placement



Campus Placements Report 2022-23

Training & Placement Cell always comes forward to encourage the students to participate in various programmes, activities, workshops, and training. These activities are conducive to making students fit for their career growth. The institute has taken the initiative to start a specialized training programme on soft skills that help students to make them fit receptacle. The Institute organized various successful campus placement activities where students have already come up with flying colours and gather one more feather in their caps. Highest package offered in the year 2022-23 is Rs. 82 LPA by Atlassian.

Major Stakeholders for the session 2022-23.

A total 100+ companies had visited the Institute and offered more than 350 offers to the students of graduating year 2022-23 which include various multinational organizations Amazon, American Express, BEL, CRED, Commvault, Gameskraft, media.net, Oracle, Cambium networks, Zolostays, Slice, Samsung, Mathworks, Synopsys, Infosys, Accenture, Chalo, TCS, Infoedge, JSW, Tata Elxsi, Mahindra & Mahindra, Adani Group, CDOT, Flipkart, Zscaler, Scaler,

Zynga, Autodesk, PlaySimple, Morphle Labs, Cummins India, Ericsson, Baja Auto, CapriGlobal, Dolat Capital, Axis Bank, Hopstack, GE Digital, Goldman Sachs, Reliance Jio, Radisys, Quantiphi, EXL Services, Intel, Intuit, Addverb Technologies etc. Institute has seen a significant increase in the average package. For the current session overall UG Average package has been increased by 150%. About 74% of students have received offer of more than Rs. 10 LPA. Institute also allows the students to go for Project Based Internship for 6 months duration to gain practical exposure about the corporate working culture.



Hindi Pakhwada 2022 •



Hindi Pakhwada was celebrated in the Institute. This Pakhwada started on 14th September 2022 under the chairmanship of Honourable Home Minister, Gujarat in Surat and ended on 28th September 2022. The nation celebrates 14th September every year as Hindi Diwas, as it was on this day that Hindi was adopted as the official language by the Constituent Assembly in the year 1949.

Various competitions were organized for the staff and students during the Hindi Pakhwada. People enthusiastically participated in these competitions. The closing ceremony was celebrated on 17th October 2022 in which the Director, Deans, Registrar and other members of the Institute were present. Prizes were awarded to the winners of various competitions.















Pandit Dwarka Prasad Mishra Indian Institute of Information Technology Design and Manufacturing Jabalpur (in short: PDPM IIITDMJ) started its functioning in 2005-06 in a space occupied on lease basis at Jabalpur Engineering College, Jabalpur. In 2009, the Institute shifted to its own campus in the only building, the Core Lab Complex building completed at that time.

The Institute is an autonomous Technical Institute of national importance, established under the Act of Parliament. The Institute is located close to Dumna Nature Reserve, on the Jabalpur Airport (Dumna Airport) road. The Institute campus spreads over 250 acres of land full of flora and fauna. The infrastructure in the campus has been developed in such a manner so as to add natural beauty to the campus. The systematic tree plantation and greenery developed all-round the campus enhances the living conditions of inhabitants. The presence of beautiful birds, butterflies, peacocks, deer etc can always be witnessed in the campus. All the buildings in the campus have been provided with facility of rainwater harvesting. A completely healthy environment without any pollution is available in the vicinity of the campus. The occupants in the campus are devoted to maintain the campus neat and clean.

The efficient accessibility within the Campus has been ensured dividing the campus into three Zones viz. 'Academic cum Administrative Zone', 'Hostels Zone' & 'Residential Zone'. As depicted from the names of zones, the three zones are meant for three different kinds of activities, as associated with an educational institute.

The **Academic cum Administrative Zone** is at the entrance of the Campus, having Residential Zone towards one extreme end and the Hostel Zone on the other. All the three zones are connected through cement concrete roads. Administrative Block cum Technology Incubation Centre, Lecture Hall and Tutorial Complex, Library cum Computer Centre, Core Lab Complex, Primary Health Centre, and Open-Air-Theatre and other ancillary buildings are located in this Zone. Two circular roads connect all these buildings from inner and outer sides.

The **Residential Zone** is situated towards rear of the campus having all the residential quarters and the visitors' hostel.

All the hostel buildings including the student activities areas are located in the Hostel Zone, in the south-west end of the campus.

