



भारतीय प्रौद्योगिकी संस्थान इन्दौर  
INDIAN INSTITUTE OF TECHNOLOGY INDORE  
OFFICE OF INTERNATIONAL RELATIONS

*Brochure 2024-25*



Professor Suhas S. Joshi  
Director, IIT Indore

**220+**  
Faculty Members



**3000+**  
Students

**7000+**  
Publications



**700+**  
Externally Funded  
Research Projects



# Overview and Vision



## Overview

- Inception in 2009
- 501.42 acres (20,29,176 Square Meters) of campus
- 3000+ students in UG/PG/PhD programs
- 220+ faculty members
- 12 Departments
- 13 Centers
- State of the art Research Laboratories
- Sports Complex & Gymnasium Facilities
- Postal and Banking Services
- Modern Guest House
- On-campus residence

14<sup>th</sup>

Engineering Category 2023



101-150<sup>th</sup>

Young University Rankings 2023



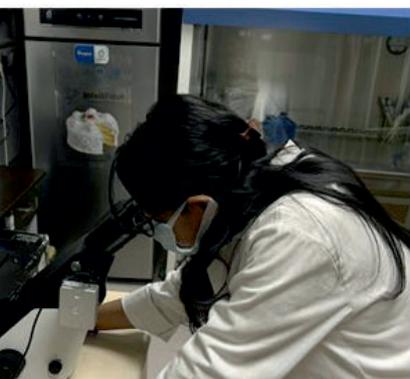
454<sup>th</sup>

QS World University Rankings 2024



## Vision

- Increase collaborations globally
- Enhance academic outreach
- Develop world-class research and academic facilities
- World-class technological innovation hub in Engineering, Science and Humanities
- Promote Indian Culture, Heritage, and Languages



# Academic Programs



## Bachelor of Technology (B.Tech.)

- Computer Science and Engineering
- Mechanical Engineering
- Metallurgical Engineering and Materials Science
- Mathematics and Computing
- Space Science and Engineering
- Electrical Engineering
- Civil Engineering
- Chemical Engineering
- Engineering Physics

## Master of Technology (M.Tech.)

- Communication and Signal Processing
- Advanced Manufacturing (AM)
- Mechanical Systems Design
- Metallurgical Engineering
- Space Engineering
- Water Climate and Sustainability
- Structural Engineering
- Futuristic Defence and Space Technology
- VLSI Design and Nanoelectronics
- Thermal Energy Systems (TES)
- Materials Science and Engineering
- Electric Vehicle Technology
- Computer Science and Engineering
- Biomedical Engineering
- Applied Optics and Laser Technology

## Master of Science (M.Sc.)

- Chemistry
- Mathematics
- Biotechnology
- Astronomy
- Physics

## MS (Research)

- Computer Science Engineering
- Mechanical Engineering
- Humanities and Social Sciences
- Electrical Engineering
- Space Science and Engineering
- Master of Science in Data Science and Management (MS-DSM)

## PhD in Various Streams of Engineering, Science and Humanities

- Joint degree program with NLIU Bhopal on Cyber Security & Cyber Law
- Joint degree program with Volvo Eicher Commercial Vehicles (VECV) in hybrid and electric vehicles



**MakerSpace**  
CURIOSITY - CONNECTS - CREATIVITY

Tinkerer's Lab  
&  
Makerspace

"Converting ideas into products"

# Departments



## Astronomy, Astrophysics and Space Engineering

The Department of Astronomy, Astrophysics and Space Engineering (DAASE) was established in 2015, their research focuses on a wide range of topics in the domain of Astronomy, Astrophysics and Space Engineering e.g. astronomy in multi wavelength, radio, x-ray, gamma ray, optical, infrared, black holes, solar physics, atmospheric science, climate change, cosmological and MHD simulations, astroinformatics, BIG DATA driven astronomy etc. Presently the department has 10 faculty members and runs PhD, M. Sc., M. Tech., MS (research) and B.Tech. programs.

