



भारतीय प्रौद्योगिकी संस्थान इंदौर  
Indian Institute of Technology Indore

Annual Report  
2024-25





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## About Us

In keeping with India's vision to become a world leader in Science and Technology and to usher in a new revolution, resulting in an unprecedented economic growth, Government of India reassessed the need of technical manpower and decided to set up eight new IITs. Six of them started functioning back from the academic year 2008-09. These were established at Hyderabad, Gandhinagar, Rajasthan, Ropar, Patna and Bhubaneswar. IIT Indore and IIT Mandi started functioning from July 2009.

Indian Institute of Technology Indore located in Madhya Pradesh, known as IIT Indore or IITI, is an institute of national importance. The institution started functioning from 2009-10 in a temporary campus at Institute of Engineering and Technology of Devi Ahilya University under mentorship of IIT Bombay. Shri Arjun Singh, the then Union HRD minister, laid the foundation of the permanent campus, spread over an area of around 501.42-acre (2.1 km<sup>2</sup>), on 17th February 2009 at Simrol, a location on Khandwa Road about 25 km from the city of Indore. Since, February 2016, IIT Indore has started functioning from its permanent campus.

**Infrastructure of the Institute:** Total area 501 acres. Total Constructed area: 2,21,000 sq. mtr. and occupied during the Phase I Infrastructure development which includes 5 hostels, Academic PoD Buildings, Learning Resource Center (Central Library, Administrative Building, Lecture Hall Complex with Seminar Hall and Auditorium, Community Health Center, Central Dining Facility, 3 Residential Units, Sports Complex (Indoor), Kendriya Vidyalaya Building and Allied Services).

### Departments/Streams:

- Astronomy, Astrophysics and Space Engineering
- Biosciences and Biomedical Engineering
- Computer Science and Engineering
- Electrical Engineering
- Mechanical Engineering
- Metallurgical Engineering and Materials Science
- Chemical Engineering
- Civil Engineering
- Humanities and Social Sciences
- Physics
- Chemistry
- Mathematics

### Courses Available:

- BTech
- MSc, MSc+PhD dual degree
- MS (Research), MS (Research)+PhD dual degree
- MS Degree in Data Science and management (MS-DSM)
- MSDSM
- BTech + MTech Dual degree
- MTech, MTech+PhD dual degree
- Student Exchange Program (SEP)
- PhD
- Bachelor of Design (B. Des)



## Mission

The driving force behind the 21st Century is the development of knowledge-intensive societies. It has led to establishment of new Institutes of higher learning in India. Indian Institute of Technology Indore, established in 2009, is part of the initiative that envisages India as a global knowledge and technology leader. Continuing with the tradition of the older IITs, IIT Indore aims to play an active role in propelling India on her growth-trajectory by focusing on research-based education and innovation driven research and entrepreneurship. IIT Indore aims to achieve this mission with humanistic concerns.



## Vision

### Academics

- To inculcate and promote an academic community with independence of thought and free expression of research and innovation ideas.
- To provide a balance of continuously updated knowledge with an extensive hands-on training on sophisticated facilities.
- To start new academic programs in the futuristic areas such as data science, electric vehicles, intelligent transport system, space engineering, Indian scientific knowledge, etc.
- To increase internationalization of the Institute by selecting increasing number of international students and engaging distinguished international faculty in teaching and research.
- To increase candidates from Industries, Defense forces, and Engineering Institutions in different PG and PhD programs.
- To increase involvement of adjunct faculty from Industries for teaching, research, and innovation.
- To involve experts from reputed industry and Foreign Universities for curricula design.

### Research, Development, and Entrepreneurship

- Promote inter-disciplinary research in science, engineering, and humanities and social sciences.
- Conduct disruptive and social impacting research some chosen areas such as sustainable development, climate change, food and water security.
- Promote industry-oriented research leading to new products, processes, and technologies.
- Focus on convergence of life sciences, medical sciences, and agricultural sciences with engineering.
- Promote culture of start-ups and entrepreneurship by establishing of Industrial Research Park which will be a focal point in Central India.
- Aggressive patenting and protection of IPR.



## Objectives

- Enhancement of Academic, Technological, and Social outreach of the Institute through societal research, education, healthcare, sanitation, and rural development.
- Development of world-class research and learning facilities for industries, teaching, and research institutions.
- Skill development and scaling up the research and innovation towards the national requirements.
- To contribute to the development of world-class technological innovation in Engineering and Biomedical instrumentation, Defense, E-vehicles, alternate energy resources, etc.



## *Director's Message*

It is my privilege to present this Annual Report of IIT Indore for the FY 2024-25, reflecting a year marked by purposeful growth, academic innovation, and deepening engagement with society. The Institute continues to consolidate its position as a Centre of Excellence In Education, Research, and Technology Development, guided by a commitment to nurturing talent and contributing meaningfully to national progress.

Over the years, IIT Indore has emerged as a vibrant Institute with a culture that encourages critical thinking, creativity, and collaboration. Our academic philosophy is firmly aligned with the vision of the National Education Policy, emphasizing interdisciplinary learning, flexibility in curriculum, and the integration of industry experience into the classroom. IIT Indore offers a broad and flexible spectrum of around 60 academic programmes across engineering, sciences, and interdisciplinary domains. Our BTech, MTech, MS (Research), and PhD programmes span traditional core fields as well as emerging areas such as Computing, Space Sciences, Materials Engineering, Mathematical & Computational Sciences and Design. These programmes, innovative pedagogical practices, and expanded learning pathways have enriched the academic environment and empowered our students to explore beyond traditional boundaries.

Research remains a defining strength of the Institute. The past year witnessed sustained progress in fundamental, applied, and translational research across diverse domains. Our efforts in deep-tech, healthcare technologies, smart systems, digital solutions, and sustainability-driven innovations reflect our resolve to address real-world challenges with scientific rigor and societal relevance. A strong emphasis has been placed on translational research, particularly in the domain of digital healthcare, where our efforts span AI-enabled diagnostics, wearable sensing systems, and healthcare accessibility solutions. These concerted efforts has led the Institute to undertake an extensive portfolio of sponsored research, consultancy, and collaborative projects with cumulative worth running into several hundred crores, supported by national agencies, industries, and international partners.

Being entrusted with the responsibility of serving as a hub and mentoring neighbouring institutions under the ANRF PAIR programme, is a recognition of our academic strengths. Through this initiative, we will

guide partner institutions in capacity building, research enhancement, and the adoption of innovative academic practices, further strengthening the educational landscape of the region.

IIT Indore is contributing to sustainable development through its work in Narmada River Basin Management, using scientific modelling, environmental analytics, and policy-oriented studies to support long-term water security and ecological conservation in the region. We are also proud to host an Agri Hub – a Centre of Excellence in the domain of genomics and phenomics, dedicated to improving seed quality, crop resilience, and enabling precision farming powered by AI and Machine Learning. This Centre strengthens the nation’s agricultural innovation capacity and helps farmers transition to data-driven, sustainable practices.

Entrepreneurship and Innovation continue to flourish through our incubation and mentorship ecosystem, which enables young innovators to translate their concepts into viable solutions. The Institute’s culture inspires students and researchers to think boldly, act responsibly, and develop an entrepreneurial mindset with a strong social conscience.

Over the next five years, IIT Indore seeks to strengthen its position as a leading institution of knowledge, innovation, and societal impact. The Institute will deepen its societal connect through focused outreach and rural engagement, expand translational research with emphasis on digital healthcare and sustainability, and enhance collaboration with industry to drive joint R&D, skilling, and technology adoption. We aim to foster a vibrant culture of innovation and entrepreneurship, supported by incubation, mentorship, and industry partnerships. Student learning experiences will be further enriched through flexible curricula and experiential approaches aligned with NEP-2020.

I extend my heartfelt appreciation to our faculty, students, staff, alumni and partners whose dedication and vision drive the Institute forward. Together, we will continue to build an institution that not only stands for academic excellence but also for integrity, inclusivity, and service to humanity.

**Suhas S Joshi**

Director IIT Indore

## Board of Governors, IIT Indore



### Chairperson

**Dr. K. Sivan**

Indian Institute of Technology Indore

### Members

**Professor Suhas S. Joshi**

Director, Indian Institute of Technology Indore

**Shri S.K. Barnwal**

Additional Secretary (TE), Govt. of India,  
Ministry of Education, New Delhi

**Shri Raghuraj Rajendran, IAS**

Principal Secretary  
Department of Technical Education & Skill Development,  
Govt. of Madhya Pradesh

**Prof. Yogesh M. Joshi**

Department of Chemical Engineering, IIT Kanpur

**Prof. Preeti A. Bhoje** (Senate Nominee up to February 6, 2025)

Department of Physics  
Indian Institute of Technology Indore

**Prof. Prabhat Kumar Upadhyay** (Senate Nominee up to February 6, 2025)

Department of Electrical Engineering  
Indian Institute of Technology Indore

**Prof. Aruna Tiwari**, (Senate Nominee w.e.f. February 7, 2025)

Department of Computer Science and Engineering  
Indian Institute of Technology Indore

**Prof. Biswarup Pathak** (Senate Nominee w.e.f. February 7, 2025)

Department of Chemistry  
Indian Institute of Technology Indore

**Mr. S. P. Hota**

Registrar and Secretary to BoG  
Indian Institute of Technology Indore

## Institute Functionaries



**Dean, Academic Affairs**  
Prof. Vipul Singh



**Dean, Educational Outreach**  
Prof. Devendra L. Deshmukh



**Dean, Administration**  
Prof. Sandeep Chaudhary



**Dean, Research & Development**  
Prof. I. A. Palani  
(upto February 9, 2025)



**Director, IIT Indore**  
Prof. Suhas S. Joshi



**Dean, Infrastructure Development**  
Prof. Manish Kumar Goyal



**Dean, International Relations**  
Prof. Avinash Sonawane



**Dean, Alumni and Corporate Relations (ACR)**  
Prof. Suman Mukhopadhyay



**Registrar, IIT Indore**  
Mr. S. P. Hota



**Dean, Research and Development**  
Prof. Abhirup Datta  
(w.e.f February 10, 2025)



**Dean, Faculty Affairs**  
Prof. Abhishek Srivastava



**Dean, Student Affairs**  
Prof. Srivathsan Vasudevan



**Dean, IT Infrastructure & Automation**  
Prof. Satya S. Bulusu  
(w.e.f. December 16, 2024)

## Associate Deans

Academics (PG/Ph.D Programs)	:	Dr. Somnath Dey (w.e.f. September 18, 2024)
Academics (Infrastructure)	:	Prof. Rajesh Kumar
Academics (UG Programs)	:	Prof. Ankhi Roy
Faculty Affairs	:	Prof. Amod C. Umarikar
Research and Development- I	:	Prof. Trapti Jain
Research and Development- II	:	Dr. Bodhisatwa Mazumdar (up to February 28, 2025)
Administration (HR & Policy)	:	Prof. Nirmala Menon
Administration (Finance & MMS)	:	Dr. Santosh Hosmani (up to September 30 2024)
Administration (Finance & MMS)	:	Prof. Pavan K. Kankar (w.e.f October 1, 2024)
Student Affairs	:	Dr. Sanjeev Singh

## Heads of Departments

Humanities and Social Sciences	:	Prof. Ruchi Sharma
Computer Science & Engineering	:	Dr. Ranveer Singh
Electrical Engineering	:	Prof. Vivek Kanhangad
Mechanical Engineering	:	Prof. Shanmugam Dhinakaran
Chemistry	:	Prof. Tushar Kanti Mukherjee
Mathematics	:	Dr. Sanjeev Singh (w.e.f. January 01, 2025) Dr. Niraj Kumar Shukla (upto December 31, 2024)
Physics	:	Prof. Preeti A. Bhobe
Astronomy, Astrophysics and Space Engineering	:	Dr. Saurabh Das (w.e.f February 25, 2025) Prof. Abhirup Datta (upto February 24, 2025)
Biosciences and Biomedical Engineering	:	Dr. Parimal Kar
Metallurgical Engineering and Materials Science	:	Dr. Ajay Kumar Kushwaha
Civil Engineering	:	Dr. Abhishek Rajput

## Professor In-charge of Centres

Center of Advanced Electronics	: Dr. Vivek Kanhangad
Computer and Information Technology Center	: Dr. Neminath Hubballi (up to December 15, 2024)
Center of Futuristic Defense and Space Technology	: Dr. Indrasen Singh
Centre for Entrepreneurship Education and Development:	: Prof. Shaikh M. Mobin (w.e.f March 01, 2025) Dr. Swaminathan R. (up to February 28, 2025)
Center for Rural Development and Technology	: Dr. Debayan Sarkar
DST-FIST Center of Excellence in Gear Engineering	: Prof. Neelesh Kumar Jain
Sophisticated Instrument Center (SIC)	: Prof. Apurba K. Das
Center for Indian Scientific Knowledge Systems	: Prof. G. S. Murthy
Center for Electric Vehicle and Intelligent Transport Systems	: Prof. Amod C. Umarikar
Training & Placement	: Prof. Pavan K. Kankar (up to September 30, 2024) Dr. Ankur Miglani (w.e.f October 01, 2024)
Central Workshop	: Dr. Dan Sathiaraj

## Senate Meeting during April 2024 to March 2025

1	42 <sup>nd</sup> Senate Meeting	17.04.2024
2	43 <sup>rd</sup> Senate Meeting	15.05.2024
3	44 <sup>th</sup> Senate Meeting	09.07.2024
4	45 <sup>th</sup> Senate Meeting	07.08.2024
5	46 <sup>th</sup> Senate Meeting	25.09.2024
6	47 <sup>th</sup> Senate Meeting	20.11.2024
7	48 <sup>th</sup> Senate Meeting	26.12.2024
8	49 <sup>th</sup> Senate Meeting	23.01.2025
8	50 <sup>th</sup> Senate Meeting	19.02.2025
9	51 <sup>st</sup> Senate Meeting	12.03.2025
10	52 <sup>nd</sup> Senate Meeting	26.03.2025

## BoG Meeting during April 2024 to March 2025

1	53 <sup>rd</sup> BoG Meeting	30.05.2024
2	54 <sup>th</sup> BoG Meeting	11.07.2024
3	55 <sup>th</sup> BoG Meeting	25.11.2024
3	56 <sup>th</sup> BoG Meeting	21.03.2025

## Members of Senate of IIT Indore

### Chairman

**Prof. Suhas S. Joshi**

Director, IIT Indore

### External Experts

**Prof. Himanshu Rai**

**Shri Unmesh D. Malshe**

**Prof. Abhiram G. Ranade**

Director, IIM Indore

Director, RRCAT

Professor, IIT Bombay

### Deans

**Prof. Vipul Singh**

**Prof. Sandeep Chaudhary**

**Prof. Avinash Sonawane**

**Prof. Manish Kumar Goyal**

**Prof. Abhirup Datta**

**Prof. Srivathsan Vasudevan**

**Prof. Suman Mukhopadhyay**

**Prof. Abhishek Srivastava**

**Prof. Devendra L. Deshmukh**

**Prof. Satya S. Bulusu**

Dean, Academic Affairs

Dean, Administration

Dean, International Relations

Dean of Infrastructure Development

Dean, Research and Development

Dean, Student Affairs

Dean, Alumni and Corporate Relations

Dean, Faculty Affairs

Dean, Educational Outreach

Dean, IT Infrastructure & Automation

### Head of Departments

**Dr. Abhishek Rajput**

**Dr. Ranveer Singh**

**Prof. Vivek Kanhangad**

**Prof. Shanmugam Dhinakaran**

**Dr. Ajay Kumar Kushwaha**

**Dr. Parimal Kar**

**Dr. Saurabh Das**

**Prof. Tushar Kanti Mukherjee**

**Dr. Sanjeev Singh**

**Prof. Preeti A. Bhobe**

**Prof. Ruchi Sharma**

HOD, Civil Engineering

HOD, Computer Science and Engineering

HOD, Electrical Engineering

HOD, Mechanical Engineering

HOD, Metallurgical Engineering and Materials Science

HOD, Biosciences and Biomedical Engineering

HOD, Astronomy, Astrophysics and Space Engineering

HOD, Chemistry

HOD, Mathematics

HOD, Physics

HOD, Humanities and Social Sciences

## Professors

Prof. Neelesh Kumar Jain	Mechanical Engineering
Prof. Anand Parey	Mechanical Engineering
Prof. Ram Bilas Pachori	Electrical Engineering
Prof. Abhinav Kranti	Electrical Engineering
Prof. Vimal Bhatia	Electrical Engineering
Prof. Rajneesh Misra	Chemistry
Prof. Suman Mukhopadhyay	Chemistry
Prof. Subhendu Rakshit	Physics
Prof. Krushna R. Mavani	Physics
Prof. Sarika Jalan	Physics
Prof. Sandeep Chaudhary	Civil Engineering
Prof. Avinash Sonawane	Biosciences and Biomedical Engineering
Prof. G. S. Murthy	Biosciences and Biomedical Engineering
Prof. Santosh Kumar Vishvakarma	Electrical Engineering
Prof. Shaibal Mukherjee	Electrical Engineering
Prof. Vipul Singh	Electrical Engineering
Prof. Prabhat Kumar Upadhyay	Electrical Engineering
Prof. Trapti Jain	Electrical Engineering
Prof. Mukesh Kumar	Electrical Engineering
Prof. Manish Kumar Goyal	Civil Engineering
Prof. Neelima Devarakonda Satyam	Civil Engineering
Prof. Palani Iyamperumal Anand	Mechanical Engineering
Prof. Bhupesh Kumar Lad	Mechanical Engineering
Prof. Santosh Kumar Sahu	Mechanical Engineering
Prof. Ritunesh Kumar	Mechanical Engineering
Prof. Dhinakaran Shanmugam	Mechanical Engineering
Prof. Aruna Tiwari	Computer Science and Engineering
Prof. Abhishek Srivastava	Computer Science and Engineering
Prof. Kapil Ahuja	Computer Science and Engineering
Prof. Abhirup Datta	Astronomy, Astrophysics and Space Engineering
Prof. Amit Kumar	Biosciences and Biomedical Engineering
Prof. Prashant Kodgire	Biosciences and Biomedical Engineering
Prof. Sk. Safique Ahmad	Mathematics
Prof. Apurba Kumar Das	Chemistry
Prof. Sampak Samanta	Chemistry
Prof. Sanjay Kumar Singh	Chemistry
Prof. Biswarup Pathak	Chemistry
Prof. Nirmla Menon	Humanities and Social Sciences
Prof. Pritee Sharma	Humanities and Social Sciences
Prof. Ruchi Sharma	Humanities and Social Sciences
Prof. Preeti Anand Bhohe	Physics
Prof. Rajesh Kumar	Physics

**Prof. Sudeshna Chattopadhyay**

**Prof. Parasharam M. Shirage**

**Prof. Swadesh K. Sahoo**

**Prof. Raghunath Sahoo**

**Prof. Amod C. Umarikar**

**Prof. Vivek Kanhangad**

**Prof. Srivathsan Vasudevan**

**Prof. Devendra L. Deshmukh**

**Prof. Pankaj Ramesh Sagdeo**

**Prof. Ankhi Roy**

**Prof. Somaditya Sen**

**Prof. Mobin Shaikh**

**Prof. Tushar Kanti Mukherjee**

**Prof. Anjan Chakraborty**

**Prof. Satya Silendra Bulusu**

**Prof. Chelvam Venkatesh**

**Prof. Kiran Bala**

**Prof. Mirza Saqib Baig**

**Prof. Anirban Sengupta**

**Prof. Neminath Hubballi**

**Prof. Rupesh Shivaji Devan**

**Prof. Santosh Sattappa Hosmani**

**Prof. Antony Vijesh Villavarayan**

**Prof. Niraj Kumar Shukla**

**Prof. Satyajit Chatterjee**

**Prof. Kazi Sabiruddin**

**Prof. Pavan Kumar Kankar**

**Prof. Sharad Gupta**

**Prof. Surya Prakash**

**Prof. Somnath Dey**

**Prof. Sanjaram Premjit Khanganba**

**Prof. M. Tanveer**

**Prof. Shailesh Kundalwal**

Physics

Metallurgical Engineering and Materials Science

Mathematics

Physics

Electrical Engineering

Electrical Engineering

Electrical Engineering

Mechanical Engineering

Physics

Physics

Physics

Chemistry

Chemistry

Chemistry

Chemistry

Chemistry

Biosciences and Biomedical Engineering

Biosciences and Biomedical Engineering

Computer Science and Engineering

Computer Science and Engineering

Metallurgical Engineering and Materials Science

Metallurgical Engineering and Materials Science

Mathematics

Mathematics

Mechanical Engineering

Mechanical Engineering

Mechanical Engineering

Biosciences and Biomedical Engineering

Computer Science and Engineering

Computer Science and Engineering

Humanities and Social Sciences

Mathematics

Mechanical Engineering

### Other Authorities

**Dr. Saptarshi Ghosh**

**Dr. Sharad Gupta**

**Dr. Anand Petare**

Chief Warden

Convener, Health Center Advisor Committee

Workshop Superintendent, Central Workshop

### Secretary

**Mr. S. P. Hota**

Registrar, IIT Indore

## Academic Affairs

The Academic Affairs office of the Institute is headed by the Dean of Academic Affairs, supported 3 by Associate Deans and Administrative Team for overseeing the strategic planning and execution of all academic activities for students enrolled in various academic programs of the Institute. This office operates in accordance with a planned Academic calendar, which is prepared every semester to ensure that the academic curriculum of each program adheres to the guidelines, rules, and policies established by the institute's senate.

### Team Academic Office



**Prof. Vipul Singh**  
Dean of Academic Affairs  
(DOAA)



**Prof. Somnath Dey**  
Associate Dean of  
Academic Affairs  
(PG and PhD)



**Prof. Ankhi Roy**  
Associate Dean of  
Academic Affairs (UG)



**Prof. Rajesh Kumar**  
Associate Dean of  
Academic Affairs  
(Academic Infrastructure)



The Academic Affairs Office continues to function as the backbone of the Institute's academic framework. As the central coordinating unit, it oversees the planning, implementation, and seamless execution of all academic activities across undergraduate, postgraduate, and doctoral programs. Working in close collaboration with academic departments, faculty members, and Institute-level committees, the office ensures that every academic process adheres to the rules and policies established by the Institute Senate.

A meticulously prepared semester-wise Academic Calendar guides teaching, learning, and evaluation activities each year, providing structure and consistency to the academic ecosystem. Through continuous monitoring, proactive support, and timely facilitation, the office remains committed to upholding the Institute's standards of excellence, integrity, and student-centric development.

### Main highlight of activities of Academic Office

#### 1. Admissions & Student On boarding

- Successfully organized the Orientation and Registration Programme for newly admitted students: UG (450), PG (343), and Ph.D. (215), ensuring a smooth and welcoming start for all incoming batches.
- Introduced the first-ever spot admission round for M.Tech programs, enabling the Institute to fill 32 vacant seats remaining after COAP rounds.

#### 2. Academic Operations & Program Management

- Ensured the smooth functioning of ongoing UG, PG, and Ph.D. programs, encompassing curriculum reviews, academic guidance, exam conduction, and timely result processing, thereby maintaining efficiency across the academic cycle.
- The Institute currently offers a diverse portfolio of programs, including:
  - **9 B.Tech programs**
  - **15 M.Tech programs**
  - **5 M.Sc. programs**
  - **6 M.S. (Research) programs**
  - **Ph.D. programs across 17 disciplines**

This reflects IIT Indore's commitment to both breadth and depth in higher education.

#### 3. NEP 2020 Implementation & Curriculum Advancements

- Strengthened the implementation of **NEP 2020 reforms**, including the development of multidisciplinary programs, introduction of innovative and contemporary courses, and expansion of flexible academic pathways aligned with emerging research and industry needs.
- Expanded elective options under the NEP framework for UG students. Starting with the **2023 batch**, students now have access to a wider range of departmental and institute-wide electives from as early as their **second semester**.

#### 4. New Pedagogical Initiatives

- Enhanced engagement with **industry professionals**, aligned with NEP 2020 objectives. Plans are underway to offer select B.Tech courses—especially in areas such as **AI, data science, and climate change**—to qualified industry experts, with provisions for **Academic Bank of Credits integration**.
- Continued promotion of **Do-It-Yourself (DIY)** and **project-centric learning**. The **Maker Space** course, introduced for first-year students, has fostered hands-on innovation, conceptual design skills, and prototype development.

## 5. Student Development & Well-Being

- Organized a **7-day Life Skills Development Workshop** for newly joined B.Tech students, focusing on physical, mental, and social well-being to ensure a smooth transition into the academic environment.
- With a vibrant community of **~3100 students and 210+ faculty members**, the Institute continues to provide an intellectually stimulating and enriching learning environment.

## 6. Digital Learning Initiatives

- Actively participated in national digital-learning platforms. Courses through **NPTEL** and **SWAYAM** were made available to students.
- Several faculty members collaborated with the Ministry to record high-quality **web and video lectures** for major engineering and science subjects at UG, PG, and Ph.D. levels.

## 7. Convocation

- Efficiently planned and executed the **13<sup>th</sup> Convocation of IIT Indore (2025)**, during which **814 students** were awarded degrees across various disciplines. The event celebrated the academic accomplishments of the graduating batch and marked a significant milestone for the Institute.

Summary of 814 students who have completed all the prescribed requirements for the award of degree during 13<sup>th</sup> Convocation of the Institute.

Program	Department	Female	Male	Total
<b>B.Tech.</b>	Civil Engineering	8	34	42
	Computer Science and Engineering	20	63	83
	Electrical Engineering	18	69	87
	Mechanical Engineering	18	65	83
	Metallurgical Engineering & Materials Science	8	37	45
<b>Total</b>		<b>72</b>	<b>268</b>	<b>340</b>
<b>M.Sc.</b>	Astronomy, Astrophysics and Space Engineering	3	11	14
	Biosciences and Biomedical Engineering	12	8	20
	Chemistry	10	16	26
	Mathematics	6	13	19
	Physics	3	24	27
<b>Total</b>		<b>34</b>	<b>72</b>	<b>106</b>
<b>M.Tech.</b>	Astronomy, Astrophysics and Space Engineering	2	7	9
	Biosciences and Biomedical Engineering	1	6	7
	Center for Electric Vehicles and Intelligent Transport Systems	0	8	8
	Civil Engineering	1	16	17
	Computer Science and Engineering	2	14	16
	Electrical Engineering	3	20	23
	Mechanical Engineering	4	36	40
	Metallurgical Engineering and Materials Science	0	12	12
<b>Total</b>		<b>13</b>	<b>119</b>	<b>132</b>
<b>B.Tech. + M.Tech.</b>	Mechanical Engineering	0	1	1
<b>Total</b>		<b>0</b>	<b>1</b>	<b>1</b>
<b>MS (Research)</b>	Computer Science and Engineering	2	9	11
	Electrical Engineering	1	6	7
	Humanities and Social Sciences	2	0	2
	Mechanical Engineering	0	5	5
	Space Science and Engineering	1	3	4
<b>Total</b>		<b>6</b>	<b>23</b>	<b>29</b>

<b>MSDSM</b>	MS in Data Science and Management	47	28	<b>75</b>
<b>Total</b>		<b>47</b>	<b>28</b>	<b>75</b>
<b>PhD</b>	Astronomy, Astrophysics and Space Engineering	3	4	7
	Biosciences and Biomedical Engineering	3	5	8
	Chemistry	12	25	37
	Civil Engineering	1	1	2
	Computer Science & Engineering	2	6	8
	Electrical Engineering	6	15	21
	Humanities and Social Sciences	3	5	8
	Mathematics	5	2	7
	Mechanical Engineering	1	10	11
	Metallurgical Engineering and Materials Science	1	10	11
Physics	1	10	11	
<b>Total</b>		<b>38</b>	<b>93</b>	<b>131</b>
<b>Grand Total</b>		<b>210</b>	<b>604</b>	<b>814</b>

## Medal Winners and Graduating Students

Indian Institute of Technology Indore

13<sup>th</sup> Convocation 2025:  
Recipients of Medals and Awards

### THE PRESIDENT OF INDIA GOLD MEDAL

For the best academic performance among all the UG graduating students



**Mr. Kadam Madhav Mukund**

B.Tech. (CSE)  
Roll No. 210001027

### INSTITUTE SILVER MEDAL

For the best academic performance among all the graduating UG students of particular Department



**Mr. Krish Agrawal**

B.Tech. (CSE)  
Roll No. 210001034



**Mr. Harman Singh Bagga**

B.Tech. (EE)  
Roll No. 210002036



**Mr. Divyam Pandey**

B.Tech. (ME)  
Roll No. 210003030



**Mr. Kshitij Kesarwani**

B.Tech. (CE)  
Roll No. 210004022



**Mr. Ishan Mohan Shrivastava**

B.Tech. (MEMS)  
Roll No. 210005021

### INSTITUTE SILVER MEDAL

For the best overall performance among all the graduating PG students (MTech. and M.Sc. Programs)



**Mr. Omkar Rajesh Kokane**

M.Tech. (EE)  
Roll No. 2302102023



**Mr. Soumalya Das**

M.Sc. (BSBE)  
Roll No. 2303171016

## BUTI FOUNDATION GOLD MEDAL

For the best academic performance among all the graduating female PG students



**Ms. Madhu Trivedi**

M.Tech (CE)

Roll No. 2302104002

## VPP MENON GOLD MEDAL

For the outstanding PhD Dissertation work by a female student



**Dr. Justy Joseph**

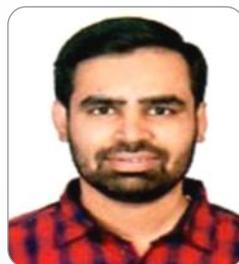
PhD (HSS)

Roll No. 1901261006

Thesis Title: *“Partitioned Histories and Beyond: A Semi-Automated Approach to Identification and Mitigation of Linguistic Biases In 1947 Partition Narratives”*

## AGAM PRASAD MEMORIAL GOLD MEDAL

For the outstanding PhD Dissertation work



**Dr. Tanmay Vyas**

PhD (BSBE)

Roll No. 2001171008

Thesis Title: *“Carbon Quantum Dots (CQDS) Based Fluorescent Thin Film Sensors For Environmental Monitoring”*

**SHRI. GANTI SUBBA RAO &  
SMT. GANTI VENKATA RAMANI AWARD**

For the outstanding PhD Dissertation work



**Dr. Aditya Anshul**  
PhD (CSE)  
Roll No. 2101101007

Thesis Title: *“Alternative Paradigms of Hardware Security for Addressing Threats of IP Piracy and Trojan during High Level Synthesis”*

**INSTITUTE GOLD MEDAL**

For the best all round performance among all the graduating students



**Mr. Aditya Guhagarkar**  
B.Tech (EE)  
Roll No. 210002005

## BEST B.TECH. PROJECT (BTP) AWARD

Amongst all the graduating UG student



**Ms. Polisetti Sai Meghana**

BTech (CE)

Roll No. 210004032

Project Title: *“Performance Comparison of Novel and Conventional Geogrids in Flexible Pavements: Incorporating Carbon Footprint Assessment”*

## MSDSM SILVER MEDAL

For the best overall performance among all the graduating students (MSDSM Programs)



**Mr. Amit Kumar**

Roll No. 2304107008

## Rankings

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IIT Indore has been ranked 556<sup>th</sup> in the QS World University Rankings 2026. It is 12<sup>th</sup> among Indian Universities and has emerged once again as the highest among the second-generation IITs. The universities are judged across 09 key ranking indicators include – Academic and Employer Reputation, Citations per Faculty, Faculty-Student ratio, International Students, International Faculty, International Research Network, Sustainability, and Employment Outcomes to provide the most comprehensive and balanced comparisons available. This year’s QS World University Rankings included almost 1,501 institutions (includes 54 institutions from India) from around the world including universities from diverse locations across Europe, Asia and North America.

In the recently released “India Rankings 2024 by NIRF, Ministry of Education”, IIT Indore is positioned 16<sup>th</sup> among engineering institutions in the country. In this category, institutions are judged across 05 key ranking parameters that includes academics, research, graduation outcome, outreach & inclusivity, and perception. Also, IIT Indore is positioned at 33<sup>rd</sup> in Overall and 27<sup>th</sup> in Research category respectively.

Prof. Suhas S. Joshi, the Director, congratulated the IIT Indore community and urged them to pursue their research and academic activities with diligence, which will contribute to the growth of the Institute and pave the way for more global recognition in the future.

## Faculty Affairs

The Faculty Affairs Office deals with all administrative matters related to the faculty members. It maintains administrative records from recruitment to relieving of the faculty members. The Office is headed by Professor Abhishek Srivastava, Dean of Faculty Affairs, assisted by Prof. Amod C. Umarikar - Associate Dean, Mr. Rajan Thomas - Assistant Registrar, Mr. Sunil Sawle - Section Officer, Mr. Shishir Kumar - Junior Hindi Translator, Mr. Sunny Namdev - Senior Assistant and Ms. Pinaz Daniel - PA to DOFA.

### This office enables the following tasks:

- Conduct of recruitment drives and appointment of permanent/contractual/visiting/distinguished/emeritus faculty members in various Departments/Schools.
- Joining formalities of newly joined faculty members.
- Maintenance of Service Records and Personal Files of faculty members.
- Processing of all service matters, including pay revision, upgradation and conversion, leave, LTC, dependent list, deputation, annual increment, extension of tenure for contractual appointments, confirmation, NPS etc.
- Regular updation of service details.
- Providing responses to MHRD/RTI Queries and Lok Sabha/Rajya Sabha questionnaires.

### Some of the major works undertaken during the year 2024-25 are as follows:

- Conducted Teachers Day Program and Superannuation function for Prof. Narendra S. Chaudhari, being first retired Faculty member of IIT Indore.
- Conducted Faculty Picnic for get-together & stress management with the object of betterment of mental & physical health of Teaching members.
- Formulated various policies for standardization of rules and procedures.
- Streamlined the joining formalities to ensure minimal movement and faster adaptation of the newly joined member to the new environment.
- Timely provision of LTC to faculty members.
- Facilitated new faculties for accommodation arrangements outside the IIT Campus.

Faculty positions filled as on 31st March 2025:

Designation	Strength
Professor	75
Associate Professor	46
Assistant Professor Grade I	79
Assistant Professor Grade II	12
<b>Total</b>	<b>212</b>

The number of faculty members joined service at IIT Indore during the year 2024-25 is 12 and details are as follows:

Designation	Strength
Assistant Professor Grade I	06
Assistant Professor Grade II	06
<b>Total</b>	<b>12</b>

**A total of 33 faculty members were upgraded to Professor (6), Associate Professor (11) and (16) APG II converted to APG I.**

- Prof. Narendra S. Chaudhari, Professor, Department of Computer Science & Engineering, has been relieved on March 31, 2025 on his superannuation.

2. Dr. Titas Chanda, Assistant Professor, Department of Physics, relieved on July 22, 2024.
3. Dr. Sridharan Balakrishnan, Assistant Professor, Department of Civil Engineering, relieved on August 17, 2024.
4. Dr. Sunil Kumar Boda, Assistant Professor, Department of Biosciences and Biomedical Engineering relieved on September 2, 2024.
5. Dr. Deepak Gupta, Assistant Professor, Department of Physics, relieved on September 22, 2024

## Recognition and Awards Best Research Paper Award 2024-25

The details are as follows:

Title of the Research Paper	Author(s)
Secondary gravity wave propagation in tropical thermospheric region: Role of varying kinematic viscosity.	Datta, S., Das, S., & Sunda, S.
Influence of chlorpyrifos and endosulfan and their metabolites on the virulence of <i>Helicobacter pylori</i> .	Siddharth Singh, Nidhi Varshney, Siva Singothu, Vasundhra Bhandari, Hem Chandra Jha
Photosensitizer-free singlet oxygen generation via a charge transfer transition involving molecular O <sub>2</sub> toward highly efficient oxidative coupling of arylamines to azoaromatics.	S. Singh and T. K. Mukherjee
Reanalysis of the longest mass balance series in Himalaya using a nonlinear model: Chhota Shigri Glacier (India).	Azam, M. F., Vincent, C., Srivastava, S., Berthier, E., Wagnon, P., Kaushik, H., Hussain, Md. A., Munda, M. K., Mandal, A., and Ramanathan, A
Attention-guided generator with dual discriminator GAN for real-time video anomaly detection.	Rituraj Singh, Anikeit Sethi, Krishanu Saini, Sumeet Saurav, Aruna Tiwari, Sanjay Singh
Multi-Hop UAV-Based FSO System Over Doubly Inverted Gamma-Gamma Turbulence Channel.	P. Sharma, Swaminathan R, and Deepshikha Singh
RoBoSS: A Robust, Bounded, Sparse, and Smooth Loss Function for Supervised Learning.	M. Akhtar, M. Tanveer and M. Arshad
Development of concurrent multi wire feed mechanism for WAAM-TIG to enhance process efficiency.	Sadhya, S., Khan, A. U., Kumar, A., Chatterjee, S., & Madhukar, Y. K.
Identification of optimal composition with superior electrochemical properties along the zero Mn <sup>3+</sup> line in Na <sub>0.75</sub> (Mn-Al-Ni)O <sub>2</sub> pseudo ternary system.	Hari Narayanan Vasavan, Manish Badole, Samriddhi Saxena, Velaga Srihari, Asish Kumar Das, Pratiksha Gami, Neha Dagar, Sonia Deswal, Pradeep Kumar, Himanshu Kumar Poswal, Sunil Kumar
Sign of the hZZ coupling and implication for new physics.	D. Das, A. Kundu, M. Levy, A. M. Prasad, I. Saha, A. Sarkar
Diffusion in High Entropy Alloy Systems - A Review.	Vivek Verma, Calvin H. Belcher, Diran Apelian, Enrique J. Lavernia



## Department & School Profiles

### Department of Astronomy, Astrophysics and Space Engineering



#### About the Department

The Department of Astronomy, Astrophysics, and Space Engineering (DAASE), established in 2015, is the first interdisciplinary department of its kind in the IIT system. It offers PhD, M.Sc. in Astronomy, M.Tech, MS (Research), and B.Tech in Space Engineering. The department has twelve regular faculty members, one INAE Distinguished Professor, and three visiting professors engaged in advanced research projects such as the Square Kilometer Array and Aditya-L1, funded by DST, DRDO, ISRO, and other agencies. DAASE collaborates with global universities and industry, with most alumni pursuing research or careers in relevant sectors.

The department is also contributing to the Heritage and Innovation Centre in Astronomy and Space Engineering (HICASE) to advance research and innovation in Madhya Pradesh. Currently, DAASE has 38 PhD scholars, 43 PG students, and 37 UG students. Our students engage in cutting-edge research and tech development in areas like Radio and X-ray Observations of Clusters of Galaxies, Machine Learning and Big Data; Sustainability Research, Space Weather and Ionosphere: Using GNSS, NaVIC and low-frequency radio astronomy, payloads, small satellites, detector design, data analytics, imaging, and high-end numerical simulations, targeting applications in climate change, sustainable development, agriculture, defense, communication, navigation, and astronomy.

#### Academic Programs

The academic programs consist of the MSc (Astronomy), MS (Research), MTech (Space Engineering), and the PhD. In the MSc (Astronomy) program, students are admitted through JAM. The department also offers a minor degree for BTech students in Space Engineering.

Our vibrant group of faculty members aspires to create an ambience for the smooth pursuit of scholarly activities in research and training in the study of astronomy, astrophysics, and space engineering. By fostering a collaborative and innovative environment, we aim to inspire and support our students and researchers in exploring the mysteries of the universe. Our faculty is dedicated to providing high-quality education and mentorship, facilitating access to state-of-the-art facilities, and engaging in pioneering research projects. This commitment ensures that our students are well-prepared for successful careers in academia, industry, and research institutions worldwide, contributing to significant advancements in space science and technology.

Number of Faculty Members	12
Professor	01
Associate Professor	05
Assistant Professor Grade -I	06
Assistant Professor Grade -II	Nil
Visiting Professor/ INAE Fellow	04
No. of Post Doctoral Fellows	01

Programs	Student Intake	Degree Awarded
B.Tech	37	Nil
M.Sc.	27	53
M.Tech	12	18
MS (Research)	7	7
Ph.D	38	25

### Notable R&D Activities

DAASE faculty members work on several projects in the following areas:

- 1) **Heritage and Innovation Centre in Astronomy and Space Engineering (HICASE):** Contributing to the development of HICASE, aimed at advancing research and innovation in astronomy and space engineering.
- 2) **Research collaboration:** Research collaboration with RRCAT Indore.
- 3) **Astronomy and Astrophysics-** Connected to three Mega Science Projects of India – Square Kilometer Array (SKA), Thirty Meter Telescope (TMT), and LIGO India (Gravitational Wave Observatory) – Funding comes from DST, DAE, CSIR, and MoE (Ministry of Education)
- 4) **Space Technology -** Connected to a few Mega Science projects and space missions with ISRO – funding comes from ISRO, MoE, DST
- 5) **Earth and Atmospheric Sciences -** Connected to remote sensing applications and climate/weather studies – funding comes from DST, ISRO, MoES, etc.
- 6) **The Department has grown collaborations with industries who would like to use these facilities as well. The industries linked to us so far are:** Dhruva Space, Aerial IQ, Alog8, PierSight, GalaxEye Space, Impetus, Sunlife, etc.

### Notable Activities in the Department

- 1) Our faculty members and students are working on various activities:
  - i. Developed Space weather Adaptive Modelling framework (TRL 5) to complement in-situ measurements from Aditya L1, India's maiden mission to observe the Sun.
  - ii. The first article on the Search for Extra Terrestrial Intelligence (SETI) from DAASE was published in 2024 in the Monthly Notices of the Royal Astronomical Society, with significant contributions from DAASE members Priyatam Kumar (MSc Astronomy student) and Dr. Suman Majumdar (faculty).
  - iii. Radar data processing open source software, "PYIWR," has been developed.
  - iv. Investigated broadband variability and spectral emission from the neutron star X-ray binary Z-source using the Indian mission AstroSat and the NASA mission NICER, putting constraints on the stellar properties and accretion fluctuations.

- v. Digital backend development for the IIT Indore interferometer.
  - vi. Urban tree mapping and biomass loss characterization for Indore.
  - vii. Participated in Indian Arctic Expedition in 2024 and 2025.
- 2) Organized a SPARC-sponsored in-person course on Numerical Radiative Transfer (15-24 January 2024) at IIT Indore. The instructor of the course was Prof. Ilian T. Iliev, University of Sussex, UK.
  - 3) In our department, two students were awarded the PMRF fellowship (Mr. Keshav Aggarwal and Mr. Sirsha Nandy).
  - 4) International Linkages: 3 SPARC projects, 2 DST-SIRE projects, 1 Max Planck Partner Grant.
  - 5) Several high-impact publications.
  - 6) Organized international conferences: IRAD Conference, January 2024.
  - 7) Capacity-building activities, including workshops, National Space Day celebrations, and hands-on training sessions in astronomy and space engineering.
  - 8) Active international research through 3 SPARC projects, 2 DST-SIRE projects, and 1 Max Planck Partner Grant.
  - 9) Organized IRAD 2024 and a SPARC course on Numerical Radiative Transfer (Jan 2024), led by Prof. Ilian T. Iliev, University of Sussex (UK).
  - 10) Two students (Mr. Keshav Aggarwal, Mr. Sirsha Nandy) were awarded the prestigious PMRF Fellowship.