All the buildings and activity areas in the campus are connected with roads and pathways having desired illumination during night hours. Two numbers of diesel generator sets are available to ensure power back-up. Solar power generation and water heating facility has been provided on convenient location of terraces of all the buildings so as to acquire the energy efficiency. The Primary Health Centre (PHC) is located at the centre of the campus having easy access from all parts of the campus. A bus facility is available to facilitate the occupants in the campus for visiting important places in the Jabalpur city. A hasslefree access is available in all the buildings for especially abled people.

The details of infrastructure facilities available in the three Zones are as under:

Academic cum Administrative Zone:

It is the core area of the campus, where all the academic and administrative activities are performed. The buildings and infrastructure in the zone have been located in such way so as to have continuity in flow of activities with ease in access from one building to the other. Sufficient parking spaces have been provided near buildings having vehicular movements so that the inhabitants could not face inconvenience due to movement of vehicles. The Power House located in this zone provides uninterrupted power supply to the whole campus. The following important buildings are located in this

Administrative Block cum Technology and **Business Incubation Centre:** The building is located next to the main entrance of the campus. The offices of the Director, Deans, Registrar and other administrative officers are situated in this building. In addition to it the Institute Works Department, Purchase and Store Section, Placement Cell, Account Section etc are also located in the building so as to minimise the



disturbance to the campus activities due to occasionally visiting outsiders.

The second floor of the building contains the office of Start-up Cell and Technology and Business Incubation Centre.



Administrative Block cum Technology and **Business Incubation Centre**

Lecture Hall & Tutorial Complex : It is the iconic building of the campus where all the teaching activities are carried out. The building contains well-equipped Class rooms, Lecture halls, Seminar halls etc. for performing all sorts of academic activities. The Design discipline of the institute is also located in the building having the Design Studio, especial type class rooms for B.Des, and M.Des programmes. A part of building is made reserved for display of Design projects. The Yoga sessions are also performed in this particular area. A big Lecture Hall cum Auditorium of more than 500 seating capacity is available in the building.



Lecture Hall and Tutorial Complex

Core Lab Complex : It is the very first building of the campus in which activities of the institute were started in the year 2009-10. All the core labs and workshops have been accommodated in this building, where the newly admitted

students perform the experimental works. At the Ground Floor of the building, some of the professional labs pertaining to the Mechanical Engineering discipline have been located along with faculty chambers. At the First Floor some professional labs pertaining to the Electronics and Communication Engineering discipline have been located along with faculty chambers. Temporary structures of Workshop Annexe and some other professional labs are located adjacent the Core Lab Complex.



Core Lab Complex

Library cum Computer Centre : The building has conveniently been divided into two parts. Computer Centre of the institute and offices of Faculties & Staff, Computer Labs, Seminar Halls, and Lecture Rooms etc. pertaining to the Computer Science (CSE) discipline are located in one part of the building. The Central Library, Journal section, Reading rooms with 24x7 access etc are located in the other part of the building. The Electronics and ICT Academy is also located in this building.



Library cum Computer Centre

Primary Health Centre (PHC): The facility of Primary Health Centre (PHC) has been provided in the campus for immediate health care of the occupants. The building is located at the centre of the campus so as to have easy access from all



corners of the campus. Doctors with different specialities are available in shifts in the PHC. However, nursing staffs and Ambulance facility is available in PHC at all times. The PHC facilitates for routine Allopathic treatment, Ayurvedic and Homeopathic treatment. In addition one number male ward, one number female ward and five numbers of private wards have been provided in the building for normal in-patient hospitalization. Routine health check-up camps and blood donation camps are regularly organized in the PHC.



Primary Health Centre

Visitors' Hostel: The Visitors' Hostel building provides accommodation to the visiting faculties, newly joined faculties and other guests to the Institute. The building is so located that the guests in the building could enjoy the natural beauty during their stay. Single and double occupancy rooms along with suits are available in the building. Meeting rooms, Seminar rooms and the facility of kitchen and dining inside the building, fulfils all sort of requirements of visitors.



Visitors' Hostel

Residential Zone:

As described by its name this zone of the campus contains Residential flats for the Faculty members and Staff members. The zone is connected with other parts of the campus with cement concrete roads having footpath on both the sides. Multi-storeved residential buildings in the zone have been named in different names of holy river 'Narmada' which is the life line of Jabalpur city. All the residential towers in the zone are connected with cement concrete Roads/ pathways. Children Parks and Play fields are available with residential towers for amusement of inhabitants. The following are the important buildings in this zone:

Narmada Residency-II: Narmada Residency II is a five storeyed building with stilt parking. It provides residences for the staff and newly joined faculty members of the institute. A total of 55 Nos. of flats with two Bedrooms, Drawing cum Dining room and a Kitchen in each are available in the building. Children play areas and solar water heating facility is available in the premises of the building. All round greenery and round the clock water/ electricity supply, fruit plants at surroundings of the building facilitates the occupants for a comfortable living.