## Biosciences And Biomedical Engineering

The Department of Biosciences and Biomedical Engineering (BSBE) was initiated in 2012 focusing on a wide range of research topics such as Biosensors and Bioelectronics, Biophotonics, Tissue Engineering, Neurobiology, Cancer Biology, Drug Discovery and delivery systems, Bioprocessing, Molecular Immunology, Environmental Biotechnology, Infectious diseases, Computational Biology and other major areas in biology and biomedical engineering. The department currently has 15 faculty members and offers M. Sc., M. Tech. and PhD programs. Department is soon starting a B.Tech. program in Biomedical Engineering and Health Informatics.



## Chemistry

The Department of Chemistry was established in 2009. It is home to 19 faculty members who work under different research areas such as Coordination Chemistry, Organometallics, Theoretical Chemistry, Computational Chemistry, Photo Chemistry, Surface and Interface, Spectroscopy Supramolecular Chemistry, Molecular & Bio-materials, Energy Storage & Conversion, Drug Discovery for Disease Diagnosis & Therapy. The department offers M. Sc. and PhD programs.

## Civil Engineering

The Department of Civil Engineering, established in 2016, comprises 17 distinguished faculty members who are engaged in diverse research areas. These areas include structural engineering, sustainable construction practices, composite bridges, microstructure and durability of concrete, geotechnical earthquake engineering, ground improvement techniques, hydroclimatology and statistical downscaling, hydro-meteorological monitoring, climate change impacts on water resources, pavement engineering, environmental geotechnics, numerical modeling in geomechanics, waste management, and traffic engineering. The department offers comprehensive programs, including B. Tech., M. Tech. and PhD programs, fostering a robust academic and research environment.



## Mechanical Engineering

The department of Mechanical Engineering was established in 2009. It presently has 28 core faculty members working under various research areas such as Modeling and development of micro-machining processes, Laser micro-machining, Biofuels, Optical instrumentation, Surface engineering, Smart materials and structures, Abrasive based finishing process, Piezoelectric, Pyroelectric and ferroelectric materials, Severe plastic deformation (SPD), Theory of plates and shells, Additive manufacturing of biomaterials and high melting point metallic materials; Solid state additive manufacturing of lightweight materials and composites, jet impingement cooling, microchannel heat transfer, thermal management of electronic components, Computational Fluid Dynamics, composite materials micro-machining processes, Laser micro-machining. The department offers B. Tech., M. Tech., MS (research) and PhD programs

# Departments



## Computer Science and Engineering

The Department of Computer Science and Engineering (CSE) was set up in 2009. The department has 19 faculty members working under different research areas such as Algorithms, Theoretical Computer Science, Machine Learning NLP, Cyber Security, Hardware Trojan, IoT, Biometrics, Game Theory, Digital VLSI Design, Edge-Cloud. The department offers B. Tech., MS (research), M. Tech. and PhD programs.

## Electrical Engineering

The Department of Electrical Engineering, established in 2009, currently has 22 faculty members actively engaged in research in Communications, Signal Processing, Image Processing, VLSI, Nanoelectronics, Semiconductor Devices, RF and Microwave, Photonics, Power Engineering, and Biophotonics Instrumentation. The department offers undergraduate (B. Tech.), postgraduate (M. Tech. in Communication and Signal Processing, M. Tech. in VLSI Design and Nanoelectronics, and MS by Research), and doctoral (PhD) programs.



## Humanities and Social Science

The School of Humanities and Social Sciences was established in 2009 and has 16 faculty members. The department has a unique and dynamic research culture that is promoted through various interdisciplinary groups. These groups include Digital Humanities, Innovation Studies, Human Factors and Cognition, Sustainability and Climate Change, Media Studies, Performance Studies, Interfaith and Religion Studies, History, Philosophy, Linguistics, Medical Humanities, Food Studies, etc. The School has an inter-disciplinary MS (Research) programme and a full-fledged PhD programme with more than 80 PhD students across these areas.