### Project

Project	Sponsored	Consultancy
New Projects	8	-
Ongoing Projects	18	-
Completed	9	1

### Publications

Details	Books Published	Chapters in Books	Papers in Conference	Papers in Journals
Total	1	-	38	46

## Department of Biosciences and Biomedical Engineering



### About the Department

Department of Biosciences and Biomedical Engineering (BSBE) at the Indian Institute of Technology Indore was founded in July 2012 with a vision of establishing a Center of Excellence that will focus on human resource development and research in Biosciences, Bioengineering, and Biomedical Engineering. The Department of BSBE aims to be internationally recognized in Bio-related areas and produce the leaders of tomorrow in the field, with the integrated use of training and career development efforts to improve individual, group, and organizational effectiveness.

### Academic Programs

The academic programs consist of the MSc (Biotechnology), M.Tech. (Biomedical Engineering), M.Tech. (Biomedical Devices) and PhD. In the MSc (Biotechnology) program, students are admitted through JAM & GAT-B.

M.Tech (2-Year), M.Tech. + Ph.D. Dual Degree in Biomedical Engineering started from AY 2023-2024 while M.Tech (2-Year), M.Tech. + Ph.D. Dual Degree in Biomedical Devices will commence from AY 2025-2026. The department also offers a minor degree for B.Tech students in Biomedical Engineering. The department intends to start B.Tech Programme.

Our vibrant group of faculty members aspire to create an ambience for the smooth pursuit of scholarly activities in research as well as training on the study of life and living organisms, ranging from simple bacteriophage to complex multicellular organisms such as humans; with the focus being on structure, function, growth, origin, evolution, distribution, and taxonomy. In addition to basic biology research, the BSBE department seeks to contribute to applied research on practical problems in the country.

Number of Faculty Members	14
Professor	07
Associate Professor	03
Assistant Professor Grade-I	04
Assistant Professor Grade -II	00
No. of Post Doctoral Fellows	03

Programs	Student Intake	Degree Awarded
MSc	20	20
M. Tech	07	07
Ph.D	16	06

### Notable R&D Activities

- Prof. Amit Kumar's research group has identified several potent drugs for which seven different patents are filed and also received the best research paper award 2023.
- Prof. Prashant Kodgire's group's recent study is the first report on the interaction of genome mutator enzyme AID with UBN1, nevertheless, the fate of interaction between UBN1 and AID is yet to be explored in the context of SHM or CSR.
- Dr. Parimal Kar's research group has identified novel inhibitors for neurodegenerative diseases targeting dual leucine zipper kinase through virtual screening and molecular dynamics simulations.
- Dr. Baig's research has introduced a novel mechanism in understanding the host's response to infections and has contributed to the search for innovative therapeutic targets in chronic inflammatory diseases and cancer. This research encompasses innovative small molecules, peptides, and combination therapies.
- Dr. Hem C. Jha has filed patents for screening of virus induced Neurological disorders, and their treatment.
- Dr. Kiran Bala's research group is exploring Novel peptides and bioactive compounds as DPP-IV inhibitors from magneto-primed soybean seeds and algae species for diabetes treatment and on Cost effective production and optimization of Gamma-Aminobutyric Acid (GABA) using agro-wastes

### Projects

Project	Sponsored	Consultancy
New Projects	12	NIL
Ongoing Projects	22	NIL
Completed	28	01

### Publications

Details	Books Published	Chapters in Books	Papers in Conference	Papers in Journals
Total	01	09	09	124

## Department of Chemical Engineering



### About the Department

Department of Chemical Engineering at the Indian Institute of Technology Indore is one of the youngest departments in the Institute, set up in July 2023. The mission of the department is to train engineers and scientists who will work on cutting-edge problems in chemical engineering and provide solutions that benefit society and help in the progress and welfare of our country and the world. The Department of Chemical Engineering, therefore, aims to be a global leader in chemical engineering research and practice by training the next generation of leaders through a focus on fundamental and applied questions.

### Academic Programs

The academic programs consist of the B.Tech. and PhD in Chemical Engineering. In the B.Tech. program, students are admitted through JEE-Advanced, and the PhD students are admitted through GATE and a rigorous selection process. In the coming years, the department intends to start M.Tech and minor B.Tech. programs in Chemical Engineering.

Our diverse group of faculty members works on problems spanning the breadth of the Chemical Engineering discipline: from traditional Chemical Engineering problems, such as catalysis and polymers, to working on newer Chemical Engineering problems, such as AI in Chemical Engineering and biosystems engineering.

Details of Teaching and Non-teaching staff	
Associate Professor	01
Assistant Professor Grade -I	06
Assistant Professor Grade -II	01
Visiting Distinguished Professors	05
Technical and Administrative Staff	04

Programs	Student Intake	Degree Awarded
Ph.D	6	0
B. Tech.	73	0



## Department Laboratories

### 1. Heat and Mass Transfer Lab



### 2. Fluid Mechanics Lab



### 3. Chemical Reaction Engineering Lab



#### 4. Computational Chemical Engineering Lab



#### 5. Unit Operation Lab





### 6. Material Characterization Lab



## Department of Civil Engineering



### About the Department

The Department of Civil Engineering has been functioning since 2016 with a focus on basic and applied research to solve real world problems. The Department offers a four-year course leading to a bachelor's degree in civil engineering and PhD in civil engineering. The faculty of civil engineering and students are actively involved in sponsored research projects funded by various organizations of the Government of India as well as industries/consultancy projects throughout the country and abroad. The Department has an active and dynamic faculty member team with international exposure having expertise in diverse fields of civil engineering like Structural, Geotechnical, Transportation, Water resource and Environmental engineering. The CE faculty has been recognized on different platforms across the world as committee chairs/members, outstanding reviewers, and editorial board members. The Department of civil engineering looks forward to establishing itself, nationally and globally, as a premier academic Centre with active industry interaction and national/international collaborations.

### Academic Programs

The Department runs B.Tech., M.Tech. and PhD Programs in Civil Engineering. The Department also hosts Postdoctoral Fellows in various specializations, sponsored by the Institute, sponsored research projects and other agencies.

Number of Faculty Members: (Assistant/Associate/Full Professors)	17
Professor	03
Associate Professor	03
Assistant Professor Grade-II	01
Assistant Professor Grade-I	10
No. of Post Doc Fellows	06

Programs	Student Intake	Degree Awarded
B.Tech.	53	42
M.Tech.	20	17
M.Sc	-	-
Ph.D	-	02

### Notable Activities in the Department

The Department has been awarded several research and industrial consultancy projects (around 90 projects) and the value of Rs.7.69 crores approx. Our dynamic faculty and students are recognized on various platforms; some of our key achievements are as follows:

- Dr. Sandeep Chaudhary's innovation, GOBAiR, the first of its kind cow dung based foaming agent, was selected among the top 200 technologies developed by institutes of higher education, and naturally colored geopolymer composites were recognized in the Coffee Table of emerging top 50 technologies showcased at InveTiv 2025, organized at IIT Madras on February 28 and March 01, 2025. Organized a 3-week exchange visit at the University of Plymouth, UK, for 9 Undergraduate 3 Postgraduate and 1 Post-doctoral fellow as a part of Research Capacity Building program in the field of recycled aggregates, sponsored by SPARC and UKIERI. This is the first of its kind exchange program where students in a large group participated in student exchange and presented their research.
- Dr. Manish Kumar Goyal Featured in the list of Top 2% scientists in the world (prepared by Stanford University) in 2020, 2021, 2022, 2023 and 2024. Also in the top 200, the leading researcher in the field of Environmental Engineering (Meteorology & Atmospheric Sciences).
- Dr. Neelma Satyam awarded the INSA Associate Fellowship (2024) by Indian National Science Academy (INSA). Member, LARAM's school scientific committee, for the term 2025-2027.
- Dr. Lalit Borana granted the SSHN Fellowship Award-2024 by the Government of France and Delivered a Keynote lecture in the prestigious International Scientific and Practical Symposium, "The Future of the Construction industry: Challenges and Development Prospects" organized by the Ministry of Science and Higher Education of the Russian Federation at MGSU, Moscow.
- Dr. Guruprakash received Recognition for top 5 most cited papers within 2 years of its publication in American Society of Mechanical Engineering: Journal of Non-destructive Evaluation Diagnostics, QNDE2025 conference, Montreal, Canada, 2025. Visiting Researcher at University of Waterloo, Canada.
- Dr. Gourab Sil received the Best Paper Award - TPMDC 2024, IIT, Bombay. Chair of IEEE ITSS Madhya Pradesh Chapter.
- Dr. Priyansh Singh received the Best Poster award at TPMDC Conference at IIT Bombay in 2024 and Developed an innovative aggregate-blending-based mix design method for pervious concrete, aligning with IRC standards.
- Dr. Ashootosh Mandpe's B.Tech. project student received Best oral presentation award for the work titled "Predicting Solar E-waste Trends in India: An ARIMA Approach to Sustainable Recycling Solutions" at IIM Indore on October 10, 2024 and Organized a stakeholder workshop on e-waste management in Madhya Pradesh in collaboration with the Madhya Pradesh Pollution Control Board (MPPCB).
- Dr. Mayur Sirish Jain Best Oral Presentation at the 5<sup>th</sup> International Conference on Waste Management 'RECYCLE 2025', IIT Guwahati. Panda, S., & Jain, M. S. (2025). Process Dynamics and Techno-Economic Feasibility on Upscaling Anaerobic Digestion of Thermal Pretreated Soyabean Straw.
- Dr. Priyank J. Sharma Co-authored an undergraduate textbook titled "Engineering Hydrology" (6<sup>th</sup> Edition), published by McGraw Hill Education (India) Private Limited and "Springer Nature Author Service Award 2025" for my contribution as an Editorial Board Member to the Scientific Reports journal.
- Dr. Ramu Baadiga successfully conducted 10<sup>th</sup> Indian Young Geotechnical Engineers Conference for IIT Indore which will be held on 11<sup>th</sup> & 12<sup>th</sup> March 2025. Advanced work on the development of new multiaxial geogrids for Civil Engineering Applications has been carried out.

### R&D Activities

The Department has expertise in various sub streams of civil engineering like Structural, Geotechnical, Transportation, Water resource and Environmental engineering.

**Projects**

Project	Sponsored	Consultancy
New Projects	12	52
Ongoing Projects	20	21
Completed	10	78

**Publications**

Details	Books Published	Chapters in Books	Papers in Conference	Papers in Journals
Total	12	34	59	96

## Department of Computer Science and Engineering



### About the Department

The Department of Computer Science and Engineering (CSE) at IIT Indore was established in July 2009. It offers a comprehensive set of academic programs including Bachelor of Technology (B.Tech.), Master of Science (M.S.) by Research, and Doctor of Philosophy (Ph.D.). Starting from 2023, the department also offers a Master of Technology (M.Tech.) program.

The department follows a modern, student-centric teaching approach, encouraging academic freedom, innovation, and hands-on learning. It is equipped with state-of-the-art laboratories, advanced hardware, and the latest software tools, which support both teaching and cutting-edge research. These resources enable students and researchers to effectively execute major projects and validate research outcomes.

Located in Indore, a rapidly growing IT hub in central India, the department is strategically positioned to nurture industry-academia collaborations. Companies such as Microsoft, Google, MathWorks, Impetus, TCS, Infosys, and other leading IT organizations have a significant presence in the region, offering ample opportunities for internships, research partnerships, and employment.

### Academic Programs

The Department of Computer Science and Engineering (CSE) offers academic programs leading to Bachelor of Technology (B.Tech.), Master of Science by Research (M.S. by Research), and Doctor of Philosophy (Ph.D.) degrees. From 2023, the department also introduced a Master of Technology (M.Tech.) program.

As of July 2025, the department has graduated a total of 699 B.Tech., 35 M.S. by Research, 16 M.Tech. and 52 Ph.D. students. Currently, it hosts 261 B.Tech., 24 M.S. by Research, 16 M.Tech., and 53 Ph.D. students.

<b>Number of Faculty Members:</b>	<b>20</b>
Professor	07
Associate Professor	03
Assistant Professor Grade-I	08
Assistant Professor Grade-II	02
No. of Post-doctoral Fellows	Nil

Programs	Student Intake	Degree Awarded
B.Tech.	80	699
M.S. Research	12	35
M.Tech.	16	16
Ph.D.	NA	52

## Notable R&D Activities

The Department of Computer Science and Engineering received around 20 projects focusing on National importance with a grant of Rs. 20.33 Crore in total from different national funding agencies such as DST, CSIR, ISRO, MeitY, DRDO, ICMR, and TIH hubs, and many international funding agencies in the last 5 years. We have successfully completed over 35 projects, having a grant of Rs. 11.08 Crore in the past. The department has also produced over 50 Ph.D students who are placed in reputed Industry and Academic Institutes. We also organized a few technical talks, workshops, and symposiums, such as In- and Open-house symposiums, One-Day Workshop on Algebraic Graph Theory (Focus on Ramanujan Graph), and ICISS 2025, to name a few. Currently, we have 20 faculty members in the department, specializing in different areas of computer science and engineering. We highlight a few achievements of the current faculty members in the last academic year, as follows:

- Developed and released large-scale corpora (Indic-ST, Indic-TEDST), published extensively in SCIE journals, and secured patents in speech technologies.
- Develop an immersive metaverse experience of Maladevi Temple (Vidisha) while integrating Explainable Artificial Intelligence (XAI) and Mixed Reality to revolutionize virtual heritage preservation, offering an interactive and educational platform for cultural exploration, and ensuring historical accuracy and accessibility
- Transforming Generative AI research to AI/ML-based software product for Toll Plaza's problem in collaboration with CSIR-CEERI Pilani
- Developed a modular, primitive-based ML framework in network device architecture to handle the issue of the lack of a unified method for designing and deploying ML-driven network functions in the data plane.
- Development of a Mobile app for farmers to help them in Agricultural activities: Krishi Sewa
- Sanctioned and started a project with a grant from C3iHub, IIT Kanpur, India, on "Proactive and Generalized Deepfake Defense Mechanisms to Reinforce Cyberspace", 2024.
- Sanctioned and started a consortium project for establishing Centre of Excellence (COE) (in AI/ML & Deep Learning) in Jan 2025, funded by Ministry of Electronics and Information Technology (MeitY) (Startup, Innovation Division) titled "AgriHub: Innovation hub for Agriculture" in collaboration with ICAR-Indian Institute of Soybean Research (ICAR-IISR) Indore, ICAR-CIAE Bhopal, CDAC Pune & S&T MP with contributing industries; Ruchi Seeds Industries Ltd. Indore, Devaditya Technocrats Ltd Indore, Corner Stone Ltd. Indore, and Tekrimma Agro Research & Development Pvt. Ltd Indore. Additionally, the Technology Center for AI/ML & Deep Learning was inaugurated in June 2025.

## Projects

Project	Sponsored	Consultancy
New Projects	11	1
Ongoing Projects	14	1
Completed	6	0

## Publications

	Patent	Books Published	Chapters in Books	Papers in Conference	Papers in Journals
Total	7 Granted, 1 filed	3	3	37	49

## Department of Electrical Engineering



### About the Department

Department of Electrical Engineering at the Indian Institute of Technology Indore, established in 2009, envisions providing the guidance and conducive learning environment necessary to mold young minds to become technology experts, leaders, and high-quality professionals. The department endeavors to send forth talented individuals having the highest professional competence who can contribute to technological advancements. The department faculty members strive to create synergy between teaching and research activities and provide students with the most recent and relevant domain knowledge aided by high-quality research. The faculty members aim to stimulate students intellectually and create an atmosphere of inquiry and innovation. We endeavor to provide research programs in cutting-edge technologies and create skilled researchers who are passionate and equipped to work in a rapidly evolving technological landscape. At present the department faculty members and students are actively engaged in research in Communications, Signal Processing, Image Processing, VLSI, Nanoelectronics, Semiconductor Devices, RF and Microwave, Photonics, Power Engineering, and Biophotonics Instrumentation.

### Academic Programs

The department's vision is to impart quality education and promote interdisciplinary, industry-oriented, advanced scientific research to address the challenges and develop future technologies relevant to industrial and societal requirements. The department offers undergraduate (B.Tech.), postgraduate (M.Tech. in Communication and Signal Processing, M.Tech. in VLSI Design and Nanoelectronics, M.Tech. in Power Systems and Power Electronics and M.S. by Research), and doctoral (Ph.D.) programs.

<b>Total Number of Faculty Members</b>	<b>23</b>
Professor	12
Associate Professor	2
Assistant Professor Grade-II	4
Assistant Professor Grade-I	5

Programs	Student Intake	Degree Awarded
B.Tech.	85	83
M.Tech. (CSP)	15	12
M.Tech. (VDN)	15	05
M.S. (Research)	10	04
Ph.D.	41	21

### Projects

Project	Sponsored	Consultancy
New Projects	14 (2024-2025)	0
Ongoing Projects	74 (till date)	1
Completed	37	7

### Publications

Details	Books Published	Chapters in Books	Papers in Conference	Papers in Journals
Total	0	0	13	07

## Department of Mechanical Engineering



### About the Department

The Department of Mechanical Engineering, one of the oldest and largest at our Institute, features 28 full-time faculty and over 10 administrative and technical staff. Our curriculum emphasizes Science, Engineering, and Technology, focusing on technical skills, problem-solving, and fostering innovation. We offer state-of-the-art research facilities to support academic and research programs. Our primary goal is to provide high-quality education, equipping students with a strong foundation and specialized training to meet current and future demands. We are committed to shaping capable engineers who will advance the field of mechanical engineering.

### Academic Programs

The Department of Mechanical Engineering offers B.Tech., M.Tech., M.S. (Research), and Ph.D. programs, including dual degrees. With over 335 UG, 42 PG and 65 Ph.D. students, it provides a dynamic academic environment. It also hosts postdoctoral fellows and personnel from DRDO, armed forces, and various sectors. The M.Tech. programs cover Advanced Manufacturing, Mechanical System Design, and Thermal and Energy Systems. International students from countries like Nepal and Nigeria contribute to a global learning atmosphere. The department is dedicated to academic excellence, research innovation, and developing engineers who will significantly impact the field.

Number of Faculty Members:	28
Professor	9
Associate Professor	5
Assistant Professor Grade-II	2
Assistant Professor Grade-I	10
No. of Post Doc Fellows	06

Programs	Student Intake	Degree Awarded
B.Tech.	70	76
M.Tech.	40	30
M.S. Research	10	6
Ph.D.	10	4

### Notable R&D Activities

The Department of Mechanical Engineering has undertaken numerous research projects for organizations such as DRDO, ISRO, John Deere (India), and Simple Energy Private Limited. Equipped with state-of-the-art research facilities, the department has hosted Short-Term Programs (STPs) and Faculty Development Programs (FDPs) for professionals and academics. Key research includes developing micro-plasma transferred arc ( $\mu$ -PTA) processes for additive manufacturing, biocompatible knee implants, fault detection algorithms for wind turbine gearboxes, and lead-free triboelectric nanogenerators for energy harvesting. Other contributions include soft robotics, thermal management using phase change materials, ceramic coatings, reliability testing of shape memory alloy springs, nanoglass research, and biomechanical analysis of root canal preparation.

### Projects

Project	Sponsored	Consultancy
New Projects	24	20
Ongoing Projects	26	16
Completed	20	18

### Publications

Details	Books Published	Chapters in Books	Papers in Conference	Papers in Journals
Total	1	38	52	120

## Department of Metallurgical Engineering and Materials Science



### About the Department

The department was started as the Center of Materials Science and Engineering in 2013 and then established as the Department of Metallurgical Engineering and Materials Science (MEMS) in 2016. The department focuses on carrying out interdisciplinary research in Materials Science and Metallurgy to find solutions for intricate real-world problems that benefit society. Presently, the department has 18 core faculty members along with 6 supporting staff. Our collective goal is to understand the synthesis, processing, and characterization of several classes of materials and then correlate the properties towards enhancing their performance. MEMS faculty members are working in research areas ranging from conventional metallurgy to modern materials science.

### Academic Programs

The department offers various programs at the UG and PG levels. It offers B.Tech. in Metallurgical Engineering and Materials Science, M.Tech. in both (i) Materials Science and Engineering, (ii) Metallurgical Engineering, and a Ph.D. Program. The department covers a variety of courses, including basic science and engineering, along with advanced-level elective courses.

Our vibrant group of faculty members aspire to create an environment conducive to the smooth pursuit of scholarly activities in research and training within the field of Metallurgy and Materials Science. Our focus spans the study of materials ranging from simple alloys to complex composite materials, with an emphasis on their structure, properties, processing, and performance. We aim to understand the fundamental principles governing the behavior of materials and apply this knowledge to develop innovative solutions for practical problems. In addition to fundamental research, the Metallurgy and Materials Science department is dedicated to contributing to applied research that addresses the practical challenges faced by various industries.

<b>Number of Faculty Members:</b>	<b>21</b>
Professor	03
Associate Professor	08
Assistant Professor Grade-I	06
Assistant Professor Grade-II	04
No. of Post Doctoral Fellows	02

Programs	Student Intake (2024)	Degree Awarded (2024)
B. Tech.	44	43+2 (if they may pass)
M.Tech.	13	12
Ph.D.	12	11

### Notable R&D Activities

#### 1. International Conference on Energy and Environmental Materials (E2M-2024)

**Date: 11<sup>th</sup>-13<sup>th</sup> July 2024**

This international conference served as a multidisciplinary platform for researchers, academicians, and industry experts to present their work on sustainable energy and environmental materials, promoting innovative approaches to address global challenges.

#### 2. International Symposium on Materials for Sustainable Development (ISMDS-2024)

**Date: 20<sup>th</sup>-21<sup>st</sup> December 2024**

The symposium focused on the role of advanced materials in achieving sustainability goals. It featured keynote talks, technical sessions, and panel discussions from renowned national and international speakers.

#### 3. Workshop on Advanced Materials Processing and Characterization

**Date: 19<sup>th</sup>-23<sup>rd</sup> December 2024**

This five-day workshop provided participants with theoretical and hands-on exposure to state-of-the-art processing and characterization techniques widely used in materials research.

#### 4. Workshop on Electrochemical Energy Storage Devices

**Date: 23<sup>rd</sup>-24<sup>th</sup> December 2024**

This focused workshop explored recent developments in electrochemical energy storage systems, such as batteries and supercapacitors, and their real-world applications.

### Projects

Project	Sponsored	Consultancy
New Projects	13	03
Ongoing Projects	25	01
Completed	Nil	Nil

### Publications

Details	Books Published	Chapters in Books	Papers in Conference	Papers in Journals
Total	1	1	21	153

## Department of Physics



### About the Department

The Department of Physics has been a vibrant and flourishing department since the inception of the Institute in 2009. It currently comprises 19 faculty members with expertise spanning a wide range of areas, including condensed matter physics, high energy physics, black hole physics, gauge/gravity duality, and complex networks. The department is equipped with state-of-the-art research laboratories that have continually evolved to support cutting-edge research. These facilities play a vital role in promoting innovation and technological advancement among our young researchers.

### Academic Programs

Since 2009, the Department of Physics has offered a Ph.D. program, followed by an M.Sc. program launched in 2013. To date, we have proudly graduated over 71 Ph.D. and 193 M.Sc. students. Our Ph.D. and M.Sc. graduates have secured positions at prestigious institutions worldwide, actively contributing to research and higher education.

In 2023, we introduced an undergraduate B.Tech. program in Engineering Physics, beginning with an inaugural class of 20 students. Additionally, the department collaborates with Mechanical Engineering to offer an M.Tech. program specializing in Applied Optics and Laser Technology. Committed to hands-on research experience across all academic levels, the department has established more than 15 advanced research laboratories, each dedicated to a specific branch of physics. These facilities provide students with exceptional opportunities for learning and innovation.

Aligning with the objectives of the recently announced National Quantum Mission by the Government of India, we are preparing to launch a Minor program in Quantum Technology. Given the interdisciplinary nature of this program, the Department of Physics will collaborate closely with the Department of Computer Science and Engineering to ensure its successful implementation.

NUMBER OF FACULTY MEMBERS:	19
Professor - HAG	03
Professor	08
Associate Professor	02
Assistant Professor Grade-I	07
Assistant Professor Grade-II	00
No. of Post Doctoral Fellows	03

Programs	Student Intake	Degree Awarded
B.Tech. (Engineering Physics)	20	-
M.Sc	26	27
Ph.D.	18	10

### Notable Activities of the Department

The department prides itself on fostering a highly collaborative research environment that encourages close interactions across various departments at IIT Indore, as well as with renowned national and international institutions. We maintain active collaborations with prestigious organizations such as IISc Bangalore; IIT Bombay, Delhi, Madras, Kanpur, Ropar, and Hyderabad; RRCAT Indore; BARC Mumbai; IISER Kolkata, Pune, and Berhampur; HRI Allahabad; Central Universities of Pune, Mumbai, Allahabad, and Calcutta; SNB-NCBS Kolkata; and SNIP Kolkata.

On the international front, our collaborations span leading universities and research centers including the University of Cambridge, University of Oxford, Stanford University, Michigan State University (USA), Penn State University (USA), CUNY (USA), Leibniz University of Hannover and University of Duisburg-Essen (Germany), Rutherford Appleton Laboratory and ISIS Facilities (UK), TU Berlin and TU Dortmund (Germany), Queen Mary University London (UK), LMU Munich (Germany), Bern University (Switzerland), Osaka University (Japan), NTU (Singapore), Complexity Science Institute - CNRS (Italy), and Institute Superior Técnico, Lisbon (Portugal).

The department takes great pride in its academic excellence, with three professors elevated to the rank of Professor-HAG. Additionally, one professor has been elected Fellow of the National Academy of Sciences, India, and another as Fellow of the Maharashtra Academy of Sciences.

Demonstrating our commitment to impactful research, the department contributed significantly to submitting a multi-institutional research proposal under the DST India PAIR scheme. We have also submitted high-value projects under the DST SUPREME and DST FIST (Level C) schemes, underscoring our dedication to advancing cutting-edge scientific inquiry.

### Projects

Project	Sponsored	Consultancy
New Projects	09	Nil
Ongoing Projects	14	Nil
Completed	40	Nil

### Publications

Details	Books Published	Chapters in Books	Papers in Conference	Papers in Journals
Total	02	02	07	44

## Department of Chemistry



### About the Department

The Department of Chemistry at IIT Indore, established in August 2009, is rapidly growing, with research diversity, external funding, and several publications. We have 20 faculty members with research interests ranging from traditional areas (organic, inorganic, physical, and theoretical/computational) to highly interdisciplinary research areas such as nanotechnology, catalysis, energy, machine learning, biochemical, analytical, and materials. The department's faculty is exceptionally well qualified and motivated, with a solid commitment to teaching and research. Our department has state-of-the-art sophisticated instrumentation facilities to facilitate research in several chemistry and interdisciplinary research areas.

### Academic Programs

The academic programs at the Department of Chemistry consist of courses for Ph.D., M.Sc., and B.Tech. undergraduate students. Research work in a plethora of fields ranging from coordination chemistry, theoretical chemistry, synthetic organic chemistry, supramolecular chemistry, solid-state chemistry, and other Interdisciplinary fields make this department a significant center for cutting-edge research. The Department of Chemistry at IIT Indore is the only 2<sup>nd</sup> generation IIT built in India to introduce a two-year master's program in Chemistry (M.Sc Chemistry) wherein an entire year, especially the 2<sup>nd</sup> year of the program, is dedicated to laboratory research in the field of the student's choice. Since 2013, this unique program has devoted a whole year to solving fundamental research problems in the laboratory and giving exposure to students to decide if they would like to proceed with a doctoral program in their higher studies. This ensures that only qualified and motivated students pursue the doctoral program and contribute to the welfare of society. Additionally, students decide on their journey to a doctoral program or look for a lucrative job after completing a master's program at IIT Indore.

<b>Number of Faculty Members:</b>	<b>19</b>
Professor	11
Associate Professor	04
Assistant Professor Grade-I	04
No. of Post-doctoral Fellows	05

Programs	Student Intake	Degree Awarded
M.Sc	28	26
Ph.D.	30	33

### Notable R&D Activities

- Chemistry In-House Symposium on May 19, 2025.
- An International Conference on Sustainable Chemistry-III, 2025 Under Indo-German Partnership, 18-20 April 2025
- GIAN course on “Advanced Organic Synthesis and Catalysis for a Sustainable Future” March 24-28, 2025
- SPARC Workshop-Boron Neutron Capture Therapy: Treatment of Cancers, Dec. 14-21, 2024.
- Prof. Tushar Kanti Mukherjee received the Institute Best Research Paper Award 2025
- Prof. Biswarup Pathak: Associate Editor of ACS Applied Materials & Interfaces (Since 2024)
- Prof. Biswarup Pathak received Fellow of the National Academy of Sciences India (NASI) (2024)



### Projects

Project	Sponsored	Consultancy
New Projects	07	Nil
Ongoing Projects	17	Nil
Completed	11	Nil

### Publications

	Books Published	Chapters in Books	Papers in Conference	Papers in Journals
Total	Nil	02	Nil	163

## Department of Mathematics



### About the Department

The Department of Mathematics at IIT Indore has been a major center for academic and research programs in various branches of Mathematics. The Department has constantly been engaging in frontier research areas and been encouraging collaborative research with the other Science and Engineering Departments.

Number of Faculty	
Professor	05
Associate Professor	06
Assistant Professor Grade-I	08
Assistant Professor Grade-II	01
No. of Post Doctoral Fellows	01

### Academic Programs

The Department currently offers Ph.D., M.Sc programs in Mathematics and B.Tech. programme in Mathematics and Computing. The department envisages other master programs in allied fields, such as statistics and applied computing.

Programs	Student Intake	Degree Awarded
M.Sc (Mathematics)	20	19
Ph.D.	7	5
B.Tech.	39	NA

### Notable R&D Activities

- IEEE CIS Winter School Program 2025
- INSA Distinguished Lecture Fellow 2024 (the only recipient in the Engineering & Technology Sectional Committee, Prof. M Tanveer)
- Conducted a High-End workshop on “Statistical Modelling in Ranking and Selection”, funded by the SERB under the Karyashala scheme from January 18-24, 2024 (Dr. Mohd Arshad)
- Organized an International Conference on Network Science (NetSci-X-25) January 14-17, 2025 at IIT Indore (Dr. Bapan Ghosh-Co-organizer)

### Projects

Project	Sponsored	Consultancy
New Projects	05	Nil
Ongoing Projects	16	Nil
Completed	23	Nil

### DST-FIST support

Bhaskaracharya Mathematics Laboratory

Brahmagupta Mathematics Library



### Publications

	Books Published	Chapters in Books	Papers in Conference	Papers in Journals
Total	16	20	33	405

Further, the department is also engaged in promoting Mathematics among college teachers, postgraduate & undergraduate students in India through various outreach activities, like short-term courses, Webinars, Student seminar Series, etc. The department regularly organizes lectures by eminent mathematicians from reputed institutes around the world.

For more details, please visit <http://math.iiti.ac.in>.

## School of Humanities and Social Sciences



### About the School

The School of Humanities and Social Sciences at IIT Indore is an exciting and vibrant place for research and pedagogy. The faculty members of the school are an eclectic mix of researchers from the varied disciplines of Economics, English, History, Philosophy, Psychology and Sociology. We have 17 faculty with three members as Honorary Professor, Distinguished Visiting Professor and Visiting Professor. A total of 66 PhD students are currently working on exciting projects and research problems, and 8 students have already been recommended for admission in the year 2025. The research collaborations of the faculty members, whether within the school, or across the Sciences and Engineering disciplines at the Institute, or those with colleagues both nationally and internationally, demonstrate the truly interdisciplinary nature of the research conducted at the school.

### Academic Programs

The School of Humanities and Social Sciences has three main academic programs namely Ph.D., MA(Literature and Linguistics) and MS (Research).

The MA English (Literature and Linguistics) programme, launching this year as the department's flagship offering, provides a unique blend of literary and linguistic disciplines through a research- and practice-oriented syllabus grounded in strong theoretical foundations.

Ph.D. Program comprises course work and rigorous dissertation work. Our students have won prestigious national and international scholarships, fellowships, and awards. The graduated students have gone on to excel in their chosen careers.

Number of Faculty Members	
Professor	04
Associate Professor	03
Assistant Professor Grade-I	09
Assistant Professor Grade-II	01

### Notable R&D Activities

- Prof. Nirmala Menon is a member of Working Committee for BRICS Education and Research Exchange in June 2025 for a period of one year.
- Prof. Ruchi Sharma was invited as an expert for an international project on Non-Agricultural Geographical Indications by World Intellectual Property Rights Organization (WIPO) from June 23-24, 2025.
- Prof. Ruchi Sharma was invited to present research work and discussions at Bergische Universität Wuppertal, Germany under Bi-nationally Supervised Doctoral Degree/Cotutelle 2024/25 from June 16-20 June, 2025.
- Prof. Pritee Sharma was an invited Panelist in the Earth Systems Governance Seminar Series on “Planetary Justice: Eco-Social Perspectives from India,” organized by ESG International Project, University of Utrecht, The Netherlands held on May 7, 2025.
- Prof. Pritee Sharma was invited as Panelist by Niti Aayog Government of Madhya Pradesh for discussion on Employment Generation through Skilling Programs under NEP on May 6, 2025.
- Prof. Nirmala Menon launched the Digital Humanities Intersections (DHI) from IIT Indore. <https://dhi.iiti.ac.in/index.php/dhjournal/index> on April 4, 2025.
- Prof. Pritee Sharma’s coauthored policy brief titled, Narmada Demographic Atlas was released on February 17, 2025.
- Dr. Ashok Kumar Mocherla is a Visiting Scholar at the Department of Cultural and Religious Studies, Chinese University of Hong Kong, from 20<sup>th</sup> June – 19<sup>th</sup> July 2025.
- Dr. Ananya Ghoshal was the recipient of the Shastri-Indo Bilateral Education Forum (SBEF 2025) grant and represented IIT Indore at the delegation in New Delhi in March 2025.
- Dr. Ananya Ghoshal was selected as the sole Indian alumni facilitator for the global OPEN MOOC “Teaching English for Environmental Awareness” (Kansas State University, Oct–Nov 2024), chosen from applicants across 24 countries.
- Dr. Thapasya has received the Prof. Vennelakanti Prakasam Award 2024 for the Best Paper on Systematic Functional Linguistics at the All India Conference of Dravidian Linguistics, Department of Linguistics, Tamil University by Dravidian Linguistic Association of India and International School of Dravidian Linguistics from June 27-29, 2025.
- Dr. Kedarmal Verma received funding from the JPN Centre of Excellence for a research project (2024–2026) entitled “Linguistic Complexity and Cognitive Load in Natural Language Processing: A Physio-Behavioural Approach.”
- Dr. Thapasya has an ongoing ICSSR-funded project for two years on Mother Tongue Based Multilingual Education (MTB-MLE) implementation among Kerala’s PVTGs aligned with NEP 2020 in March 2025; JP Narayan Centre-sponsored research for two years on linguistic complexity and cognitive load using physio-behavioural metrics in NLP in July 2024; and completion of the YFRSG project Language Variation and Cognition: A Study on Indian Englishes under the Young Faculty Research Seed Grant from IIT Indore.

### The faculty members published following books:

- Prof. Nirmala Menon published “Practicing Digital Humanities in India: learning by Doing” 2024. UK: Routledge.
- Prof. Pritee Sharma published “Effective Technical Communication” a Textbook for AICTE for UG 2<sup>nd</sup> Year Students 2024.

- Dr. Dishari Chattaraj Published Pedagogy of Space and The Global South: A Machine-Generated Literature Overview. 2024. Singapore: Springer Nature (Edited Volume)
- Dr. Dishari Chattaraj published Critical Food Studies in Asia: A Machine-Generated Literature Overview with. 2024. Singapore: Springer Nature (Edited Volume)

### Projects

Project	Sponsored
New Projects	14
Ongoing Projects	14
Completed	06

### Publications

	Books Published	Chapters in Books	Papers in Conference	Papers in Journals
Total	04	14	27	106

## Centre Profiles

### Centre for Entrepreneurship Education and Development (CEED)

#### About the Centre

The Centre for Entrepreneurship Education and Development (CEED) is an initiative at IIT Indore, dedicated to imparting education in innovation and entrepreneurship. CEED offers academic courses for IIT Indore students, along with short-term programs and faculty development initiatives for members of the external community.

#### Academic Programs

CEED offers an open elective course titled Foundation for Entrepreneurship to all Bachelors, Masters, and Ph.D. students at IIT Indore, starting from Autumn 2022. The course aims to foster innovation and entrepreneurship skills through experiential learning. In addition to regular classroom lectures, the course features invited talks by domain experts, startup founders, faculty from IITs/IIMs, angel investors, and other practitioners. As part of the course, students will work in teams to develop a business plan based on their startup idea, supported by seed funding. These plans will be evaluated by an expert committee.

#### People

- Prof. Mobin Shaikh (Professor In-charge)
- Dr. Ananya Ghoshal
- Dr. Shomik Dasgupta
- Dr. Ashootosh Mandpe
- Dr. Mohanasundari Thangavel
- Prof. Ruchi Sharma
- Ms. Sonal Rai (Junior Assistant)

#### Major Achievements

CEED, IIT Indore in association with IITI Advanced Centre for Entrepreneurship (ACE) Foundation and Educational Outreach organized 2 Startup Bootcamps, where our experts engaged in delivering 6 technical sessions for 2 days (around 6 hours per day) related to various aspects of Startup and Entrepreneurship such as choosing a startup idea, developing the idea into an MVP, creating a successful startup, key terms and jargons in startup, valuation basics, funding avenues, basics of IP for entrepreneurs, etc. The bootcamps were conducted for MCTE Mhow (5 participants) on August 12 and 13, 2024 and Sushila Devi Bansal College (100 students) on October 25 and 26, 2024.

CEED, in collaboration with IITI ACE Foundation and MSME DFO Indore, has conducted 10 Entrepreneurship Awareness Programmes (EAP), 5 Management Development Programmes (MDP), and one Advanced Entrepreneurship Skill Development Programme (ESDP) at various locations across Indore, including IIT Indore. These programs have collectively benefited over 1,000 participants, including students, startup founders, institutional staff, entrepreneurs, and MSME representatives.

### Glimpses of Events



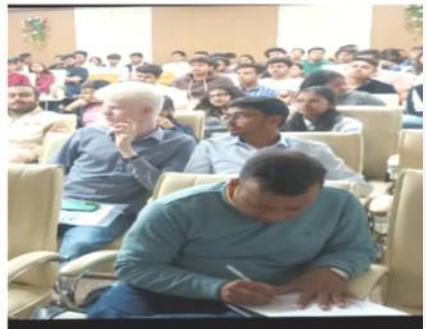
Sushila Devi Bansal College boot Camp Images



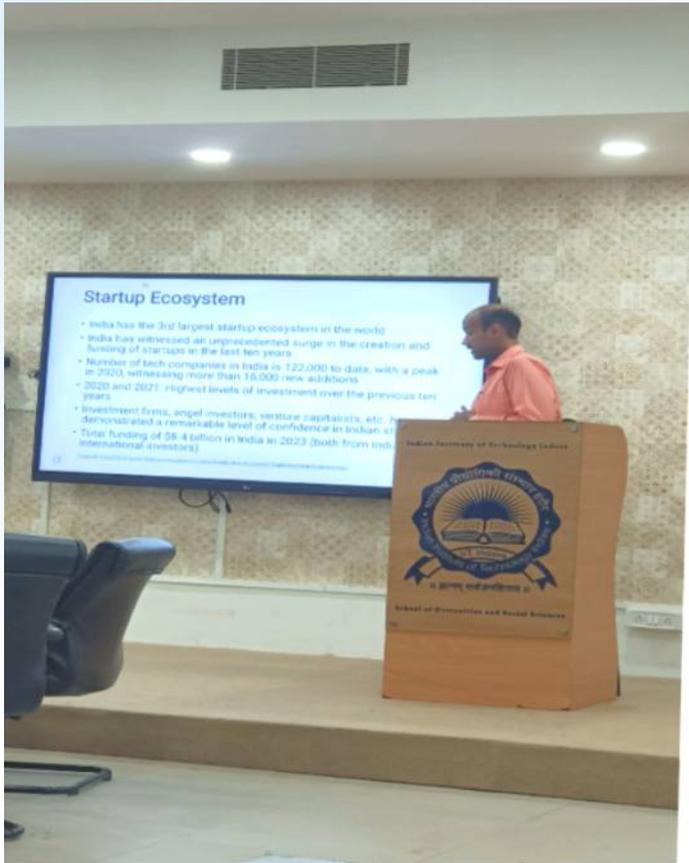
Advanced Entrepreneurship Skill Development Programme



5 MDPs Event:



10 EAPs



Bootcamp organized for MCTE Staff

## Sophisticated Instrumentation Centre (SIC)

### About SIC

The Sophisticated Instrumentation Centre (SIC) was established in September 2011 to accelerate the research program at IIT Indore. The mission of SIC is to support and foster the research initiatives at IIT Indore, by providing a state-of-the-art instrumentation facility and its application in cutting-edge research. The high-value instruments are accommodated under one roof to provide the highest quality of data analysis to its stakeholders. SIC provides analytical services to all departments within the Institute and to external academic and industry users. SIC is constantly striving to support and foster research in all branches of science and engineering at IIT Indore.

SIC is currently striving to become a self-sustained centre by generating funds through services provided to external users. A significant advantage of the SIC facility is its easy accessibility to the students and faculty, with a favorable ratio of students to available instruments. The following departments within the Institute have been actively using the SIC facility to enhance their research and development activities: Chemistry, Physics, Mechanical Engineering, Electrical Engineering, Civil Engineering, Metallurgical Engineering and Materials Science, Bio-sciences and Biomedical Engineering, and Chemical Engineering.

### Vision, Mission and Objectives

1. To provide high end instrumentation facilities to professors, scientists, and students of IIT Indore as well as various academic institutes and industries to carry out sample analysis for research and development work.
2. To organize talks, seminars, and workshops on the usage and application of various SIC Instruments for researchers from universities, and industries.
3. To develop new analytical techniques/methods to fully utilize the instruments and provide them to explore new research horizons in various areas of science and technology.
4. To ensure easy data collection for advanced research.
5. To provide services to other educational institutes and industries with nominal charges.
6. To create and support "Centre of Excellence" through collaboration between Institute and Industry.