Narmada Residency II

Narmada Residency-III: Narmada Residency III is also a five storeyed building with stilt parking. It provides residences for senior faculty members in 60 Nos. of flats available with the



Narmada Residency III



building. Each of the flat has two Bedrooms, Drawing cum Dining room and a Kitchen. Solar water heating systems, round the clock water / electricity, greenery and fruit plants at surroundings etc. facilitate the occupants for a comfortable living.

Rewa Residency-2: Two numbers of multistoreyed buildings each having 36 numbers of flats are available with Rewa Residency-2. Each of the flat has two Bedrooms, Drawing cum Dining room and a Kitchen. The building provides accommodation for junior staff members and family accommodation to some research



Rewa Residency II A and B

scholars.

Hostel Zone:

This zone comprises of different Hostel buildings, Mess and Dining facilities and Student Activity areas. Canteen facility is available in all the Hostel buildings. All the Hostels and Student activity areas are connected through cement concrete roads and pathways. One number of dedicated Sewerage Treatment Plant is available for the zone for a complete treatment of sewage of the area so that the treated water may be used for horticulture work. Purified drinking water with water coolers is made available in all the buildings of this zone. The following buildings and infrastructure is available in this zone:

Vasishtha Hostel (Formerly known as Hall of Residence I): The building provides accommodation for 404 students in single seated rooms. The senior UG students are accommodated in this hostel. Reading Room, TV viewing room and Canteen, etc. are available inside the building for recreation activities of the students. The facility block with Office of Caretaker / Hostel Warden is located at the entrance of the building. The building has



Vasishtha Hostel (Hall of Residence I)

beautiful greenery all around.

Aryabhatta Hostel (Formerly known as Hall of Residence III): The building provides accommodation for 498 students in triple seated rooms. The students residing in the hostel have been facilitated with recreation areas like TV viewing room, Dance and Drama room, Gymnasium, Canteen etc. available in the facility block having convenient approach from all corners of the building. The building is connected with roads and pathways with the other functional areas. An Indoor Badminton



Aryabhatta Hostel (Hall of Residence III)

Court has also been provided inside the building. The building has beautiful greenery all around.

Vivekananda Hostel (Formerly known as Hall of Residence IV): The building provides accommodation for 498 students in triple seated rooms. In fact the building is a mirror image of Hall of Residence III. The students residing in the hostel have been facilitated with recreation areas like TV viewing room, Dance and Drama room, Gymnasium, Canteen etc. available in the facility block having convenient approach from all corners of the building. The building is connected with roads and pathways with the





Vivekananda Hostel (Hall of Residence IV)

other functional areas. The building has beautiful greenery all around.

Nagarjuna Hostel (Formerly known as PG Married Accommodation-Phase I): The building contains 98 flats, each having one Bed room, one Hall and a Kitchen. Basically it has provisions for married PG students. However, to fulfil the requirement of present strength of students, girls students are being accommodated in two blocks of the building and UG boys students are being accommodated in the remaining one block of the building. The blocks of girls and boys



Nagarjuna Hostel (PG Married Accommodation-Phase I)

students have been isolated from each other. Beautiful greenery and plants are available allround the building.



Panini Hostel (PG Bachelor Accommodation-Phase II, Block A)

Panini Hostel (Formerly known as PG Bachelor Accommodation-Phase II) : There are two numbers of blocks in the building, each having 202 single seated rooms. Presently to fulfil the current strength of students, PG students are being accommodated in one block and UG students in the other block of the building. There is a facility block; located adjacent to the hostel blocks, which provides mess & canteen facility to the students. Beautiful plantation has been done in the surroundings of the building.

Maa Saraswati Girls Hostel (Formerly known as Hall of Residence VIII): The building contains singe seated and triple seated accommodation for girls students. A provision for a total of 250 girls students has been available in the building. The Canteen/ Mess facility is available inside the building, which is being used by all the girls residing in this building as well as in the Nagarjuna Hostel building. The office of the Warden and residence of the Caretaker have



Maa Saraswati Girls Hostel (Hall of Residence VIII)

been located at the entrance of the building. Reading rooms and recreation rooms are available inside the building. Beautiful greenery can be witnessed all around the building.