## Mathematics

The department of Mathematics was established in 2009. It presently has 20 faculty members working under various research areas such as Commutative Algebra, Geometric Function Theory, Radon Transform, Numerical Linear Algebra, Deep Learning, Kinetic theory, Modal Logic, Rough Set Theory, Analytic Number Theory, Numerical Functional Analysis, Optimization theory, Statistical Decision Theory, Graph Theory, Graph Coloring, Complex Analysis etc. The department offers B. Tech., MSc and PhD programs.

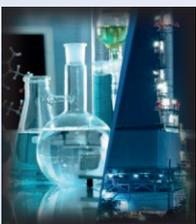


## Metallurgical Engineering and Materials Science

The Department of Metallurgical Engineering and Materials Science was established in 2016 and has 21 core faculty members. The main focus of the department is on Synthesis, Processing, Characterization, Energy, Environmental Materials, Alloy, Design, Development, Deformation, Electronic, Photonic Materials, Nanomaterials, Soft materials, Strategic Materials, Materials Degradation and Surface Engineering. The department offers B. Tech., M. Tech., and PhD programs.

## Physics

The Department of Physics was established in 2009 focusing on Condensed Matter Physics, High Energy Physics, Complex Systems, Thin Films and Multilayers, Quantum Materials, Magnetism, Battery materials, Optoelectronics, Mesoscale and Nanoscale Physics, Quark-Gluon Plasma, Hadron Physics, Black hole Physics, Delayed networks, and many more. The department offers B. Tech. (Eng. Phys), M.Sc. and PhD programs.



## Chemical Engineering

The Department of Chemical Engineering was started in 2023 focusing on various research areas such as petrochemical, Biofuel, energy, Food processing, agriculture, and pharmaceutical industries. and many more. The department currently has 4 faculty members in total. The department offers B. Tech. programs.

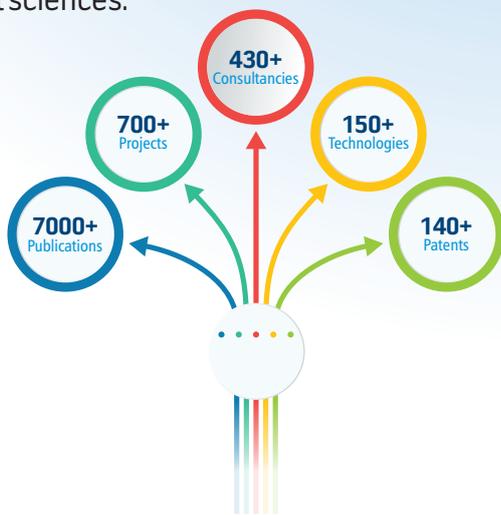


# Research and Innovation Excellence

## About



IIT Indore envisages the convergence of traditional disciplines as the key to accomplishing the previously unimaginable. With this foresight, IIT Indore has promoted interdisciplinary research programs focusing on basic and applied research, technology development, and innovation. This vision has helped the institute to excel in all spheres of science, engineering, humanities, and social sciences.



## Vision



Promote inter-disciplinary research in science, engineering, and humanities and social sciences. Conduct disruptive and social impacting research in 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 on interdisciplinary research. Promote culture of start-ups and entrepreneurship by establishing of Industrial Research Park which will be a focal point in Central India. Ingress number of patent and protection of IPR.