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Co-Convener SIC  
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**Mr. Ghanashyam Bhavsar**  
Technical  
Superintendent



**Mr. Kinny Pandey**  
Technical  
Superintendent



**Dr. Ravinder**  
Junior Technical  
Superintendent



**Mr. Atul Singh**  
Junior Technical  
Assistant



**Ms. Kajal Chaudhari**  
Junior Technical  
Assistant



**Mr. Ranjeet Raghuvanshi**  
Administrative  
Staff

## Facilities available with SIC

SIC facilities consist of instruments in the areas of:

1. Spectroscopy
2. Chromatography
3. Microscopy & Imaging
4. Thermal Analysis
5. X-Ray Diffractometers
6. Characterization Instruments

Spectroscopy		
400 MHz NMR & 500 MHz NMR (DST-FIST-Chemistry)	UV-Visible Spectrometer	UV-VIS-NIR Spectrometer
Time-Correlated Single Photon Counting (TCSPC)	Circular Dichroism (CD)	Spectrofluorometer
Fourier Transform Infrared Spectrometer (FT-IR)	Photoluminescence (PL)	Polarimeter

Chromatography		
Liquid Chromatography- High Resolution Mass Spectrometry (LC-HRMS)	Gas Chromatography - Mass Spectrometer (GC-MS)	Reverse Phase - High Performance Liquid Chromatography (RP-HPLC)
Preparative - High Performance Liquid Chromatography (Prep-HPLC)	Normal Phase - High Performance Liquid Chromatography	

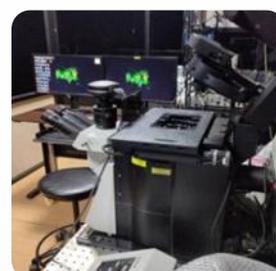
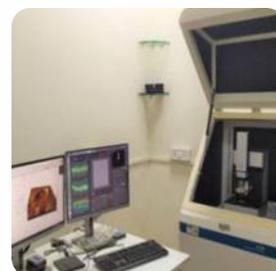
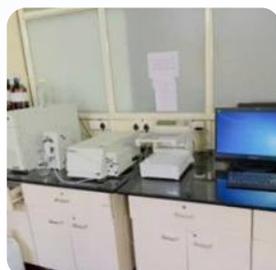
Microscopy & Imaging		
Field-Emission Scanning Electron Microscopy (FE-SEM)	Atomic Force Microscopy (AFM)	Confocal Laser Scanning Microscopy (CLSM)
Total Internal Reflection Fluorescence Microscopy (TIRFM)	To be installed soon Transmission electron Microscopy (TEM)	

Thermal Analysis	
Thermogravimetric Analyzer (TGA)	Differential Scanning Calorimetry (DSC)

X-Ray Diffractometers		
Single Crystal XRD (SCXRD)	Powder XRD (PXRD)	Energy Dispersive X-Ray Spectroscopy (EDS/EDX)
Wavelength Dispersive Spectroscopy (WDS/WDX)	X-ray Absorption Fine Structure (XAFS)	

Characterization Instruments		
Lyophilizer	Surface Area Analyzer (BET)	Rheometer
CHNSO Analyzer	Spectro Electro-Chemical Cell (SEC)	Dual Ion Beam Sputtering Deposition System (DIBSD)
Keithley Source Meter (Electrochemistry Characterization)	Microwave Synthesizer	

## Glimpses of Major Facilities in SIC



### Workshops/Conferences

SIC organized a workshop titled “Workshop and Hands-on Training Program on Advanced Microscopy (Powerful Tools for Cutting Edge Scientific Research)” during May 14-16, 2025. Thirty-three participants from all over India and abroad actively participated in the program.





### Newly installed instruments in SIC

(1) Field Emission Scanning Electron Microscope (FE-SEM), Make: Zeiss, Model: Gemini 360 with EDAX, aBSD & aSTEM

Installed in December 2024



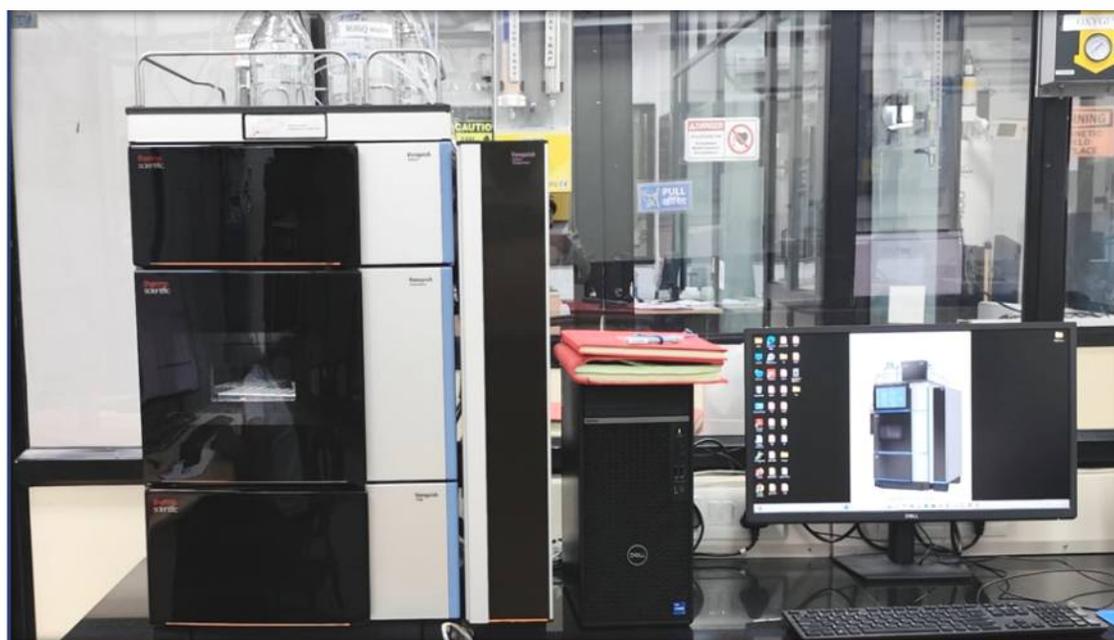
The FE-SEM was Inaugurated by Hon'ble Director Prof. Suhas S. Joshi on December 16, 2024.

(2) Liquid Chromatography-High Resolution Mass Spectrometer, XEVO-G3 QTOF coupled with Acquity H-class Plus UPLC (LC-HRMS)



Installed in June 2025

(3) High performance Liquid Chromatography (HPLC)



Installed in December 2024

**Newly purchased instruments (Will be installed soon)**

1. High Resolution Transmission Electron Microscope (HR-TEM)
2. Physical Property Measurement System (PPMS)

### Visit of Some Notable Delegates to SIC

Sr. No.	Delegate Name	Position and Department
1	Prof. Subhasis Chaudhuri	Ex-Director, IIT Bombay
2	Dr. Satyen Kumar Das	Chief GM, R&D Centre, Faridabad
3	Dr. Pravakar Mohanty	Scientist-E, DST, New Delhi
4	Ms. Soumya Gupta	IAS, Joint Secretary Technical Education, GOI, Delhi



### Role of SIC in Institute Research Activity till inception

	Publications: Provided support to publish 9000+ international journal publications. SIC has been catering the research needs of institutional faculties & research scholars.
	Patents: 90+ Patents were granted, and 200+ patents were filed using SIC data.
	Technological Transfer: 5 Technologies were transferred to Industries, and 11 Technologies were incubated with help of SIC.
	SIC supported 700+ projects worth 600+ Crore INR in value.

**Highlights: Samples analyzed using key instruments in 2024-25**

Instrument	No. of samples
NMR (400 and 500 MHz)	21061
LC-HRMS	7856
FE-SEM	2131
CLSM	4319
GC-MS	3865
BET	653
TGA	578
CD	989
AFM	581
UV-VIS	143
UV-VIS-NIR	1238
FLUORESCENCE	944
LYOPHILIZER	685
PREP-HPLC	198
LN2	27056 Ltr.
MILLIQ WATER	1675 Ltr.

Revenue generated from External Academia, Industries and International users was INR 1.24 Cr since inception while for current FY 2024-25 it was 10.72 lakh.



Group Photograph

## Centre for Advanced Electronics (CAE)

### About the Centre

The Centre for Advanced Electronics (CAE) has been established in June 2020 at IIT Indore as an interdisciplinary research center that aims to develop materials, devices & technologies for multidisciplinary applications including computing, communication, medicine, and energy.

The CAE is honored to have on board some of the renowned academicians, working in electronics and its allied areas, under one technical roof to enable high-quality applied research for the benefit of mankind. We focus on building a platform for applied research, device development, and skill & manpower development in the nationally important area of electronics.

### Academic Programs

The Centre for Advanced Electronics (CAE) has launched a Ph.D. program exclusively in Advanced Electronics, which comprises research areas such as Nanoelectronics / Microelectronics, Integrated Silicon Photonics/Optoelectronics, Advanced Materials and Devices, Advanced Memory Technology, Electronic Waste Utilization, Computational Electronics and Materials, and 2D Electronic Materials, Biochemical Sensors, Signal Processing, VLSI Circuit and System Design, Photovoltaics, Wireless & Optical Communication and AI and Machine Learning.

The Centre is also in process of proposing a PG program, MS Research in Advanced Electronics with a vision to cater to national semiconductor needs, specifically to generate manpower and to technically contribute towards India Semiconductor Mission.

Number of Faculty Members	12
Professor	09
Associate Professor	02
Ramanujan Fellow	01

Programs	Student Intake	Degree Awarded
PhD	03	-

### Notable R&D Activities

The Centre is focused on applied research in multidisciplinary fields. There are some state-of-the-art facilities for research and development in advanced semiconductor technology and material science.

- In CAE, a non-disclosure agreement has been signed with Bharat Electronics Ltd. for joint research work in the area of Radar Technology and Photonics. Outreach activities are being strongly promoted through the organization of Faculty Development Programs (FDPs) and other courses intended to benefit both internal and external students and faculty members.
- The Hybrid Nanodevice Research Group (HNRG), under the leadership of Prof. Shaibal Mukherjee in the Department of Electrical Engineering at IIT Indore, is engaged in the exploration of new physics in micro- and nano-structured materials. This knowledge is being applied toward the realization of advanced tools and devices for applications in the chemical, biological, optical, electronic, and energy domains.
- Work on the fabrication and characterization of Ge-based THz emitters has been initiated in collaboration with Prof. S. S. Prabhu at TIFR Mumbai. THz emitters on sputtered Ge have been fabricated and tested. The data are currently being analyzed, and optimization of the device parameters is being carried out.

- A collaboration has been established with CeNSE, IISc Bangalore, for the growth of Ge films using Chemical Vapor Deposition (CVD) techniques.
- A startup company, THz Innovations Private Limited, has been incorporated for the commercialization of THz emitters and related technologies emerging from research. The company, recognized by DPIIT, is incubated at the ACE Foundation, IIT Indore. Seed funding has been received under the Startup India Seed Fund Scheme.
- A chemi-resistive sensor for the detection of ethanol using an organic-inorganic nanohybrid has been fabricated.
- The electronic structure of point defects, surfaces, and interfaces in compound semiconductors is being studied, and their impact on the electrical and magnetic properties is being analyzed using first-principles calculations.
- Research is being conducted in the areas of nanomaterial science and engineering, defects in materials, single-wall and multi-wall carbon nanotubes (CNTs), multi-layer graphene, and the engineering of 2D and 3D materials.
- Investigations are also being carried out on transition metal dichalcogenides (TMDs), novel perovskites, topological insulators, porous materials for hydrogen and fuel cell technologies, alkali-ion batteries, energy storage, solar cells, renewable energy technologies, CO<sub>2</sub> and CO capture, and hydrogen storage.
- In the Optoelectronic Nanodevice Research Laboratory, led by Prof. Mukesh Kumar, a technology based on semiconductor heterojunctions has been developed for chip-scale photonic devices aimed at applications in optical communication, data centers, and healthcare.

### Projects

Project	External Sponsored Project
New Projects	-
Ongoing Projects	8
Completed	-

### Publications

Details	Books Published	Chapters in Books	Papers in Conference	Papers in Journals	Patent
Total	-	10	08	88	10

### Outreach Activities

S.No	Date	Activities
1	August 13, 2024	Skill enhancement activity "Light and Light-based Technologies in daily life" with Simrol Govt. H. S. Girls School

## Faculty Profile of CAE



**Prof. Vivek Kanhangad**  
(Professor In-Charge, CAE)

**Research Interests:**

- Biometrics
- Digital Signal and Image Processing



**Prof. Mukesh Kumar**

**Research Interests:**

- Integrated Optoelectronics
- Silicon Photonics
- Nanoelectronics
- Integrated CMOS Photonics
- Device Fabrication & VLSI Technology
- Bio-chemical Sensors
- Nano-scale devices



**Prof. Shaibal Mukherjee**

**Research Interests:**

- Low-cost HEMTs/HFETs for DC-to-DC converters
- Heterogeneously integrated RRAMs for image processing and neuromorphic computation
- Next-generation ultrathin and low-cost photovoltaic
- Flexible and low-cost bio-chemical sensors for agriculture, water, and air
- High-performance UV detectors



**Prof. Vimal Bhatia**

**Research Interests:**

- AI/ML for Communications and Optics
- 6G and 7G Communication Systems
- Performance Analysis and Optimization
- Signal and Image Processing Algorithm
- Mathematical Analysis and Computing
- Software Implementations

## Faculty Profile of CAE



**Prof. Santosh Kumar Vishvakarma**

**Research Interests:**

- SRAM Design and Architecture
- Reliable, Secure and Energy-Efficient Circuit Design
- Digital ASIC/SoC Design
- In-Memory Computing
- SoC/FPGA based CNN Hardware Accelerators
- NAND Flash Memory Device
- Advanced MOS Devices
- Device Circuit Co-Design



**Dr. Ajay Kumar Kushwaha**

**Research Interests:**

- Anti-Corrosion Coatings
- Nanomaterials
- Energy Harvesting and Storage



**Prof. Rajesh Kumar**

**Research Interests:**

- Nanomaterials & nanodevices
- Electronic and electrochromic devices
- Device physics, Raman Spectroscopy & Microscopy
- Natural Biomaterials



**Prof. Vinod Kumar**

**Research Interests:**

- Nanomaterial
- High Entropy Alloys
- Magnetic Materials
- Corrosion and coating
- Structure-Property Correlations,
- Microstructural Characterization,
- Thermo-mechanical Processing of Light metal alloys and Steels
- Failure Analysis
- Building Materials
- Energy Materials

## Faculty Profile of CAE



**Prof. Apurba K. Das**

**Research Interests:**

- Biomaterials
- Peptide and nucleobase-based nanostructured materials
- Systems chemistry
- Supramolecular electronics
- Organic-inorganic hybrid materials



**Dr. Srimanta Pakhira**

**Research Interests:**

- Theoretical Condensed Matter Physics
- Computational Material Science
- Quantum Materials
- Renewable Energy Technology
- Surfaces, and Interfaces in Compound Semiconductors and their Impact on the Electrical and Magnetic Properties using First-Principles Calculations



**Prof. Ram Bilas Pachori**

**Research Interests:**

- Signal and Image Processing
- Biomedical Signal Processing
- Non-stationary Signal Processing
- Speech Signal Processing
- Brain-Computer Interfacing
- Machine Learning
- AI in Healthcare
- Signal Processing for Vedas



**Dr. Abhishek Singh (Ramanujan Fellow)**

**Research Interests:**

- Photonic terahertz technology: THz generation, detection and application
- Optoelectronics
- GaAs, Ge, and Ge/Si based semiconductor devices for ultrabroadband THz technology
- Terahertz spectroscopy
- Ultrafast optics
- Ge based high-speed photodetectors
- Nano-scale and micro-scale device fabrication using lithography



## Computer and Information Technology Center (CITC)

CITC Building



Data Center



This center provides various services to the members of the IITI community. The services include:

**Network Connectivity:** CITC provides 10 Gbps network connectivity to the entire campus. The entire campus is covered by more than 1200 latest wireless access points. All the buildings, departments, hostels, learning resource center, administrative department, lecture hall complex, health center and faculty residence are connected with 10 Gbps 144 core fiber backbone. IIT Indore is also a part of the global EDUROAM network.

**Data Centre:** The data center developed at the CITC building is equipped with 120 kVA UPS and 320 kVA DG facility. CITC is hosting servers, storage, network equipment, and a high-performance computing (HPC) facility in the data center. There are 7 InfiniBand Linux clusters hosted in CITC, a total of more than 3500 CPU cores, and 500 TB of storage. DGX NVIDIA cluster is also hosted in data center for computer science and engineering department.

**Essential IT services:** CITC is running all the essential services in-house like maintenance and development of the Institute Website, internal/external DNS servers, web-based automation i.e. ERP (HRMS and MMS Module), File Tracking System (FTS), Web-based telephone directory, centralized authentication using LDAP/Radius, DHCP-based dynamic IP allocation services for each building, campus Wi-Fi, storage, campus telephone services, online automation services, virtual resource allotment, personal homepage hosting services and open-VPN for users. CITC has a ticket-based online service request system; the user can file online service requests and complaints and subsequently track their status.

**Technical Support:** CITC provides support for the installation and maintenance of IT equipment and application software in all the departments, LHC, hostels, residential areas, and administrative sections. We also provide technical support for the establishment and maintenance of smart classes, conference rooms and board rooms.

### Our Team Members:

1. Prof. Satya S. Bulusu, *Dean, IT Infrastructure & Automation*
2. Mr. Genius Sanjog, *System Manager*
3. Mr. Yogendra Singh, *Deputy System Manager*
4. Mr. Jitendra Gupta, *Technical Superintendent*
5. Mr. Dhiraj Vijayvargia, *Junior Technical Superintendent*
6. Mr. Subhash Soni, *Junior Technical Superintendent*
7. Mr. Chattar Singh, *Junior Technical Superintendent*
8. Ms. Princy Awadhiya, *Application Developer*
9. Ms. Preeti Raghuwanshi, *Application Developer*
10. Mr. Prahalad Singh Panwar, *System Analyst*
11. Mr. Shailesh Kaushal, *Tech. Superintendent*
12. Mr. Subha Jana, *Tech. Superintendent*

## IITI DRISHTI CPS Foundation



### About the Department

IITI DRISHTI CPS Foundation established by IIT Indore is Technology Innovation Hub supported by Dept. of Science and Technology, Govt of India. DRISHTI CPS has so far supported over 94 research projects led by faculties, students, and researchers from various Indian academic and research institutions. The foundation also nurtures more than 70 startups, offering financial assistance ranging from INR 3 Lacs to INR 100 Lacs, with a focus on Digital Healthcare and Smart Manufacturing. The hub has created an ecosystem which works as a focal point for the convergence of the efforts of academia, industry and government agencies for technology development and commercialization. It is currently working to support technologies in the area of CPS through translational research, product commercialization, startup incubation, and skill enhancement, catering to the country's growing demand in this field.

DRISHTI CPS has invested approximately Rs. 30 crore in technology development projects and deep tech startups. So far, the hub has conducted 35 skill development programs across diverse areas such as Cloud Computing, Industrial Simulation and Automation, IoT, Hardware and Simulation, Artificial Intelligence, and Clinical Data Analytics, training a total of 3,176 individuals. These efforts have resulted in the generation of over 1,400 employment opportunities. The hub operates with a dynamic team of 59 professionals, including researchers, clinicians, engineers, entrepreneurs, and experts in business development and operations.

### Upgradation into Technology Translation Research Park (TTRP)

DRISHTI CPS has recently been upgraded to a Technology Translation Research Park (TTRP) with a focus on Digital Healthcare under the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS), following rigorous evaluations by a third-party evaluation (TPE) committee, the Scientific Advisory Committee, and the Mission Governing Body of NM-ICPS, with final approval by Secretary DST and Honorable Minister, DST. The entire review process took around 6 months and the TPE committee was headed by Prof Anurag Kumar, Ex-Director, IISc Bangalore. Alongside us, the other TIHs upgraded to TTRPs are IIT Kanpur (Cybersecurity), IISc Bangalore (Robotics & Autonomous Navigation) and ISM Dhanbad (Mining).

As a TTRP, DRISHTI CPS is now dedicated to accelerating innovation and enabling effective technology transfer, bridging the gap between research and market-ready solutions. Our core focus areas include System Modelling, Simulation, and Visualization, with a strong commitment to advancing Digital Twin technologies. Our current emphasis is on strengthening the Human Digital Twin Platform, CharakDT, to address critical challenges in preventive and personalized healthcare, integration of fragmented healthcare systems, and standardized last-mile delivery.

### International Collaboration

United Kingdom Visit (30 September 2024- 7 October 2025)

IITI DRISHTI CPS Foundation, along with faculties from IIT Indore, visited several prestigious universities and institutions in the United Kingdom. This visit included interactions with the University College of London, Oxford Brookes University, the Royal Academy of Engineering in London, the Institute of Manufacturing at the University of Cambridge, Leeds University, Huddersfield University, the University of Oxford, the Department of Science, Innovation and Technology (DSIT) of the UK Government, the Royal London Hospital & Barts Health NHS, and the High Commission of India in London.

The primary aim of the visit was to draw parallels and foster synergies between India and the UK in **digital healthcare** and **intelligent manufacturing**- critical areas for addressing contemporary challenges and applying academic innovation to industrial needs. Highlights of the visit included engagements with Royal London Hospital and Barts Health NHS, focusing on AI and IoT-driven healthcare solutions, and discussions at the University of Cambridge on sustainable, data-driven manufacturing processes. Meetings with DSIT and the Royal Academy of Engineering provided insights into UK policy frameworks and funding mechanisms for innovation. The visit symbolized the shared vision of India and the UK to address global challenges through innovation and entrepreneurship, reaffirming their commitment to fostering stronger bilateral ties.



As a result of the visit, DRISHTI CPS along with the Institute for Manufacturing (IfM), University of Cambridge, organized workshops in Indore & Nashik, where professionals gained practical insights into leveraging low-cost, low-risk digitization technologies to tackle critical challenges in production quality, inventory management, and other manufacturing areas. The sessions were enriched with real-world case studies of successfully implemented solutions and also offered a platform to benchmark local manufacturing practices against global standards.

Under Business Ideas for Development Program of Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Germany, DRISHTI CPS will support 8 deep-tech and impact startups founded by the Indian diaspora entrepreneurs from Germany looking to make a change in India.



## Numbers

Total Projects	94 by Students & Faculties
Spin-offs	28
Deployment	5 Locations
Technology licensing	2 (Under documentation)
Patents	By TIH- Filed: 26   Granted to TIH: 01 Other: Filed: 40   Granted: 17
Publications	56

## Programs Launched

**DISHA:** To align with the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) of fostering an IP-driven Indian economy and the development of Cyber-Physical Systems (CPS) technologies, DRISHTI CPS launched its flagship initiative, **DISHA (Developing Innovations for Successful Harnessing and Adoption)**. This national-level Lab-to-Market acceleration platform serves as a bridge between Indian academic institutions and the market, supporting the commercialization of advanced technologies in critical sectors such as Digital Healthcare, Intelligent Manufacturing, and other related domains.

Through a robust framework of strategic funding, expert mentorship, project management, rigorous testing and validation protocols, certification assistance, and sustainable business model development, DISHA aims to support scientists, innovators, and student or faculty-led startups to transform ideas into market-ready solutions.

The program received 140 applications from academic institutions nationwide, demonstrating the innovative potential across India. Through a comprehensive evaluation process led by investors, academic experts, and industry leaders, 27 high-impact technologies were selected for support under the program.

## Facility Expansion

DRISHTI CPS recently collaborated with MPseDC, Science & Technology Department, Government of Madhya Pradesh to establish an innovation and incubation centre at Indore for strengthening technological infrastructure and innovation in the region. MP Govt. has provided 10,000 sqft rent free space to DRISHTI CPS at Sinhasa IT Park, Indore for a period of 7 years. This will serve as a co-located innovation center, bringing together academic researchers, startups, investors, and industry collaborators.



**External Funding**

**From Royal Academy of Engineering**

Project: Critical Care digital twin for affordable healthcare

Collaborators: IIT Indore, University of Cambridge, UK and AIIMS, New Delhi

Funding: GBP 108,000 (Approx INR 1.18 Cr.)

**From SMC, India**

Objective: To establish and operationalize phase one of a Centre of Excellence in Mechatronics, Industrial Automation, and Industry 4.0 technologies at IIT Indore

Funding: Rs 5.6 Cr.

**From MeitY, GoI under GENESIS**

Objective: To support startups under the Entrepreneur-in-Residence (EIR) program

Funding: Rs. 4.3 Cr.

**From MeitY, GoI under SAMRIDH**

Objective: To foster innovation and support startups under MeitY’s SAMRIDH Startup Acceleration and offer a 6-month acceleration program to shortlisted startups focused on creating social impact and scaling solutions to address India’s key challenges.

Funding: Rs. 2.6 Cr.

**Collaborations**

Description	Image
<p><b>Teerthanker Mahaveer University, Moradabad</b></p> <p>Objective- To promote research fellowships to students, skill development training, and the establishment of a satellite center at the institute. The aim is to promote education, innovation, and capacity building in the field of Cyber-Physical Systems.</p>	
<p><b>AIIMS Bhopal</b></p> <p>To drive joint research and technology development in the field of digital healthcare. Together, we are working on over eight collaborative research projects. These initiatives are being co-developed, validated, and prepared for commercialization by students and faculty from IIT Indore, in collaboration with medical experts from AIIMS Bhopal, promoting a strong synergy between engineering innovation and medical expertise.</p>	

Description	Image
<p><b>SMC Corporation (India) Pvt. Ltd.</b></p> <p>To establish and operationalize phase one of a Centre of Excellence in Mechatronics, Industrial Automation, and Industry 4.0 technologies at IIT Indore.</p>	
<p><b>STPI, AIC STPINEXT</b></p> <p>To set up a Centre of Entrepreneurship for Intelligent Manufacturing at IIT Indore. The Centre of Entrepreneurship on Intelligent Manufacturing (Industry 4.0) will provide an ecosystem to startups for developing new technology and innovations in the Industry 4.0 sector.</p>	
<p><b>Military College of Telecommunication Engineering (MCTE)</b></p> <p>To jointly innovate, develop, and commercialize advanced technologies in the domain of cyber-physical systems for defense applications.</p>	

## Skill Development

Description	Image
<p><b>Workshop on Cloud Infrastructure using AWS</b></p> <p>DRISHTI CPS conducted a 10-day intensive workshop on Cloud Infrastructure using AWS at Teerthanker Mahaveer University (TMU), Moradabad.</p> <p>This workshop aims to enhance the skills of Young minds in cloud computing and offer hands-on experience with aws. With more than 100 enthusiastic students participating, this workshop will explore key areas like Cloud Computing, AWS Storage, AWS Security, and more.</p>	

Description	Image
<p><b>The Charak Digital Healthcare Masterclass on Artificial Intelligence</b></p> <p>IITI DRISHTI CPS Foundation hosted a Charak Digital Healthcare Masterclass, at SET Facility, AIIMS New Delhi, brought together over 130 doctors and researchers from diverse specialties, including Microbiology, Palliative Medicine, Trauma Surgery, Paediatrics, and Oncology. The workshop focused on the evolution of healthcare through data and AI, covering key topics such as digital twin modelling, data visualization, neural networks, generative AI, and natural language processing (NLP), including a hands-on session on large language models (LLMs).</p>	
<p><b>The Charak Masterclass on Digital Health Standards and EHR Training</b></p> <p>DRISHTI CPS organised a two day session on Digital Health Standards and EHR Training, in collaboration with National Resource Center for EHR Standards, C-DAC Pune. The experts from NRCeS provided in-depth training on key digital health standards such as SNOMED CT, ICD-10, LOINC, and FHIR. Practical demonstrations, and hands-on training was conducted using C-DAC's toolkits.</p> <p>Day one focused on conceptual understanding and live demonstrations of national digital health frameworks like ABDM and NHCX. Day two featured hands-on sessions at the Charak Center, including EHR integration practices, FHIR-based patient profile creation, and the presentation of the Charak DT Platform.</p>	
<p><b>Charak Masterclass on Clinical Data Analytics</b></p> <p>DRISHTI CPS, in collaboration with Calcutta National Medical College &amp; Hospital (CNMC&amp;H), conducted a masterclass on Clinical Data Analytics, bringing together over 50 clinicians, public health officials, researchers, and technologists. The event focused on the role of AI and Digital Twins, in transforming healthcare delivery.</p>	

Session started with emphasis on data-driven strategies for maternal and infant health. Key sessions introduced Digital Twin applications for simulating patient journeys and optimizing resources. A panel discussion was held to address maternal and infant mortality challenges, proposing digital interventions such as tele-monitoring and community-based care.

Live demonstrations, showcased real-time dashboards, EHR digitization, and predictive analytics tools. On Day two at Jadavpur University, the focus shifted to applied learning. Sessions covered data handling, inferential statistics, and 3D cardiac digital twin modelling from imaging data. Interactive exercises on AI diagnostics further engaged participants, reinforcing practical applications in clinical decision-making. The masterclass fostered cross-sector collaboration and highlighted the growing demand for applied digital health training.

#### **Fundamentals of AI for Healthcare Providers by Dozee**

Dozee, in collaboration with the DRISHTI CPS Foundation, organized an engaging masterclass on the transformative role of Artificial Intelligence (AI) in healthcare. Attended by 140 doctors from diverse fields such as pathology, psychology, critical care, and pediatrics, the session offered a deep dive into how AI can predict, interpret, and analyze healthcare data. The masterclass emphasized problem-solving using AI by helping participants formulate precise problem statements to tackle real-world clinical challenges. It covered the AI development lifecycle, including practical exercises on building and evaluating algorithms.



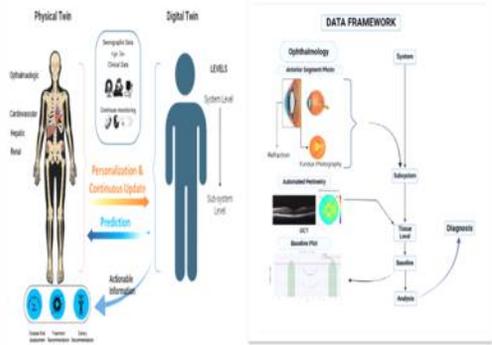
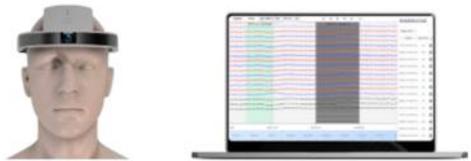
Events and Programs

Description	Image
<p><b>SIDDHI 2.0</b></p> <p>Under the collaboration with AIIMS Bhopal, DRISHTI CPS, through its Charak Center for Digital Healthcare, concluded SIDDHI 2.0 (Student Internship for Data-Driven Healthcare Innovation). This program brought together a multidisciplinary team of 16 students and 16 faculty members from IIT Indore, along with 14 doctors from AIIMS Bhopal, to work on 10 cutting-edge research and technology development projects. These projects focused on key areas such as data capture, data analysis, and clinical decision-making.</p>	
<p><b>SHAKTI 1.0</b></p> <p>DRISHTI CPS organized SHAKTI 1.0 on September 19, 2024 at Indian Institute of Technology, Indore. This program was dedicated to empower women entrepreneurs in the tech sector. During this valedictory session 33 promising entrepreneurs received grants, marking a significant step forward in supporting women-led startups.</p>	 
<p><b>Shoestring workshop on digital manufacturing - Nashik</b></p> <p>DRISHTI CPS organized a workshop on shoestring for Digital Manufacturing in India, hosted in association with the Mahindra Institute of Quality (MIQ) in Nashik with Indian Institute of Technology, Indore and the Institute for Manufacturing (IfM), University of Cambridge. This dynamic cohort gained hands-on knowledge about using low cost, low risk digitization technologies to address key challenges in production quality, inventory management, and other manufacturing issues. Additionally, the workshop provided a platform to benchmark local manufacturing processes with global standards. Several startups supported by DRISHTI CPS showcased their innovative technologies, adding significant value to the discussions.</p>	

Description	Image
<p><b>Shoestring workshop on digital manufacturing - Indore</b></p> <p>DRISHTI CPS hosted another workshop at Indore bringing together OEMs, MSMEs, and startups to explore Shoestring for digital manufacturing in India. In collaboration with Indian Institute of Technology, Indore and the Institute for Manufacturing (IfM), University of Cambridge, the workshop introduced low cost, low risk digitalization technologies to address challenges like production quality and inventory management.</p> <p>The Confederation of Indian Industry and IMA Indore supported this initiative and brought together industry professionals and innovators. This workshop marks another step toward transforming manufacturing practices in India, empowering local industries with global expertise and advanced solutions.</p>	
<p><b>Charak Connect 2.0</b></p> <p>DRISHTI CPS through its Charak Center for Digital Healthcare organized an event, Charak Connect 2.0. This event brought together a diverse group of medical experts from AIIMS Bhopal (We were privileged to host Dr. Ajai Singh, Executive Director), esteemed faculties from Indian Institute of Technology, Indore, and our supported healthcare startups.</p> <p>The event featured insightful technology demonstrations, engaging discussions on our ongoing collaborative projects, and valuable networking opportunities with key stakeholders in the field. The program was enriched with insightful technology demonstrations, fostering engaging discussions on potential collaborative projects.</p>	
<p><b>DISHA</b></p> <p>DRISHTI CPS organized an award ceremony for its DISHA (Developing Innovations for Successful Harnessing and Adoption) Program in New Delhi to recognize 15 groundbreaking technologies in digital healthcare.</p> <p>The program brought together more than 140 healthcare professionals, academicians, industry leaders, innovators, and startups to foster meaningful collaborations and accelerate the journey of technology commercialization.</p>	

Description	Image
<p><b>Startup Ignition Bootcamp</b></p> <p>DRISHTI CPS hosted Startup Ignition Bootcamp under the Ministry of Electronics and Information Technology GENESIS initiative bringing together startup founders, investors, and industry experts for an engaging and knowledge driven experience. The program aimed to equip founders with practical strategies to build scalable and fundable ventures while addressing key challenges in the startup ecosystem. The insights helped entrepreneurs refine their business strategies with a structured and market driven approach.</p>	
<p><b>TIPS 6.0</b></p> <p>The hub hosted the two-day 6th National Workshop TIPS 6.0 (Technology Innovations in Cyber-Physical Systems) under NM-ICPS, the Department of Science And Technology (DST), Government of India at IIT Indore. This event brought together government, startups, investors, academia, and industries to share ideas and showcase advancements in CPS technology bringing together 25 Technology Innovation Hubs from across the country.</p>	
<p><b>TechWe Startup Garage Bootcamp</b></p> <p>The two-day TechWe Startup Garage Bootcamp in Indore, co-organized by DRISHTI CPS, IIT Indore, and NASSCOM DeepTech, served as a transformative launchpad for women-led B2B tech startups across Central India. With dynamic sessions on storytelling, value proposition design, problem framing, and go-to-market strategy, Day 1 empowered founders with clarity and confidence to build purpose-driven ventures. Day 2 further sharpened their focus through workshops on Ideal Customer Profiles and financial modeling, culminating in an inspiring Demo Day where over 15 women entrepreneurs pitched to industry leaders and ecosystem enablers. Supported by partners like MPSeDC, Indore Management Association, Ignatiuz, and Tally Solutions, the bootcamp created a powerful ecosystem of learning, networking, and investor engagement.</p>	

Research Area and Highlights

Project/Startup Details	Technology Image
<p><b>Name of the Technology- MedTwin</b></p> <p><b>OneLiner-</b> Empowering Healthcare with Cyber-Physical Systems for Enhanced Diagnosis and Data Management</p> <p><b>Description-</b> MedTwin is a cyber-physical healthcare system that combines diagnostics with AI to deliver real-time analytics, disease tracking, and accessible, data-driven care. Operated by medical experts, it generates real-time data to further enhance the capabilities of various AI-ML models.</p> <p><b>TRL Stage-</b> TRL 5</p>	 <p>The diagram illustrates the MedTwin system. On the left, a 'Physical Twin' of a human body is shown with internal organs labeled: Ophthalmology, Cardiac, Heart, and Brain. It is connected to a 'Digital Twin' represented by a blue silhouette. The digital twin is linked to 'SEELS' (Sensors, EELS, LSS, S, S) and 'Sub-systems'. A central flow shows 'Personalization &amp; Continuous Update' leading to 'Prediction', which then leads to 'Actionable Information'. On the right, a 'DATA FRAMEWORK' is shown, including 'Digital Pathology', 'Analysis Engine/Plan', 'Adaptive', 'Clinical Pathology', 'Adaptive Pathology', 'AI/ML', 'Analysis Plan', 'Tissue Level', 'Biosensor', 'Analysis', and 'Diagnosis'.</p>
<p><b>Name of the Startup- Avinya NeuroTech Pvt Ltd</b></p> <p><b>Product Name-</b> NeuroPaahi (Hardware), NeuroAstra (AI- powered software)</p> <p><b>Domain-</b> Healthtech</p> <p><b>TRL Stage-</b> TRL 4</p> <p><b>Description-</b> Avinya NeuroTech is developing the future of clinical neuro diagnostics by harnessing the power of AI to make neurological care more accessible, accurate, and affordable. Our mission is to revolutionize and democratize neurodiagnostics and monitoring by delivering medical-grade, cost-effective solutions that empower neurologists and emergency caregivers to make timely, and evidence-based decisions for better patient outcomes on a global scale.</p>	<p><b>Avinya Neurotech product.png</b>  <b>Avinya NeuroTech EEG Headset.pdf</b></p>  <p>The image shows a person wearing a white EEG headset with sensors on their forehead. To the right, a laptop screen displays a software interface with various data points, graphs, and text, representing the NeuroAstra AI-powered software.</p>

## Centre for Indian Scientific Knowledge Systems (CISKS)

### About the Centre

(CISKS) at the Indian Institute of Technology Indore was founded in June 2021 to focus on understanding, preserving, teaching and adapting the science and technology heritage of India. The centre will focus exclusively on the scientific and technology heritage of India and its relevance to modern world. The focus is on hard sciences such as mathematics, astronomy, metallurgy, biology, agriculture, engineering and medicine among others. This centre will not focus on the language studies or humanities or social science aspects of Indian knowledge systems.

### Academic Programs

The academic programs consist of the Certificate Course in Sanskrit Language (CCSL) and Diploma Course in Sanskrit Language (DCSL). The courses are open to everyone on the campus or outside the campus.

Our vibrant group of faculty members aspire to create an ambience for the smooth pursuit of scholarly activities in Sanskrit research as well as training on the science and technology heritage of India

Number of Faculty Members:	21
Professor	04
Associate Professor	06
Assistant Professor Grade-I	01
Assistant Professor Grade-II	Nil

Programs	Student Intake	Degree Awarded
Certificate course in Sanskrit Language (CCSL)	13	10
Diploma course in Sanskrit Language DCSL (ongoing)	05	24

### Projects

Project	Sponsored	Consultancy
New Projects	3	Nil
Ongoing Projects	6	Nil
Completed	2	Nil

### Notable Activities

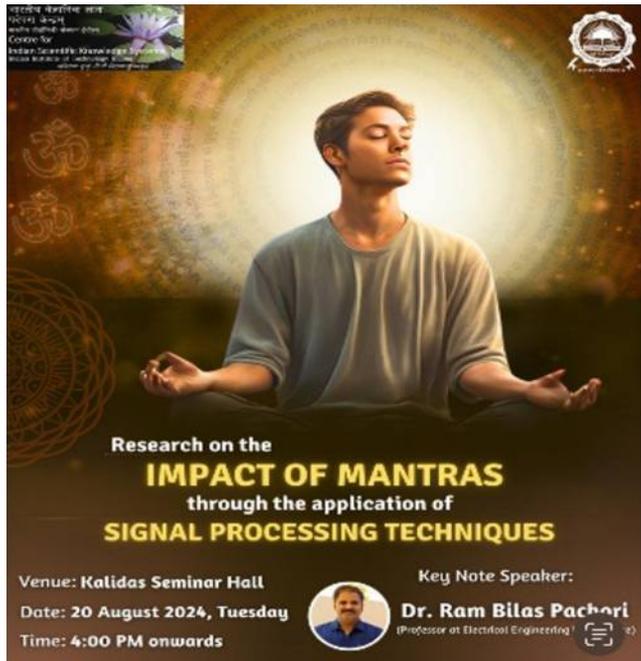
1. A three-day workshop on Agriculture, Botany, and Water Management was organized from 1<sup>st</sup> July to 3<sup>rd</sup> July 2024 under the auspices of UGC-IKS (University Grants Commission - Indian Knowledge Systems). The workshop was conducted under the supervision of Prof. Ganti S. Murthy, Dr. V.N. Prabhakar, and Dr. Subramanya Kumar.



2. A two-day workshop focusing on Temple Architecture was organized on 4<sup>th</sup> and 5<sup>th</sup> July 2024. The workshop was conducted under the supervision of Dr. Harsha Simha, Associate Professor at the Indian Institute of Space Science and Technology (IIST).



3. A one-day seminar was organized on 20<sup>th</sup> August 2024, focusing on the impact of mantras through the lens of signal processing. The seminar aimed to explore the scientific basis and acoustic properties of mantras using modern signal analysis techniques.



4. The ongoing Bhagavad Gita course commenced on 28<sup>th</sup> March 2024 and is being conducted by Krishnarchana Das Prabhuji.



5. A one-day seminar was held on the theme "India's Journey: Learning Traditions," which also featured the screening of the documentary Water Stewardship (Director's Cut) and a Scientists' Poster Exhibition. Shri Praveen Chaturvedi, Founder of Prachyam Films, graced the event with his presence.



6. A three-day workshop titled "Nitividhana" was organized from 24<sup>th</sup> to 27<sup>th</sup> October 2024 by the CISKs Department of IIT Indore. The workshop was graced by the presence of Dr. Ramaswami Balasubramaniam (Author and Member, HR & Capacity Building Commission, Government of India) and Hon'ble Prof. Suhas Joshi, Director, IIT Indore.

The event also featured distinguished speakers including:

- Shri Srinivas Jammalamadaka (Scholar, Indian Knowledge Systems, Siddhanta Knowledge Foundation)
- Ku. Upasana Tendulkar (Founder, Dancing Tales)
- Shri Raghav Krishna
- Shri Amritanshu Pandey (Founder and CEO, Brhat)
- Dr. Anurag Shukla (Director, Policy & Education, Brhat)



7. On the occasion of the 152<sup>nd</sup> birth anniversary of Swami Vivekananda, "Youth Day" was celebrated at CISKs, IIT Indore with the esteemed presence of Prof. Dr. Ganti S. Murthy, Dr. Devayan Sarkar, and other distinguished guests.



8. A one-day seminar titled "Taming the Turbulent Mind: The Art of Mind Control" was organized on 9<sup>th</sup> October 2024. The speaker for the session was Dr. Ranjan Kumar Behera, Associate Professor, Department of Electrical Engineering, IIT Patna.



9. IIT Indore's CISKS Department has awarded Ms. Sayali Vikhrankar a gold medal for securing the top position in the Certificate Course in Sanskrit Language, conducted by the Central Sanskrit University during the academic year 2022-23. The medal was conferred by the Director of IIT Indore, Hon'ble Prof. Suhas Joshi, and was presented by Prof. Dr. Vinod Kumar in memory of his late grandmother, Smt. Kusma Devi.



10. Ms. Apurva Kamble has secured First Place in the Logo Design Competition organized by the CISKS Department of IIT Indore. The prize was presented to her by the Hon'ble Shri Siba Prasad Hota, Registrar of the Institute. The entries were evaluated by Shri Praveen Chaturvedi (Founder, Prachyam Films) and Dr. Ganti S. Murthy, Head of the CISKS Department.



11. A lecture on "Science and Spirituality in the Age of AI" was organized, featuring Prof. Lalan Kumar from IIT Delhi as the distinguished speaker.

12. The Departmental Library was formally established in January 2025.

13. CISKS was selected as one of the IKS Centers by the IKS Division, Ministry of Education. IKS center is the highest institutional recognition given by the IKS Division. The proposals were very competitive and only 9 centers were selected out of 184 applications. The proposal was led by Profs Eswar Prasad Korimilli and Ganti S Murthy.