Students Activity Centre (SAC):

The Student Activity Centre building is meant to



Student Activity Centre



facilitate the students for all sorts of leisure activities. The Indoor Basketball Court, some rooms for different clubs and the Open Air Theatre are presently in use. The balance portion of the building is at completion stage. The same shall be available for use very soon. The building has been located in such a way to have entry from Hostel zone as well as from the Academic zone. Presently, 3 numbers of Badminton courts and Table Tennis tables have been accommodated in the Indoor Basketball Court area. Different activities of Student Clubs and Gymnasium activities are being performed in the other rooms available in the building. Adjacent to the Student Activity Centre, two numbers of play fields are available for Outdoor games like Cricket, Football, Kho-kho, Track and field events etc. In addition, Outdoor Basketball Court, Volleyball Courts are also available at one side of the playground.

Central Mess (Mess and Dining Hall): The building is located between the Aryabhatta Hostel and the Vivekananda Hostel. Its two floors



Central Mess (Mess and Dining Hall)

provides dining facility to the students. The building is well connected with all the hostel buildings. Beautiful Plants and greenery is



Nalanda (2 Nos.- Type V Qtrs.)

available in the vicinity of the building.

Type V Quarters-2 Nos. (Nalanda): It is a residential building in the Hostel zone, having two numbers of duplex style Type V quarters. It provides residential facility for two numbers of faculties / officers associated with students, so that a nearby assistance is always available to the students in the Hostel zone. Each residential unit in the building complex, comprise of two numbers of a Drawing cum Dining room, two numbers of Bed rooms, a Kitchen and a Garage.

Security Barrack: The building provides temporary shelter to the security staff those that



Security Barrack

are inside the campus but not on duty. The Kitchen and Dining facility is available inside the building. The building is located at the extreme end of the campus toward Mehgawan village.

Swachhata Drives and Plantation works: Swachhata Drives and Plantation works are regularly carried out in the campus throughout the year. Everyone in the campus is determined to maintain cleanliness, greenery in the campus. The plantation works are carried out in accordance with the Plantation Plan provided by the Tropical Forest Research Institute (TFRI), under an MoU executed with the Institute. The use of recycled water from the Sewerage Treatment Plants and the waste water from the Water Purifiers, installed in different buildings, for horticulture work exhibit the commitment of the Institute for water conservation. A dedicated Horticulture team is available for maintaining plants and lawns in the campus.

• Annual Account (FY 2022-23) •



Fund Available and Expenditure incurred during FY 2022-23

(I) Grant in Aid received during FY 2022-23

Particulars	GIA (Rs in Lakhs)
Salary	2750.00
General Expenditure	2415.00
Capital Expenditure	400.00
Total Amount	5565.00

(II) Expenditure for FY 2022-23

Particulars	Amount (Rs in Lakhs)
Salary	3082.11
General Expenditure	2612.88
Capital Expenditure	1440.02
Total Amount	7135.01

(A) Salary Expenditure for FY 2022-23

Particulars	Amount (Rs in Lakhs)
Academic	1752.82
Non Academic	580.45
Other component of Salary	748.84
Total Amount	3082.11

(B) General Expenditure for FY 2022-23

Particulars	Amount (Rs in Lakhs)
Outsourced Manpower	1025.25
Electricity	311.34
Assistantship/Scholarship	793.43
Repair & Maintenance	148.39
Travelling Allowance	11.69
Transportation Expenses	25.44
Honorarium	36.62
Student Support Service	17.98
Other Expenses	242.74
Total Amount	2612.88

(C) Capital Expenditure for FY 2022-23

Particulars	Amount (Rs in Lakhs)
Civil & Electrical	334.95
Furniture & Fixture	203.95
Lab and Office Equipment	145.26
Computer hardware and Software	495.47
Books and Journals	166.2
Electrical Installation	94.19
Total Amount	1440.02

(S.D. Gadekar)

Deputy Registrar (F&A)

(S.D. Gadekar)
Acting Registrar

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(Bhartendu K Singh)