14. The IKS center in CISKS will focus on Metallurgical traditions of India with a focus on Iron Metallurgy and sustainable agriculture inspired by the Indian traditional agricultural practices. The center's objectives align with national priorities, ensuring the integration of traditional wisdom with contemporary scientific advancements to address critical challenges in food security and metallurgy. Beyond research, the center emphasizes the educational integration of IKS with modern engineering disciplines.

## Centre of Futuristic Defence and Space Technology (CFDST)

This centre is committed to providing a platform to the students and researchers for their contribution in “Nation-Building” through developing various forefront and futuristic technologies for Defense and Space Sectors towards “Aatmanirbhar Bharat”. The center is contributing to providing technological solutions to some of the research problems of the premier laboratories of defense institutions of country such as the Defense Research and Development Organization (DRDO). The center is also planning to offer specialized and dedicated M.Tech/MS (research) and Ph.D. programs in the broad area of defence and space in near future.

Dr. Indrasen Singh (Head CFDST), Mr. Balkrishna Vishwakarma are heading Centre of futuristic defense and space technology.

### Members in CFDST

• Dr. Indrasen Singh- Head CFDST	• Dr. Vivek Kanhangad
• Professor Neelesh Kumar Jain	• Dr. Hem Jha
• Professor Rajneesh Misra	• Dr. Jayaprakash Murugesan
• Professor Ram Bilas Pachori	• Professor Mukesh Kumar
• Professor Vimal Bhatia	• Professor Nirmala Menon
• Professor. Abhirup Datta	• Professor Ruchi Sharma
• Dr. Abhishek Rajput	• Professor Somaditya Sen
• Professor Avinash Sonawane	• Dr. Sumanta Samal
• Dr. Ajay Kumar Kushwaha	• Professor Surya Prakash
• Professor I A Palani	• Dr. Swaminathan Ramabadrnan
• Dr. Lalit Borana	• Professor Neminath Hubballi
• Dr. Mrigendra Dubey	• Professor Manish Kumar Goyal
• Professor Neelima Satyam	• Dr. Gourinath Banda
• Professor Pankaj Sagdeo	• Dr. K Eswara Prasad
• Dr. Puneet Gupta	• Professor Santosh Kumar Vishvakarma
• Dr. Ram Sajeewan Maurya	• Dr. Saptarshi Ghosh
• Professor Sanjay Kumar Singh	• Dr. Bodhisatwa Mazumdar
• Dr. Saurabh Das	• Professor Sanjram Premjit Khangamba
• Professor Shaibal Mukherjee	• Prof. Ganti S. Murthy
• Dr. Vinod Kumar	• Dr. Vijay Kumar Sohani

### Office Staff in CFDST

- Mr. Balkrishna Vishwakarma

### Notable Achievements: Webinar Organized During COVID 19 Pandemic:

- Expert Talk by Dr. Ajay Kumar IAS Defence Secretary Ministry of Defence, Govt. of India webinar on Indian Defence Industry, The Sunrise Sector.
- Expert Talk by Maj Gen A K. Channan, PVSM, SM Additional Director General Army Design Bureau webinar on Technology as a disruptive influence on military warfare.
- Expert Talk by Lt. Gen VG Khandare PVSM, AVSM, SM (Retd.) Military Adviser, National Security Council Secretariat webinar on Role of technology in national security and comprehensive national power.
- One day Workshop on Opportunities in Research and Developments in Armament Establishments (ARMREB-2020) on 26th August 2020.

## Faculty Profile

### Dr. Shaibal Mukherjee

Professor (F-JSPS, F-Humboldt Foundation, FInstP, F-IETE)  
 TIH-IoT CHANAKYA Faculty Fellow, IIT Bombay  
 shaibal@iiti.ac.in  
 PhD, University of Oklahoma (USA)



### Details of Research Area & Highlights

He has published 145+ research articles in peer-reviewed journals, 110+ international conference proceedings, 11 book/book chapters and 15 patents (Granted: 12 and Filed/Published: 3). He is the recipient of various prestigious awards such as **“2025 Friedrich Wilhelm Bessel Research Award by Alexander von Humboldt Foundation”**, **“2024 Microelectronic Engineering Journal Middle Career Investigator Award and Lectureship”**, **“2023 Japan Society for the Promotion of Science (JSPS) Invitational Fellowship Award”**, **“2021 JSPS Invitational Fellowship Award”**, **“2020 DUO-India Professor Fellowship Award”**, **“2019 DAAD Fellowship Award”**, **“2018 Materials Research Society of India (MRSI) Medal”**, **“2016 Young Faculty Research Fellowship (YFRF) under Visvesvaraya PhD Scheme for Electronics and IT”**. He is the founding Chair of IEEE Madhya Pradesh (MP) Section Electron Devices Society (EDS) and Nanotechnology Council (NTC) chapters. He is also the Director, Co-Founder and Mentor of QuanTechL2M Innovations Pvt. Ltd.

His research interests include (a) Quantum RRAMs for image processing, AI/ML and data security; and (b) AIoT-enabled and portable sensors for sustainable agriculture, environment and healthcare.

### Dr. Swaminathan Ramabadran

**Details of Research Area & Highlights:** Current research areas include 6G wireless technologies, intelligent reflecting surfaces (IRS), non-terrestrial networks (NTNs), vehicular communications, optical wireless communications (FSO and VLC), terahertz (THz) communication, hybrid radio system, machine learning for communication systems, and intelligent receiver design for military communications.

Our research group has published 40 International journal articles and 57 conference articles, including 5 IEEE Journals/Transactions/Letters, 15 IEEE National/International conference articles and a text book in AY 24-25. As of now, 3 sponsored research projects are ongoing and 4 projects are completed (as a PI). Our research group is also collaborating with some of the leading research groups at NTU Singapore, the University of Essex, UK, the University of Aizu, Japan, and the University of Thessaloniki, Greece.



## Centre for Rural Development (CRDT)

### About the Centre

The Institute established the Centre for Rural Development and Technology (CRDT) on April 2020 as a nodal hub for researchers, volunteers, practitioners, educators, and others to collaborate and facilitate rural empowerment and progress solutions. CRDT shall strive to facilitate empowering and enabling the rural population to improve their living conditions by development and application of appropriate and people-friendly technologies adopting participatory, sustainable, democratic, transparent and gender-sensitive processes.

### Academic Programs

Centre for Rural Development and Technology (CRDT) has launched a Ph.D. program exclusively in Rural Development and Technology, which comprises research areas such as Agricultural and Environmental Economics, Sustainability Studies, Impacts of Climate Change, Food Security Water Energy Food Nexus. / Application of Artificial Intelligence Techniques in Agriculture problems. / Building Products for Rural Areas. / Development and evaluation of sustainable materials for soil stabilization in rural infrastructure. / Disaster risk reduction in rural areas. / Early disease detection in crops for sustainable ecosystem. / Evaluation of the socioeconomic impact of rural infrastructure development on local communities. / Food and bioprocessing equipment design and scaleup. / Integration of traditional knowledge and practices with modern technologies for sustainable rural development. / Natural Resource and Environmental Economics, Climate change impact on Agriculture, Tribal Studies, Policy Analysis, Rural Development. / Noise, Vibration, and Harshness in Agriculture Machinery and Automobiles. / Nutrient energy water nexus. / Optimization of construction techniques and materials for cost effective and sustainable rural housing. / Resilience of Agro ecological Systems. / Sensors for agriculture. / Sustainable Construction. / Sustainable rural healthcare. / Sustainable Techniques for Food Storage. / VLSI Circuit and System Design.

Number of Faculty Members:	13
Professor	10
Associate Professor	02
Assistant Professor Grade	01

Sl. No	Number of Students Enrolled in PhD	Name of Supervisor
1	<b>Mr. Habtamu Melesse Dicha</b> (Under Ministry of Education, Ethiopia and Ministry of Innovation and Technology Joint Integrated Phd Programme from Arba Minch University, Ethiopia)	<b>Prof. Sandeep Chaudhary</b>
2	<b>Mr. Satish Dabe</b>	<b>Prof. Sandeep Chaudhary</b>
3	<b>Mr. Buddhodev Ghosh</b>	<b>Prof. Ganti S. Murthy</b>
<b>Elective Courses: 02</b>		
<b>Design Thinking For Rural Application (RDT 301/401/601)</b>		
<b>Immersion For Rural Technology Development (RDT 201)</b>		

## Notable R&amp;D Activities

Sl. No	Name of event	Date	No. of Participants	Associate organization
1	Skill development workshop on "Enhance empowerment by implementing beekeeping and floriculture skills"	September 23, 2024	100	KVK, Indore
2	Innovations Towards Rural Development Best Idea Presentation competition	September 25, 2024	18	-
3	Skill development program for student to understand technologies development for rural people	November 07, 2024	10	Mata Gujri Girls' Public School, Indore
4	MP Colloquium in Bhopal on January 15, 2025, IIT Indore four students, Siddharth Singh won first prize in biodiversity and traditional knowledge, Vaishali Saini won second prize in health, including Ayush, Niladri S Roy won first prize in Agricultural and Rural Development, and Anoop K won second prize in Agricultural and Rural Development.	January 15, 2025	04	AIGGPA, Bhopal
5	Students with faculty members (SEIL Program) from the Northeast will be visiting our institute. Understand ongoing research work in CRDT	February 01, 2025	40	Yuva Vikas Kendra
6	Rural Innovators Conclave	March 21-22, 2025	100	Anusandhan National Research Foundation (ANRF)

## External Funding for Conference/Seminar/Symposia (SSY)

Name of Conference/Seminar/Symposia	Date	Name of Funding Agencies	Grant	No. of Participants	No. of Invited talks	No. of startup presentations	No. of Product Display	No. of New Technologies Presented
Rural Innovators Conclave	March 21-22, 2025	Anusandhan National Research Foundation (ANRF)	4.5 Lakh	100	13	15	20	09

## Projects

Projects	Internal Project	External Sponsored Project
Ongoing Projects	30	04
Completed	-	-

### Internal Project

Thirty Centre funded projects are underway under the aegis of CRDT in collaboration with the following research institute.

- Thirteen projects with ICAR-Central Institute of Agricultural Engineering, Bhopal,
- Three projects with Vasumitra Life Energies Private Limited, Pune, Maharashtra,
- Five projects with Shivganga, Jhabua and
- Nine projects with YOGAK, Nandurbar, Maharashtra

ICAR-Central Institute of Agricultural Engineering, Bhopal				
Sl. No	Project Title	PI (IIT Indore)	Co-PI (IIT Indore)	Co-PI (CIAE Bhopal)
1	Development of bioplastic utilizing cellulose extracted from corn-stalk	Dr. Apurba K. Das	-	Er. Harsha Wakudkar, Dr. Sandip Mandal
2	Sustainable management of organic waste stream comprising fecal, municipal, and agro wastes employing resource recovery approach	Dr. Ashootosh Mandpe	-	Dr. Sandip Gangil
3	Assessing the Farm Mechanization and its impacts on farmers' Economic	Dr. Kalandi Charan Pradhan	Dr. Mohanasundari Thangavel	Dr. Kaushik Prasun Saha
4	Real-time detection of diseases in paddy/ Soyabean using via memristive crossbar array-based image	Prof. Shaibal Mukherjee	Prof. Ram Bilas Pachori	Dr. Manoj Kumar, Dr. Deepak Singh, Yogesh Rajwade
5	Assessment of Soyabean based probiotics to combat antimicrobial resistance Helicobacter pylori growth and disease pathogenesis	Dr. Hem Chandra Jha	-	Dr. Samlesh Kumari
6	Development of economic super absorbent Agri-gel for studying and soil, water and nutrients retention properties	Dr. Mrigendra Dubey	-	Dr. K V Ramana Rao

7	Deep CNN-based estimation of Above-Ground Biomass of corn crop using variable magnification UAV images.	Dr. Ankur Miglani	Dr. Pavan Kumar Kankar	Dr. Yogesh Rajwade
8	Design and development of cost-effective manually operated rice transplanter	Dr. Jayaprakash Murugesan	-	Dr. Rahul Rajaram Potdar
9	Development of Cost-Effective Photo Active Soft Materials for Efficient Removal and Degradation of Pesticides from Contaminated Ground Water	Dr. Tushar Kanti Mukherjee	-	Dr. Abhishek M. Waghaye
10	Development of Mobile app for farmers to help them in Agricultural activities: Krishi Sewa	Prof. Aruna Tiwari	-	Dr. Shashi Rawat
11	Sustainable Production of Polylactic Acid (PLA) using Agro-Industrial Waste for PLA based bioplastic Formulation.	Prof. Sampak Samanta	-	Dr. Manoj Kumar Tripathi
12	Development of Hybrid Sodium-Ion Capacitors by Compositing Agricultural Waste Derived Carbon with Doped-NASICON Materials	Dr. Dharendra Kumar Rai	-	Dr. Vinod Kumar Bhargav
13	Porous Organic Polymers (POPs) in Water Remediation by Removal of Agricultural Toxic Chemicals	Prof. Suman Mukhopadhyay		Dr. K. V. Ramana Rao

#### Vasumitra Life Energies Pvt. Ltd.

Sl. no.	Project title	Project PI	Co PI (IIT)	Co PI (External)
1	Advancing Hydrogen Storage and CO <sub>2</sub> Capture for Decentralized Energy and Agriculture: Empowering Rural Sustainability	Dr. Srimanta Pakhira	-	-
2	Investigating the impact of abiotic stresses and carbon sequestration on plant physiology and soil carbon dynamics	Prof. Kiran Bala	-	-
3	Monitoring plant abiotic stress using remote sensing	Dr. Unmesh Khati	-	Dr. Manoj Semwal Computational Biology Department, Central Institute of Medicinal and Aromatic Plants

#### Shivganga, Jhabua

Sl. no.	Project title	Project PI	Co PI (IIT)	Co PI (External)
1	Development of Sustainable-cost effective Fertigation setup: Converting Solid Organic Fertilizer into Liquids for Direct Root Fertilization during irrigation	Dr. Ashish Rajak	-	-

2	Documentation and Preservation of Jhab Wali: A Dialect Dictionary for Jhabua, Madhya Pradesh	Thapasya J	-	-
3	Echoes of Jhabua: Documenting the Folk Music Heritage of Madhya Pradesh	Dr. Ananya Ghoshal	Dr. Shomik Dasgupta	-
4	Exploring Tribal Art Heritage: A Study of Indigenous Art Forms in Jhabua District, Madhya Pradesh	Dr. Shomik Dasgupta	Ananya Ghoshal	-
5	Revitalizing Agriculture through Halma Heritage: Cultural and Socio-Economic Impact Study in the Jhabua & Alirajpur Districts of Madhya Pradesh.	Dr. Dishari Chattaraj	Dr. Mohanasundari T	-

### YOGAK, Nandurbar, Maharashtra

Sl. no.	Project title	Project PI	Co PI (IIT)	Co PI (External)
1	Development of a Smart Low-Cost Weather Station with Integrated Weather Forecasting	Dr. Saurabh Das	-	-
2	Development of Room Temperature Ethylene Gas Sensing to Mitigate Fruit Spoilage in the Storage Containers.	Dr. Pravarthana Dhanapal	-	-
3	Low-cost power generators for rural development (Low-cost generators)	Dr. Sumit Gautam	Dr. Devesh Mishra Mr. Sandeep Prajapati Project lead (Project SawYaan)	-
4	Holistic Approach to Water Management: Indigenous Water Utilisation Practises, Oral Narratives and Nesu Nadi Festival in Nandurbar, Maharashtra	Dr Aratrika Das	-	-
5	Revitalizing Traditional Agriculture: Introducing Multipurpose Solar Electric Power-Driven Tractors for Sustainable Farming	Dr. Dan Sathiaraj	Dr. Vivek Singh Dr. Anand Petare	-
6	Efficient Solar Air Dryer using synthetic jet impingement for Agricultural Products	Dr. Harekrishna Yadav	-	-
7	Pioneering weed management through Rotary Drum composting followed by vermicomposting.	Dr. Mayur Shirish Jain	-	-
8	Design and Development of Low cost environmental friendly Tribo Piezo Hybrid flexible smart flushing systems for Low water sanitation	Prof. Palani I A	Dr. Hitendra Kumar	-
9	A low-cost weather station with weather forecasting & data digitalization	Prof. Biswarup Pathak	-	-

## External Sponsored Project

Sl. No.	Projects Title	Funding Agency	Duration	Funding Amount	Collaborative organizations
1	Technology Dissemination of Compressed Colored Composite for a wide range of products to support sustainable rural infrastructure	DST, GOI	2023-2025	INR 59,40,000	TIET Patiala, India
2	Livelihood interventions for Scheduled Caste labourer through “Shramik Vikas” community partnered training programs in Simrol Block, Indore District, Madhya Pradesh State	Department of Science & Technology (DST)	2025-2028	INR 68,85,115	Simrol Panchayat
3	Development of Portable Kit – An Alternative to Traditional Post Harvest Management Employing Photodynamic Inactivation	AgriHub: Innovation Hub for Agriculture (AI/ML & Deep Learning Center of Excellence) scheme, IIT Indore.	2025-2027	INR 12,50,000	-
4	Development of Portable Kit -An Alternative to Traditional Post Harvest Management	TIH Foundation for IoT & IoE	2025-2027	INR 1, 29,57,438	-

## Publications

Details	Books Published	Chapters In Books	Papers In Conference	Papers In Journals	Patent
Total	-	-	2	10	3

## Patent

- A portable kit for visible light photodynamic inactivation of microbes - an alternative to Cold storages Filed 2024: 202421010243 Niladri Sekhar Roy & Debayan Sarkar
- Cow dung-based lightweight construction materials and method thereof, Published: 07.03.2025, Application No. 202421010279, Sanchit Gupta & Sandeep Chaudhary
- A portable dispenser of food grains, pulses, millets, and nuts and method thereof Filed 2024: 202421019969 Ankur Miglani & Pavan Kumar Kankar

## Outreach Activities

Name of Activity - Expert Talk			
Sl. No	Date	Name of Speaker	Title
1	September 23, 2024	Dr. D. K. Mishra, Principal Scientist, Krishi Vigyan Kendra, Kasturbagram, Indore	Enhance empowerment by implementing beekeeping and floriculture skills
2	October 02, 2024	Dr. Arvind C. Ranade, Director of the National Innovation Foundation	Sustainable development
Name of Activity - Field visit as part of the academic course Design Thinking for Rural Application (RDT 301/401/601)			
Sl. No	Date	Place	
1	September 14-15, 2024	Educational visit Shivganga (Jhabua Darshan Yatra)	
2	February 01, 2025	Educational visit for study and sample collection of Banana fiber for recycling in construction material Burhanpur, Madhya Pradesh	
3	March 01 - 03, 2025	Educational visit for study Halma event conducted by Shivganga Jhabua	
2nd October Celebration and organize exhibition of local and rural artisans and craftsmen			

## Organizational Structure of CRDT

### Professor In-Charge

#### Dr. Debayan Sarkar

##### Research Interests:

- Visible Light Deactivation of Microbes
- Vegetable Storage employing Visible Light Photodynamic Inactivation of Microbes
- Isolation and application of Bioactive Natural Products



## Agriculture, Forestry and Environment

#### Prof. Pritee Sharma

##### Research Interests:

- Agricultural Economics (Economics of Land, Water and Forests)
- Development Economics (Rural Poverty and Trade Concerns of Developing Countries)



#### Prof. Ganti S. Murthy

##### Research Interests:

- Bioprocess development and scaleup for production of value added bioproducts and biofuels
- Biological and bioprocess modeling, control and multicriteria optimization
- Systems analysis using technoeconomic analysis, life cycle assessment and resource assessment
- Resilience and sustainability at the nexus of nutrient-energy-water-land



#### Dr. Mohanasundari Thangavel

##### Research Interests:

- Agricultural Economics
- Resource Economics: Energy, Water and Agroforestry
- Environmental Economics: Climate Change Adaption and Impact Studies
- Urban and Rural Consumption Pattern
- Farmer Producer Organizations



## Rural Healthcare

### Prof. Avinash Sonawane

#### Research Interests:

- Role of Mycobacterium tuberculosis glycoproteins and glycolipoproteins in modulation of host immune responses
- Epigenomics of stem cells during M. tuberculosis infection
- Host antimicrobial peptides in anti-mycobacterial immunity
- Drug delivery
- Development of L-asparaginase based therapy for the treatment of primary and relapse acute lymphatic leukemia



### Dr. Hem Chandra Jha

#### Research Interests:

- COVID-19 biology
- Biological and bioprocess modeling, control and multicriteria optimization
- Host-pathogen interaction- Epstein-Barr virus and Helicobacter pylori associated co-infection in cancer progression
- Epigenetic regulation- Pathogens derived pathogenesis in cancer
- Pathogens burden during viral infection of Gastric Cancer, Head and Neck Cancer and Multiple Sclerosis
- Drug discovery in cancer and infectious agents derived diseases
- Genetic Engineering



## Technology Development and Skill Development

### Prof. Sandeep Chaudhary

#### Research Interests:

- Structural Engineering
- Sustainable Construction Practices
- Composite Bridges
- Novel Bricks and Blocks
- Microstructure and Durability of Concrete
- Advanced Characterisation Techniques
- Waste management in building construction materials



### **Prof. Rajesh Kumar**

#### **Research Interests:**

- Nanomaterials & nanodevices
- Electronic and electrochromic devices
- Device physics, Raman Spectroscopy & Microscopy
- Natural Biomaterials



### **Prof. Shaibal Mukherjee**

#### **Research Interests:**

- Low-cost HEMTs/HFETs for DC-to-DC converters
- Heterogeneously integrated RRAMs for image processing and neuromorphic computation
- Next-generation ultrathin and low-cost photovoltaic
- Flexible and low-cost bio-chemical sensors for agriculture, water, and air
- High-performance UV detectors



### **Prof. Santosh Kumar Vishvakarma**

#### **Research Interests:**

- Energy-Efficient and Reliable SRAM Memory Design
- Hardware-Efficient Architecture for DNN Accelerators
- SRAM-based In-Memory Computing Architecture for Edge AI
- Reliable, Secure Design for IoT Application
- Design for Reliability



### **Prof. Pavan Kumar Kankar**

#### **Research Interests:**

- Fault Diagnosis of Mechanical Components
- Condition Based Maintenance
- Machine Learning
- Signal Processing



## Outreach and Gender Equality

### Prof. Nirjala Menon

#### Research Interests:

- Digital Humanities
- Postcolonial Literature and Theory
- Globalization Studies
- World literatures in other languages in translation
- Institutionalization of Postcolonial Literature



### Prof. Neelima Satyam D.

#### Research Interests:

- Geotechnical Earthquake Engineering
- Dynamic Soil Structure Interaction Analysis
- Liquefaction Hazard and Mitigation
- Epigenetic regulation- Pathogens derived pathogenesis in cancer
- Environmental Geotechnics
- Landslide Research
- Rock Mechanics and Underground Structures







## Jaya Prakash Narayan National Centre of Excellence in the Humanities (JPN)

### About The Centre

The Jaya Prakash Narayan (JPN) National Centre of Excellence in the Humanities, established in October 2022 at IIT Indore by the Ministry of Education, Government of India, represents a landmark initiative in research and reimagining the role of humanities in the digital age. As a premier institution of national significance, the centre is committed to pioneering cutting-edge research, advanced academic inquiry, and high-impact outreach in the two domains of Digital Humanities and Environmental Humanities. The centre is functioning as a nodal place that fosters collaborative initiatives at the intersections of language, literature, culture, environment and technology. In doing so, the centre is offered to the national and international scholars a unique research environment for extending to collaborative research using digital technologies.

### Mission

JPN Centre's mission is to facilitate cutting-edge research, education, and public engagement to cultivate a vibrant community of scholars, researchers, and practitioners who leverage digital tools, methodologies, and critical thinking to explore, interpret, and shape of the digital landscape. Through research project partnerships and inclusive outreach, aim to create knowledge and contribute to the global scholarship in Digital and Environmental Humanities. By developing new academic programmes in the emerging disciplines aim to equip the next generation of scholars and students with the knowledge and training to innovate and imagine digital scholarship and society for tomorrow.

### Vision

To be a pioneering hub of innovation and collaboration in the field of Digital and Environmental Humanities, fostering interdisciplinary research, pedagogy and outreach initiatives at the intersections of technology and the humanities.

### Pioneering Centre of Excellence in Digital and Environmental Humanities

### Facilities

Research workstation set up with computers, Laboratory equipment, and other essentials for research software's and hardware's. The necessary equipment for Digital and Environmental Humanities has been purchased and arranged for use in the centre. The centre is well equipped with training tools and techniques.

It has procured the i2S Copibook OS A2 Scanner and LIMB Processing software, complemented by TESSERACT OCR Software for efficient digitization processes. Additionally, the centre possess and extensive CMIE database. For Qualitative and quantitative analysis, visualization and 3D modelling the centre procures software like OriginPro, ATLAS.ti and NVivo etc. The Centre is also slowly developing a library of research books and publications in the two focus areas.





**STEERING COMMITTEE**



**Prof Subhas S Joshi**  
Director, IIT Indore  
Chairperson, Advisory and Steering Committee



**Prof Nirmala Menon**  
Professor of Digital Humanities,  
School of Humanities and Social Sciences  
Convener, JPN Centre



**Prof Pritee Sharma**  
Professor of Economics  
School of Humanities and Social Sciences  
Co-Convener, JPN Centre



**Prof Biswarup Pathak**  
Professor of Computational Chemistry  
IIT Indore  
Member, JPN Centre



**Prof Abhishek Srivastava**  
Professor of Computer Science Engineering  
IIT Indore  
Member, JPN Centre

### Academic Programs

The JPN Centre of Excellence in the Humanities fosters interdisciplinary research and academic growth at the intersection of Humanities, culture, environment and technology. In November 2023, JPN Centre conducted curriculum development workshop with a national and international expert committee to develop a curriculum for a M.A and Ph.D. in Digital and Environmental Humanities. The PhD program is launched in Autumn 2024-25.

### Projects

Academic Programs		
Programs	Student Intake	Year
PhD (DH & EH)	05	Admitted from July 2024
MS by Research (DH & EH)	01	Admitted from July 2024

### Outreach Activities of the Centre

Additionally, in the year, the Centre conducted various activities as part of its outreach efforts for the academic year 2024-25. Some selected outreach activities are listed below

- Workshop on Language Documentation: Techniques and Technologies (19-21 February 2024)
- Digital Humanities and Infrastructures Tools Archives & Theory Workshop (18-19 September 2024)
- Spatial Econometrics Workshop and PhD Colloquium (7-10 January 2025)
- Workshop on Financial Econometrics (9-10 January 2025)
- International Academic Collaboration Workshop Global Seminar South Asia Onsite Programme (17 - 23 February 2025)

The outreach activities of the centre aimed to raise awareness and encourage public engagement through various programs. One such initiative is the Writing Centre project funded by JPN, which led to various activities fostering community engagement, participation, and collaboration. The Centre's activities are regularly updated on its website (<https://jpnnationalcentre.com/>) and social media handles Like as **LinkedIn** <https://www.linkedin.com/in/jaya-prakash-narayan-national-centre-of-excellence-in-the-humanities-195100288/recent-activity/all/> and **twitter(X)** @jpncentre.



Glimpses of Workshop and Symposiums conducted by JPN National Centre

### Research and Development Activities

The JPN National Centre of Excellence in the Humanities fosters interdisciplinary research at the intersection of technology and the humanities. It supports innovative projects in digital archiving, computational linguistics, data visualization, and geospatial mapping of cultural heritage. By promoting inclusive and accessible knowledge systems, the centre preserves and reinterprets historical artifacts for the digital era. The Centre has initiated and supported numerous interdisciplinary research projects. It provides annual funding opportunities in the fields of Digital Humanities (DH) and Environmental Humanities (EH), enabling scholars nationwide to pursue innovative research. These grants are particularly aimed at supporting projects lacking financial backing or access to suitable academic platforms, fostering a more inclusive and diverse research ecosystem.

Each year, it invites research proposals and offers grants, mentorship, and collaborative opportunities to scholars. Through its commitment to innovation and capacity-building, the centre advances the evolving fields of Digital and Environmental Humanities and shapes the future of humanistic inquiry. In the year 2023-24, the centre received 47 research proposal and 10 were selected for funding. In 2024-25 academic year, the centre received 45 research proposal from various research institute over the country and 24 were selected for funding. The projects were shortlisted after a peer review process by external experts. The shortlisted projects were presented, and the final selection was made after a rigorous evaluation by the expert committee. Some example of projects funded include:



**Socio-economic-environmental vulnerability due to climate change-induced disasters: A tehsil-level assessment for Madhya Pradesh:** The project explores the sectoral impacts of climate and anthropogenic factors on water, food, industries, energy, and the environment.



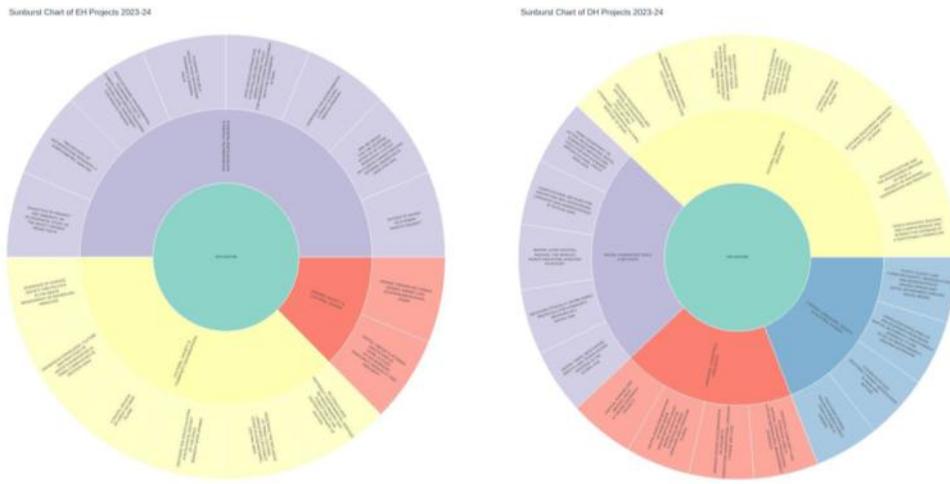
**Ancient Indian Board Games** Indian board games (and indeed other indoor games) form a significant part of our culture. The project aims to create a digital archive to preserve these cultural memories of board game and situates itself at the intersections of Cultural Studies and History.

**Digital Archive of Naga Oral Heritage** seeks to establish a new method for documenting the oral artistic and cultural expressions of the Nagas, an indigenous group from Nagaland. The study posits that Naga folksongs hold significant community knowledge and historical insights, which have not yet been fully utilised as primary sources of information.



**Dialectics of Prakrti and Samskruti:** An Ecosophical Study of the Select Ancient Indian Texts: The proposed project aims to study the eco-ethical practices of primeval Hindu civilisation laid down in varied Sanskrit liturgical texts

A glimpse of the projects supported by the JPN Centre is as below:



## DIGITAL HUMANITIES INTERSECTIONS (DHI) JOURNAL LAUNCHES AT IIT INDORE

One of the major achievements of the Centre for the year 2024 was the launch of the first Digital Humanities Journal from India. Digital Humanities Intersections (DHI) is an open-access, peer-reviewed journal dedicated to multilingual and interdisciplinary research in Digital Humanities. Published by KSHIP, IIT Indore, it explores the intersections of humanities and digital methods. DHI publishes research across key areas such as multilingual DH, critical digital studies, AI and data science in DH, spatial humanities, digital archiving, bibliometrics, and digital media studies, fostering diverse and inclusive scholarship. Aligned with the FAIR principles (Findable, Accessible, Interoperable, Reusable), DHI strives to advance the visibility, accessibility, and impact of scholarship, fostering an expansive and inclusive discourse that shapes both regional and global conversations in Digital Humanities. The first issue of the journal is under production and is due to be launched in October 2025. <https://dhi.iiti.ac.in/index.php/dhjournal/index>



**People:****Professor Nirmala Menon**

Convener of JPN National Centre  
 Professor,  
 School of Humanities and Social Science, IIT, Indore  
 Email: convenerjpn@iiti.ac.in  
 nmenon@iiti.ac.in

Prof. Nirmala Menon is Professor of English at IIT Indore and Convener of the JPN Centre of Excellence in the Humanities. She leads the Digital Humanities & Publishing Group and has authored key works on postcolonial and digital humanities. An Oxford Affiliate and recipient of major grants, she advances digital cultural heritage and open access in India.

**Research Interests**

- Text Mining and Natural Language Processing (NLP)
- Digital Editions and Digital Publishing
- Digital Archiving and Preservation
- Translation Studies
- Virtual and Augmented Reality
- Spatial Humanities and GIS
- Partition Studies
- Bibliometric Studies

**Prof. Pritee Sharma**

Co-convener of JPN National Centre  
 Professor,  
 School of Humanities and Social Science, IIT, Indore  
 Email: psharma@iiti.ac.in

Prof. Pritee Sharma, Professor of Economics at IIT Indore and Co-Convener of the JPN Centre, research on agricultural and development economics, environmental humanities, and climate resilience. Her work spans land, water, and forest governance, rural poverty, and traditional practices. She leads the Sustainability Studies Lab, mentors interdisciplinary research, and has authored widely on environmental and trade issues in developing countries.

**Research Interests**

- Climate Resilience and Adaptation
- Sustainable Agriculture and Food Systems
- Traditional Water Management Practices
- Ecosystem Services Valuation
- Environmental and Development Economics
- Rural Livelihoods and Poverty
- Urban Sustainability and Vulnerability
- Forest and Fire Management
- Sustainability Indicators and Policy Impact
- Geoinformatics and Sustainable Development

**RESEARCH ASSOCIATES**



Dr. Reema Chowdhary



Dr. Subha Chakraborty



Dr. Dinabandhu Mahata



Dr. Justy Joseph

**DOCTORAL STUDENTS**



Mr. Suman Das



Ms. Anima Singh



Ms. khayti Garhwal



Ms. Tanusri Das

**SUPPORT STAFF**



Mr. Himanshu Ramawat



Mr. Aaditya Nayak

**WEB DEVELOPER**

## Administration Section

The Administration Section oversees general administrative functions and all HR matters pertaining to non-teaching staff. It manages the complete administrative lifecycle of each employee, from joining to relieving, and maintains comprehensive service records. The section operates under the guidance of the Dean of Administration, the Associate Dean of Administration (HR and Policy), and the Registrar, with day-to-day activities carried out by the Assistant Registrar (Administration) and a team of five staff members.

Key responsibilities include completion of joining formalities; maintenance of personal files and service records; and processing matters related to pay, promotion, leave, LTC, dependent records, deputation, annual increments, confirmation and extension of tenure for contractual staff.

The section prepares responses to RTI applications, appeals, audit queries, court cases, and Ministry, Lok Sabha, and Rajya Sabha questionnaires related to non-teaching staff. It manages reservation rosters for direct recruitment and promotion, issues DPC orders, maintains the Establishment Register, and processes monthly bills for salary, overtime, lease rent, and postal charges.

As of March 31, 2025, the Institute has 171 non-teaching staff members: 29 in Group A, 55 in Group B, and 87 in Group C.

During the year, the section-initiated automation of approvals for deduction of the Transport Allowance, issuance of Address Proof, and NOC for outside positions workflows through HRMS. A new indexed filing system was introduced to improve record durability. Annual service verification and submission of Immovable Property Returns were executed timely. The Institute's telephone directory was fully digitized. All statutory and legislative queries including RTI, court cases, audit queries, and parliamentary questions – were addressed promptly. Major hospitals and laboratories were empaneled on CGHS rates, and reservation rosters were updated for all non-teaching posts. Multiple DPCs were conducted, and social-security measures for outsourced staff were advanced. Weekly staff training sessions and personalized birthday and work-anniversary messages were introduced to strengthen administrative efficiency and workplace morale.



Administration Section Team

Organized weekly in-house training sessions delivered by the Institute officials for all non-teaching staff members as per the following details:

SN	Title of Training Session	Trainer/Instructor	Date of Training
01.	Inventory - Loss and Write-off Procedure	Mr. Siba Prasad Hota, Registrar, IIT Indore	February 7, 2025
02.	CPWD Manual and Tender for Works	Mr. P V Narayana Rao, Superintending Engineer IIT Indore	February 14, 2025
03.	Part-1: IT Act and Statutes of IITI	Cdr. Sunil Kumar (Retd.) Joint Registrar, IIT Indore	February 20, 2025
04.	HR Management & Leadership	Dr. Kumar Gaurav Assistant Registrar, IIT Indore	February 28, 2025
05.	"Aiming World Class Institute" (glimpses from the training sessions held at IITB Administrative Training Centre)	Dr. Kumar Gaurav, Assistant Registrar, IIT Indore Mr. Rajan Thomas, Assistant Registrar, IIT Indore Ms. Chainika Malhotra Junior Superintendent, IIT Indore	March 7, 2025
06.	Quitting Service - Other than Retirement, Gratuity, Pension and it's classes	Mr. Ashok Kumar Dev Deputy Registrar, IIT Indore	March 21, 2025
07.	Leave Rules	Mr. Rahul Lal, Junior Assistant	March 28, 2025

### EXCELLENCE AWARDS FOR NON-TEACHING STAFF MEMBERS - 2025

Category of the Award	Name of the Awardee
Outstanding Performance by Senior Non-Teaching Staff Member (Group A)	1. Dr. Kumar Gaurav, Assistant Registrar
Outstanding Performance by Junior Non-Teaching Staff Member (Group B and C)	1. Mr. Rajesh Thakre, Junior Superintendent 2. Ms. Apeksha Rajpurohit, Junior Superintendent 3. Mr. Pankaj Kumar Sahu, Manager
Outstanding Performance by Technical Staff Member	1. Mr. Gaurav Singh, Junior Technical Superintendent 2. Ms. Princy Awadhya, Application Developer/Server Programmer
Outstanding Performance by Supporting Staff Member	1. Mr. Jitendra Verma, Junior Attendant (Multi Skilled) Grade-II 2. Mr. Anup Sharma, Attendant



## Recruitment Cell

### Introduction:

The Recruitment Cell works with the vision to build a transparent, efficient, and technology-driven recruitment ecosystem that attracts and nurtures the best talent, ensuring excellence, inclusivity, and integrity in all human resource processes. It plays a pivotal role in managing all human resource-related activities pertaining to staff members at the Institute. Its functions encompass direct recruitment, contractual and outsourced appointments, part-time engagements, and Departmental Promotion Committee (DPC) processes. The Cell is led by the Additional Registrar (Recruitment) and supported by a dedicated team of two staff members.

### Key Responsibilities:

The key responsibilities of the Cell are as follows:

- (a) Recruitment of non-teaching staff members.
- (b) Facilitating the Departmental Promotion Committee (DPC) meetings and processing cases of promotion and financial upgradation.
- (c) Maintaining comprehensive records of staff recruitments.
- (d) Regular updates of recruitment data on the DoPT portal.
- (e) Implementing process automation, digital documentation, and e-governance initiatives to enhance efficiency and transparency.
- (f) Timely responses to queries from the Ministry of Education (MoE), RTI applications, and parliamentary questionnaires (Lok Sabha/Rajya Sabha).
- (g) Coordinating with Central Government initiatives such as the Rozgar Mela.

### Highlights of Major Activities and Achievements (2024–25):

- (a) Successfully recruited 64 employees through various modes, including 24 promotions/financial upgradations through the DPC process.
- (b) Upgraded the Institute's Recruitment Portal with enhanced features to streamline and expedite recruitment workflows.
- (c) Established a dedicated independent server to support recruitment operations securely and efficiently.
- (d) Achieved 100% paperless recruitment, including digital interviews conducted via tablets instead of traditional manual files.

### Staff Recruited During 2024–25

Mode	Number of Recruits
Direct Recruitment	02
Departmental Promotion (DPC)	24
Institute Contract	06
Outsourced Staff	18
Part-time Sports Coaches	12
Part-time visiting Consultants & Doctors	02

### Conclusion:

The Recruitment Cell continues to play a vital role in strengthening the Institute's human resource base by ensuring transparency, efficiency, and adherence to government norms in all recruitment processes. Its continued focus on automation and digital transformation has positioned the Institute as a model for efficient, technology-driven recruitment practices within the higher education ecosystem.

## Finance and Accounts

2.1 The year 2024-25 is characterized with the following Income and Expenditure:

(₹ in crores)

S. No.	Particulars	2024-2025 Current Year
<b>1</b>	<b><u>INCOME</u></b>	
1.1.	Grants	185.02
1.2.	Academic Receipts	46.81
1.3.	Income from Investment	0
1.4.	Interest Earned	19.46
1.5.	Other Income	3.78
1.6.	<b>Total of 1</b>	<b>255.07</b>
<b>2</b>	<b><u>EXPENDITURE</u></b>	
2.1.	Staff Payments & Benefits	105.43
2.2.	Academic Expenses	32.19
2.3.	Administrative & General Expenses	32.88
2.4.	Transportation Expenses	0.81
2.5.	Repairs and Maintenance	11.84
2.6.	Depreciation	50.97
2.7.	Other Expenses	10.45
2.8.	<b>Total of 2</b>	<b>244.57</b>
<b>3</b>	<b>Balance being excess of Income over Expenditure</b>	<b>10.50</b>

2.2 The position relating to creation of capital assets is as under:

(₹ in crores)

S. No.	Particulars	2024-2025		
		HEFA	Other Purpose	Total
2.1	Opening Balance of Grant-in-Aid Plan	11.57	0.06	11.63
2.2	Grant received during the year	95.96	215.15	311.11
2.3	Deficit under OH-35/OH-31/ OH-36 being added from IRG	0.00	8.24	8.24
2.4	Total funds available at the disposal of the Institute	107.53	223.45	330.98
2.5	Grant utilized for Revenue Expenditure	0.00	175.62	175.62
2.5.1	Interest on Term Loan for HEFA	9.39	0.00	9.39
2.5.2	Repayment of HEFA Loan (75%)	95.15	0.00	95.15
2.6	Plan Grant after adjusting utilization for Income & Expenditure	104.54	175.62	280.16
2.7	Utilized for developing infrastructure, Buildings & Works & for Equipment's, and other Assets	0.00	23.29	23.29
2.8	Unspent balance as on 31.03.2025	2.99	24.54	27.53

### 2.3 Funds availability and status of utilization thereof:

During financial year 2024-25, against sanction of Revised Detailed Project Report (DPR) of ₹ 1,911.12 crores, a sum of ₹ 311.11 crores (For Recurring & non-recurring Purpose ₹ 215.15 crores + For HEFA Purpose ₹ 95.96 crores) were released by Ministry of Education and Deficit under OH-36/OH-31 are being added from IRG credited to Grant-in-Air ₹ 8.24 crores. The Internal income of the Institute reckoned during the year was ₹ 27.26 crores, after adjusting payment of 25% HEFA principal loan from IRG (Institute share) ₹ 31.72 cores, HRFA Interest on TL-4 ₹ 0.45 cores and after considering the unspent balance as on 01.04.25 of ₹ 27.53 crores.

A sum of ₹ 23.29 cores has been utilized for the creation of Capital assets and a sum of ₹ 280.16 cores (For Recurring purpose ₹ 175.62 crores + For HEFA purpose ₹ 104.54 crores) (which excludes Depreciation of ₹ 50.97 crores) was incurred on recurring expenditure out of the grant at the disposal with the Institute. Further Internal Revenue Generation for the year amounting to ₹ 27.26 crores transferred to Corpus Fund after adjusting repayment of HEFA loan principal (25% institute share) & interest (on HEFA TL-4, 10% of total interest) and deficit under OH-36/OH-31.

### 2.4 Reforms, measures and initiatives undertaken during the year include:

During the year under review the following reforms, measures Initiatives were initiated from Finance & Accounts :

**2.4.1** Payroll Software has been implemented during the year.

**2.4.2** Institute has developed payment gateway on IIT Indore website with State Bank of India, Canara Bank and HDFC Bank Ltd as channel partner bank for the facility.

### 2.5. Education assistance for children:

During the financial year 2024-2025, the Institute reimbursed a sum of ₹ 98,30,250/- to 199 faculty and staff members against for education assistance according to Government of India norms.

### 2.6. Transport facilities for staff members:

Transport facilities to students/ faculty members/ staff members have been provided for the benefit of movement of staff from institute campus to Indore city at subsidized rates as the IITI Campus is located far away from Indore city.

### 2.7. Advances:

During the reporting year, a total sum of ₹ 98.64 lakhs was sanctioned as personal advances for the following.

S. No.	Nature of Advance	No. of Beneficiaries	Amount Sanctioned	Amount outstanding as of 31.03.2025
			(in ₹)	(in ₹)
1	House Building Advance	05	97,64,219	2,16,29,162
2	Car Advance	-	-	42,000
3	Personal computer advance	02	1,00,000	1,64,558
	<b>Total</b>		<b>98,64,219</b>	<b>2,18,35,720</b>

**2.8 Insurance:**

Group Medical Insurance cover of ₹ 2.50 lakhs is provided for In-Patient treatment and Group Personal Accident cover of ₹ 5.00 lakhs is provided to all Students of the Institute. Expenses towards insurance is ₹ 37,25,593/- during financial year 2024-25. Care of Out-patient treatment is taken care mainly by the Health Center internally.

**2.09 Fellowships/scholarships:****2.09.1. To Research Students:**

During financial year 2024-25, Institute has disbursed Fellowships for following category of Students:

S. No.	Category of Students	No. of Student	Fellowship (Per Month)
01.	Institute Funded through MOE grant-PHD	258	JRF- ₹ 37,000/-
02.	DST Funded (PHD)	49	SRF- ₹ 42,000/-
03.	CSIR Funded (PHD)	72	
04.	UGC Funded (PHD)	163	
05.	Institute Funded through MOE grant – M. Tech.	235	₹ 12,400/-
06.	Institute Funded through MOE grant – M. S. Research	50	₹ 12,400/-
07.	DBT – NCCS Pune	7	₹ 37,000/-

**2.09.2 Merit cum Means Scholarship:**

Institute has disbursed ₹ 5,04,000/- as Merit cum Means Scholarships to B. Tech & MSc. Students who are meeting the eligibility criteria set by Institute under various categories.

**2.09.3 Remission of Tuition Fees to Deprived Class of Students:**

Institute has Remitted/ disbursed ₹ 6,64,79,967/- as Remission of Tuition fees of Under Graduate Students of Deprived Class admitted in Academic Session 2024-25 as per Ministry of Education letter F. No. 24-2/2016 TS 1 dated April 04, 2016.

## Material Management Section (MMS)

Statement of activities of Material Management Section for the Financial Year 2024-2025 till March 31, 2025

SNo.	Details	2024-25	Value (₹)
1.	Total Indent created	Total indents- 812 Nos. Departmental-793 Nos. Project above 10 Lakhs- 19 Nos.	Department Fund: ₹ 73.48 Crores Project Indent above 10 Lakhs: ₹ 2.08 Crores Total Indent Value: ₹ 75.56 Crores
2.	Total Purchase Order Issued	Total Nos. 881 Detailed bifurcation: • Total PO (LPC): 502 Nos. (Non-GeM) • Total PO (PAC): 25 Nos. (Non-GeM) • Total PO (CPPP): 15 Nos. (E-Procurement) • Total GeM Order - 339 Nos. (E-Procurement)	Total Po Value ₹ 69,85,93,438/- Detailed bifurcation: • PO Value (LPC) : ₹ 16,74,73,052/- (Non-GeM) • PO Value (PAC): ₹ 1,37,01,842/- (Non-GeM) • PO Value (CPPP): ₹ 30,78,25,133/- • e-Procurement on GeM ₹ 20,95,93,411/-
3.	Direct Purchase orders (On GeM)	Total Order 1,675 Nos.	Total ₹ 1,54,41,158/-
4.	Total Indigenous Orders	1,691 Nos.	₹ 48,12,19,385/-
5.	Total Import Orders	16 Nos.	₹ 23,28,15,211/-
6.	Prebid Meeting	44 + Nos.	Pre-bid meetings have been arranged within multiple tender processes to address the scope of supply, technical specifications, evaluation criteria, and queries from potential bidders.
7.	PBG Returned (Expired)	73 Nos.	₹ 2,56,00,000/-
8.	Concessional Custom Duty (Import)	54 Nos.	₹ 1.12 Crores
9.	Export of Samples /spare parts within India and abroad:	10 Nos.	Samples sent to Out of India for Research Purpose.
10.	EMD Refund processed (For tenders finalized upto 31/03/2025):	32 Nos.	₹ 13.96 Lakhs
11.	Letter of Credit (L/c) Established:	06 Nos. (Foreign) 01 No. (Indigenous) Total 07 Nos.	₹ 22.13 Crores ₹ 3.71 Crores Total Value of LC established: ₹ 25.84 Crores
12.	Percentage of Procurement via different modes out of Total Procurement	By no. of Orders E-Procurement (GeM + CPP)= 68.93%	By no. of Value E-Procurement(GeM + CPP)= 74.65%
13.	Global Tender exemption approval from MOE roval from MOE	05 nos.	₹ 4.56 Crores
14.	Coordination & clearance of Import under Direct Purchase by Faculty /Students	43 Nos.	₹ 21.56 Lakhs
<b>Central Stores</b>			
15.	Total stock entry (Consumable)	5269 Nos.	₹ 18,24,04,482/-
16.	Total Stock Entry (Non-Consumable/ Assets)	3209 Nos.	₹ 66,79,14,604/-
17.	Total Buy Back Material/	41 Nos.	₹ 7,45,765/-

**Best Practises:**

SNo.	Details	Remarks
1.	Pre-bid Meeting	<p>The pre-bid meeting promotes transparency, fairness, and competition in the bidding process. They provide a platform for prospective bidders to seek clarification on project requirements, ensuring a level playing field for all participants.</p> <p>Accordingly, IIT Indore has conducted 44+ pre-bid meeting in his tenders in FY 24-25 results in transparency and open communication to the bidders.</p>
2.	Representation Opportunity to the disqualified bidders	<p>IIT Indore allows disqualified bidders to represent their cases, clarify any misunderstandings, and potentially rectify errors, ensuring that qualified bidders are not unfairly excluded in the tenders.</p> <p>This approach upholds the principles of transparency and fairness in our procurement system.</p>
3.	Procurement within the deadline for project procurement	<p>Meeting the procurement deadlines for a project is of paramount importance, as it ensures the timely availability of essential materials, services, and equipment needed for project execution.</p> <p>Accordingly, IIT Indore have initiated the timebound procurement process for project requirements to formulate the customized procurement cycle to meet the requirement of the project procurement.</p>
4.	Capacity Building	<ol style="list-style-type: none"> <li><b>ERP 2.0</b> - ERP 2.0 is introduced in which whole process is Online from Indent creation (all) to the placement of the order (till 10 Lakhs).</li> <li><b>Handholding sessions on Government e-Marketplace (GeM)</b>- Handholding sessions are conducted for all stakeholders- indents, dealing assistant and office staff. These sessions aim to provide guidance and support to ensure effective navigation and utilization of the GeM platform for procurement and related activities. Also the GeM Help Desk and Training Desk is created in MMS for above sessions.</li> </ol>

## Research and Development (R&D)

IIT Indore is committed to fostering inter-disciplinary research that spans fundamental studies, applied science, technology development and innovation. This forward-looking vision has propelled the institute to achieve excellence across diverse domains including science, engineering, humanities and social sciences.

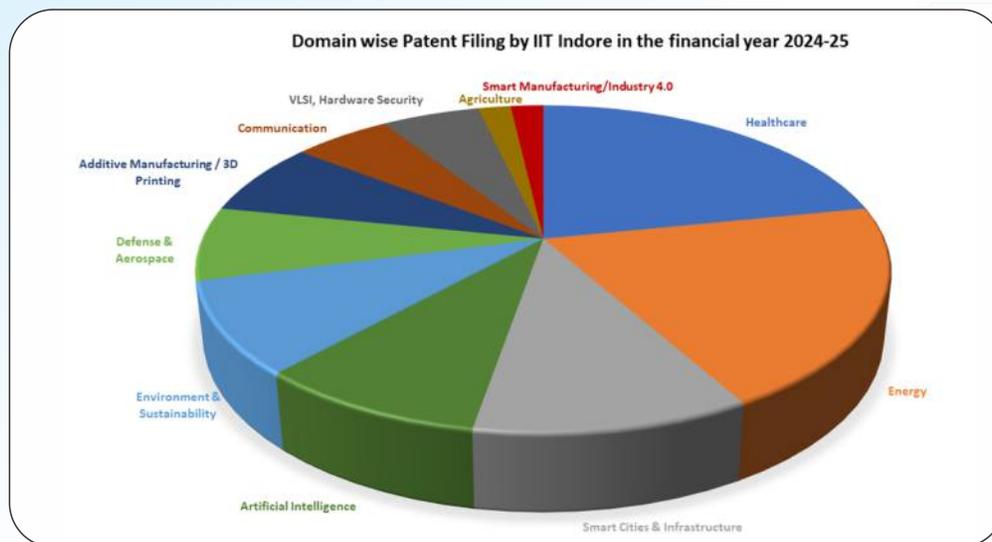
A defining strength of IIT Indore lies in its research-driven academic programs, where research is seamlessly integrated into both undergraduate and postgraduate curricula. The institute has proactively encouraged early exposure to high-end research by formally launching the Promotion of Research and Innovation for Undergraduate Students (PRIUS) scheme, empowering students to engage in cutting-edge projects from the outset of their academic journey.

Research at IIT Indore has earned widespread recognition at both national and international platforms. The faculty and researchers are actively engaged in numerous high-impact international collaborations with esteemed institutions and research organizations across Japan, South Korea, the Russian Federation, Portugal, France, Germany, the United Kingdom, the United States and several other countries reinforcing the institute's global research footprint.

### Key Achievements of Research & Development IIT Indore

#### 1) Overall Statistics:

- There are 800 R&D projects from different funding agencies including 20 projects from SPARC along with 623 consultancy projects till date.
- The overall funding received from different sponsored projects, consultancy projects, workshops etc. is 814 Cr to the Institute.
- Over 9632 reputed publications.
- 55 Indian patent applications were filed during the year the F.Y. 2024-25; a 67% increase from the previous year. This impressive surge reflects the relentless drive of its researchers and the strength of its innovation ecosystem. The total number of 210 Patents filed till date.
- The institute's IP portfolio was further enriched with two industrial designs and two registered trademarks, underlining the diversity and scope of its creative output.
- 29 Indian patents were granted, affirming the institute's position as a national leader in scientific excellence and applied research. Among the sectors making the biggest strides, healthcare innovations led the way, closely followed by significant developments in the energy sector – both critical areas for India's socio-economic growth.
- A total of 97 Patents have been granted.
- Two key technologies were successfully licensed to industry partners, turning research into market-ready applications and solidifying the institute's role in technology transfer and commercialization.
- The entire portfolio of patent applications filed between April 2023 and September 2024 was financially supported under the AICTE's KAPILA scheme (39 patent applications).
- 10-15 positions to leverage the TRL of technologies with an annual ceiling of Rs. 01 Crore is sanctioned by the institute for Translation Research Fellowship.
- 20 Translational Research Fellowships have been awarded to encourage Lab to Land ecosystem.



## 2) Recently Granted High-value Projects:

IIT Indore has received approval for ANRF PAIR Hub and NM-ICPS TTRP. Final sanctions are awaited.

### • ANRF PAIR Hub SAKSHAM:

Under the ANRF-PAIR scheme, IIT Indore is chosen to host an ANRF-PAIR network called SAKSHAM along with 6 spoke institutions: Devi Ahilya Vishwa Vidyalaya (Indore), Vikram University (Ujjain), IIIT Bhopal, Bundelkhand University, NIT Kurukshetra, and RTM Nagpur University. This new endeavor comes with an allocation of Rs. 100 crores over the next few years.

### • NM-ICPS Technology Translation Research Park (TTRP):

IIT Indore has been selected to host one of four Technology Translation Research Park (TTRP) under the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS). IIT Indore submitted a proposal through the IITI Drishti-CPS Foundation to cater to the growing need of the nation in creating a robust digital health infrastructure. After a thorough examination of the proposal from IIT Indore, the Mission Governing Board of NM-ICPS has selected IITI Drishti CPS Foundation for upgradation to TTRP under NM-ICPS in the focus area of "Digital Healthcare." This new endeavor comes with an additional allocation of Rs. 150 crores over the next few years.

## 3) Major Projects:

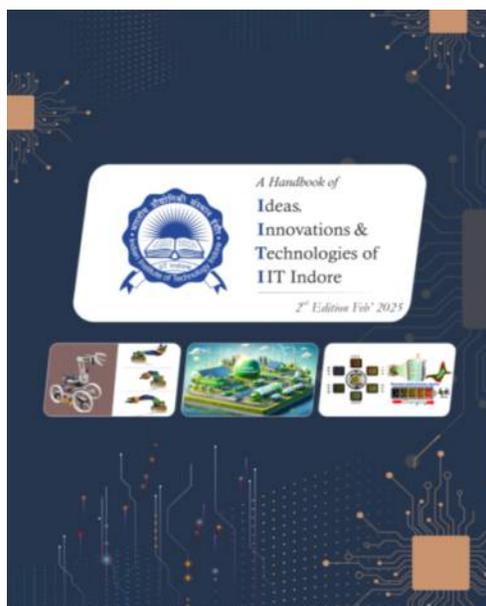
- Charak Center for Digital Healthcare is established at IIT Indore to promote translational research in the domain of digital healthcare for India.
- Agri Hub: Innovation Hub for Agriculture sanctioned to the Institute by MEITY with a total cost of Rs 14.98 Crores.
- SwaYaan: The SwaYaan project at IIT Indore has positioned us at the forefront of India's drone technology revolution. With a strong emphasis on research, innovation, and skill development, the project has successfully trained over 450 professionals in Unmanned Aerial Systems (UAS), fostering a highly skilled workforce for the nation's future needs.
- 6G Lab: The institute has been awarded prestigious projects by the Department of Telecommunications (DoT), Government of India, to work on 6G networks.
- DST CPR- CoE: A project on Technological Innovation and Intellectual Property.
- Narmada Project: A high impact project worth Rs. 6 Cr sanctioned to the Institute for the Narmada River Basin Management from the Ministry of Jal Shakti.
- A high impact project worth Rs. 10.07 Cr approved to the Institute from Ministry of Chemicals and Fertilizers, Department of Pharmaceuticals for the execution of M.Tech program in Biomedical Devices.

#### 4) Stimulus to Improve Research, Development and Innovation at IIT Indore:

- 66 YFRSG (Young Faculty Research Seed Grant) provided to young faculties of IIT Indore worth Rs. 6.57 Cr as a bridge funding by the institute till date before the first regular grant from the external funding agencies.
- Till now 21 Dream Lab projects and 7 PRIUS projects provided to young faculties of IIT Indore worth Rs. 1.4 Cr by the institute aiming to impart high-end research training in cutting edge research and to closely work with undergraduate students enrolled at IIT Indore.
- 8 Best Technology & 10 Best Research Paper Award and 1 Best Review Paper award provided by the institute to the students and faculty members with a contingency amount of Rs. 2 Lakh for each award.
- SIPPT (Scheme for Intellectual Property Protection and Technology Transfer): 61 IDF applications have been approved under SIPPT (Scheme for Intellectual Property Protection and Technology Translation) by the institute to support the faculty members by providing the partial financial support for each patent upto 25,000- for filing Indian Patent
- TRF (Translational Research Fellow) : 10-15 positions are offered to leverage the TRL of technologies with an annual ceiling of Rs. 01 Crore is sanctioned by the institute for Translation Research Fellowship. 20 Translational Research Fellowships have been awarded to encourage Lab to Land ecosystem.

#### 5) Outreach:

- **Research Spectrum:** A quarterly research magazine of IIT Indore; Volume 1 (containing 4 issues) & Volume 2 (3 issues till date) of Research Spectrum released during last year. Research Spectrum is a compilation of graphical abstracts of selected research work of the faculties and students of IIT Indore.
- **Technology Handbook:** 2<sup>nd</sup> Edition of 'A Handbook of Ideas, Innovations and Technologies of IIT Indore' has been released which compiles approximately 200 technologies of IIT Indore of various domains.



- **One Week One Technology:** As part of Research Outreach 'One Week One Technology' campaign was initiated to enhance the research outreach and understanding of Innovations/Research in Science and Technology at IIT Indore, details of such innovations are being published in various Newspapers.
- **InnoQuest Talks:** Research and Development section has started technical podcast as research outreach program. On this platform the research work of Faculties of IIT Indore from different departments are discussed and the recorded sessions are made available on the official YouTube channel 'Indian Institute of Technology Official'.



## Indian Institute of Technology Indore Official

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### Team Research and Development:



## International Relations

IIT Indore has proven its effectiveness in internationalizing its teaching and research worldwide with partnerships in higher education. IIT Indore is committed to providing world-class research and academic facilities, technological innovation hub, and promoting Indian Culture, Heritage, and Languages. To achieve these objectives, we are working with our partners across the globe to collaborate on research opportunities and the development of institutions. We aim to create a Centre of Excellence in Cutting-Edge Research Areas. It will serve as a hub that integrates research, education and practice to address key problems of today's society.

At present we have 130+ MoUs signed across the globe, developed network with 400+ foreign universities, 40+ Bilateral Research Grants with foreign institutes, 9000+ Publications, 85+ GIAN Projects, 28+ Projects SPARC, VAJRA and ASEM-DUO.

IIT Indore recently hosted many international students in our degree & exchange programs from Russia, Germany, UK, Cameroon, Ethiopia, Nepal, Ghana and other SAARC & ASEAN, African, and Middle East Region.

Recent collaborations across the globe:

Institution	Country
University of Huddersfield	The UK
University of Rennes, France (UnivRen)	France
University of Windsor	Canada
University of Transport Technology Hanoi	Vietnam
Institut Teknologi Bandung	Indonesia
University of Split	Croatia
UiT The Arctic University of Norway	Norway
Moscow State University of Civil Engineering	Russia
Babeş-Bolyai University, Cluj-Napoca	Romania
Peter the Great St. Petersburg Polytechnic University	Russia
University of Ilorin, Nigeria (UNILORN)	Nigeria
Asian Institute of Technology	Thailand
and many other world-renowned organizations...	

### IIT Indore-International Partners:

German Academic Exchange Service, DAAD
Study in India
Doctoral fellowship in India for ASEAN
Indian Council of Cultural Relations
Nepal Scholarship
Heritage Network
Shastri Indo-Canadian Institute
The Association of Commonwealth Universities
Erasmus+
INDO-ETHIOPIA NETWORK: 45 Ethiopian Universities

## Academic Pursuits

We hosted international students/faculties/researchers under various academic/research programs such as PhD Co-supervision, UG exchanges, CV Raman Fellowship, India Science and Research Fellowship (ISRF), ASEAN-India Research Training Fellowship (AI-RTF) etc. Every year, IIT Indore intake international students through various government schemes such as Study in India (SII), Indian Council for Cultural Relations (ICCR), and Association of Southeast Asian Nations (ASEAN), SAARC Finance-RBI, Nepal Scholarship.

### Year 2024-25 Inbound awardees of International Relations Programmes:

Sr.	Name	Department	Program	Country	Year
1.	Binod Sapkota	CSE	Exchange Program (Short term Research Fellowship)	Nepal	2024-25
2.	Tewodros Kassahun	Civil Engineering	Exchange Program (Short term Research Fellowship)	Ethiopia	2024-25
3.	Shimelis Tamene	Mechanical Engineering	Exchange Program (Short term Research Fellowship)	Ethiopia	2024-25
4.	Usman Mohammed Abubakar	Chemistry	Exchange Program (Short term Research Fellowship)	Nigeria	2024-25
5.	Faith Ilasanmi	MEMS	Exchange Program (Short term Research Fellowship)	Nigeria	2024-25
6.	Mr. Evans Akimat	BSBE	Exchange Program (Short term Research Fellowship)	ISAAC ASIAMAHA	2024-25
7.	Shadoo Buccas Ahmed Ajmeer	CSE	Exchange Program (Short term Research Fellowship)	Mauritius	2024-25
8.	Mr. Dipak Paudel	Chemistry	Exchange Program (Short term Research Fellowship)	Nepal	2024-25
9.	Mr. Gedefaw Asmare Tafete	Chemistry	Exchange Program (Short term Research Fellowship)	Ethiopia	2024-25
10.	Mr. Youba Raj Paudyal	CSE	Exchange Program (Short term Research Fellowship)	Nepal	2024-25

### Year 2024-25 Outbound Awardees of International Relations Programmes:

Sr.	Name	Department	Program	University, Country	Year
1.	Rakhi Saha	Physics	Exchange Program (Short term Research Fellowship)	Dankook University, South Korea	2024-25
2.	Preetha Mukherjee	SHSS	Exchange Program (Short term Research Fellowship)	New Castle University	2024-25
3.	Nikhil Kumar Pandey	CE	Exchange Program (Short term Research Fellowship)	The University of Hong Kong	2024-25
4.	Purna Kukadiya	EE	Exchange Program (Short term Research Fellowship)	West Virginia University	2024-25
5.	Saurabh Mishra	ME	Exchange Program (Short term Research Fellowship)	Ben-Gurion University of the Negev, Israel	2024-25
6.	Utkarsh Baranwal	CE	Exchange Program (Short term Research Fellowship)	Asian Institute of Technology, Thailand	2024-25
7.	Guru dayal Kumar	SHSS	Exchange Program (Short term Research Fellowship)	Yale University, USA	2024-25
8.	Rajat Kumar	ME	Exchange Program (Short term Research Fellowship)	Trinity College Dublin, Ireland	2024-25
9.	Vishesh garg	CSE	Exchange Program (Semester Exchange Program)	Braunschweig University, Germany	2024-25 2024-25
10.	Sameer Lakkad	ME	Exchange Program (Semester Exchange Program)	United Kingdom	2024-25

**Award of Mobility Grant 2024-25**

S.No.	Name of the Awardee	Department	Institute visited
1.	Dr. Debayan Sarkar	Chemistry	University of Regensburg, Germany
2.	Dr. Jayprakash Murugesan	MEMS	Nagaoka University of Technology, Japan
3.	Prof. Sanjay Kumar Singh	Chemistry	University of Alberta, Canada

**Award of International Travel Grant 2024-25**

S.No.	Name of the Awardee	Department	Institute visited
1	Dr. Chandresh Kumar Maurya	CSE	1. University of Leiden, Netherlands 2. University of Groningen, Netherlands
2	Dr. Mohanasundari Thangavel	HSS	University of Montana (UM), USA
3	Dr. Akshaya Kumar	HSS	University of Queensland, Brisbane, Australia
4	Dr. Chandan Halder	MEMS	AGH University of Krakow, Poland
5	Prof. Pavan Kumar Kankar	ME	Federation University Australia
6	Dr. Amrendra Kumar Singh	Chemistry	Stockholm University, Sweden
7	Prof. Trapti Jain	EE	Newcastle University, UK
8	Dr. Debopriya Mukherjee	Mathematics	1. University of Auckland, New Zealand 2. Monash University, Australia
9	Dr. Ashootosh Sakharam Mandpe	CE	Nottingham Trent University, UK
10	Prof. Sharad Gupta	BSBE	University of Bielefeld, Germany

**Other Academic Programmes (Inbound):**

Inbound Programme	Awardees	Home Country
Joint-Co-supervision Program	Tewodros Gera	Ethiopia
	Minyahil Tanashu Toga	Ethiopia
	Ephrem Alemu Mantose	Ethiopia
	Ayano Koyrita Banale	Ethiopia

**International Outreach**

International Outreach is a mechanism to facilitate the exchange of knowledge and skills between India and other countries, especially through collaboration between Indian universities and public institutions/organizations abroad. We have organized several webinars and talks by eminent speakers from various streams in online/offline mode this year, some major activities are as follows:



IRTG-DFG workshop organized at Indian Institute of Technology Indore in collaboration with Julius-Maximilians-Universität Würzburg



German Research Day Conference



German Research Day Conference



Establishment of Taiwan Education Centre



Visit of 29 International students under STEM Academies program in association with American Field Service (AFS)



Visit of delegation of IIT Indore to Thailand and Vietnam



Visit of delegation of IIT Indore to Nepal



Under the SPARC-UKIER project, 13 B.Tech students visited the University of Plymouth during, England

## New Initiatives to bridge between International Students and IIT Community



New Year's Celebration 2025 at IR Office



Ralamandal Wildlife Sanctuary Visit



IITI Forest Trail



Diwali Celebration

## Achievements

### 45+ Prominent International Fellowships received by IITI Students in 2025

- Raman Charpak Fellowship
- Research Internship grant 2025-26 at Prince of Songkla University, Thailand
- 74th Lindau Nobel Laureate Meeting 2025 invitation
- NUS Younger Fellowship Programme -2025
- DAAD KOSPIE fellowship
- LUH Exchange Mobility Program under LUH-IITI partnership
- Small Immediate Need Grants
- Scientific High Level Visiting Fellowships (SSHN)
- MITACS
- Internship program at Energy Research Institute, SDAS, Jinan City, China
- Research Internship Program at Louisiana State University, US
- Shraman Scholarship

### 30+ Fellowships received by International Students to Study/Research at IITI

#### Fellowships received by International Students to Study/Research at IITI

- AI-RTF
- CV Raman Research Fellowship

### Sensitization workshops and seminars held in 2025

- DAAD visit to IIT Indore – Study and Research in Germany
- DFG-German Research Day
- USIEF-Fulbright mentoring workshop
- Study in France Seminar

## Alumni & Corporate Relations (ACR)

About ACROffice: The office of the Alumni & Corporate Relations (ACR) is set up with the aim of fostering and maintaining relationships with the Alumni & Corporate entities. The office includes a dedicated, dynamic, and enthusiastic team of officials and staff members, headed by Professor Suman Mukhopadhyay, Dean, ACR, working consistently towards achieving the objectives of the institute aligned with its vision.

### A. Activities undertaken by the ACR team to foster “Alumni Relations”:

#### 1. Alumni Meets:

- 1<sup>st</sup> Meet: Successfully organised its first out of India Alumni Meet on 05<sup>th</sup> October 2024 at Amsterdam, Netherlands. The event was attended by around 12 alumni (along with their family members).
- 2<sup>nd</sup> Meet: The second India Alumni Meet has been organised on 08<sup>th</sup> & 12<sup>th</sup> December 2024 at Singapore. The event was attended by around 15 alumni (along with their family members).
- 3<sup>rd</sup> Meet: The third India Alumni Meet has been organised on 09<sup>th</sup> February 2025, at Tokyo, Japan. The event was attended by around 25 alumni (along with their family members).
- 4<sup>th</sup> Meet: Successfully organised its third out-of-campus Alumni Meet-Delhi Chapter on 24<sup>th</sup> August 2024 at Delhi. The event was attended by around 120 alumni (along with their family members).
- 5<sup>th</sup> Meet: The fourth out-of-campus Alumni Meet- Mumbai Chapter has been organised on 22<sup>nd</sup> February 2025 at Mumbai. The event was attended by around 150 alumni (along with their family members).

#### 2. Magnum Opus 2025 (Alumni visiting IIT Indore Campus):

- Magnum Opus 2025- (A get-together with Alumni & current students) held on 11<sup>th</sup> & 12<sup>th</sup> January 2025 at IIT Indore Campus. The event was attended by around 60 alumni (along with their family members).

#### 3. Collaborations with Alumni:

- Signed the first MoU with Bangalore-based alumni at Bangalore.

#### 4. Alumni Hour & Interactive Sessions:

- Mentorship Program with IRS Shashank Gupta on 29<sup>th</sup> March, 2025 (Participants: 90+ current students).

#### 5. Yearbook -2024 & 2025:

- Released 02 editions of the yearbook “ADIOS 3.0 & 4.0” for the graduating students of 2024 & 2025.

#### 6. Alumni Magazine-2024 & 2025:

- Released Alumni Magazine Edition 2024 on 24<sup>th</sup> August 2024 during Alumni Meet - Delhi Chapter and Edition 2025 on 22<sup>nd</sup> February 2025 during Alumni Meet - Mumbai Chapter.

#### 7. Institute Newsletters:

- Released the Institute Newsletter “POD Pulse” from November 2024 (Quarterly).

#### 8. Charities Aid Foundation (CAF), America:

- Received the funds from CAF America.

#### 9. “Yuva Unstoppable Scholarship Scheme 2024-25”:

- Under this programme, 26 B. Tech Students have received a total of Rs. 4 lakh as a Scholarship for the year 2024-25.

### Few Glimpses of Alumni Relations Activities

#### Alumni Meets(country-wise)



October 05, 2024,  
Amsterdam, Netherlands



December 8 & 12, 2024,  
Singapore



February 09, 2025,  
Tokyo, Japan



#### Alumni Meets (City-wise Chapter to be formed)



August 24, 2024, Delhi



February 22, 2025, Mumbai



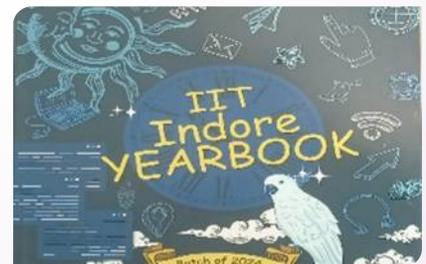
Magnum Opus 2025



MoU signed with IITI Alumni  
Chapter Bangalore



Alumni Hour session with our Alumni



## B. Activities undertaken by the ACR team to foster “Corporate Relations”:

### 1) Project implementation under CSR initiatives:

**a. Housing and Urban Development Corporation (HUDCO):** IIT Indore received financial assistance under HUDCO CSR activities for the Construction of one floor of the PM-AJAY students' hostel at IIT Indore.

*Funds Sanctioned: Rs 2.5 Cr.*

**b. Indian Renewable Energy Development Agency (IREDA):** Indian Institute of Technology (IIT) Indore, Madhya Pradesh, received financial assistance under IREDA CSR activities for the procurement of medical equipment for the Health Centre at IIT Indore.

*Funds Sanctioned: Rs. 10 Lacs.*

**c. JSW Cement: Sanction of Research project funded by ‘JSW Cement’:** One research project has been approved by JSW Cement for a period of 1 Year.

*Funds Sanctioned: Rs. 14 Lacs.*

**d. One Faculty member from BSBE:** IIT Indore signed an MoU with an Anonymous donor for the constitution of a new award named “Agam Prasad Memorial Gold Medal This to recognise and reward outstanding Ph.D. dissertations among the different departments at IIT Indore in each academic year.

*Funds Sanctioned: Rs. 10 Lacs.*

**e. Professor Ganti Murthy:** IIT Indore signed an MoU with Prof. G. S. Murthy, BSBE Department, IIT Indore, for the constitution of a new award named the “Shri Ganti Subba Rao and Smt. Ganti Venkata Ramani Award.” The award aims to recognise and reward outstanding achievements in the field of engineering by awarding the best Ph.D. dissertation among engineering departments at IIT Indore in each academic year.

*Funds Sanctioned: Rs. 10 Lacs.*

**f. Adani Enterprises:** IIT Indore signs an MoU with Adani Enterprises for one PhD Scholar known as “Adani Indology PhD Scholarship”, and the PI shall be known as “ Adani Indology Chair Professor”.

*Funds Sanctioned: Rs. 1 Cr.*

**1) Industry Visits:** As part of IIT Indore's ongoing efforts to foster strong academic-industry collaboration and explore opportunities for research partnerships, technology transfer, and student engagement, several visits were undertaken by the Institute's faculty and senior officials to prominent industries in the region. Some of them are as follows:

Industry visits to M/s. Ralson Tyres Ltd., Pithampur on Jan 7, 2025, Mahle Engine Components Pvt Ltd, Pithampur on January 24, 2025, John Deere Tractor, Dewas Plant on Feb 18, 2025, ZF Steering, Pithampur on Mar 11, 2025.

**2) Corporate/Industry visits by Students, IIT Indore:** To provide real exposure to industrial insights, student groups from IIT Indore visited various renowned manufacturing and engineering plants. These visits focused on practical learning and technical discussions with on-site engineers.

a. CNH Constructions (I) Pvt. Ltd., (March 21, 2025) 40 students, 4 Faculty

b. CNH Constructions (I) Pvt. Ltd., (March 28, 2025) 40 students, 4 Faculty

**3) Corporate/Industry Visited IIT Indore:** Multiple corporate entities and industry leaders visited IIT Indore during the academic year to explore potential research partnerships and to engage with the Institute on Corporate Social Responsibility (CSR) initiatives. Some of them are as follows:

Auto Mech Pvt. Ltd, Bangalore Oct 15, 2024, State Bank of India, on Nov 13, 2024, Indian Oil Corporation Ltd on Nov 27, 2024, Rajratan Global Wire Ltd on Jan 17, 2025, CNH Industrial Ltd. on Jan 15, 2025 and Feb 23, 2025, DCM Nouvelle Speciality Chemicals on Jan 30, 2025, REC Foundation on Mar 12, 2025.

**A Few Glimpses of Corporate Relations Activities**



Inauguration of CASE Centre of Excellence (CCoE) on 29<sup>th</sup> Jan 2025



Ralson Tyres Ltd. Pithampur, (Dist.. Dhar), on 7<sup>th</sup> Jan 25



John Deere Dewas Plant on 18<sup>th</sup> Feb 2025



Mahle Engine Components on 24<sup>th</sup> Jan 2025



ZF Steering, Pithampur Plant on March 11<sup>th</sup>, 2025



Guest Lecture by Mr. Sachin Agrawal, VECV on Feb 24<sup>th</sup>, 2025



Guest Lecture by Mr. Satendra Tiwari, CNH Constructions on March 19<sup>th</sup>, 2025



MoU signing for Gold Medal, January 14<sup>th</sup>, 2025



SBI Foundation visit on Nov 13<sup>th</sup>, 2024



Team, Alumni & Corporate Relations (ACR)

## Educational Outreach



### About the Office of the Educational Outreach:

The vision of the Office of the Educational Outreach is driven by a deep belief in the transformative power of education to shape lives, build communities, and create a prosperous world. At the core of our mission lies a commitment to excellence, equity, and empowerment in education. The department is hosting various degree and certificate programs along with skill development programs.

#### 1. Master of Science in Data Science and Management (MSDSM):

In collaboration with IIM Indore, IIT Indore has started two-year Master of Science program in Data Science & Management. Four batches have already been started since year 2021. A total of 81 students were graduated from Batch 1 & 2 in the 12th Convocation of IIT Indore. The third batch of 75 students shall be graduating & degrees are being awarded in upcoming Convocation.

#### 2. Executive M.Tech for Employees of Volvo Eicher Commercial Vehicle (VECV):

The Institute has started a two-year executive M. Tech program in “Hybrid and Electric Vehicle Technology” for Employees of VECV in the academic year 2023-24, under academia-industry collaboration signed on 31st July 2023. In the First batch, a total number of 10 employees of VECV Ltd. were enrolled in AY 2023-24. In the second batch total number of 09 employees of VECV Ltd. were enrolled in AY 2024-25.

#### 3. Inbound UG Program for students of Engg. Colleges of Govt. of Madhya Pradesh:

The Institute has also started an Outreach program, wherein the selected students of Engg. Colleges under Govt. of Madhya Pradesh are given opportunity to study and complete their last year of B. Tech at IIT Indore, under “Memorandum of Understanding (MoU) with Department of Technical Education Skill Development and Employment, Govt. of Madhya Pradesh (In-bound UG Program)” executed on 28th August 2023. In the 1st batch 23 (Nos.) & in the 2nd batch 17 (Nos.) selected students joined the program and completed their 8th Semester at IIT Indore. The third batch shall start in July / Aug 2025 tentatively.

**4. PhD program for faculty of Engineering College (CT Category):**

Recognizing the mutual objective to foster academic collaboration, enhance educational opportunities, and promote research culture, IIT Indore has started Part-time Doctor of Philosophy (Ph.D.) Program for permanent faculties from the Government (Autonomous) Engineering Colleges including University Institute of Technology – Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal under Memorandum of Understanding (MoU) with the Department of Technical Education Skill Development and Employment, Govt. of Madhya Pradesh, executed on 28th August 2024. In the First batch, a total number of 03 faculties from the Government (Autonomous) Engineering Colleges, including University Institute of Technology – Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal, were enrolled in Ph.D. program in AY 2024-25.

**5. MTech for the officers of MCTE Mhow:**

IIT Indore is going to offer a two-year M. Tech Degree Program for officers under the Sponsored Candidates (SW) category under the Center for Futuristic Defense and Space Technology (CFDST) at IIT Indore. This initiative is designed to accelerate technology absorption within the armed forces and create specialized human resources in cutting-edge technologies tailored for military applications. The program will provide state-of-the-art technology training to defense personnel.

In the First batch, a total of 30 army officers will be joining our institute in the July 2025 batch.

**6. Collaboration between IIT Indore and National Automotive Test Tracks (NATRAX):**

IIT Indore and National Automotive Test Tracks have signed an MoU for aim to conduct joint research and technology development projects on focus areas like road safety, sustainability, track predictive maintenance, use of alternate materials for tracks, as well as areas on electric vehicles and batteries, etc.

**7. Executive program in Cybersecurity and Cyber law:**

IIT Indore and National Law Institute University (NLIU) have signed an MoU to start a joint executive Master program for working professionals in the area of cybersecurity and cyber law. The program intends to develop a skilled force of digital revolution in the country with expertise not only in technology but also in law aspect.

**8. Academic association with Military Institute of Technology (MILIT), Pune:**

Academic collaboration with Military Institute of Technology (MILIT), Pune wherein IIT Indore will assist MILIT, Pune in building up capacity in the renewable energy domain.

**9. Training program for TGT- Science & Maths of PM Shri JNVs 25 to 29 November 2024.**

The Ministry of Education has introduced a scheme aimed at enhancing the quality of education across India through structured training programs for teachers of PM-SHRI Schools. This initiative focuses on upgrading the pedagogical skills, technical knowledge, integration of technology in education, and subject-specific skill enhancement and overall competency of teachers to meet the evolving educational needs in schools and higher education institutions. As part of this initiative, IIT Indore has been invited to participate in the program by offering teacher training sessions for uplifting the standard of teaching and strengthening the educational foundation at the grassroots level.

Under this program, 99 teachers attended the one-week residential Teachers Training program.

**10. Exposure visits for PM SHRI KV, & JNV School visit:**

IIT Indore is part of the PM School for Rising India (PM Shri) scheme of Govt. of India, to promote transformation in equity, access, and inclusion in school education. The overarching purpose of PM SHRI School is to nurture students in a manner that transforms them into engaged, productive, and contributing citizens. The objective of the Institute visit of students from PM Shri School for Rising (PM Shri) was to expose the students to cutting-edge research, innovations, and academic excellence

fostered at one of India's premier technical institutes. The visit aimed to bridge the gap between theoretical knowledge and real-world applications and enhance the students' understanding of current technological advancements and their implementation.

From August 2024 to March 2025, approx. 1450 students from various Kendriya Vidyalaya (KVs), PM SHRI Schools, JNV, and private schools visited IIT Indore.

**11. Margdarshan Scheme:**

IIT Indore has been nominated as Mentor Institution (MI) under Margdarshan scheme 2023 of All-India Council of Technical Education (AICTE) which aims at mentoring local Engineering Colleges (Mentee Beneficiary Institute). In Under the Margdarsan Scheme many activities performed are: -

- 2-day startup bootcamp for students and faculty;
- Faculty Development Program;
- Students Practical Learning;
- Guidance on NIRF Ranking.

**12. Sant Shiromani Ravidas Global Skill Park (GSP) under the Department of Technical Education, Skill Development and Employment, Govt. of Madhya Pradesh:**

IIT Indore entered into an agreement on October 04, 2023 with Sant Shiromani Ravidas Global Skill Park (GSP) under the Department of Technical Education, Skill Development and Employment, Govt. of Madhya Pradesh, wherein IIT Indore will run and operate training facility at Centre for Occupational Skills Acquisition-II (COSA-II) in the GSP and will offer industry aligned programs. The potential beneficiary of this scheme will be the students of ITI, Diploma and B.E./B.Tech programmes of educational institutions running under the aegis of Govt. of Madhya Pradesh.

A total of 42 students participated and were trained at Central Workshop.

## MakerSpace Laboratory - IIT Indore

The MakerSpace laboratory of IITI comprises of world-class infrastructure equipped with state-of-the-art facilities for prototype development, innovation and experiential learning. The lab has all the essential facilities related to electrical, electronics, mechanical, and computational under one roof to cater the prototype and product development requirements in pilot scale. It undertakes laboratory sessions for 1<sup>st</sup> year UG students of IIT Indore. In addition to this, the Makerspace laboratory also provides support for a few other core and elective courses offered to senior UG students and PG & PhD students. These facilities are accessed by the UG students for their final year B.Tech projects, Masters and PhD students for their research, and several faculty members for executing their research projects.



### Highlights of activities by Makerspace Laboratory during AY 2024-2025 are as follows:

- **Genesis Program:-** The makerspace laboratory has organized a Genesis Program for newly joined B.Tech Students from 27 -31 Jul 2024. Bridge making activity, assembly /disassembly activity for Gearboxes, Robot, Carburettors, Clutches, Valves, Microscope, CPU, Microwave and Paper shredder were performed by the students.
- **Laboratory Classes:-** Makerspace has conducted practical classes of Makerspace lab (IC-152) in Autumn and Winter semester. Practical works on stitching of Aprons using a sewing machine, Modelling of 2D and 3D components, 3D printing of parts, CNC machining of materials, joining of metals, Simulation of the circuit, Assembly, and testing on Breadboard, the know-how of the Oscilloscope, function generator, Power source etc. Soldering of joints, PCB routing using software, PCB fabrication and testing, Coding and interfacing sensors to Arduino and Raspberry-PI, Basic signal generation and measurements with Arduino were completed by students (Total 457 students).
- **Fabrication Request completed by Makerspace:-** The Makerspace has completed 34 Nos of different work requests for various purposes, including UG/PG teaching, PG Research, BTP, and Sponsored projects.

- **Demonstration of line following Robots (the final project IC-152 course of 1<sup>st</sup> year UG students):-** The B.Tech first year students have fabricated 80 nos. of line follower robots for different applications (i.e. Agriculture, Householding, Housekeeping, Industrial works etc.). The laboratory assisted the students in terms of resources, guidance and consumables.