Director

• Annual Account (FY 2022-23) • —



PANDIT DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, **DESIGN AND MANUFACTURING, JABALPUR**

BALANCE SHEET AS AT 31st, MARCH 2023

AMOUNT IN ₹

SOURCES OF FUNDS	SCHEDUL ES	CURRENT YEAR (FY 2022-23)	PREVIOUS YEAR (FY 2021-22)
CORPUS/ CAPITAL FUND	1	3,767,147,507	3,664,427,887
DESIGNATED/ EARMARKED/ ENDOWMENT FUNDS	2	-	-
CURRENT LIABILITIES & PROVISIONS	3	412,043,016	347,949,353
TOTAL		4,179,190,524	4,012,377,240
APPLICATION OF FUNDS			
FIXED ASSETS	4		
TANGIBLE ASSETS		3,087,616,653	3,082,595,113
INTANGIBLE ASSETS		4,476,274	2,118,612
CAPITAL WORK-IN-PROGRESS		31,576,401	10,074,150
INVESTMENTS FROM EARMARKED/ ENDOWMENT FUNDS	5		
LONG TERM		-	-
SHORT TERM		-	-
INVESTMENTS- OTHERS	6	-	-
CURRENT ASSETS	7	958,970,814	821,771,946
LOANS, ADVANCES & DEPOSITS	8	96,550,381	95,817,419
TOTAL		4,179,190,524	4,012,377,240
SIGNIFICANT ACCOUNTING POLICIES	23		
CONTINGENT LIABILITIES AND NOTES TO ACCOUNTS	24		

(S.D. Gadekar) Deputy Registrar (F&A)

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(S.D. Gadekar) Acting Registrar

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(Bhartendu K Singh) Director

• Annual Account (FY 2022-23) • —



PANDIT DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, **DESIGN AND MANUFACTURING, JABALPUR**

INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD 01.04.2022 TO 31.03.2023

AMOUNT IN F

		1		AMOUNT IN ₹
PARTICULARS		SCHEDULE	CURRENT YEAR (FY 2022-23)	PREVIOUS YEAR (FY 2021-22)
A INCOME				
ACADEMIC RECE	IPTS	9	19,06,32,409	17,02,88,616
GRANTS/ SUBSID	IES	10	51,65,00,000	38,82,65,851
GRANT TAKEN FF	ROM INTERNAL CORPUS		0	0
INCOME FROM IN	VESTMENTS	11	0	0
INTEREST EARNE	ED	12	3,67,56,939	3,01,46,471
OTHER INCOMES		13	35,24,593	24,02,593
PRIOR PERIOD IN	COME	14	0	0
TOTAL (A)			74,74,13,941	59,11,03,530
B EXPENDITURE				
STAFF PAYMENT EXPENSES)	S & BENEFITS (ESTABLISHMENT	15	30,82,11,604	22,99,16,168
ACADEMIC EXPE	NSES	16	8,98,56,702	8,08,14,623
ADMINISTRATIVE	AND GENERALEXPENSES	17	15,40,34,849	11,94,35,244
TRANSPORTATIO	N EXPENSES	18	25,44,286	9,22,601
REPAIRS & MAIN	TENANCE TENANCE	19	1,48,39,956	99,97,489
FINANCE COSTS		20	10,898	11,708
DEPRECIATION		4	11,78,46,385	12,89,85,698
OTHER EXPENSE	S	21	0	0
PRIOR PERIOD EX	XPENSES	22	74,824	0
TOTAL (B)			68,74,19,504	57,00,83,531
BALANCE BEING (A-B)	EXCESS OF INCOME OVER EXPENDITURE		59,994,437	21,019,999
TRANSFER TO IN	ISTITUTE CAPITAL FUND			
INTERNAL INCOM	IE (Net off short grant)		17,79,15,646	15,00,05,697
BUILDING FUND			0	0
BALANCE BEING GENERAL FUND	SURPLUS (DEFICIT) CARRIED TO		17,79,15,646	15,00,05,697
BALANCE BEING FUND	SURPLUS (DEFICIT) CARRIED TO CORPUS		(117,921,209)	(128,985,698)
SIGNIFICANT ACCO	DUNTING POLICIES	23		
CONTINGENT LIAB	ILITIES AND NOTE TO ACCOUNTS	24		

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(S.D. Gadekar) Deputy Registrar (F&A)

(S.D. Gadekar) Acting Registrar

(Bhartendu K Singh)

Director

• Annual Account (FY 2022-23) •



PANDIT DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, DESIGN AND MANUFACTURING, JABALPUR RECEIPTS & PAYMENT ACCOUNT FOR THE FINANCIAL YEAR 2022-2023