Line follower Robot Presentation

- **Capstone projects:** To enhance the student's hands-on skills and promote interdisciplinary learning activities, to be able to fabricate a prototype or product and to apply the concepts learn in the class to real life applications the makerspace laboratory has offered capstone projects. Currently 23 projects proposal submitted by faculty members and more than 86 students are working on 19 real life projects.
- **Training Program:** - Following training program has organised:
  - Makerspace lab (CELITE, Ujjain) has organized training programs on Digital Manufacturing for B.Tech students of UEC Ujjain from 30 April – 1 May 2024, 12-13 Dec 2024, 23-24 Dec 2024, 24-25 Feb 2025, 27-28 Feb 2025 and a total 142 students were trained.
- **Visit of Eminent Professors/Industrialist/Scientists/Faculties/Officials/Students:** The Makerspace state of art facilities visited by several Eminent Professors/Industrialist/Scientists/Faculties/Officials/Students (College and School Students) during the year 2024-2025. All the visitors appraised the Makerspace facilities.

## Infrastructure Development Office



Infrastructure Development Office Officials

IIT Indore was allotted 501.42 acres of land, including 198 acres of forest area. The Infrastructure Development Office of IIT Indore is one of the service departments which plays a vital role in providing the requisite infrastructure facilities such as buildings, electricity, water supply, roads and pathways, parks and gardens and all other amenities required in the campus, along with its maintenance. The institute has completed a mandate of 2.21 Lakh square meters area (36 structures) of construction. Further, Phase III(A) construction work has started, and for Phase III (B) and Phase III (C), a proposal of Rs. 624 crores are under the ministry's consideration.

In the last year, the following developments have been taken up in the campus:

1. Development of Sports Arena
2. Construction of Faculty cabins in LRC 4th floor
3. Construction of Sambardhan Technology Advancement Complex
4. Construction of Kshitij Mandapam
5. Development of Megdoot Sarovar
6. Construction of Rainwater Harvesting Ponds
7. Construction of Animal House
8. Construction of the Laboratory Complex
9. Construction of Multilevel Car Parking
10. Construction of Hostel under PMAJAY Scheme
11. Construction of Covered Corridor
12. Sports Lighting in Cricket Ground
13. Additional 2.5 MVA Transformer at ESS-07
14. Phase III A works



### 1. Development of Sports Arena:

Salient features of the Sports Arena are as follows:

- 1) Football ground
- 2) Synthetic athletic track
- 3) Hockey ground
- 4) Lawn tennis courts – 2 Nos.
- 5) Volleyball courts – 2 Nos
- 6) Seating Gallery
- 7) VIP Lounge, Dormitory, Indoor sports area, etc. at the basement
- 8) Various sports facilities such as Discus & Hammer Base, Javelin throw, High Jump, Short put, Steeplechase, Polo vault, triple jump and long jump, including warm-up area.

The Facility was Completed on 30.05.2025.



2. **Construction of Faculty Cabins at LRC 4<sup>th</sup> Floor:** To accommodate seating arrangements for faculty members and students, faculty cabins are created by partition work on the 4<sup>th</sup> floor of the Library Building. The area includes 12 is designed cabins, each approximately 150 sq. ft. in size, along with a common seating space designed to accommodate around 40 students. The facility is completed on 07.06.2024 and occupied.



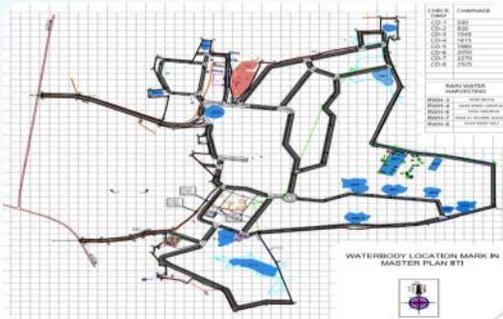
3. **Sambardhan Technology Advancement Complex (Transit Lab Complex):** IIT Indore has developed laboratory spaces near the existing Drishti Bhawan building (Old Taste Buds building). The facility consists of 4 labs with a total area of 4660 sqft. The facility is completed on 05.11.2024 and occupied.



4. **Construction of Kshitij Mandapam:** Large dining facility for hosting guests for lunch/dinner during events is being developed near the Central Dining facility. It consists of an Open Hall of 2500 capacity, 2 Kitchen area, 2 Utensil Wash Area, 2 Storeroom & 2 pantries. The facility is completed on 18.01.2025 and occupied.



- Development of Meghdoot Sarovar:** Recreational Space including a waterbody is developed between Abhinandan Bhawan and Library for the IIT Indore community to relax. It has a walking path around the waterbody and seating space around with green plants surrounding the area.



- Construction of Rainwater Harvesting ponds:** IIT Indore is developing 8 number of check dams and 7 RWH rainwater harvesting ponds of total capacity approximate 22.32 Crore Liters in the campus for water conservation.

Out of 7 RWH Ponds, 5 are already developed and 2 are proposed. Further out of 8 Check dams, 2 are already developed by the Institute and the remaining 6 are under planning. The total present storage capacity already developed is 15 Cr liters.



- Animal House:** It is a research facility for BSBE faculty & students with a total area of 5509 sqft. It is planned for G+3 and is currently only on the Ground Floor.



- Construction of Laboratory Complex:** In view of the increasing strength of faculty and students in IIT Indore, a laboratory of an approximate area 22,000 sqft is planned for faculty and students to meet their research requirements. The laboratory consists of 8 nos. 24 faculty cabins & seating space for 96 students.



- Construction of Multilevel Car Parking:** In view of the increasing strength of faculty and staff members in IIT Indore, the Institute has felt the need to develop a multi-level parking facility for institute community members as well as visitors. The parking facility has capacity of 76 cars (38 on GF + 38 on roof) and is located near Abhinandan Bhawan & LRC.



- 10. Construction of Hostel Under PMAJAY Scheme:** Under the scheme, the Ministry of Social Justice & Empowerment has the provision of construction of hostels under the generally sponsored scheme of Pradhan Mantri Anusuchit Jaati Abhyuday Yojna (PM-AJAY). The Hostel has a capacity of 250. The Hostel has G+5 floors with an area of 6,550 sqm.



- 11. Construction of Covered Corridor:** Covered Corridor is built to facilitate the movement of students from Hostel Block to Academic blocks during rainy season and peak summers. The work is carried out for approximately 808 meters in length.



- 12. Sports Lighting in Cricket Ground:** Sports lighting of class-I Non-Televised Lighting level is provided in the cricket ground to facilitate the students, faculty & staff for enabling practice sessions & matches to be conducted beyond daylight hours.



- 13. Additional 2.5 MVA Transformer at ESS-07:** Looking at the increased load demand, power redundancy and future expansion requirements, installation of an additional 2.5 MVA, 11/0.433 kV Dry Type transformer at ESS07 (Near Central Workshop) was carried out. The installation of an additional transformer at ESS07 will serve the following purposes:

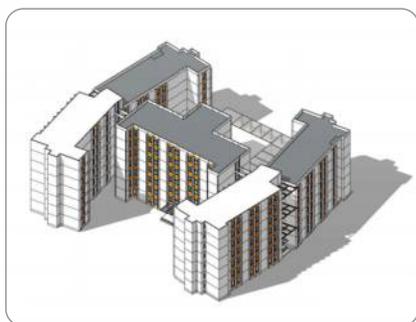
- (a) Load Sharing: It will help distribute the load evenly between the transformers, preventing overloading
- (b) System Expansion: It will support upcoming infrastructure and equipment that will increase the power demand
- (c) Improved Reliability: Enhanced backup capacity in case of failure or maintenance of the existing transformer.
- (d) Voltage Stability: Improved voltage regulation during high-demand conditions.

**14. Phase III (A) Works:** Owing to the expansion of academic and research activities of the Institute it is necessary to create academic and supportive infrastructure for which the Institute has planned works under Phase III (A). The proposal amounts to Rs. 496 Cr and is sanctioned by HEFA. The works are under progress. Brief details are as follows:

**Other Academic Programmes (Inbound):**

Inbound Programme	Awardees	Home Country
Name of Work	Area / Floors	Facilities
Hostel (BH07)	15450 / G+6	750 nos. Occupancy
Hostel (GH02)	15450 / G+6	750 nos. Occupancy
Hostel (GH04)	15450 / G+6	750 nos. Occupancy
Studio Apartment (SA 01)	11000 / G+7	104 nos 2BHK & 16 nos 1 BHK
Residential Complex (FH07)	9795 / G+7	64 nos 2BHK units
Heavy & Sophisticated Lab Complex (Academic POD)	28820 / G+5	The Total Area is 28820 sqm. 6 Heavy Labs of Double Height 24 Module-2 Labs
Academic POD		53 Module-3 labs 12 COE labs
Infrastructure for Centers of Excellence		2 SIC labs 96 Faculty Rooms 384 Student Seating

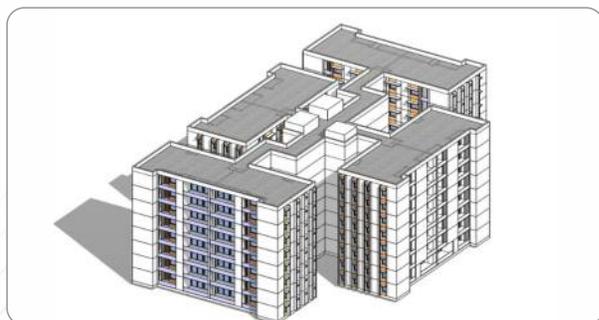
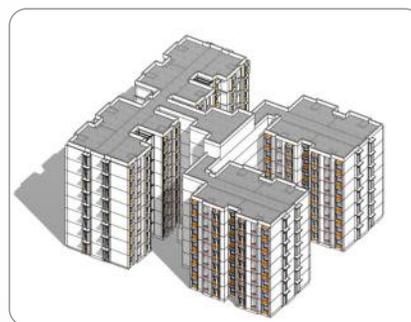
**Proposed Elevation for 3 Hostels**



Proposed Elevation for Studio Apartment



Proposed Elevation for Residential Complex



Proposed Elevation for Heavy & Sophisticated Lab Complex (Academic POD)



## Student Affairs

The Student Affairs Office serves as the administrative interface between the institute and its students, primarily overseeing and supporting various student-led initiatives and events through the Student Gymkhana. The office is led by:

- Prof. Srivathsan Vasudevan – Dean of Student Affairs (DoSA)
- Dr. Sanjeev Singh – Associate Dean of Student Affairs (ADoSA tenure till May 2025)
- Dr. Jayaprakash Murugesan – Associate Dean of Student Affairs (ADoSA1)
- Dr. Abhijeet Joshi – Associate Dean of Student Affairs (ADoSA2)
- Cdr. Sunil Kumar (Retd.) – Joint Registrar
- Ms. Shilpa Chouhan – Junior Superintendent
- Mr. Surendra Singh Sulya – PA to DoSA

**Student life:** The student life at the campus is vibrant, dynamic, and designed to promote both academic excellence and personal growth. The Institute fosters a holistic learning environment through:

- Structured extracurricular activities via various clubs and cells.
- BTech project work and industrial visits, promoting practical learning.
- Strong engagement with Industry and Academia, preparing students for real-world challenges.
- A healthy student personalized academic support and mentorship.

**Live (Lifeskills initiatives and value education):** LIVE is a committee comprising all the stakeholders who work on the well-being of students. The committee consists of members from academics, student affairs, health centre and the counselling centre. They all are at the same table and discuss ways to improve the students' mental wellbeing and address several concerns of the students. Since all the stakeholders are on one frame of mind, it gives focused attention to student needs and IIT Indore is the first institute to have such a model.

**GENESIS:** A flagship orientation program of IIT Indore, GENESIS (Guiding Emerging New Entrants through Student Induction and Support) is designed to ensure a smooth academic and emotional transition of first-year students into the Institute's ecosystem. No classes are held during this period. The program encompasses academic familiarization, mentorship, wellness sessions, exposure to institutional ethos, and structured visits including the Army Aero Nodal Center, Army Marksmanship Unit, Infantry Museum, and Cadets Training. GENESIS promotes early engagement, discipline, and institutional belongingness among students.



**Gymkhana:** The Student Gymkhana is the central student body responsible for coordinating student activities and initiatives. It is divided into five main councils namely, Science & Technology Council, Cultural Council, Sports Council, Counselling, Outreach & Alumni Council, and Academic Council.

**Science & Technical Council:** With a total of fifteen clubs, the Council remains united by a singular vision: to drive technological excellence at IIT Indore. The Science & Technology Council takes pride in having successfully organized IITISoC (IIT Indore's Summer of Code), along with a series of enriching workshops and events throughout the year. These initiatives are aimed at fostering technical learning, innovation, and holistic student development. The members have consistently undertaken challenging and innovative projects, ranging from cutting-edge AI applications to competitive hardware builds, and have showcased their



talents at national-level competitions with remarkable success. This year, the Council will be participating in prestigious platforms such as NIDAR and IKR, marking another step forward in our mission to strengthen IIT Indore's presence in the national and global technological arenas.

**Cultural Council:** Comprising of sixteen clubs, the Council has transformed the Institute into a thriving hub of culture, creativity, and community engagement, showcasing the immense talent and diversity of its students. Throughout the academic year, the Cultural Council brought the campus to life by celebrating the spirit, talent, and creativity of the student community. From mesmerizing performances during Independence Day, Republic Day, and Teacher's Day, to soulful expressions of Indian classical art forms, every event reflected the Council's commitment to cultural richness and artistic excellence. Competitive events like IBCC and T vs M challenged students' intellectual depth, while festive gatherings – including Rangreza, Cultural Nights, Musical Evenings, Drama Showcases, Garba Nights, and donation drives – fostered community, celebration, and compassion.



**Sports Council:** The Institute had the honor of hosting the 38<sup>th</sup> Inter IIT Aquatics Meet, bringing together top athletes from across 18 IITs to compete in a spirit of excellence, sportsmanship, and camaraderie. The event showcased thrilling swimming and water polo competitions, highlighting the dedication and talent of student-athletes from across the nation. As hosts, the Institute provided world-class facilities, seamless organization, and a vibrant atmosphere that made the event a memorable success.



We proudly hosted the 57<sup>th</sup> Inter IIT Sports Meet, one of the most prestigious sporting events in the IIT ecosystem. With participants from all 23 IITs, the event was a grand celebration of athleticism, teamwork, and competitive spirit. From intense matches to inspiring displays of resilience and unity, the Sports Meet was a true testament to the strength of student sports culture. The Institute is proud to have set a new benchmark in hospitality, infrastructure, and event management.

In addition, the Sports Council continued to energize campus life through a dynamic array of athletic events, including JOSH, SHAURYA, and the General Championship. These initiatives are designed to foster enthusiastic student participation and cultivate a strong, inclusive sports culture across the institute.



A major highlight of the year was LAKSHYA 3.0, IIT Indore's flagship inter-college sports fest, held in February 2025 under the spirited theme "Ignite the Spirit." The event drew participation from 12–15 institutions nationwide, with over 500 athletes competing in 9 different sports disciplines. This large-scale fest not only celebrated athletic excellence and teamwork but also strengthened bonds within and beyond the Institute community, firmly establishing the Institute as a growing force in collegiate sports.

**Academic Council:** The Academic Council played a pivotal role in promoting academic engagement and intellectual growth throughout the year. A key initiative was the successful organization of the Research and Industrial Conclave 2025, aimed at inspiring young minds toward research, innovation, and industry collaboration. The Council also



conducted Departmental Orientations across all academic branches, ensuring smooth academic transitions and fostering early student-faculty interaction. Additionally, the Council introduced "Techno Samvad", an interactive platform designed to enhance academic awareness and encourage dialogue among students on pressing academic themes and opportunities.



**E Summit'24:** The Entrepreneurship Cell (E-Cell) Indore continues to foster innovation, creativity, and a strong entrepreneurial spirit among students. In 2024, E-Cell successfully organized E-Summit'24 and Marketing Fiesta, two flagship events that brought the entrepreneurial ecosystem to life on campus. These events featured insightful sessions by renowned personalities, including Mr. Nitin Vijay, Mr. Deepanshu Raj, Mr. Rajesh Dembla, Mrs. Swati Ganeti, and several successful startup



founders, who shared their journeys and inspired the next generation of changemakers. In addition to speaker sessions, E-Cell hosted a range of interactive events such as pitching competitions and "Break It Down", all designed to cultivate entrepreneurial thinking and problem-solving skills among students. Through these initiatives, the E-Cell continues to build a vibrant startup culture and empower students to transform ideas into impactful ventures.

**Fluxus 12.0:** Fluxus 2025, the annual technical fest, was a spectacular celebration of innovation, culture, and creativity. The fest reached new heights with a mesmerizing performance by the legendary Sonu Nigam, whose soulful melodies added a magical touch to the grand celebrations. Alongside the cultural extravaganza, Fluxus featured an array of technical competitions and exhibitions, including impressive showcases from RRCAT, which captivated the audience with cutting-edge technology and research.



The fest opened with Kavyanjali, a soulful evening celebrating poetry and storytelling, featuring renowned artists like Pankaj Dixit, Shubham Pandey, Ekagra Sharma, Manu Vaishali, and Rajesh Kumar, who wove together a tapestry of words and emotions. Enriching the intellectual atmosphere were the Words of Wisdom sessions, where distinguished personalities such as



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Mr. Anil Swarup, Dr. Sanjay Arora, and Dr. Gajendra Purohit shared invaluable insights and inspiration. Fluxus 2025 truly shone as a vibrant platform for creativity, intellect, and inspiration, reflecting the dynamic spirit of the Institute.

### Other Highlights

**MUN 8.0:** With the esteemed presence of Mr. T. S. Tirumurti, former Permanent Representative of India to the United Nations, MUN 8.0 became a vibrant and intellectually enriching experience. The conference witnessed enthusiastic participation from over 300 students across various schools and colleges, creating a dynamic platform for future diplomats and changemakers.



**Hostel Days Celebrations:** The Hostel Days festivities this year were livelier and more colorful than ever. Each hostel showcased diverse talent ranging from soulful singing and energetic dancing to storytelling, painting, and cooking – creating an electric atmosphere filled with camaraderie and creativity.

### Achievements

**Cracking the Code:** Congratulations to Naren Kumar Sai, P.V. Sekhar, and Nishkarsh Luthra for qualifying for the ICPC World Finals 2024 in the Chennai region. Their team secured an impressive 21<sup>st</sup> rank in the onsite regional round, showcasing exceptional coding and problem-solving skills.



**Hackathon Heroes:** The team, Prince Suman, Chandrahaas, Vatsalya Singh, Amit Mittal, and Harsh Mantri, emerged as National Finalists in the prestigious C2S Digital Hackathon, demonstrating outstanding innovation and teamwork.

**Foundation Day Celebrations:** The 16<sup>th</sup> Foundation Day was marked by the presence of Prof. Rajesh S. Gokhale, Secretary of the Department of Biotechnology. The event featured the inauguration of the Samvardhan Technology Advancement Complex, launch of new academic programs, and felicitations honoring distinguished faculty and staff.



**Cultural Excellence - Inter IIT Showings:** Mime Performance (5<sup>th</sup> Place): Delivered by a talented ensemble including Vijit, Nainsi, Mapansh, Dhruv, Vansh, Arnab, Apoorv, Parl, Rubal, Naveel, Sanskriti, and Yash.

3D Animation (5<sup>th</sup> Place): A visually stunning 10-second rendering challenge entry by Advait, Praneet, Kshithij, Manan, and Yash.

Street Photography (7<sup>th</sup> Place): Beautifully captured street narratives by Umang, Aditya, Atulya, Adi, Rishi, Kavya, Harsh, Rishabh, and Adinath.

Hindi Slam Poetry (5<sup>th</sup> Place): A powerful original verse performance by Raina Tathed.

Cinephiles Club Triumph (2<sup>nd</sup> Runner-Up Overall): Exceptional storytelling across Online Filmmaking and 51-Hour Movie Challenge, led by Viswajith, Anshul, Priyash, Prem, Sarth, Anuvab, Lavanya, Pranjal, Rachit, Yash C., Soumya, Shivam, and Kapil.

**Welfare Activities:** Demonstrating vibrant community spirit and social responsibility, the Section has championed a series of impactful welfare activities throughout the year:

**Blood Donation Drive:** On the 16<sup>th</sup> Foundation Day, Blood Donation camp was set up where 262 selfless donors contributed to this lifesaving cause.



**Cloth Donation Campaign:** The Avana Club launched a campus-wide cloth donation drive from May 9 to 15, extending warmth and support to those in need. A major cloth and stationery collection drive mobilized the entire campus community, with donations thoughtfully distributed to underprivileged groups, exemplifying empathy in action.

**Diwali Outreach:** During the festive season, students shared sweets and bottled treats with transport office staff, fostering gratitude, inclusion, and joy across campus.

**Support for Visually Impaired Students:** In collaboration with the Being Sevak Charitable Foundation, essential educational kits—including braille systems, nutritional supplements, and learning materials—were delivered to blind students in Mumbai, promoting accessible education.

**School Engagement Initiative:** The Avana team conducted interactive academic sessions for students from Grades 4 to 12 at Simrol Higher Secondary School and Kanyashala. They also regularly visit the Government School at Gajinda, which has been adopted by the Institute, strengthening educational outreach.

**Plantation Drive for Sustainability:** To reinforce environmental stewardship, students organized a successful plantation drive, enhancing campus greenery and raising awareness about ecological responsibility.



## Training & Placement Cell, IIT Indore

The Training & Placement Cell (TPC) of IIT Indore is committed to fostering outstanding career opportunities for its students by building strong relationships with leading multinational corporations, research institutions, and public sector undertakings (PSUs). Acting as the central coordination body for campus placements, the Cell ensures a smooth and efficient recruitment process for both recruiters and students.

With a dedicated team comprising faculty, staff, and an enthusiastic student taskforce, the TPC actively engages with reputed Indian and international organizations to secure full-time placements and internships. This collaborative ecosystem enables the seamless execution of placement-related activities throughout the year.

### Placement Session Overview

The placement session for the academic year 2024–25 was conducted in a hybrid format, beginning in October 2024 and concluding till convocation for full-time recruitment. The internship season started earlier, in August 2024, and continued till December 2024.

### Key Highlights

- Despite a challenging global economic climate and widespread hiring slowdowns, IIT Indore witnessed a notable increase in both the number of participating companies and total offers made, compared to the previous year.
- 140+ organizations, spanning sectors such as Automobile, High Frequency Trading, Information Technology, Consulting, Analytics, Core Engineering, Research, and PSUs, recruited from IIT Indore.
- The highest package offered doubled compared to the previous placement season.
- There was a significant rise in core-sector placement opportunities across all academic programs.

### Student Placement Preparation:

The TPC plays a vital role in preparing students for placements and internships by conducting a comprehensive suite of career development initiatives and industry engagement programs. Through workshops, competitions, and knowledge-sharing platforms, students are equipped with skills that align with evolving industry expectations.

### Key initiatives during the year included:

1. **Skill Enhancement Workshop: "Resume to Offer: Strategies for Success"** A focused workshop on resume building and interview preparation was organized for final-year students. The sessions on "Crafting a Standout CV" and "Impactful Interviews" attracted 150+ participants, offering them actionable insights from professionals.
2. **Placement Experience Handbook: "Internship Experience Handbook"** – were developed and circulated to students, providing peer-led guidance, preparation strategies, and success stories to aid their placement journeys.
3. **Launch of Flagship HR Event: OpportuNEX:** The TPC successfully hosted two editions of OpportuNEX, a flagship HR conclave aimed at bridging academia and industry. It included panel discussions, expert talks, where eminent talent acquisition leaders shared industry insights with students.
4. **Placement Automation Software:** A new software platform was introduced to streamline the placement process, providing a user-friendly interface and real-time communication channels for both students and recruiters.
5. **One-On-One HR Mentorship:** As part of a special initiative, students winning an internal trivia competition were given exclusive access to personalized career guidance from leading HR professionals.

6. **Placement Talk Series:** Placement Talk 2.0: Following the success of the previous year, the TPC conducted a new series of talks by recently placed students. These sessions, covering diverse domains such as Software, Core Engineering, Consulting, and Analytics, offered detailed preparation strategies and personal experiences to current batches.

#### Glimpse of above events:



Discussions, Guidance and Interactions:



OpportuNEX:



Placement Talk:

#### Key Recruiters at IIT Indore

IIT Indore has experienced remarkable growth in both the number of companies visiting the campus and the compensation being offered to students. The initial part of the recruitment season was dominated by companies offering roles in Software Development, Research & Development, AI/ML, and Data Science/Analytics. Many of these firms are global leaders in their respective fields.

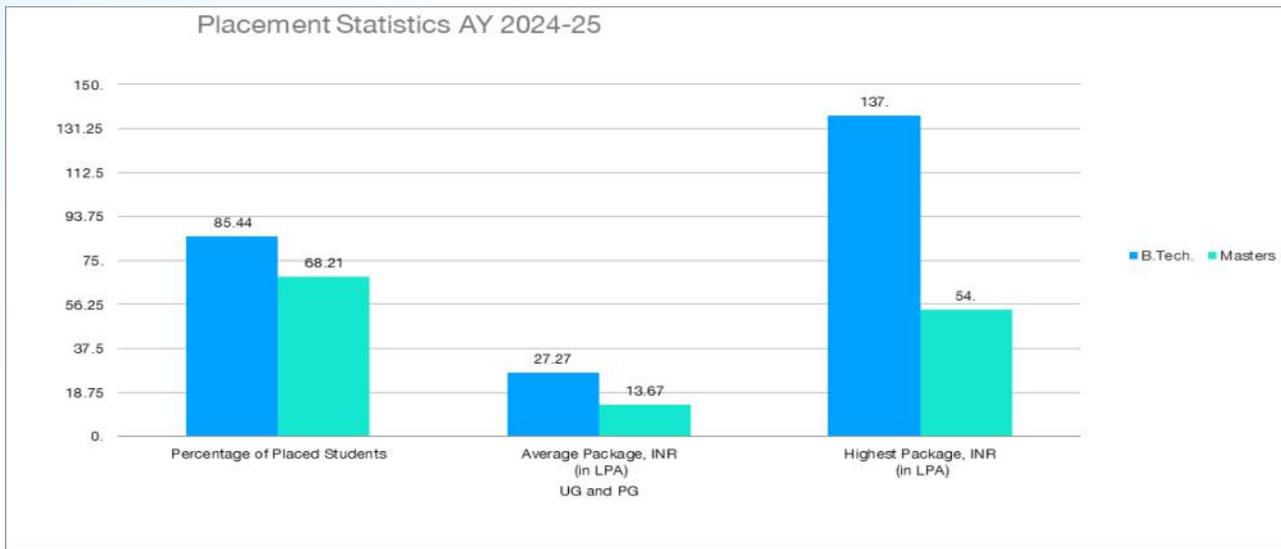
The world's top consulting firms, banks, and software companies participated in the placements, reflecting IIT Indore's success in attracting some of the best recruiters to hire from its talented pool of students.

Additionally, there was a significant increase in the participation of Public Sector Undertakings (PSUs) in campus recruitment. Leading PSUs such as HPCL, BPCL, EIL, MECON, BEL, and C-DOT offered full-time positions to our students.

Leading companies that extended full-time placements and internship opportunities included Google, DE Shaw, Quadeye, Blackrock, Data Bricks, BNY Mellon, Deloitte, TCS, Qualcomm, Flipkart, Axtria, Mahindra & Mahindra, L&T, Jindal Stainless Limited, Volvo Eicher Commercial Vehicles Pvt. Ltd., Paytm, Futures First, Goldman Sachs, Oracle, MathWorks, Switch Mobility, Texas Instruments, Nvidia, Spectral Design, Zomato, TATA Capital, Versa Networks, Analog Devices, and HCL Tech, among others.

Overall Placement Statistics with Chart and Matrix (AY 2024-25)

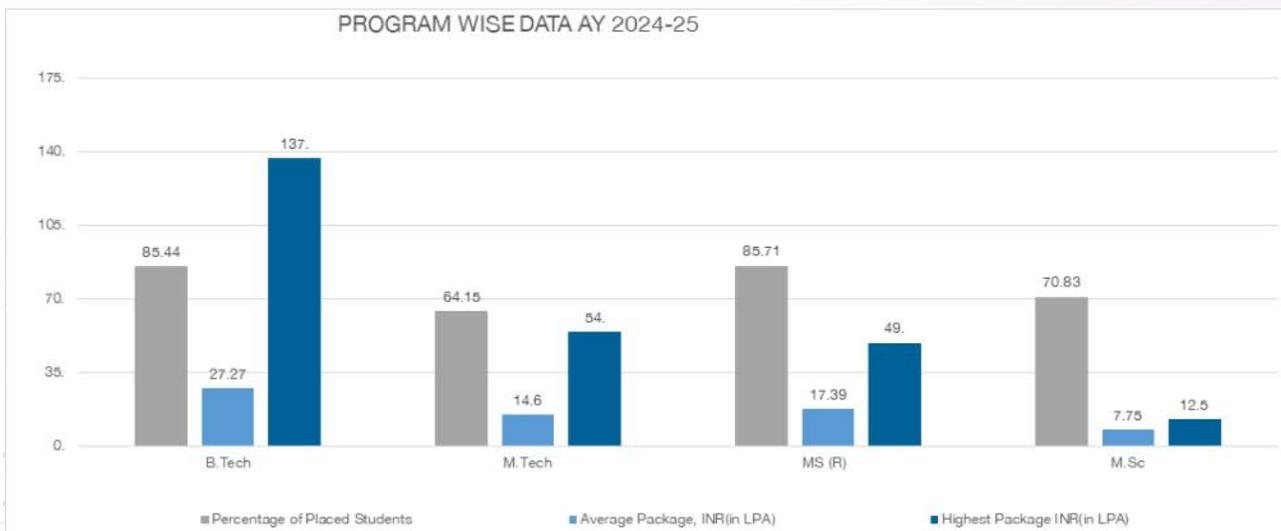
Program	Batch Size	Registered Student	Total Placed	Percentage of Placed Student	Average Package, INR (in LPA)	Highest Package, INR (in LPA)
B.Tech	353	316	270	85.44%	27.27	137
Masters	270	151	103	68.21%	13.67	54



Program- Wise Placement Statistics in Chart and Matrix (AY 2024-25)

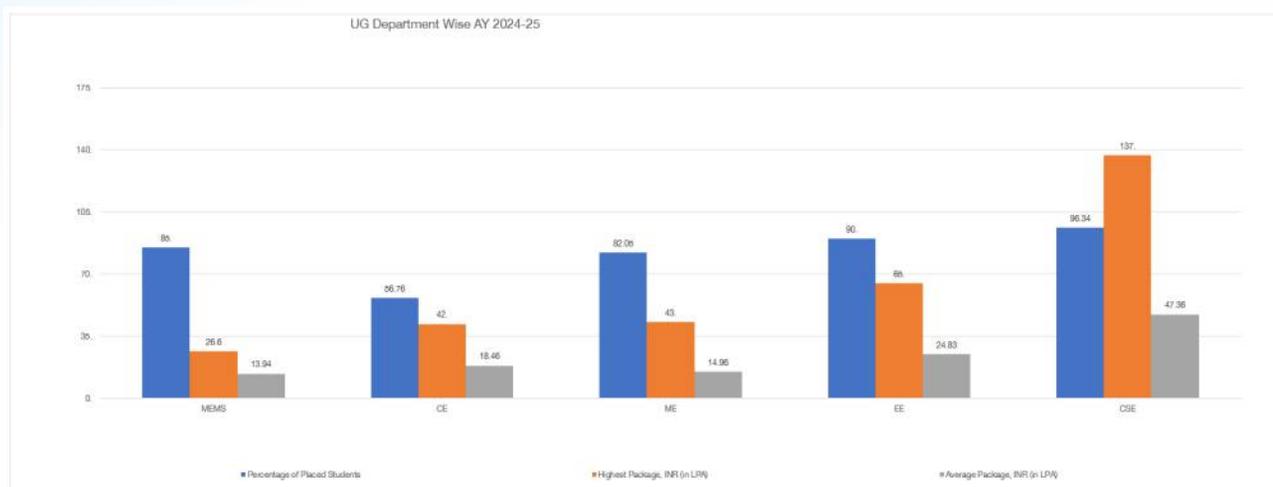
Program	Batch Size	Registered Student	Total Placed	Percentage of Placed Student	Average Package, INR (in LPA)	Highest Package, INR (in LPA)
B.Tech	353	316	270	85.44%	27.27	137
M.Tech	147	106	68	64.15%	14.6	54
MS (R)	25	21	18	85.71%	17.39	49
M.Sc	109	24	17	70.83%	7.75	12.5

Department-wise B.Tech Placements Statistics in Graphs and Matrix (AY 2024-25):



### Department-wise B.Tech Placements Statistics in Graphs and Matrix (AY 2024-25)

Dept Wise (B.Tech)	Registered Student	Total Placed	Percentage of Placed Student	Highest Package, INR (in LPA)	Average Package, INR (in LPA)
CSE	82	79	96.34	137.00	47.36
EE	80	72	90.00	65.00	24.83
ME	78	64	82.05	43.00	14.96
CE	37	21	56.76	42.00	18.46
MEMS	40	34	85.00	26.60	13.94



### Internship Report

Industrial exposure is essential for students aspiring to enter the corporate world. Students are encouraged to undertake internships during the summer following their 6th semester to gain real-world experience and apply classroom concepts in a professional setting.

#### Key Internship Highlights:

- 150+ pre-final year students secured internships at leading organizations across India and abroad.
- The highest stipend offered reached an impressive INR 5 lakhs per month.
- Over 80 Pre-Placement Offers (PPOs) were extended, a testament to the high quality of student performance during internships.

### Department-wise Internship Matrix (AY 2024-25)

Department	No. of Internship Offers (2025 Batch)	PPO Conversion (2025 Batch)
Computer Science	65	50
Electrical Engineering	42	24
Mechanical Engineering	33	4
Civil Engineering	7	4
Metallurgical Engineering & Materials Science	5	0

**Conclusion:**

The 2024-25 placement season at IIT Indore was executed successfully, despite a sluggish global job market. The institute witnessed:

- An increase in company participation and job offers.
- Expanded recruiter diversity across sectors like Automotive, Finance, Consulting, Core Engineering, IT, R&D, and PSUs.
- Strong focus on student upskilling, including resume building, mock interviews, and career mentorship.

**In addition to placements:**

- Around 10-15% of graduates pursue higher studies at globally ranked universities, IIMs, and IITs.
- Approximately 3-5% venture into entrepreneurship, launching their own start-ups.

The TPC remains committed to empowering students through skill enhancement, strategic industry partnerships, and continuous career development initiatives—reinforcing IIT Indore’s position as a premier destination for talent and innovation.

**TPC Team 2024-25 (UG + PG)**



## Hostel

### Hostel Infrastructure at IIT Indore

The Indian Institute of Technology Indore has developed a robust and inclusive hostel infrastructure to foster a vibrant and collaborative campus life. The A.P.J. Abdul Kalam Hostel, inaugurated in 2016, marked the beginning of hostel life at the Institute's permanent campus. It was followed by the inauguration of the Homi Jehangir Bhabha (HJB) Hostel in 2019, and the Devi Ahilya (DA), Vikram Sarabhai (VSB), and C.V. Raman (CVR) Hostels in 2020.

Each hostel comprises 99 residential units, accommodating a total of 574 students. Designed to encourage both academic engagement and social interaction, each unit contains six shared bedrooms, a fully furnished living area, a common kitchen, two toilets, and two washrooms. To promote national integration and interdisciplinary collaboration, students from diverse states, linguistic backgrounds, and academic disciplines are thoughtfully grouped within each unit.

In line with the Institute's commitment to sustainability, all hostels are equipped with solar water heating systems. Additionally, the A.P.J. Abdul Kalam Hostel offers centrally air-conditioned facilities, enhancing student comfort throughout the year.

### Expansion of Hostel Infrastructure

To accommodate the growing academic community and enhance residential facilities, three new hostels featuring world-class amenities are currently under development at IIT Indore. These hostels are designed to meet international standards of student housing, with a focus on sustainability, comfort, and community living.

Once operational in the coming years, the new hostels will significantly augment the Institute's capacity to provide high-quality accommodation, supporting its continued growth and commitment to excellence in education and research.

### Administration

The hostel administration is overseen by Dr. Saptarshi Ghosh, Chief Warden, and supported by Mr. Hemant Chouhan, Hostel Coordinator; Ms. Chandrani Mitra Sarkar, Junior Assistant; and Ms. Pratibha Chandanshive, Junior Assistant. Each hostel operates under the guidance of a dedicated Warden, who is assisted by a Supervisor and an Attendant to ensure seamless day-to-day management.

Hostel No.	Hostel Name	Hostel Type (Girls/Boys)	Warden/Warden In-charge	Associate Warden
01	APJ Hostel (Avul Pakir Jainulabdeen Abdul Kalam)	Boys Sundaram	Dr Sivaraj Mohana	--
02	CVR Hostel (Chandrasekhara Venkata Raman)	Boys	Dr Akshay Pratap Singh	--
03	HJB Homi Jehangir Bhabha	Boys	Dr Ayan Mondal	--
04	Devi Ahilya Hostel	Girls	Dr Aratrika Das	--
05	Vikram Sarabhai Hostel	Boys	Dr Sansuma Brahma	--

## Guest Accommodation Facilities

IIT Indore provides well-furnished guest room facilities within its hostel premises to ensure a pleasant and convenient stay for visiting guests and dignitaries. The guest house can accommodate up to 60 guests at a time.

Each guest room is thoughtfully equipped with modern amenities, including:

- Smart LED TV
- Sofa Set
- Center Table
- Cooler
- Microwave
- Electric Kettle
- Mattress and Blanket
- Bed sheet and Pillow
- Towels
- Cloth Stand

These provisions are curated to offer comfort, functionality, and a welcoming atmosphere to all guests visiting the Institute.

## Hostel Photos



Hostel No. 01 – A.P.J. Abdul Kalam



Hostel No. 02 – C. V. Raman



Hostel No. 03 – Homi J. Bhabha



Hostel No. 04 -Devi Ahilya



Hostel No. 05 - Vikram Sarabhai

## Basic Facilities in Hostel



Basic Room



Common Hall



Washroom



Kitchen with RO Water Tap



Wi-Fi



RO Water Dispenser

## Sports Facilities in Hostels



Badminton Court



Table Tennis



Soccer Table

## Other Facilities in Hostels



News Paper Stand



Magazine Stand



Fitness Equipment

## Central Dining Facility

### Central Dining Facility: Fostering Community through Shared Meals

The Institute's Central Dining Facility, popularly known as the Carbon Building, is a testament to the inclusive and community-centric ethos embraced by our campus. With the capacity to serve approximately 2,500 individuals simultaneously, the facility encourages students from various hostels to dine together, nurturing unity and camaraderie.

The dining complex houses three caterers and offers dedicated sections for students, institute staff, and guests. The facility is thoughtfully designed with multiple kitchens, accessible washrooms, and elevator services, ensuring a comfortable and inclusive experience for all. Plans are in place to modernize the kitchens as part of the upcoming infrastructure development.

An Executive Dining Hall provides premium dining services and hospitality for invited dignitaries and VIP guests. Healthy, balanced meals are served daily, with the student body playing an active role in menu selection through weekly meetings. Oversight and quality control are ensured by a vigilant Dining Committee, supported by the student community.

Transparency and convenience are cornerstones of the dining experience. A comprehensive Dining Website offers access to allocation forms, rebate forms (long and short), grievance and discrepancy forms, billing information, caterer details, menus, and contact information—all supplemented by a QR code-enabled access system.

The Carbon Building remains compliant with all COVID-appropriate norms and also hosts several kiosks that provide round-the-clock refreshments and services, contributing to the vibrancy of campus life.

The dining facility is overseen by a dedicated team comprising administrative staff, including Junior Assistant Mrs. Taruna Tomar, attendants, and student volunteers. The overall administration is managed by the Dining Committee, chaired by Dr. Kalandi C. Pradhan, Dining Warden.

Dining Hall Building Photo



Cleaning in Dining Hall





**Dr. Kalandi C. Pradhan**  
Dining Warden



**Dr. Nisheeth Prasad**  
Associate Dining Warden



**Mrs. Taruna Tomar**  
Junior Assistant



**Mr. Javaharlal Motilal**  
Attendant

### Dining Secretary Hall of Residences

S. No.	Hostel	Name	Email Id
1.	APJ	Mr. Godishala Varshith	diningsecy.apj@iiti.ac.in
2.	CVR	Mr. Mahesh Sahu	msc2303171025@iiti.ac.in
3.	VSB	Mr. Shubham Kumar	diningsecy.vsb@iiti.ac.in
4.	HJB	Mr. Sourabh Choudhary	diningsecy.hjb@iiti.ac.in
5.	DA	Ms. Aishwarya Agrawal	diningsecy.da@iiti.ac.in

## Counselling Cell Team

The Counselling Cell at IIT Indore, a vital constituent of the Student Affairs Section, has been actively supporting student well-being and personal development since its inception in December 2011. Now functioning under the broader umbrella of the Life Skills Initiative and Value Education (LIVE), the Cell has taken a significant step forward in aligning its efforts with holistic student development. It remains committed to fostering a supportive, confidential, and inclusive environment where students can openly discuss academic stress, emotional concerns, and personal challenges.

With a vision to improve emotional resilience and promote holistic growth, the services of the Counselling Cell are accessible to all students across programs – Undergraduate, Postgraduate, and Ph.D. students. The LIVE initiative particularly emphasizes early identification, prevention, and timely support for psychological concerns.

Through structured counselling services, preventive outreach, and value-based life skills education, the Cell aims to empower students to thrive both personally and academically. This is contributing to a positive and emotionally healthy campus culture at IIT Indore. Counselling Cell Team



**Prof. Srivathsan  
Vasudevan**

Dean, Student Affairs



**Prof. Antony  
Vijesh**

Profe. in charge, LIVE



**Ms. Shilpa Chouhan**  
Junior

Superintendent (Staff)



**Mr. Shubham  
Mandsaurkar**

Counselor



**Ms. Shubhra Vyas**  
Counselor



**Ms. Aashka Mistry**  
Counselor



**Ms. Simran Tyagi**  
Wellness Therapist



**Ms. Vrunda Bhikadiya**  
Wellness Therapist

### Faculty Counselling Coordinators

Faculty members from each department are nominated as Faculty Counselling Coordinators in the capacity of the Department Undergraduate Committee (DUGC) and Department Postgraduate Committee (DPGC). In collaboration with a dedicated counselor, assigned to the department, these coordinators actively monitor student well-being and address various academic, emotional, or personal issues within their respective departments.

#### Student Counselling Coordinators (SCC) & Student Gymkhana Representative.

To strengthen peer support and promote mental well-being across the student community, a core team of Student Counselling Coordinators has been constituted. This team comprises one male and one female student, each from UG, PG, and Ph.D. programs, selected based on leadership skills, empathy, and peer rapport.

In addition, to ensure wider representation and extend support across the growing academic structure of the institute, one male and one female student from each department (for both UG and PG levels) are nominated as departmental Student Counselling Coordinators. The structure is as follows:

## Departmental Team Composition

### Core Team Composition

Category	Male	Female	Total
UG	1	1	2
PG	1	1	2
Ph.D.	1	1	2
<b>Total</b>	<b>3</b>	<b>3</b>	<b>6</b>

Program	Male	Female	Total
UG	9	9	18
PG	11	11	22
Ph.D.	11	11	22
<b>Total</b>	<b>31</b>	<b>31</b>	<b>62</b>

### Grand Total: 68 Student Counselling Coordinators (6 Core + 62 Departmental)

This peer-led support system works in close coordination with faculty counselling coordinators and department-assigned professional counsellors to ensure timely and effective outreach for student well-being at IIT Indore.



**K Niketh Reddy**  
Student Gymkhana  
Representative



**Ms. Tamanna Singh**  
Coordinator for Ph.D.



**Ms. Aditi Rao**  
Coordinator for PG



**Ms. Shrijita Maitra**  
Coordinator for UG



**Mr. Ummed Singh**  
Coordinator for Ph.D.



**Mr. Bhanu Pratap Sharma**  
Coordinator for PG



**Mr. Harshvardhan Choudhary**  
Coordinator for UG

### Some of the events organized by the Counselling Cell during 2024-25 are as follows:

#### Genesis Orientation Sessions – Transition Support for First-Year Students

As part of the Genesis initiative, the Counselling Cell conducted structured orientation sessions for first-year students. These sessions focused on emotional adjustment, academic transition, and value-based decision-making. Through guided reflections, group discussions, and motivational talks, students were encouraged to build resilience, seek help when needed, and actively participate in the campus community from the very beginning of their IIT Indore journey.

#### Student Mentorship Program – Peer-Led Support System

The Student Mentorship Program connected incoming students with trained senior peers from UG, PG, and Ph.D. programs. The mentors offered guidance on academic planning, stress management, and campus life. Regular check-ins, informal interactions, and collaborative problem-solving helped foster trust and emotional support, enhancing the sense of belonging and reducing transition stress.

#### Department-Wise Faculty Advisor Meetings (January & April 2025)

Faculty advisors across departments conducted structured meetings with students in two phases—January and April. These meetings addressed academic difficulties, personal stressors, and engagement gaps. Counsellors supported the process by identifying students and providing parallel interventions wherever necessary.



### **Mental Health First Aid**

A Mental Health First Aid program was conducted from August 9th to 11th, 2024, led by Dr. Teena Augustine Joseph, founder of Being Balanced Consultancy. The training was offered for both faculty members and student volunteers through engaging sessions, interactive activities, and role plays. It aimed to equip participants with essential skills to identify and support students facing mental health challenges. Emphasizing early intervention and compassionate response, the program enhanced the community's capacity to provide timely assistance and promote overall well-being within the Institute.

### **National Conclave at IIT Hyderabad (October 8-10, 2024)**

Representatives from the Counselling Cell participated in the National Conclave on Student Wellness hosted at IIT Hyderabad. The event served as a platform for centrally funded institutes to share their innovative strategies and carry out discussions on psychological stressors in student life and peer support frameworks.

### **Capacity Building Program for HEIs**

For the Capacity Building Program on Promoting Positive Mental Health, Resilience, and Wellbeing in Higher Education Institutions (HEIs), organised by the Department of Higher Education, Government of India, faculty members were nominated to participate periodically. Faculty participation reflects the Institute's commitment to enhancing mental health awareness and resilience among its academic community.

### **Exam Stress Management Workshop (November 19, 2024)**

To support students during the exam period, the Cell organized an interactive stress management session combining mindfulness practices, grounding exercises, and academic planning strategies. The session was well-received, with students learning to manage performance anxiety and develop healthier coping mechanisms.

### **Placement Counselling - Individual Motivational Interviewing (Dec 2024 - Jan 2025)**

Customized one-on-one counselling sessions were held for final-year students preparing for placements. These sessions used motivational interviewing techniques to explore personal goals, reduce anxiety, and strengthen confidence. Students were guided to align their strengths with career choices while addressing emotional blocks and uncertainty.

### **Hostel-Wise Counsellors' Visits (January 6-26, 2025)**

The Counselling Cell undertook hostel visits and interacted with students in both group and one-on-one

settings. The goal was early identification of distress, providing in-person psychological support, and increasing awareness about available services. Posters, self-help materials, and interactive discussions helped normalize mental health conversations.

#### **Hostel Day Celebrations – Wellness Booths and Interactive Activities (February 7–13, 2025)**

During Hostel Day celebrations, the Counselling Cell set up wellness booths with games, activities, and interactive displays. The aim was to promote emotional well-being in a relaxed and festive atmosphere. Students engaged with messages around gratitude, optimism, and self-care while enjoying the cultural events.

#### **Hostel Staff Sensitivity Training (March 28, 2025)**

A focused workshop was organized for hostel wardens, caretakers, and other residential staff to enhance their understanding of student mental health. The training highlighted practical strategies to support students in distress, recognize changes in behaviour, and refer them to professional help when needed.

#### **Weekly Supervision and follow-ups – Ongoing Emotional Support**

Throughout the year, counsellors conducted in-person follow-ups and hostel visits for students in need. These regular interactions helped track progress, provide emotional stability, and integrate academic goals with personal well-being. Collaboration with faculty and SCCs ensured a coordinated approach.

Teacher Training Workshops on Student Mental Health and Behaviour (November 27, 2024 & March 29, 2025) As part of its outreach and community engagement efforts, the Counselling Cell conducted two behavioural training workshops for schoolteachers under the PM SHRI Kendriya Vidyalaya initiative. These sessions focused on adolescent health awareness, recognising emotional and behavioural concerns, managing classroom dynamics, and promoting empathetic communication. Teachers were equipped with practical tools and value-based strategies to support students' emotional well-being and respond effectively to distress within the school environment.

#### **Launch of Wellness Software**

As part of our ongoing commitment to student well-being, we have developed the IITI Wellness Software in collaboration with a creative team of IIT Indore students. This platform will help students directly connect with the Counselling Cell and facilitates efficient database management, notifications, case history tracking, a stress siren, appointment scheduling, feedback collection, access to wellness resources, and promotes therapist employability.

## Ek Bharat Shrestha Bharat



# एक भारत श्रेष्ठ भारत



Ek Bharat Shrestha Bharat (EBSB) team of IIT Indore is actively conducting various activities under the leadership of its Convener, Dr. Niraj Kumar Shukla (Professor, Department of Mathematics) to promote various campaigns of the Government of India, such as Ek Bharat Shreshtha Bharat, Rashtriya Aviskar Abhiyan (RAA), Unnat Bharat Abhiyan (UBA), Swachh Bharat Abhiyan (SBA), RuTAG, etc.

The “Ek Bharat Shrestha Bharat” programme, an idea of a continual and intended cultural linkage between residents of different regions, was introduced by Prime Minister Shri Narendra Modi during the Rashtriya Ekta Diwas held on 31<sup>st</sup> October 2015, to venerate the birth anniversary of Sardar Vallabhbhai Patel. This program was initiated to celebrate the cultural diversity through mutual interaction and exchange between people of different states and union territories so that a common spirit of understanding reverberates throughout the country.



## एक भारत श्रेष्ठ भारत

भारतीय प्रौद्योगिकी संस्थान इंदौर की “एक भारत श्रेष्ठ भारत” टीम भारत सरकार के विभिन्न अभियानों, जैसे “एक भारत श्रेष्ठ भारत”, “राष्ट्रीय आविष्कार अभियान”, “उन्नत भारत अभियान”, “स्वच्छ भारत अभियान”, “ग्रामीण प्रौद्योगिकी एक्शनग्रुप” को बढ़ावा देने के लिए सक्रिय रूप से विभिन्न गतिविधियों का संचालन करती है।

- एक भारत श्रेष्ठ भारत <http://ebsb.iiti.ac.in>
- राष्ट्रीय आविष्कार अभियान <http://ebsb.iiti.ac.in/rashtriya-avishkar-abhiyan/>
- उन्नत भारत अभियान <http://ebsb.iiti.ac.in/Unnat-Bharat-Abhiyan/>
- स्वच्छ भारत अभियान <http://ebsb.iiti.ac.in/Swachh-Bharat-Abhiyan/>
- ग्रामीण प्रौद्योगिकी कार्य समूह <http://ebsb.iiti.ac.in/RuTAG/>



प्रो. नीरज कुमार शुक्ला  
संयोजक, एक भारत श्रेष्ठ भारत  
भारतीय प्रौद्योगिकी संस्थान इंदौर  
[ebsb@iiti.ac.in](mailto:ebsb@iiti.ac.in)



### एक भारत श्रेष्ठ भारत दल का उप समूह



डॉ. आशिष कुमार  
दल समन्वयक



डॉ. मृगेन्द्र दुबे  
दल समन्वयक



प्रो. अरुणा तिवारी  
दल समन्वयक



डॉ. अनन्या घोषाल  
दल समन्वयक



### भारत सरकार के सहयोग से युवा संगम यात्रा

मणिपुर के माननीय राज्यपाल  
श्रीमती अनुसुइया उइके का मार्गदर्शन



31/03/2023

मध्य प्रदेश के युवाओं की मणिपुर यात्रा-आईआईटी इंदौर एवं एनआईटी मणिपुर द्वारा आयोजित

मध्य प्रदेश के माननीय मुख्यमंत्री  
श्री शिवराज सिंह चौहान का मार्गदर्शन



23/03/2023

मणिपुर के युवाओं की मध्य प्रदेश यात्रा-आईआईटी इंदौर और एनआईटी मणिपुर द्वारा आयोजित

एक भारत श्रेष्ठ भारत, भारतीय प्रौद्योगिकी संस्थान इंदौर | [www.ebsb.iiti.ac.in](http://www.ebsb.iiti.ac.in)



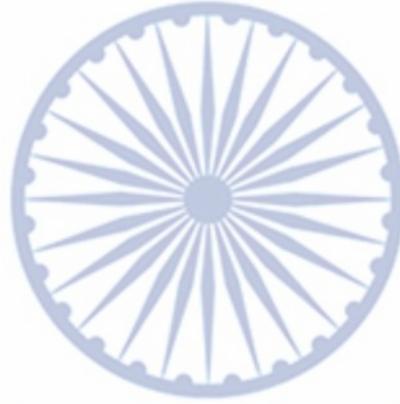
# एक भारत श्रेष्ठ भारत

## भारतीय प्रौद्योगिकी संस्थान इंदौर



प्रस्तुत करता हैं

## विज्ञान पर चर्चा-कार्यक्रम की श्रृंखला



75  
आज़ादी का  
अमृत महोत्सव

राज्य शिक्षा केंद्र, भोपाल  
के सहयोग से

गणित, विज्ञान एवं प्रौद्योगिकी विषय पर हिंदी भाषा  
में रोचक श्रृंखलाबद्ध प्रस्तुति!



# एक भारत श्रेष्ठ भारत



एक भारत श्रेष्ठ भारत, भारतीय प्रौद्योगिकी संस्थान इंदौर | [www.ebsb.iiti.ac.in](http://www.ebsb.iiti.ac.in)

One of our most important initiatives is "विज्ञान पर चर्चा-कार्यक्रम की श्रृंखला" to promote the Rashtriya Aviskar Abhiyan (RAA) scheme. The program "विज्ञान पर चर्चा-कार्यक्रम की श्रृंखला" aims to explain the concepts of Science, Mathematics, and Technology to the school students, mainly in Hindi Medium. We feel immense pleasure to inform you that the 147 Sessions have been LIVE telecasted through YouTube since January 13, 2021. All sessions are available here [YouTube Channel "IIT Indore-EBSB Club"](#):



Many videos of these talks are also available on the Govt. of India-DIKSHA Portal. The popular talks of the series are

## शुभारंभ

### विज्ञान पर चर्चा-कार्यक्रम की श्रृंखला

मुख्य अतिथि  
**पद्मश्री प्रो. हरीश चंद्र वर्मा**  
(एच.सी. वर्मा)

अतिथि वक्ता  
**श्री सृजन पाल सिंह**

### वेदों से सीखने लायक बातें

### समाज के प्रति समर्पण का उदाहरण

### सीखने योग्य-उत्साहवर्धक बातचीत

To enhance the knowledge of M.P. Govt Schools teachers, we also organised many training workshops for schools teachers.



## हिंदी भाषा में मध्य प्रदेश सरकार द्वारा संचालित जिला शिक्षा एवं प्रशिक्षण संस्थानों तथा विद्यालयों के शिक्षकों के लिए "गणित, विज्ञान और प्रौद्योगिकी" पर **कार्यशाला की श्रृंखला** का आयोजन



एक भारत श्रेष्ठ भारत, भारतीय प्रौद्योगिकी संस्थान इंदौर | [www.ebsb.iiti.ac.in](http://www.ebsb.iiti.ac.in)

### व्याख्यान - 03

वायु प्रदूषण: आओ मिलकर समझें



वक्ता: प्रो. संजय कुमार सिंह,  
आईआईटी इंदौर

### व्याख्यान - 52

हवाई जहाज कैसे उड़ते हैं?



वक्ता: श्री प्रशांत कुमार शुक्ला,  
डीआरडीओ

### व्याख्यान - 128

भारत में वैदिक विज्ञान का विकास



वक्ता: श्री कृष्णा किशोर दास जी,  
प्रचारक, इस्कॉन उज्जैन

### व्याख्यान - 137

इंदौर इतना साफ कैसे?



वक्ता: हर्षिका सिंह इंदौर  
नगर पालिका निगम, इंदौर

### व्याख्यान - 147

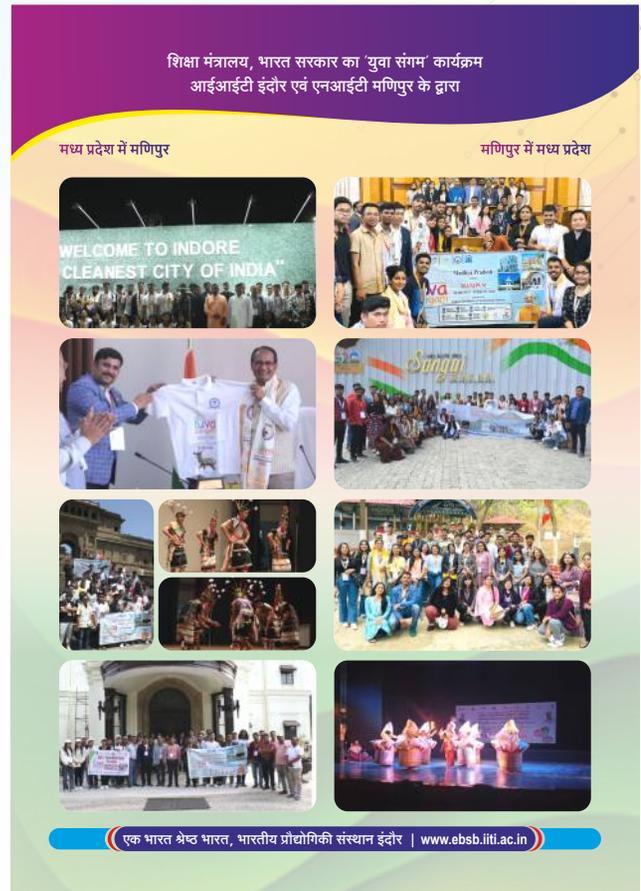
वैज्ञानिक चेतना और भारतीय नागरिकता बोध



वक्ता: श्री रजनी कांत मिश्रा, राष्ट्रीयसीमा शुल्क अप्रत्यक्षकर  
एवं नार्कोटिक्स अकादमी (NACIN) लखनऊ

To promote Ek Bharat Shreshtha Bharat Abhiyan, the EBSB team of IIT Indore organized the "North East Connect Programme: Yuva Sangam Program Phase-I". Yuva Sangam, an initiative of the Government of India, is mooted to strengthen people-to-people connect and build empathy between the youth of North-Eastern states and the rest of India. This program was conducted under the ambit of Ek Bharat Shreshtha Bharat, and 11 Higher Education Institutions from North-East (NE) and 14 from the rest of the country were paired for mutual visits.





The EBSB team of IIT Indore is frequently conducting activities in our near by villages and their schools to achieve the full objective of Unnat Bharat Abhiyan. Faculty members and students of IIT Indore, in association with the EBSB team, are also continuously working on various projects under RAA, UBA, RuTAG, and SBA related to societal activities.



EBSB team is also continuously working with local administration of Indore, like District Collector and District Magistrate of Indore, Indore Municipal Corporation, Gram Pradhan of nearby villages, etc for the development of society.





भारतीय प्रौद्योगिकी संस्थान इंदौर  
Indian Institute of Technology Indore



## एक भारत श्रेष्ठ भारत

webpage: <http://ebsb.iiti.ac.in>



भारत मंडपम, दिल्ली में आईआईटी इंदौर द्वारा  
मध्य प्रदेश का प्रतिनिधित्व



भारतीय प्रौद्योगिकी संस्थान इंदौर  
Indian Institute of Technology Indore

Khandwa Road, Simrol, Indore-453552, Madhya Pradesh, India

Website: [www.iiti.ac.in](http://www.iiti.ac.in)

# IIT Indore in News

## IIT Indore professor wins nat'l teacher award 2024



**Our Staff Reporter**  
INDORE

Kapil Ahuja, Professor in Computer Science and Engineering at IIT Indore, has been honoured with the prestigious National Teacher Award 2024 by the President of India on the occasion of Teachers' Day. The selection has been done by the Department of Higher Education, Ministry of Education, Government of India through a nationwide rigorous transparent and online two-stage selection process.

The unique qualities which made Prof Kapil stand out were his classes which are very structured with all lectures, tutorial, lab material uploaded on Google Drive with accompanying recordings uploaded on YouTube. His classes had an accompanying unstructured re-

search project that enhanced student's critical thinking. Further, he would take informal feedback from students about one month into the semester to adapt to every batch's learning needs.

Kapil Ahuja has fourteen years of rich teaching experience in India and the US and heads the Mathematics Data Science and Simulation Research Laboratory at IIT Indore. Due to his excellent student feedback, he has already received the Best Teacher Award at IIT Indore five times. Most of his teaching involves a research component. He also started the first Master of Science by Research programme at IIT Indore. As the founding Dean of International Affairs, he has taken the teaching of IIT Indore to international level as well.

## IIT-I develops shoes with GPS, RFID for Armed forces



**Indore:** The Indian Institute of Technology (IIT), Indore has developed real-time tracking shoes equipped with embedded Radio Frequency Identification (RFID) and Global Positioning System (GPS) trackers for Armed forces to facilitate tracking of the location of military personnel.

These innovative shoes will harness the energy generated from each human step to power electronic devices such as GPS and RFID trackers. IIT-I has delivered 10 pairs of these Tribo-Electric Nanogenerator (TENG) based shoes sole energy harvesting shoes to the Defence Research and Development Organization (DRDO).

Professor Subhas Joshi, director, IIT Indore, said, "The real-time location tracking capabilities enhance the safety and coordination of military personnel, greatly boosting operational efficiency and security. The TENG-powered shoes can effectively support essential GPS and RFID systems, providing a self-sustaining and dependable solution for a wide range of military needs."

"As the demand for efficient and portable power sources continues to rise, IIT Indore's groundbreaking innovations, including the TENG-based shoe sole technology and other advanced DRDO projects, are poised to revolutionise energy harvesting, real-time tracking, and various defence and industrial applications," said Joshi. "The TENG-powered shoes can also be used to track the movement of Alzheimer's patients, school children, workforce in industries, and mountaineers."

The principal investigator of the team who developed the innovative shoe, Professor J.A. Paskin L, faculty at IIT Indore, said, "The TENG system in these shoes utilises advanced tribo-pairs, Fluorinated Ethylene Propylene (FEP) and Aluminium to generate power with each step."

## IIT-Indore sets up centre to study Narmada river basin management

**TAMES NEWS NETWORK**

Indore: Indian Institute of Technology (IIT), Indore has established a dedicated centre to conduct study on Narmada river basin management focusing on sustainable practices to preserve the river's health and address critical challenges faced by the river basin.

IIT's study is part of the memorandum of understanding (MoU) signed between Ministry of Jal Shakti and many academic institutions of the country of which IIT-I is one of them, under National River Conservation Plan. An area of around 1,000 km of the Narmada river in Madhya Pradesh will be mapped and a team of profs from IIT Indore will conduct studies on the river basin.

The team will conduct studies on erosion hotspots, flood prone areas, sewerage and drainage network plan among other challenges faced for conservation and water related challenges.

The centre was inaugurated on July 14 in the presence of Dr Sameer V Kamat, secretary department of Defence R&D and DRDO chairman and Dr K Shivan, chairman, BOG IIT Indore.

Professor Subhas S Joshi, director, IIT Indore said "We will bring experts, practitioners, and academicians under one roof to foster a collaborative environment to address the pressing issues faced in the conservation plan of the Narmada river basin. We need to have integrated management approaches and the active involvement of local communities to preserve this vital water resource."

During the inauguration, a prototype in the form of 3D model of Narmada river basin was presented to help illustrate various complexities and challenges in mapping and protecting the basin environment. Scientific studies done on Narmada basin were also demonstrated to the dignitaries.

"Projects like these would directly help the society in terms of environment restoration and commercial river activities," said Shivan.

The institute also hosted a one-day workshop to shed light on the critical issues faced by the Narmada river basin and to discuss potential solutions through expert lectures and collaborative discussions. The workshop focused on communitarian ecosystem restoration in the Narmada river basin with special reference to Alirajpur district, community led campaign to revive Narmada, importance of forest commons in the Narmada basin, water conservation, rainwater harvesting & groundwater rejuvenation activities and environmental concerns in Narmada river basin.

## भविष्य आइआईटी इंदौर के दीक्षा समारोह में बोले इसरो के पूर्व निदेशक के. सिंघन

### 2035 तक भारत का अपना स्पेस स्टेशन होगा

**2040 तक चांद पर स्थायी मनुष्य**

**चांद पर मिट्टी-पत्थर और पानी**  
इसका मुकाम उड़ान अंतरिक्ष से जुड़ी जनकारी सुधारी

**हवा के बारीक कणों के बारे में जनकारी के बारे में मदद कर रहा है। चांद से कुछ नमूने को प्राल किया है। उन्हें खतरा इंसिस्टोर करने में सहायक होगा।**

**पंचम को चांद पर मिट्टी-पत्थर और पानी के बारे में**

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**पंचम को चांद पर मिट्टी-पत्थर और पानी के बारे में**

## जनता की समस्या सुलझाने इंदौर ननि की मदद करेगा आइआईटी

**ए और डिजिटल सेक्टरों की योजना बनाने में जी उत्प्रेरक सहायक**

**आइआईटी इंदौर के पूर्व निदेशक के. सिंघन ने आइआईटी इंदौर के पूर्व निदेशक के. सिंघन के नेतृत्व में एक विशेष समिति का गठन किया है। इस समिति का उद्देश्य जनता की समस्याओं को सुलझाने में मदद करना है।**

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## आइआईटी इंदौर ने ईटों के लिए बनाया गोबर का फॉर्मिंग एजेंट, ईटें हलकी और मजबूत होंगी, गर्मी में घर की दीवारें ठंडी रहेंगी

**24 घण्टे में 100 ईटें बनायीं जा सकती हैं**

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## STELLAR SHOW Highest package crosses Rs 1 Crore, placement statistics reach new heights

### IIT-I sees 13% hike in average salary amid volatile market

**Google, Goldman Sachs, BlackRock, Samsung among top recruiters**

One of the most remarkable highlights of this placement season is the substantial increase in salary packages offered to students. The highest salary package offered has doubled compared to the previous year, surpassing the Rupees 1 crore mark for the first time. The average salary also saw a healthy increase of 13%, reaching Rupees 27 Lakhs Per Annum, underlining the enhanced value companies see in IIT Indore graduates.

Over 130 companies have participated in the placement process, offering diverse roles across a wide range of sectors. These include IT, Automobile, Energy & Environment, Consulting, FinTech, Banking, Semiconductors, Construction, and more.

Top companies like Google, Databricks, Guadye, Goldman Sachs, DE Shaw, Texas Instruments, Analog Devices, BPL, HPL, BEL, C-DOT, L&T, Mathworks, Jindal Stainless, IICI Bank, HCL, Accuturn, Deloitte, BNY Mellon, Mesh, ZS Associates, Optum, BlackRock, Samsung, PayTM, and Rashmi Group actively recruited from IIT Indore, demonstrating the high value placed on its graduates.

Over 85% of Tech students placed as of today. With several companies still lined up to recruit, the placement rate is expected to climb even higher. Alongside lucrative job offers, many students have chosen to pursue global studies at prestigious higher universities, while a few are embarking on entrepreneurial ventures, showcasing the diverse paths IIT Indore students are taking.



## IIT-I study on betel nuts claims to aid in early diagnosis of oral cancer

**Times News Network**  
**Indore:** A study by the Indian Institute of Technology, Indore (IIT-I), has claimed to aid in early diagnosis of oral cancer caused due to extensive consumption of betel nut in a malnourished population.



The institute in a statement released on Tuesday said a team of professors and students carried a study on betel nut, one of the key causes of an oral precancerous condition called Oral Submucous Fibrosis (OSMF), that leads to loss of elasticity in cheeks and restricts mouth opening. The condition, if

not unaddressed, can progress into oral cancer. The institute used the Raman micro-spectroscopy technique to study the biomolecular mechanisms behind the pathogenesis of OSMF and to identify the pathways that can be targeted to prevent its transformation to cancer.

**WESTERN RAILWAY**  
**The Commissioner**  
 2nd Copy of Tender No. DY-CE/CI/WD/MS/SP/2024. Date & time of submission of tender already printed in NT and tender document. up to 15:00 Hours on 30.05.2024. How to be read: up to 15:00 Hours on 07.06.2024 and Date of opening of tender already printed in NT and tender document. 30.05.2024 at 15:30 Hrs. How to be read: 07.06.2024 at 15:30 Hrs. The other terms & conditions will remain unchanged. For more details please visit our website www.rpsr.gov.in 2192

The results of the study were verified using established sophisticated methods such as metabolomics and lipidomics by liquid chromatography-mass spectrometry. IIT-I biochemist and biochemical engineering associate professor Dr Hem Chandra Jia said, "The study is based on a non-invasive spectroscopic technique, Raman micro spectroscopy. Such studies can help doctors and scientists to develop methods for early diagnosis of cancer. Moreover, they can help in cancer therapy to treat in early stages and improve the over-

all quality of life of the patients". Jia said, the study found that with a lack of appropriate nourishment, the betel nut dysregulates several cancer-causing pathways associated with molecules like acetyl-coA and carbohydrate metabolism. In the future, such molecules can be potential biomarkers for detecting whether a patient is susceptible to developing oral cancer.

Other members of the team included Dr Tarun Prakash Verma, Siddharth Singh, Sonali Adhikari from the department of biochemistries and biomedical engineering and professor Rajesh Kumar and Dr Chanchal Rani from department of physics.

The study was supported by the department of science and technology (DST) and was published in the Journal of Raman Spectroscopy.

Professor Rajesh Kumar said, "Methods like Raman Spectroscopy can serve as non-invasive methods in identification of the signature molecules for early diagnosis of cancer and various other diseases. Such techniques can be fast and reliable for mass screening in public health centres".

## In a first, IIT-I holds joint research project with UK university

**Our Staff Reporter**  
**Indore:**



Indian Institute of Technology (IIT) Indore is conducting a joint research capacity building project with the University of Plymouth (UoP), a leading university in the United Kingdom (UK). This is an initiative taken by the Scheme for Promotion of Academic and Research Collaboration (SPARC) and the UK-India Education and Research Initiative (UKERI) to promote international student exchanges between India and UK. IIT Indore is among one of the universities which have been selected for the project. The project is jointly led by Prof Sandeep Chaudhary from IIT Indore and Dr Bokun Kim from UoP, UK.

IIT Indore director Prof Subhas Joshi said, "The project is focusing on inspiring researchers of tomorrow in sustainable concrete construction. At present, a team of 2 faculties and 8 students from UK is at the Institute as part of the project. The joint research capacity building project is designed so that emerging engineers can be trained to specialise in sustainable construction practices. While the Indian government has been trying to promote sus-

tainable solutions, like use of recycled aggregates, the construction industry is still finding it hard to adopt them for general construction. One of the reasons for this slow uptake is that the current workforce lacks the relevant skillset or motivation to adopt sustainable construction practices. This lack of skilled and motivated workforce inspired Chaudhary to jointly design this

programme with Dr Kim, who has been working on similar concepts in other South-east Asian countries. Chaudhary said, "This programme provides an excellent opportunity for undergraduate students to experience international standards of research and training at an early age. The project is expected to inspire more student exchange programmes focused on preparing a skilled workforce motivated to bring about sustainable changes in our community. The project is designed to prepare highly motivated and skilled engineers who can bring on-ground sustainable changes in the construction industry. This is the first time that the institute is conducting an international exchange programme at this scale for undergraduate students.

## IIT-I to expand MSME vendor base, promote e-marketplace

**Times News Network**

**Indore:** In a bid to bolster the government e-marketplace and enhance the procurement system from Micro, Small and Medium Enterprises (MSME), Indian Institute of Technology (IIT), Indore is looking to expand the vendor base by onboarding new and additional players from the sector.

"With the implementation of General Financial Rules 2017 and government e-marketplace, IIT Indore has been executing the procurement procedure in compliance with this policy. While we possess a robust vendor database, we aspire to further expand it by incorporating new vendors to collaborate with us in providing superior goods and services at economical rates,

**To foster the network of vendors, IIT Indore is organizing a Vendor's Meet on August 5 on campus**

thereby optimizing taxpayers' funds," stated IIT-I public relations officer, Commander Sunil Kumar (Retd). The Ministry of Finance, through General Financial Rules 2017, mandated the procurement of goods and services from GeM by government users.

To foster the network of vendors, IIT Indore is organizing a Vendor's Meet on August 5 in the campus. "This meet aims to amplify its vendor database, facilitate supplier registration on the GeM, and address queries pertaining to MSME

registration. As per the directive of the Government of India, procurement by government institutes should be executed through GeM. The meet is anticipated to persuade and guide the vendors to come under the purview of GeM, which offers a more transparent and expeditious procurement service," said Kumar.

"MSMEs are also provided few waivers in the procurement policy enabling them to participate in the bidding process at par with the established vendors. This meet will provide them with an opportunity to address their queries and comprehend the process of registration on GeM & MSME, which may assist them in expanding the horizon of opportunities for their businesses.

## IIT-I to teach budding engineers sustainable construction practices

**Times News Network**

**COLLABORATES WITH UK VARSITY**

**Indore:** The Indian Institute of Technology (IIT), Indore will train budding engineers in sustainable concrete construction practices and to use recycled aggregates to promote sustainable solutions for the construction industry.

The Indian government has been actively advocating for the adoption of sustainable practices in the construction sector such as the incorporation of recycled aggregates. However, the scarcity of a skilled workforce has hindered the seamless implementation of these practices by industry stakeholders.

IIT-I has collaborated with the University of Plymouth (UoP), a leading university in the United Kingdom (UK) to conduct a joint research capacity building project to train emerging engineers in sustainable construction practices. "I have really enjoyed ha-

This is the first international exchange program for undergraduate students at IIT-Indore. The collaboration is part of the Scheme for Promotion of Academic and Research Collaboration (SPARC) and the UK-India Education and Research Initiative (UKERI) to promote international student exchanges between India and the UK

ving hands on experience on how the concrete casting process works in India as it's very different to the UK," said Anuj, a student part of the UK delegation from the University of Plymouth. The collaboration is part of the Scheme for Promotion of Academic and Research Collaboration (SPARC) and the UK-India Education and

Research Initiative (UKERI) to promote international student exchanges between India and UK. Professor Subhas Joshi, Director, IIT Indore said "The project is focusing on inspiring the researchers of tomorrow in sustainable concrete construction. As a part of the project, the students will be learning international best practices on using recycled aggregates and trained to implement them in the construction industry. As part of the project, a team of two faculties and eight students from the UK is at the institute."

This is the first international exchange program for undergraduate students at IIT-Indore. "We were fortunate to receive this funding from the UKERI, so our Civil Engineering students at the University of Plymouth have a once-a-life-time opportunity to come to IIT Indore to conduct research in sustainable construction materials," said Dr Bokun Kim, from UoP, UK.

## IIT Indore Success Story | 12th convocation ceremony was held on Saturday 673 including 161 girls graduate

**Our Staff Reporter**  
**Indore:**

23.8 per cent girls graduated from IIT Indore on Saturday in the 12th Convocation of IIT Indore held on Saturday at IIT Indore campus in which Secretary DORAD and Chairman Defense Research and Development Organisation (DRDO), Dr Jagan V Kamat was chief guest while IIT Indore director Himanshu Rai, Dr R Siran, chairman Board of Governors and other were present. You all are the future of India and have the ability to transform the nation. I wish you all achieve heights in your life, Chief guest Kamat said.



In the convocation, 394 students got B.Tech degree in undergraduate category. While 87 got MSc, 54-M.Tech, 23-MS (Research), and 84 MSc(EM) in post-graduate category. In Ph.D. 81 students got their degrees. Total 473 students graduated from IIT of which 161 are girls. For best academic performance among all UG students was awarded to Mohit Jain for B.Tech (CE), Institute Silver Medal for best overall performance among all graduating PG students (M.Tech and MSc Program) was given to Rishav Sharma and Krishangi Kadiyap. Best foundation gold medal for best academic performance among all graduating UG students was awarded to Krishangi Kadiyap, Ypp Menon gold medal for best PhD Dissertation work by a female student was Kanchana Samalatha PhD (Biochemistry and Biomedical Engineering) thesis title: Indigenous microbes for sustainable biopolymer synthesis: comprehensive optimisation and characterisation study. Institute's gold medal for best all-rounder performance among all graduating students was Abhinav Yadav, best B.Tech project (BIT) award amongst all graduating UG students to Sarathi Kicholapya project titled, Conformal Microwave Resonator for shielding applications. MSc(EM) silver medal for best overall performance was Sebastian PS. MSc(EM) (2023 batch) and Piyush Dabry MSc(EM) (2022 batch). All students at the convocation were dressed in Kurta Pyjama or Kurta-Salwar or Saris. Parents of students were filled with joy and felt proud on their achievement.

## IIT Indore, NATRAX join forces to foster joint research, technology



**Our Staff Reporter**  
**Indore:**

Indian Institute of Technology Indore and National Automotive Test Tracks (NATRAX) have signed a Memorandum of Understanding (MoU) aimed at fostering joint research and technology development projects. This strategic partnership is set to enhance collaboration between academia and industry driving innovation and technological advancements in the automotive sector. The MoU was signed between IIT Indore director Prof

Subhas Joshi and NATRAX director Dr Manish Jaiswal. This collaboration will leverage the strengths of both institutions to undertake cutting-edge research, develop new technologies, and provide valuable opportunities for students and researchers. Joshi said, "This MoU marks a significant milestone in our efforts to bridge the gap between academia and industry. We are excited about the potential of this collaboration to drive innovation and create impactful solutions for road safety & track predictive maintenance."

**Key objectives of MoU**  
 Joint Research Projects: Initiating collaborative research projects in areas such as road safety, track predictive maintenance without affecting the track characteristics, advanced materials, and sustainable technologies. Technology Development: Fostering the development of innovative technologies that can be applied in road safety & maintenance of tracks. Knowledge Exchange: Facilitating the exchange of knowledge and expertise between IIT Indore and NATRAX through workshops, seminars, and training programmes. Student Engagement: Providing opportunities for students to participate in research projects, internships, and hands-on training at NATRAX facilities.

# This IIT-I goggle prototype is cool, literally! Obstructs Heat, Delivers Cooling Sensation To Eyes

Times News Network

Indore: The Indian Institute of Technology (IIT), Indore has engineered a prototype for innovative flexible goggles designed to obstruct heat whilst delivering a cooling sensation to the eyes.

The prototype developed by IIT-I exhibits flexibility and can be manipulated through bending or twisting, rendering it suitable for diverse practical applications necessitating heat isolation.

The goggles' distinctive architecture incorporates a mix of materials, comprising tungsten chalcogenide and oxides combined with electrochromic active materials.

# केमेट्री विभाग की टीम को मिला पेटेंट. वाहन चलाने में उपयोग होने की है संभावना IIT ने बनाया ऐसा उत्प्रेरक जिससे कम कीमत में कम तापमान पर होगा हाइड्रोजन का उत्पादन

भारत संवाददाता | इंदौर

आईआईटी के केमेट्री विभाग ने कम कीमत में हाइड्रोजन का उत्पादन करने की तकनीक खोजी है।

स्वाभाविक तौर पर हाइड्रोजन का उत्पादन करने की तैयारी की जा रही है। जलवायु परिवर्तन से निपटने के लिए हाइड्रोजन को जीवाणु के तौर पर देखना जाता है। इसका उत्पादन उच्च तापमान पर होने से अधिक ऊर्जा खर्च होती है, जिससे यह महंग पड़ता है।

13 रिकॉर्ड मिथेनॉल से 1 किग्रा हाइड्रोजन से, निम्न के अनुसार इस उत्प्रेरक के माध्यम से 13 लिटर मिथेनॉल से 1 किग्रा हाइड्रोजन बनाया जा सकता है।

# IIT-I, MCTE forge partnership for defence tech innovation

Times News Network

Indore: IIT DRISHTI CPS Foundation, the Technology Innovation Hub of IIT-Indore, signed an agreement with the Military College of Telecommunication Engineering (MCTE) to foster innovation, research, and development in cyber physical systems (CPS) and defence technologies.

This collaboration aims to transform academic and military problem definitions into deployable solutions by leveraging IIT's expertise in system modelling, simulation, and visualization.

DRISHTI CPS Foundation, said, "The partnership with MCTE provides a platform to apply advanced cyber-physical systems research to critical national challenges, enriching outcomes and fostering technological innovation for national security."

# IIT Indore brainstorms on standards for changing climate

Our Staff Reporter | Indore

IIT Indore hosted a one-day workshop titled "Standards for the Changing Climate: A Shared Vision for a Better World" on Monday, focusing on addressing the challenges posed by climate change through the lens of standardisation.



Participants pose for a group photo after the workshop at IIT Indore on Monday

The event, which was organised in collaboration with the Bureau of Indian Standards (BIS) and the DST-CPR Centre for Policy Research, attracted around 70 participants, including students, researchers, scholars and faculty members.

Prof Manish Goyal from the Department of Civil Engineering at IIT Indore led the workshop, which included expert talks and collaborative discussions.

BIS in nation-building and engaged participants in an in-depth discussion about carbon footprints and the critical aspects of carbon emissions, including their relationship to climate change.

# IIT-I partners with Sun Life Global Solutions to foster innovation

Our Staff Reporter

IIT Indore has signed a MoU with Sun Life Global Solutions (SLGS), the Global Capability Center and microcosm of the global insurance and asset management leader Sun Life, to drive innovations that will encompass the application of new age technologies like AI/ML, data analytics and generative AI, especially in the field of insurance.

The collaboration will also include joint research initiatives, technology transfer and support for the Indian startup ecosystem.

Through this partnership, Sun Life aims to boost productivity and enhance service delivery by leveraging a skilled workforce capable of addressing new technological challenges in the GCC sector.

# खेल भावना, टीम वर्क और सौहार्द का भाव आया नजर

1,370 प्रतिभागियों एथलेटिक्स, फुटबॉल, बैडमिंटन, सर्फिंग, भारोत्तोलन और शतरंज जैसी स्पर्धाओं में हुए शामिल

23 आईआईटी से 2,500 से अधिक प्रतिभागियों ने 12 स्पर्धाओं में लिया भाग

57 वीं इंटर आईआईटी स्पोर्ट्स मीट का समापन



यूवा एथलेटिक्स की कक्षा में खेल भावना और टीम वर्क का भाव आया नजर

प्रतियोगिता और विजिता: आईआईटी के 23 विभागों में शामिल हुए 2,500 से अधिक प्रतिभागियों ने 12 स्पर्धाओं में भाग लिया।

प्रतियोगिता और विजिता: आईआईटी के 23 विभागों में शामिल हुए 2,500 से अधिक प्रतिभागियों ने 12 स्पर्धाओं में भाग लिया।

यूवा एथलेटिक्स की कक्षा में खेल भावना और टीम वर्क का भाव आया नजर



# IIT-Indore joins clean Kshipra mission

Sagar.Choukse  
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**Indore: IIT-Indore will be involved as an expert in the ongoing Kanh-Saraswati River purification project as Indore Municipal Corporation (IMC) has got sanction to develop three sewage treatment plants (STPs) at Rs 511 crore under Clean Ganga Mission.**

**Thirteen more STPs proposed under AMRUT 2.0 and Simhastha Project are meant to ultimately clean Kshipra River before Ujjain Kumbh 2028.**

**“A Kshipra Purification Cell is being set up at IIT-Indore for this purpose,” collector Ashesh Singh said.**

**According to IMC additional commissioner Siddhartha Jain, the corporation has got sanction for three STPs. P4**

## IIT-I, CSIR-NEERI to work on academic & research prog

**Indore:** Indian Institute of Technology Indore (IIT-I) has collaborated with the Council of Scientific and Industrial Research (National Engineering Research Institute CSIR-NEERI) to share knowledge in the fields of natural resource management, environment, sustainable development and climate change technologies. The institutions have signed a memorandum of understanding (MoU) to work on academic and research projects, including joint research, training and consulting activities. The MoU sets the stage for enhanced collaboration between CSIR-NEERI and IIT-I, facilitating joint research projects, academic programmes, and exchange initiatives.

## सह्यार सूरजा को मजबूत करने के लिए प्रीनट आकारित वाट माफ़िक तकनीक पर काम किया

**IIT ने खोजी तकनीक, इससे सेमीकंडक्टर चिप को डिजाइन चोरी रोकेंगी**

सह्यार सूरजा को मजबूत करने के लिए प्रीनट आकारित वाट माफ़िक तकनीक पर काम किया। IIT ने खोजी तकनीक, इससे सेमीकंडक्टर चिप को डिजाइन चोरी रोकेंगी।

## आईआईटी की इमेजिंग तकनीक; विस्फोट की वलीवर इमेज देख सकेंगे

सह्यार सूरजा को मजबूत करने के लिए प्रीनट आकारित वाट माफ़िक तकनीक पर काम किया। IIT ने खोजी तकनीक, इससे सेमीकंडक्टर चिप को डिजाइन चोरी रोकेंगी।

## खाने के जले तेल से बनाए जा रहे बायो डीजल, पशु आहार और साबुन

खाने के जले तेल से बनाए जा रहे बायो डीजल, पशु आहार और साबुन। IIT-Indore researchers have developed a process to convert waste cooking oil into bio-diesel, animal feed, and soap.

## 15 German researchers attend IRTG network prog at IIT-I

15 German researchers attend IRTG network prog at IIT-I. The program focuses on interdisciplinary research in the fields of biology, chemistry, and physics.

## Teaching Mandarin: DAVV, IIT-I sign MoU with Taiwan

Teaching Mandarin: DAVV, IIT-I sign MoU with Taiwan. The agreement aims to provide Mandarin language courses to students at DAVV and Indian Institute of Technology, Indore.

## राष्ट्रीय अंतरिक्ष दिवस समारोह • 350 से ज्यादा छात्र हुए शामिल

## आईआईटी इंदौर में स्कूली छात्रों ने बनाया एस्ट्रोनॉमिकल टेलीस्कोप

आईआईटी इंदौर में स्कूली छात्रों ने बनाया एस्ट्रोनॉमिकल टेलीस्कोप। The event celebrated the National Space Day with a competition where school students built their own astronomical telescopes.