							AMOUNT IN ₹
S.No.	RECEIPTS	CURRENT YEAR (FY 2022-2023)	PREVIOUS YEAR (FY 2021-2022)	S.No.	PAYMENTS	CURRENT YEAR (FY 2022-2023)	PREVIOUS YEAR (FY 2021-2022)
	I OPENING BALANCES				EXPENSES		
A	A) CASH BALANCE			(A	STAFF PAYMENTS & BENEFITS	1,74,44,291	92,55,789
Д	B)BANK BALANCES			B)	B) ACADEMIC EXPENSES	8,29,66,762	7,64,92,542
	i) SBI GRANT A/C	2,37,318	2,37,967	(၁	C) ADMINISTRATIVE AND GENERAL EXPENSES	4,52,18,452	3,18,07,051
	ii) ALLAHABAD BANK STUDENT FEE A/C -02	-37,714,638	1,07,37,975	(D	D) TRANSPORTATION EXPENSES	24,14,011	5,68,767
	iii) ALLAHABAD BANK STUDENT FEE A/C	1,28,94,631	44,200	E)		61,46,121	55,62,172
	iv) ALLAHABAD BANK GRANT CURRENT A/C	1,81,774	3,58,752	F)	FINANCE COSTS	12,535	20,370
	v) PROJECT A/C						
	a) ALLAHABAD BANK SERB PROJECT A/C	-440,705	44,59,885	=	PAYMENTS AGAINST EARMARKED/ENDOWMENT FUNDS	1,79,76,600	72,11,728
	b) ALLAHABAD PROJECT A/C	-2,442,001	2,96,38,291	=		40,32,599	1,08,63,274
	c) E&ICT ACADEMY A/C	1,84,14,870	9,34,232	_ ≥	PAYMENTS AGAINST SPONSORED FELLOWSHIPS AND SCHOLARSHIPS		
	d) STARTUP A/C	5,797	5,632	Æ		3,20,000	4,17,000
	e) QIP AICTE	30,91,726	31,57,919	B)	EXTERNAL SCHOLARSHIP	28,41,440	1,06,51,720
	vi) ALLAHABAD GRANT SAVING BANK A/C	-21,440,118	6,63,08,901	۸	INVESTMENTS AND DEPOSITS MADE		
	vii) SBI TICKET A/C	0	0	₹			
	viii) AXIS BANK	2,90,58,332	1,51,22,253	B)	OUT OF OWN FUNDS (INVESTMENTS- OTHERS)		
	ix) Swap Facility	23,49,60,363					
	x) InaComm 2021 A/c	66 523	C	>	TERM DEPOSITS WITH SCHEDIII ED BANKS		
	II GRANTS RECEIVED	010,00		8	A) FIXED DEPOSITS MADE	54 67 65 000	14 84 14 000
	FROM GOVT, OF INDIA (MHRD) (PLAN)	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	7	i i	INVESTMENTS AND DEPOSITS MADE		
	FROM GOVT. OF INDIA (MHRD) (PLAN) - FOR	24, 13,00,000	000,00,00,00	a	EXPENDITURE ON FIXED ASSETS & CAPITAL		
ч	B) CREATION OF CAPITAL ASSETS	4,00,00,000	10,50,00,000	=	WORK-IN-PROGRESS		
	FKOM GOV I. OF INDIA (MHKD) (PLAN). C) SALARY	27,50,00,000	22,81,00,000	₹	PURCHASE OF FIXED ASSETS	2,98,08,031	4,22,38,271
				B)	EXPENDITURE ON CAPITAL WORK-IN- PROGRESS		
	III ACADEMIC FEE			5	OTHER PAYMENTS INCLUDING VIII STATUTORY PAYMENTS		
Ą	A) ACADEMIC FEES	23,43,21,431	19,55,72,021	æ	A) ASSOCIATION FEE (OTHER INSTITUION)		
В	B) HALL MANAGEMENT ACCOUNT		1,68,68,903	B)	B) GIS (OTHER INSTITUTES)	3,000	6,600
				(၁	GPF (OTHER INSTITUTES)	25,000	55,000
				⇧	D) GSLIS	1,57,523	2,03,868
				Έ	PROFESSIONAL TAX PAID	3,19,166	0
				F)	LABOUR WELFARE CESS	9,90,824	0
	RECEIPTS AGAINST IV EARMARKED/ENDOWMENT FUNDS		1,67,79,695	ගි	G) NEW PENSION CONT.	4,41,16,551	3,73,88,283