## IIT-I study to help develop therapies & precise diagnostics for Covid symptoms

IIT-I study to help develop therapies & precise diagnostics for Covid symptoms. The research aims to understand how different variants of Covid-19 affect the human body and lead to varying levels of disease severity.

# AI useful in Alzheimer's diagnosis at early stage, reveals IIT Indore study

OUR STAFF REPORTER  
INDORE

Indian Institute of Technology (IIT), Indore has conducted a study that revealed that advanced Artificial Intelligence (AI) techniques are useful in unlocking new potentials in Alzheimer research, marking a significant advancement in understanding and diagnosing this challenging condition.

The article on this study named 'Ensemble Deep Learning for Alzheimer's Disease (AD) Characterisation and Estimation' has been published in the Nature Mental Health journal.

The study provides an in-depth exploration of recent advancements in deep learning, delving into sophisticated designs like ResNet (depth) and the incorporation of different types of data, including neuroimaging and genetic information. It thoroughly investigates current trends and challenges within the field, offering crucial insights into the evolving landscape of Alzheimer's disease diagnosis and management.

Alzheimer's disease is a devastating condition characterised by progressive deterioration of cognitive abilities in elderly pop-



ulation, presenting a major global health challenge. To address this, the team discussed cutting-edge artificial intelligence techniques to enhance understanding and diagnosis of AD.

Leveraging neuroimaging data obtained from advanced techniques such as Magnetic Resonance Imaging (MRI) and Positron Emission Tomography (PET), the researchers have meticulously reviewed sophisticated ensemble deep learning models in the manuscript. These models, combining multiple deep neural networks in a variety of ways, demonstrate exceptional potential in precisely identifying both structural and functional changes in the brain associated with Alzheimer's disease, providing additional straight forward benefits such as quantification of uncertainty of their predictions.

Prof Tanveer, faculty member at IIT Indore,

heading the study said, 'Accurate and early diagnosis of Alzheimer's disease is paramount for effective intervention and treatment planning. Our research not only enhances diagnostic precision, but also enriches understanding of the intricate dynamics underlying AD. This research not only highlights the transformative role of Artificial Intelligence in advancing medical diagnostics, but also emphasises the critical role of multidisciplinary expertise and international collaboration in tackling complex healthcare challenges.'

The team includes Dr Tripti from NIT Silchar, Dr Rahul, and Dr Ashwani from IIT Indore, along with distinguished international faculty Dr Inan Beshiri from the University of Manitoba, Canada, Prof Javier del Ser from TECNALIA, Spain, Prof PN Sumanthan from Qatar University and Prof CT Liu from UTS Australia.

# Five-day workshop on Advanced Econometrics begins at IIT Indore

OUR STAFF REPORTER  
INDORE

A five-day workshop on 'Advanced Econometrics', which would cover a diverse range of topics from endogeneity to complex panel data models, was kick-started on an inspiring note at IIT Indore on Monday. The participants will experience a rigorous exploration of methodologies that are shaping contemporary econometric research. The sessions would not only highlight theoretical frameworks but also emphasise practical applications through hands-on exercises and case studies, a press release issued by IIT Indore said.

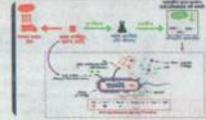
The workshop is being conducted by the School of Humanities and Social Sciences and has invited Prof Kausik Chaudhari from the University of Leeds, UK, visiting faculty at IIT Indore, who with years of

expertise and numerous publications to his credit, brings a wealth of knowledge and experience that is sure to enrich the discourse throughout the workshop. Prof Ruchi Sharma, head of the school, talked about offering a platform for both researchers and budding scholars to expand their understanding of this critical field. She said, 'As India continues to make significant strides in economic development, the importance of robust econometric analysis cannot be overstated. Workshops such as these serve as catalysts for advancing research capabilities and nurturing talent in the field of economics.' Participants include doctoral students pursuing research in economics and related disciplines, as well as professionals from industry keen on enhancing their analytical skills.

## IIT इंदौर ने खाद्य अपशिष्ट से बढ़ाई कंक्रीट का ताकत

# कचरे से मजबूत होगा मकान, नुकसान से बचेगा पर्यावरण

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इंदौर: हम रोजाना जो खाद्य फेंकते हैं, उससे भारी मात्रा में कार्बन डाईऑक्साइड गैस निकलती है, जो ग्लोबल वार्मिंग का कारण बनती है। आइए इसी इंदौर के वैज्ञानिकों ने एक ऐसी तकनीक विकसित की है, जिसमें खाद्य अपशिष्ट और खास बैक्टीरिया को मिलाकर कंक्रीट को मजबूती लगभग दोगुनी की जा सकती है। इससे दरारे खुद-ब-खुद भर जाती हैं। कंक्रीट ज्यादा टिकाऊ बनता है।

रिसर्च टीम ने बताया, अब खाद्य अपशिष्ट सड़ना है तो उसमें से कार्बन डाईऑक्साइड निकलती है। इसे बैक्टीरिया के खाद्य कंक्रीट में मिलाया जाय तो यह गैस कंक्रीट में मौजूद कैल्शियम के साथ मिलकर कैल्शियम कार्बोनेट नामक ठोस क्रिस्टल बनाती है। यह क्रिस्टल कंक्रीट में मौजूद दरारी ख छिद्रों को भर देते हैं, जिससे कंक्रीट ज्यादा ठोस और टिकाऊ हो जाता है।

### मजबूती में 205% बढ़ती

शोध में प्रोफेसर हेमचंद्र झा ने बताया, पहले कंक्रीट में बैक्टीरिया मिलाने के लिए महीने पत्थरों का उपयोग किया जाता था, जिससे प्रक्रिया मंदागी हो जाती थी। अब टीम ने खाद्य अपशिष्ट को खाद्य के रूप में इस्तेमाल किया है, जो पानी में आसानी से घुलता है और कंक्रीट के छुगों पर कोई बुरा असर नहीं डालता। इस प्रक्रिया में एक बैक्टीरिया का उपयोग किया गया है, जो पूरी तरह सुरक्षित है और किसी भी बीमारी का कारण नहीं बनता। खास बात यह है कि इस तकनीक से कंक्रीट की मजबूती में 205 फीसदी तक इजाफा हुआ है।

### कार्बन उत्सर्जन में 20 फीसदी तक कमी आने की उम्मीद

शोधकर्ताओं का कहना है कि यह तकनीक अब बड़े स्तर पर उत्पादन के लिए तैयार है। ईंट, ब्लॉक और प्रीकास्ट कंक्रीट बनाने वाली फैक्ट्रियों को अपनाकर कम लागत में मजबूत और पर्यावरण के लिए बेहतर निर्माण सामग्री बना सकती है। इस तकनीक के व्यापक उपयोग से निर्माण क्षेत्र में कार्बन उत्सर्जन में 20 फीसदी तक कमी आने की उम्मीद है। इससे न केवल पर्यावरण को फायदा होगा बल्कि मकान और इमारतों की अधिक टिकाऊ और किरायेती बनेगी।

# IIT Indore ponders on 'South Asia: Onsite Version'

OUR STAFF REPORTER  
INDORE

In a significant step toward strengthening international academic ties, JP Narayan National Centre of Excellence in the Humanities (JPN Centre), School of Humanities and Social Sciences (SHSS), and the International Office at IIT Indore are organising the International Academic Collaboration Workshop on Global Seminar South Asia: Onsite Version from February 17-23.

This initiative is part of the Memorandum of Understanding (MoU) between Kansai Gakuin University (KGU), Nishinomiya, Japan, and the IIT Indore, marking another milestone in their commitment to academic exchange and research collaboration.

The workshop will serve as a platform for cross-cultural learning, bringing together faculty and students from both institutions to engage in intellectual discourse, research sharing, and experiential learning.



Participants of the workshop pose for a group photo at IIT Indore on Thursday

Prof. Shibo Ket, a professor from KGU's School of International Studies, shared his university's vision of developing globally competent professionals who can contribute to an intercon-

ected world. His insights underscored the significance of such collaborations in preparing students to navigate diverse academic and professional landscapes.

On behalf of IIT Indore, Prof. Pritee Sharma, the MoU coordinator, emphasised that this workshop offers Japanese students a deep dive into India's rapid

economic growth, leadership in the IT sector, advancements in traditional and modern manufacturing systems, and initiatives in environmental conservation through a series of seminars and site visits. She said "Beyond the structured sessions, this initiative is expected to lay the foundation for long-term student and faculty ex-

change programs, joint research collaborations, cultural engagements, and language learning opportunities between the two universities. Moreover, it aspires to create a broader impact by extending these partnerships to other academic institutions in both India and Japan."

IIT Indore director Prof. Suhaj Joshi said "As the

world grows increasingly interconnected, initiatives like these are vital in fostering mutual understanding, academic excellence and cross-border collaboration. Through this workshop, IIT Indore and KGU reaffirm their commitment to shaping globally aware scholars, equipped with the knowledge and cultural sensitivity to address the challenges of the future."

Adding another dimension to the discussion, Prof. Nirmala Menon elaborated on the JPN Centre's mission of fostering global exchange in research, language studies, literature, and cultural exploration. Meanwhile, Prof. Miharui Yui from KGU, a key figure in this collaboration, brings valuable expertise in India Studies, enriching the workshop with her insights on Indo-Japanese academic partnerships.

## Institute Events and Functions

### Seminar and Outreach Committee, IIT Indore

The Academic Outreach Initiatives at IIT Indore are uniquely designed to foster impactful associations with the academic community and society, promoting knowledge exchange and social responsibility in a way that sets IIT Indore apart from other institutions. Unlike many other Indian Institutes of Technology, which primarily focus on technical education and research, IIT Indore emphasizes a holistic approach by integrating interdisciplinary research, societal impact, and global collaboration into its core mission. This distinctive vision is reflected in its Seminar and Outreach Committee, led by Prof. Raghunath Sahoo (Convenor), with active contributions from Dr. Priyansh Singh, Dr. Kalandi C. Pradhan, and the AR administration as members.

The programs undertaken include:

1. VIMARSH Institute Public Lecture
2. INSA Distinguished Lecture
3. Public Lecture by Indian Ambassadors
4. Science Day Open House
5. Laboratory visits of Indore schools
6. Technical and Outreach lectures by various departments and centers

The committee organizes a diverse array of events, including guest lectures by globally renowned scholars, research symposia that bridge academia and industry, and community engagement programs tailored to address local challenges. These initiatives enable IIT Indore to share its cutting-edge scientific research with a broad audience, from students and academic peers to industry professionals and the general public, while incorporating valuable feedback to refine research inquiries and methodologies. What sets IIT Indore apart is its commitment to fostering innovation through its unique Centres of Excellence, with interdisciplinary domains, which are seamlessly integrated into its outreach efforts to inspire future researchers and support industry advancements.

Unlike traditional outreach programs that may focus solely on academic dissemination, IIT Indore's approach emphasizes practical societal contributions, such as sustainable technology solutions for rural communities and collaborative projects that address pressing regional and global issues. By leveraging its strong network with leading academic institutions, industries, and local communities, the committee ensures that IIT Indore remains a dynamic hub for knowledge dissemination and societal progress. This distinctive blend of academic rigor, interdisciplinary innovation, and social responsibility positions IIT Indore as a leader in transformative education and outreach.

The Seminar and Outreach Committee organises several events including the flagship VIMARSH Institute Public Lectures. These events include, public outreach lectures by: Padma Shri Prof. H.C. Verma, Emeritus Professor of Physics, IIT Kanpur; Padma Shri Prof. Kiran Seth, Founder of SPIC Macy and Eminent Scholar; Nuclear Physicist, Prof. Amit Roy, Vice-President NASI, Prayagraj; renowned chemist Padma Shri Prof. E.D. Jemmis; Area Vice-President, Indian-South Asia Pacific, ANSYS Incl, Mr. Rafiq Somani; President INAE, Prof. Indranil Manna; well-known chemical engineer, Padma Shri Prof. G.D. Yadav; DBT Secretary, Prof. Rajesh S. Gokhale and Prof. Subhasis Chaudhury, Director IIT Bombay, to name some of the eminent personalities.



The Institute Seminars and Outreach committee has also arranged a wide spectrum of public lectures including, the INSA Distinguished lecture by former Vice-Chancellor of Punjab University, Prof. Arun K. Grover (Homi Bhabha's Life and Times: A comprehension), public lecture by former Indian Ambassador, Hon'ble Shri Manjeev Singh Puri (Topic: India's Tryst with Global Destiny), Science Day Open House program for school children, visit to IIT Indore laboratories by various schools of Indore etc.

These initiatives enable IIT Indore to share its cutting-edge scientific research with a broad audience, from students and academic peers to industry professionals and the general public, while incorporating valuable feedback to refine research inquiries and methodologies.

The VIMARSH Institute Public Lectures significantly benefit students, researchers, and the broader community by providing access to thought leaders who inspire innovative thinking and practical solutions. For students, these lectures offer exposure to diverse career paths, from academia to entrepreneurship, igniting curiosity and ambition. Researchers gain insights into interdisciplinary approaches and emerging trends, enhancing their ability to tackle complex problems. For the wider community, including industry professionals and the public, these events foster a deeper understanding of science, technology, and cultural heritage, encouraging collaborative efforts toward societal progress. By bridging academic excellence with real-world impact, the Seminar and Outreach Committee at IIT Indore empowers its audience to contribute meaningfully to global and local challenges. Each of our departments and centers are having regular outreach lectures to expose IIT Indore fraternity and various schools and colleges to the frontiers of science and technology. Through this, IIT Indore plays a pivotal role in energizing the next generation in a brighter career path and empowers the society through dissemination of knowledge. Our academic team behind these activities include the following members.



**Prof. Raghunath Sahoo**

(Convenor)  
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**Dr. Priyansh Singh**

(Member)  
Assistant Professor,  
Department of Civil Engineering  
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**Dr. Kalandi C. Pradhan**

(Member)  
Assistant Professor,  
Humanities and Social Sciences  
kcpradhan@iiti.ac.in

### 13 July 2024: 12<sup>th</sup> Convocation of IIT Indore

IIT Indore hosted the 12<sup>th</sup> Convocation of 2024 batch on July 13, 2024. Dr. Samir V. Kamat, Secretary DD (R&D) and Chairman DRDO was the Chief Guest. Dr. K. Sivan, Chairman, Board of Governors, and Prof. Suhas S. Joshi, Director IIT Indore, Prof. Himanshu Rai, Director IIM Indore were also present during the occasion.



### 13 July 2024: Inauguration of Centre for Narmada River Basin Management Studies

Inauguration of Centre for Narmada River Basin Management Studies by Chief Guest Dr. Samir V. Kamat, Secretary DD (R&D) and Chairman DRDO. Dr. K. Sivan, Chairperson, Board of Governors, Prof. Suhas S. Joshi, Director IIT Indore, Prof. Himanshu Rai, Director IIM Indore were also present during the occasion.



### 27 July 2024: "Nagar Van Project"

"Nagar Van Project" Foundation Stone laid by Shri Subhash Chandra Chief Executive Officer, National Compensatory Afforestation Fund Management and Planning Authority (CAMPA) Ministry of Environment, Forest and Climate Change, Govt. of India Shri Purshottam Dhiman Additional Principal Chief Conservator of Forest and Chief Conservator of Forest, Govt. of M.P on 27 July 2024 at IIT Indore.



### 02 August 2024: Orientation Programme 2024

As every year IIT Indore organized Orientation Program of the First Year Batch of IIT Indore grace by Lt Gen KH Gawas VSM, Commandant MCTE on August 02, 2024.



### 11 August 2024: Plantation Drive at IIT Indore

IIT Indore, in collaboration with BSW Pharmaceuticals Pvt. Ltd., organized a successful plantation drive promoting environmental sustainability. Students, faculty, and company representatives planted saplings across the campus. The initiative aimed to raise ecological awareness and contribute to a greener, healthier future. Participants pledged continued care for the plants.



### 16 August 2024: Foreign Students Visit at IIT Indore

International school visit at IIT Indore- 29 Foreign students with 3 teachers and 3 students from Emerald Heights International School Visit IIT Indore on 16 August 2024.



### 24 August 2024: Alumni Meet

The Alumni & Corporate Relations Office of IIT Indore conducted an Alumni Meet in Delhi on August 24, 2024. The event saw a vibrant gathering of over 100 alumni with their family members from various batches and disciplines, representing diverse fields such as technology, academia, research, and entrepreneurship.



### 14 September 2024: Celebration of Hindi Diwas at IIT Indore

Celebration of Hindi Pakhwada on 17 September 2024 at IIT Indore. Prof. Suhas Joshi, Director IIT Indore was the Chief Guest. Prof. Rajesh Kumar, Convenor Rajbhasha Hindi Samittee IIT Indore, Mr. S.P, Hota, Registrar IIT Indore were also present during the occasion.



### 1-15 September 2024: Swachhata Pakhwada

Swachhata Pakhwada was actively conducted at the IIT Indore campus from 1 to 15 September 2024, promoting cleanliness and environmental awareness. Faculty, staff, and students enthusiastically participated in various activities, including campus cleaning drives. Hostels, academic buildings, and public areas were cleaned thoroughly. Dustbins were placed strategically, and sessions on waste segregation and plastic-free living were organized. The event fostered a sense of responsibility among the IIT Indore community towards maintaining a clean and green campus.



### 2 October 2024: Mahatma Gandhi & Lal bahadur Shastri Jayanti

Mahatma Gandhi and Lal Bahadur Shastri Jayanti celebration program on 2 October 2024 hosted by the IIT Indore and Center for Rural Development Technology (CRDT). The programme grace by Dr. Arvind C. Ranade, Director, National Innovation Foundation and Convenor IISF, as a Chief guest.

In addition to the cultural performances, IIT Indore and CRDT organized a Handicraft Fair, where local artisans were exhibit and sold their crafts. This initiative supports sustainable livelihoods and highlights the rich craftsmanship of our community while providing our students with invaluable insights into rural entrepreneurship. Also present an “Innovative Ideas for Rural Development” poster exhibition featuring projects designed by our students. This exhibition was showcasing their creative solutions to address various challenges faced by rural communities, fostering a spirit of innovation and social responsibility.



### 30 September 2024: 38 Inter IIT Aquatics Meet

Inauguration Ceremony of 38 Inter IIT Aquatics Meet, Organized at IIT Indore on September 30 2024, at 5:30 PM at the Cricket Ground. Ceremony honored by Dr. Kannan Pugazhendhi, a distinguished sports physician who served with the Indian cricket team in 1989, the Atlanta Olympics in 1996, and the Indian hockey team during the 2002 World Cup, as the Chief Guest for this prestigious event.



### 24 November 2025: Chairpersons BoG, IIT Indore Dr. K. Sivan interact with students of Gazinda at IIT Indore

IIT Indore’s Chairperson, BoG Dr. K. Sivan, interacted with students of its adopted Gazinda School during an official visit. The session began with a warm welcome, followed by Dr. Sivan’s motivational address highlighting the importance of education, and scientific curiosity. He shared personal tales from his journey and encouraged students to aim high and embrace innovation. The interaction included a lively Q&A session, where students asked insightful questions about space, technology, and career choices. The

event concluded with a group photograph and smiles, reinforcing IIT Indore's commitment to rural education upliftment.



### 12 November 2024: Signing MoU between IIT Indore and NATRAX

IIT Indore signed the Memorandum of Understanding with National Automotive Test Tracks (NATRAX) in the presence of Director Prof. Suhas S. Joshi and Dr. Manish Jaiswal Director NATRAX on 12 November 2024 at IIT Indore. Both IIT Indore and NATRAX wish to cooperate, Synergize strengths and support each other to the extent appropriate to their means and capacities.



### 24 December 2024: Signing MoA between IIT Indore and MCTE Mhow Indian Army

IIT Indore signed the Memorandum of Agreement with Military college of Telecommunication Engineering (MCTE), Mhow Indian Army (IA) in the presence of Director Sir Prof. Suhas S. Joshi, Dr. Prof. Devendra Deshmukh, Dean Education Outreach, IITI and Maj Gen Sanjay Sajjanhar, Commandant MCTE on 24 December 2024 at IIT Indore. MCTE Mhow Sponsored M.Tech. Program in "Communication and Information Systems" with specializations in various areas mentioned in MoA for its Officers, IIT Indore.



### 10-17 December: 57<sup>th</sup> Inter IIT Sports Meet at IIT Indore

IIT Indore co-hosted the 57<sup>th</sup> Inter IIT Sports Meet from December 10–17, 2024, alongside IIT Kanpur, marking its debut as a primary venue. The grand event featured over 2,500 athletes from all 23 IITs competing in 12 disciplines – athletics, football, badminton, squash, weightlifting, chess, and aquatics, among others. IIT Indore accommodated 1,370 participants across six sports, showcasing its upgraded facilities and strong organizational prowess. Opening and closing ceremonies included cultural programs and torch relays, emphasizing camaraderie, sportsmanship, and sustainability, with real time updates via a dedicated app.



### 12 Jan 2025: Vidyarthi Vigyan Manthan State Level Camp at IIT Indore

State-level Camp of Vidyarthi Vigyan Manthan organized at PM Shri KV IIT Indore on 12 January 2025. During the programme 136 brilliant students out of 5400+ students across all districts of Indore and Ujjain regions were performed lab-based experiments (Physics, Chemistry, Maths, Bio). Winners of each class from 6-11 (18 Students) has been awarded certificates, cash prizes, and Electronic kits in the Valedictory program by the dignitaries at Gargi Hall, IIT Indore.



### 17 to 19 January 2025: SPICMACAY

Society for the Promotion of Indian Classical Music and Culture Amongst Youth of Indian Institute of Technology Indore successfully organized a vibrant Regional Convention from the 17 to 19 January 2025. The cultural program included an inauguration by dignitaries and introductory speech by Dr. Kiran Seth, Founder of SPICMACAY and Eminent Scholar, followed by captivating musical performances showcasing regional folk traditions, classical music sessions. World Class artistes like, Shri Tarapada Rajak (Purulia Chhau dance performance), Pt. Ulhas Kashalkar (Hindustani Vocal), Ust. Shahid Parvez Khan (Sitar Performance), Ust. Raja Miyan (Hindustani Vocal) etc. from around the country has not only performed but also held interactive workshops to educate and spread the beauty of their respective art forms during these three days of programme. Workshops on folk music, classical music, dance,

Instrumental music, Yoga, craft etc. further encouraged participants to explore their artistic abilities and learn new skills. This year, around 100 students from across India who participated in workshops, alongside IIT Indore members and their families. The program received positive feedback from participants, who expressed appreciation for the opportunity to engage in creative expression and connect with their cultural roots.



### 26 January 2025: 76<sup>th</sup> Republic Day Celebration at IIT Indore

IIT Indore celebrated 76<sup>th</sup> Republic Day on 26 January 2025 with patriotic passion on campus. The event began with flag hoisting by the Director Prof. Suhas Joshi, followed by the national anthem and inspiring speeches. Students and staff participated in cultural performances, highlighting India's diversity and spirit. The celebration fostered unity and national pride.



### 5 February 2025: Blood Donation Camp organized at IIT Indore

A blood donation camp was organized with great enthusiasm at IIT Indore on 05 February 2025, in collaboration with a local blood bank. Students, faculty, and staff actively participated, showing strong support for this humanitarian cause. The event began with a brief awareness session on the importance of blood donation in saving lives. Medical professionals ensured all safety protocols were followed during the donation process. The initiative not only promoted a sense of social responsibility but also highlighted the spirit of community service among participants.



### 17 February 2025: Foundation Day

IIT Indore Celebrate its 16<sup>th</sup> Foundation Day on 17 February 2025. Dr. Rajesh S. Gokhale, Secretary, Department of Biotechnology (DBT), Government of India was the Chief Guest and program graced by Prof. Suhas Joshi, Director IIT Indore. The event featured inspiring speech by Chief Guests, various cultural performances, and recognition of academic achievements. Faculty, students, and alumni participated, reflecting on the institute's journey and growth. The celebration highlighted IIT Indore's commitment to excellence in education and research.



### 25 April 2025: Brain Storming Session on Semiconductor with Industrialist at Bengaluru

The event brought together over 50 experts from academia, industry, and policy sectors to discuss strategies for strengthening India's semiconductor capabilities, enhancing education, fostering innovation, and promoting collaborative research. Focused on strengthening semiconductor education, fostering industry-academia collaboration, promoting research excellence.



### 24 February 2025: MoU Signing between DRISHTI CPS IITI and MPSeDC under the Dept. of DST during GIS2025

The Department of Science & Technology, Government of Madhya Pradesh and IITI DRISHTI CPS Foundation, IIT Indore have signed an MoU to establish an incubation centre at Sinhasa IT Park, Indore at Day 1 - IT & Technology Summit in Bhopal, under Global Investors Summit 2025. This collaboration marks a significant milestone in advancing startup growth, technology commercialization, & intelligent manufacturing. The centre will provide dedicated spaces for coworking, specialized labs, creating enabling environment for research & industry collaborations



## राजभाषा समिति

### 1. हिंदी पखवाड़ा - 2024

भारतीय प्रौद्योगिकी संस्थान इंदौर द्वारा राजभाषा समिति के तत्वावधान में दिनांक 17 से 27 सितंबर, 2024 के दौरान हिंदी पखवाड़ा - 2024 का आयोजन किया गया। इस अवसर पर, संस्थान के पुस्तकालय में हिंदी पुस्तक प्रदर्शनी का आयोजन भी किया गया। इस प्रदर्शनी में संस्थान के सदस्यों के साथ-साथ जवाहर नवोदय विद्यालय के विद्यार्थी व शिक्षक भी उपस्थित थे तथा वे हिंदी के विभिन्न पुस्तकों एवं अन्य पुस्तकों से अवगत हुए। इस पखवाड़े को सफल बनाने के लिए, संस्थान के अलग-अलग स्थानों, विभागों व अनुभागों में पोस्टर लगाया गया, ताकि संस्थान के सदस्य अधिक से अधिक संख्या में हिंदी से जुड़ें तथा इस पखवाड़े में अपनी भागीदारी प्रस्तुत करें। संस्थान में हिंदी पखवाड़ा - 2024 के अंतर्गत कुल 9 प्रतियोगिताएँ आयोजित की गईं, जैसे कि स्वरचित हिंदी कविता पाठ, हिंदी निबंध प्रतियोगिता, स्वरचित हिंदी कहानी पाठ (किस्से), वस्तुनिष्ठ सामान्य ज्ञान प्रतियोगिता, हिंदी वाद-विवाद प्रतियोगिता, हिंदी क्रिज़ प्रतियोगिता, हिंदी पोस्टर प्रतियोगिता इत्यादि। इसके अतिरिक्त, संस्थान राजभाषा कार्यान्वयन पुरस्कार का भी आयोजन किया गया, जिसमें सभी प्रतिभागियों ने सितंबर 2023 से लेकर अगस्त 2024 तक के राजभाषा व हिंदी के क्षेत्र में कार्य विवरण प्रदान किया। हिंदी पखवाड़ा - 2024 के पुरस्कार वितरण समारोह के दौरान, कुल 61 प्रतिभागियों को प्रमाण पत्र एवं नक़द इनाम के साथ पुरस्कार दिया गया। इस अवसर पर, संस्थान के निदेशक महोदय, अधिष्ठाता (प्रशासन) महोदय, कुलसचिव महोदय, अध्यक्ष महोदय एवं अन्य अधिकारीगण, कर्मचारीगण, छात्रगण उपस्थित थे।



### 2. तकनीकी हिंदी संगोष्ठी - 2024

भारतीय प्रौद्योगिकी संस्थान जोधपुर एवं भारतीय प्रौद्योगिकी संस्थान इंदौर द्वारा संयुक्त रूप से 2-3 दिसंबर, 2024 को भारतीय प्रौद्योगिकी संस्थान जोधपुर में तकनीकी हिंदी संगोष्ठी - 2024 आयोजित की गई। इस संगोष्ठी का मुख्य उद्देश्य तकनीकी क्षेत्र में हिंदी को बढ़ावा देना था। इस संगोष्ठी के अवसर पर, केंद्रीय हिंदी संस्थान के पूर्व उपाध्यक्ष व वैश्विक हिंदी परिवार के अध्यक्ष श्री अनिल जोशी मुख्य अतिथि के रूप में, आईआईटी जोधपुर के निदेशक प्रो. अविनाश कुमार अग्रवाल, आईआईटी इंदौर के निदेशक प्रो. सुहास एस. जोशी, प्रो. सौमित्र कुमार सनाढ्य, प्रो. राजेश कुमार उपस्थित रहे। इस संगोष्ठी में आधिकारिक रूप से आलेखों के संग्रह का विमोचन किया गया। वहीं, 11 भारतीय भाषाओं में रची गई कविताओं के संकलन काव्य भारती का विमोचन भी किया गया। तकनीकी हिंदी संगोष्ठी - 2024 के तत्वावधान में आमंत्रित वक्ताओं द्वारा व्याख्यान दिया गया। इस दौरान, तकनीकी एवं राजभाषा सत्र व प्रचलित विज्ञान एवं शैक्षणिक सत्र का आयोजन किया गया। वहीं, विभिन्न शैक्षणिक संस्थानों एवं कार्यालयों से पधारे आलेख प्रस्तुतकर्ताओं ने अपने आलेख का प्रस्तुतिकरण दिया। संध्या काल में चार सत्रों के सर्वश्रेष्ठ आलेखों को पुरस्कार दिया गया। इन आलेखों का चयन अलग-अलग सत्रों के निर्णायक मंडल द्वारा किया गया था। इसके बाद, सांस्कृतिक संध्या का भी आयोजन किया गया, जिसमें विभिन्न रसों के कवियों ने अपनी पंक्तियाँ प्रस्तुत कीं। 3 दिसंबर, 2024 को राजभाषा कार्यशाला का आयोजन किया गया।



### 3. वार्षिक एवं वित्तीय प्रतिवेदन – 2024

संस्थान में प्रत्येक वर्ष अनिवार्य रूप से हिंदी व अंग्रेजी में वार्षिक प्रतिवेदन तथा वित्तीय प्रतिवेदन प्रकाशित किया जाता है। संस्थान के वार्षिक प्रतिवेदन में, पिछले वर्ष विभिन्न विभागों, अनुभागों एवं केंद्रों द्वारा किए गए महत्वपूर्ण कार्यों एवं उनके सफल परिणामों की जानकारी प्रविष्ट की जाती है जैसे कि संकाय सदस्यों द्वारा प्रौद्योगिकी के क्षेत्र में प्रस्तुत किए गए शोध-पत्र, पोस्टर प्रस्तुतीकरण, प्राप्त किए गए पेटेंट इत्यादि। साथ ही, इस प्रतिवेदन में पिछले वर्ष आयोजित किए गए विभिन्न कार्यक्रम, बैठक, सम्मेलन इत्यादि का भी विवरण दिया जाता है। वहीं, वित्तीय प्रतिवेदन में विभिन्न विभागों, अनुभागों व केंद्रों के अलग-अलग मदों में खर्च की गई धनराशि का ब्यौरा दिया जाता है। दोनों प्रतिवेदन को मिलाकर, राजभाषा समिति द्वारा लगभग 60 हजार शब्दों का अनुवाद किया गया।



### 4. विश्व हिंदी दिवस – 2025

संस्थान की राजभाषा समिति द्वारा दिनांक 10 जनवरी, 2025 को विश्व हिंदी दिवस कार्यक्रम का आयोजन किया गया। इस कार्यक्रम का आयोजन संस्थान के पुस्तकालय (सेमिनार कक्ष) में हुआ। संस्थान के अधिष्ठाता (प्रशासन) प्रोफेसर संदीप चौधरी, कुलसचिव श्री एस पी होता, राजभाषा समिति के संयोजक प्रोफेसर राजेश कुमार, डॉ. शरद गुप्ता, श्री राजीव पाण्डेय एवं अन्य संकाय सदस्यगण, अधिकारीगण, छात्रगण, तथा कर्मचारीगण की उपस्थिति में कार्यक्रम का शुभारंभ हुआ। इस अवसर पर, हिंदी की महत्ता पर ध्यान आकर्षित करते हुए नूतन वर्ष – 2025 के हिंदी संस्करण वाले कैलेंडर का विमोचन किया गया। साथ ही, विश्व भर में हिंदी भाषा का प्रचार-प्रसार हो सके, इसके लिए संस्थान के संकाय सदस्यों, छात्र/छात्राओं एवं कर्मचारियों के समक्ष संस्थान की त्रैमासिक हिंदी समाचार पत्रिका के चतुर्थ, पंचम व षष्ठ अंक का विमोचन अतिथियों द्वारा किया गया। अंत में, इस कार्यक्रम का समापन लोगों के बीच भेंट के रूप में नूतन वर्ष – 2025 के कैलेंडर एवं समाचार पत्रिका का वितरण करके किया गया।

### 5. त्रैमासिक हिंदी समाचार पत्रिका

भारतीय प्रौद्योगिकी संस्थान इंदौर में हिंदी समाचार पत्रिका की शुरुआत की गई। यह पत्रिका प्रत्येक तीन माह के अंतराल में प्रकाशित की जाती है। इस पत्रिका के प्रथम अंक का विमोचन हिंदी पखवाड़ा – 2023 के समापन समारोह के अवसर पर किया गया था। इसके बाद, समाचार पत्रिका के द्वितीय अंक का विमोचन विश्व हिंदी दिवस – 2024 के उपलक्ष्य पर हुआ था। मूल रूप से, इस पत्रिका में संस्थान में जारी अलग-अलग शैक्षणिक एवं गैर-शैक्षणिक गतिविधियों का संक्षिप्त विवरण होता है, जिसमें संस्थान प्रांगण में एवं बाहर आयोजित होने वाले कार्यक्रम, शोध कार्य, सामाजिक कार्य इत्यादि शामिल हैं। इसके उपरांत, हिंदी समाचार पत्रिका के तृतीय अंक का सफलतापूर्वक प्रकाशन जुलाई 2024 में किया गया। इसी क्रम में, चतुर्थ, पंचम व षष्ठ अंक का विमोचन विश्व हिंदी दिवस – 2025 के अवसर पर किया गया। हाल ही में, सप्तम् अंक का प्रकाशन जून 2025 में किया गया है।



## Learning Resource Center



Figure 1. The Learning Resource Center (LRC) Building

### LIBRARY COLLECTION

The library continues to build and extend its collection in print and digital formats. These include books on all relevant subjects for teaching and research. The LRC also boasts of a fine collection of fiction, literature, and general interest books such as current events, sports, etc., to take care of the users' leisure and recreational reading needs. Special Collections such as the Gandhian Studies Collection, Hindi Collection, Children's Books Collection, and Matrubhasha Collection take pride of place in the LRC. The total collection of print books is 41,990+, and E-Books are 9,330+ as on 31st March 2025.



Figure 2. Reading Halls

### ELECTRONIC RESOURCES

In today's world of Information explosion, access to electronic information resources is essential, particularly in an academic environment. During the year 2025, the LRC has subscribed and provided access to more than 3260+ e-Journals and 10+ databases. Some of the major subscribed e-resources are Royal Society of Chemistry, JSTOR, SIAM, De Gruters, World Scientific, ACI standard and journals, SciFinder, Scopus, Indiatat, CMIE Prowess, CSD Enterprise Campus, Grammarly, Turnitin Feedback Studio, etc.

Further, as a member of the One Nation One Subscription (ONOS) initiative of the Government of India, the IIT Indore academic community is getting access to more than 13,000+ e-Journals.

The complete list of e-resources with hyperlinks is available on the LRC website for users' convenience.

### INSTITUTIONAL REPOSITORY

The library has created an Institutional Digital Repository using a widely used open source DSpace software to collect, preserve, organize and provide access to the creative and scholarly works and research of IIT Indore's faculty, students, and staff. This repository contains more than 15,090+ items in the

following collections: IITI Scholarly Publications (Research articles and books), Theses & Dissertations, Technology Highlights of IIT Indore, B.Tech Projects, Digital Humanities Lab, Newspaper Clippings, Resources for Visually Impaired Persons (Audio lectures), Annual Reports, Convocation Reports, Magazine & Newsletters, etc.

### CIRCULATION AND REFERENCE SERVICE

The library circulation service is automated using Koha-ILMS (open-source software) and integrated with the RFID system. Users can get issued and return the loan item through an RFID self-service kiosk. From 1st April 2024 to 31st March 2025, a total of 21,572 documents were issued/renewed to all categories of users for home study. User category-wise circulation data is presented in the table below:

	B.Tech.	M.Tech.	M.Sc.	MS Research	Ph.D.& RA	Faculty	Others
Documents circulated for home study	11484	1480	2835	283	2882	1881	727

The library also provides user services like references, the new addition of books, orientation programs for new students, inter-library loans, subject guides, training session programs for e-resources, QR codes for various library services, and faculty profile management through the IRINS portal, etc.

### DOCUMENT DELIVERY SERVICE PORTAL

The LRC arranges to procure research articles not held in its collection from different sources. This service is being provided for academic and research purposes to the faculty, research scholars, students and staff within the limit of copyright laws. To streamline this service, the LRC has developed a "Document Delivery Service" portal by using open-source software. This can be accessed at [http://library.iiti.ac.in/?page\\_id=2988](http://library.iiti.ac.in/?page_id=2988) on the library website. There is a total of 1,410+ research articles arranged from other institutions' libraries and provided to IITI users during the period April 2024 to March 2025.

### MATRUBHASHA COLLECTION:

This Matrubhasha Collection section of the library was dedicated to the community by Prof. Suhas S. Joshi, Director, IIT Indore. More than 880 books in 8 Indian languages (viz. Sanskrit, Telugu, Kannada, Odia, Marathi, Bengali, Gujarati, and Hindi) have been donated by IIT Indore faculty and staff members.

### Swadhyay

The Swadhyay (Self Study Space) of the LRC provides a conducive environment for self-study. This space is independent of the main LRC building and is open 24x7 for its users. A large number of students had utilized and benefited from this facility during the year.



Figure 3. Swadhyay (Self-study Space)



Figure 4. Library Team

## Health Centre



**Facilities:** The Health Centre provides dedicated services to the Institute community comprising students, research staff, employees, and their dependents. It has outpatient, daycare, and in-patient facilities for minor ailments. Emergency and ambulance services are available 24 X 7. It facilitates well-equipped physiotherapy services. Health Centre team provides essential investigation facilities, including ECG and Rapid investigations such as GRBS, Trop I, etc.

**Diagnostic services** - In-house Diagnostic laboratory and X-Ray facility help in comprehensive care to patients.

**Specialist Consultation Facilities-** Specialist consultation services are available for dental, E.N.T., medicine, obstetrics and gynaecology, paediatrics, psychiatry, ophthalmology, Orthopedics, Dietetics and dermatology. Minor dental procedures, antenatal follow-up, and minor ENT procedures are also performed at institute health centre.

Cases requiring higher investigations and management are referred to empaneled hospitals.

**Preventive and promotive health care activities-** Various activities for prevention, early detection and initiation of early treatment of diseases are carried out by health centre team. Annual health check-up was carried out for institute employees. Health awareness sessions were organised to promote preventive health care and self-health awareness. Basic health check-up of front-line workers such as housekeeping staff and institute drivers was also organized as a preventive and promotive health care activity.

A successful blood donation camp was organized as a part of celebration of 16th foundation day of the institute in which two hundred and sixty two community members donated blood.

### Blood Donation Camp 2025

Total - 262 Blood Donations

Numerical data of the Health Centre for the year 2024-2025

Total OPD	:	18197
Total Day care and IPD	:	896
Emergency And trauma	:	463
In-house investigations such as ECG, GRBS	:	1041
Minor emergencies after OPD hours	:	3831
Total Physiotherapy	:	3275



## Central Workshop



The Central Workshop, IIT Indore, was established during AY 2011-2012. It undertakes laboratory classes, fabrications of research and project components. It has excellent infrastructure equipped with modern state-of-the-art facilities and high-end research equipment. CW having seven shops, Machining, Welding, Forming, Foundry, Injection Molding, Fitting, and Carpentry, with a team of efficient and highly skilled work force. The workshop undertakes undertaking turning, milling, drilling, surface grinding, injection moulding, sheet shearing, bending, drawing, wire drawing, nibbling, arc welding, MIG/MAG welding, TIG welding, gas welding, plasma air cutting, induction heating, metal casting, fitting and carpentry related fabrication works.

It was established to provide hands-on experience to students in the Production and Fabrication of simple mechanical components. This is a small, effective, and successful working model using machine tools and computers at the workbench. Students are exposed to different manufacturing methods, materials and components, procedures, and software programs currently used in commercial manufacturing and assembly processes. This is of immense help in transforming students into engineers.

The CW supports students and research scholars in realizing their research objectives by providing technical expertise and infrastructure support to perform novel and cutting-edge research. CW also offers opportunities of hands-on training and skill development to students through practical training sessions and workshops.



### Professor In charge, Central Workshop

#### Dr. Dan Sathiaraj

Associate Professor (ME) | Email-workshopincharge@iiti.ac.in

#### Research Interests:

- Medium to High entropy alloys
- Severe plastic deformation (SPD)
- Recrystallization and grain growth study
- Micro, Nanomachining of MEAs and HEAs
- Surface modification Engineering (SMAT, Laser Shot-peening, etc.)
- Mechanical and functional property study

### Activities during the year 2024-2025

- Work Request received at Central Workshop:- The central workshop completed 317 Nos. of work requests during year 2024-2025 for various purposes, including UG/ PG Research teaching, PG Research, BTP, Sponsored projects, and other fabrication works. The workshop has utilized available scarp materials to make flowerpot stands, storage rakes, compressor sheds, boxes, tables, stands etc.
- Award and achievements: Central Workshop wins the Best Cleanliness Award during Swachhta Pakhwada Samaroh 2024 at IIT Indore on 2<sup>nd</sup> October 2024.
- Laboratory classes : The central workshop has conducted practical classes of Manufacturing processes lab (ME-258) and Machining Science and Metrology Laboratory (ME-355)
- Skill Development Training Program: - The central workshop has organized a 2 day skill Development Program in Welding Technology for ITI students and trained 12 students.
- Development of new facilities: - The central workshop has developed CNC controlled laser welding and micro plasma welding facility to support laboratory and research works.
- Infrastructure development: The Central workshop has developed Microfactory and Advanced Welding Facility in workshop premises to support the laboratory and research works.



Trusses fabricated for Genesis Event-2024



Fabricated motorized filtration setup



Fabricated stairs for Inter IIT Sport Meet-2024



Fabrication of works of stand



Fabrication of Constant Load Flat Coil Spring

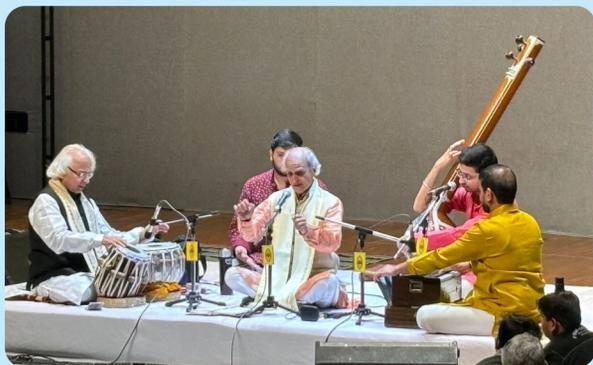


Development work for Laboratory



Multipurpose Solar Electric Power- Driven Tractors for Sustainable Farming





**भारतीय प्रौद्योगिकी संस्थान इंदौर**  
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