• Annual Account (FY 2022-23) •



PANDIT DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, DESIGN AND MANUFACTURING, JABALPUR RECEIPTS & PAYMENT ACCOUNT FOR THE FINANCIAL YEAR 2022-2023

	-						AMOUNT IN ₹
S.No.	RECEIPTS	CURRENT YEAR (FY 2022-2023)	PREVIOUS YEAR (FY 2021-2022)	S.No.	PAYMENTS	CURRENT YEAR (FY 2022-2023)	PREVIOUS YEAR (FY 2021-2022)
	RECEIPTS AGAINST SPONSORED V PROJECTS/SCHEMES	2,67,62,923	2,82,77,884	Ĥ	TDS PAID	4,49,74,581	3,41,48,269
>	RECEIPTS AGAINST SPONSORED VI FELLOWSHIPS AND SCHOLARSHIPS			I)	I) GST PAID	64,51,999	5,540,323.00
<	A) CENTRAL SECTOR SCHOLARSHIP RECEIVED	33.56.460	41.13.480		REFUNDS OF GRANTS/PROJECT A/C CORPUS		
В		16,17,020	1,15,64,180		DEPOSITS & ADVANCES		
				XI	IX CPWD, BHOPAL	40,40,000	1,00,00,000
^	VII INCOME ON INVESTMENTS FROM			×	X Digital Web World		
_ <	EARMARKED/ENDOWMENT FUNDS (E&ICT A) ACADEMY)			æ	A) P.H.E. MECHANICAL ADVANCE PAYMENT		6.21.127
<u> </u>	B) FIXED DEPOSITS	30,95,73,490	7,33,80,467	B)	B) ADVANCE FOR EXP STAFF & OTHER		
0	OTHER INVESTMENTS (SUBSIDIARY C) ACCOUNTS)	0	0	ပ်	D B CROP LTD	0	0
>	VIII INTEREST RECEIVED/ACCRUED			۵	STARTUP		
∢	A) INTEREST RECEIVED	78,60,724	53,39,433	E)	E) ADVANCE TO NICSI		
В	B)INTEREST ACCRUED ON FIXED DEPOSIT	0	0	F)		37,61,216	27,67,460
	IX INVESTMENTS ENCASHED			G)	EMD AND PBG	33,30,556	25,94,346
	TERM DEPOSITS WITH SCHEDULED BANKS ENCASHED			Î	H) SECURITY DEPOSIT-MPPKVVCL		
⋖	INVESTMENTS AND DEPOSITS MATURED A)INSTITUTE			(I) ADVANCE TO DAVP		
ω	INVESTMENTS AND DEPOSITS MATURED E& B)ICT ACADEMY			J.	J) ADVANCE TO OPTIMIZATION WORKSHOP		
	OTHER INCOME (INCLUDING PRIOR PERIOD INCOME)						
×	×			₹	K) ADVANCE TO TFRI		
¥	A)OTHER INCOMES	20,50,934	12,70,722	(T	ADVANCE TO INNOVATION PROJECT	0	0
				M)	M) OTHER PAYMENT		
ヌ	XII DEPOSITS AND ADVANCES			Ŝ	N) HALL MANAGEMENT ACCOUNT		2,52,12,633
Υ	A) SECURITY DEPOSIT	1,25,000	2,15,235	×	XI STUDENT BENEFIT ACCOUNT		
В	B) EMD AND PBG	21,49,686	39,72,256	₹	STUDENT CAUTION MONEY	38,000	9,82,691
S	C) ADVANCE TO CSAB 2013			B)	B) EXCESS DEPOSIT FEE PAID	7,20,33,214	1,18,28,283
	SECURITY DEPOSIT-MPPKVVCL D) (CONTRACTORS)		12,38,364	ပ်	C) ALUMNI ASSOCIATION SUB.PAID		
Ш	E)REFUND BY DGS&D			D)	D) PM CARES FUND	0	0
ш	F) RECEIPTS FROM AMEC/NWSG WORKSHOP			E)	E) NCOME TAX PAYABLE		
_ග	G) CPWD, BHOPAL	0	0	F)	F) ONLINE PUBLICATIONS	0	0
エ	H) ADVANCE FROM EXPENSES OF STAFF & OTHE	38,76,036	1,08,81,490	(G)	G) OTHER EXPENSES	1,86,96,108	4,02,37,740

Annual Account (FY 2022-23)



PANDIT DWARKA PRASAD MISHRA INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, DESIGN AND MANUFACTURING, JABALPUR FOR THE FINANCIAL YEAR 2022-2023 RECEIPTS & PAYMENT ACCOUNT

						APPOON
RECEIPTS	CURRENT YEAR (FY 2022-2023)	PREVIOUS YEAR (FY 2021-2022)	S.No.	PAYMENTS	CURRENT YEAR (FY 2022-2023)	PREVIOUS YEAR (FY 2021-2022)
MISCELLANEOUS RECEIPTS INCLUDING STATUTORY RECEIPTS						
			Î	H) PROVISIONS PAID	14,92,31,425	14,00,86,354
A) ASSOCIATION FEE (OTHER INSTITUION)			(I) CREDITORS PAID	22,47,42,144	16,20,47,535
B) GIS (OTHER INSTITUTES)			<u></u>	U) CLOSING BALANCES		
C) GPF (OTHER INSTITUTES)			S	K) CASH BALANCE		
	0	0	₹	XII BANK BALANCE		
E) PROFESSIONAL TAX			(A	A)i) SBI GRANT A/C	236,669	2,37,318
			B	B) ii) ALLAHABAD BANK STUDENT FEE A/C	40,635	-37714638.25
G) LABOUR WELFARE CESS		43,163		iii) ALLAHABAD BANK STUDENT FEE A/C	3,813,780	1,28,94,631
H) NEW PENSION CONT.				iv) ALLAHABAD BANK GRANT CURRENT A/C	818,829	1,81,774
I) TDS RECOVERED	87,73,851	24,73,382		v) INACOMM 2021 A/C	90,03	66,523
J) SUNDRY CREDITORS	4,06,930	6,20,014		a) ALLAHABAD BANK SERB PROJECT A/C	10,614,842	(440,705)
K)FLAG DAY CONTRIBUTION				b) ALLAHABAD PROJECT A/C	20,986,170	-2,442,001
	13,96,623	13,81,943		c) E&ICT ACADEMY A/C	15,725,903	1,84,14,870
M) FINANCIAL SOFTWARE				d) STARTUP A/C	5,958	5,797
XIV ANY OTHER RECEIPTS				e) QIP AICTE	695,577	30,91,726
A) NPS INTEREST & OTHER				vi) ALLAHABAD GRANT SAVING BANK A/C	28,426,623	-21,440,118
B) OTHER RECIEPTS	4,20,72,983	69'88'88'9		vii) SBI TICKET A/C		
C) RECIEVABLE TO STUDENT	0	0		viii) AXIS BANK	6,667,586	2,90,58,332
D) A/C RECIEVABLE				ix) HDFC BANK	1,547,192	234960363
E) RECEIVED AGAINST PAYMENT OF COMPUTER				x) Swap Facility	1,65,19,829	
F) PROJECT CONSULTANCY PAYABLE				ANY OTHER PAYMENTS		
				a) FEE RECIEVABLE STUDENT		
			IIIX	XIII b) INTEREST ON PROJECT A/C PAID		
				c) EXPENSES PAYABLE	27,01,185	25,91,430
	143,77,17,962	105,66,88,496		TOTAL	143,77,17,962	105,66,88,496

(Bhartendu K Singh)
Director

(S.D. Gadekar) Acting Registrar

(S.D. Gadekar)
Deputy Registrar (F&A)





RIGHT TO INFORMATION ACT 2005

Report (01-04-2022 to 31-03-2023)

The Institute lays emphasis on the implementation of Right to Information Act 2005. Institute has been taking initiatives to make the system transparent and trying to upload maximum information on the website suo-moto for the citizens of India. The implementation of RTI Act 2005 is ensured by the officials designated for the purpose, who are as follows:

Shri Santosh Mahobia	Smt. Swapnali D Gadekar	Prof. P N Kondekar
Assistant Registrar	Acting Registrar	Professor
Central Public Information Officer	First Appellate Authority	Transparency Officer

Other details are given below:

No. of RTI application received in the Institute 98

No. of RTI application replied by the Institute 97

No. of first appeals received by the Institute 27

No. of decisions passed by the FAA of the Institute 27

Amount collected as RTI fee and additional fee : Rs. 1040/-