## Members

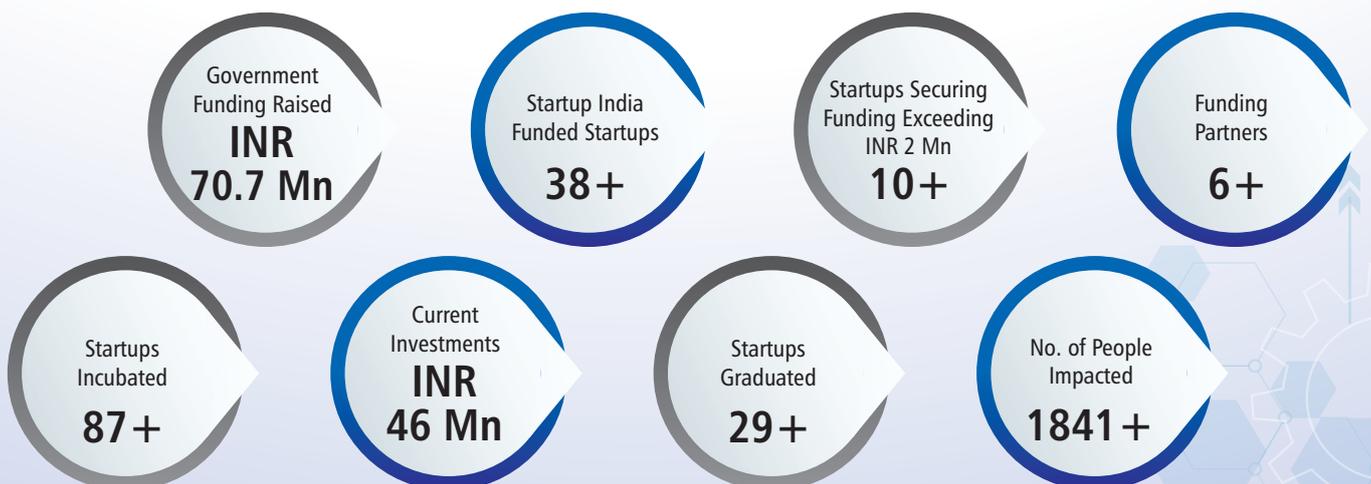


Post Doctoral Fellows	43+
Ph.D Students	700+
Project Staff	160+

# Innovation & Entrepreneurship

- Established Advanced Centre for Entrepreneurship (ACE)
- Incubated 80 start-ups
- Established Centre for Entrepreneurship Education and Development (CEED), Inculcating courses promoting entrepreneurship in the curriculum

## Impact Created



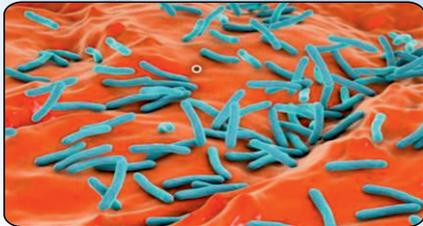
\*Mn - Million

# Research and Innovation Excellence

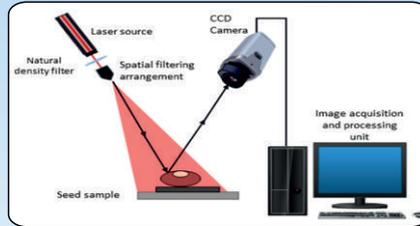


- 150+ Technologies are developed
- 140+ patents has been filed and 65 patents were granted

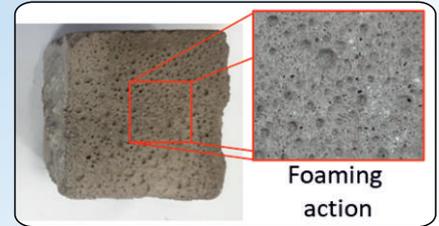
## Few Recently Technologies Developed by IIT Indore



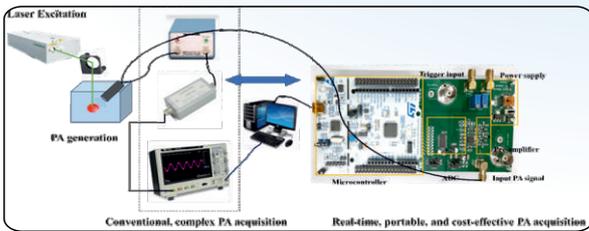
New therapeutic tools for the treatment of tuberculosis and drug resistance tuberculosis



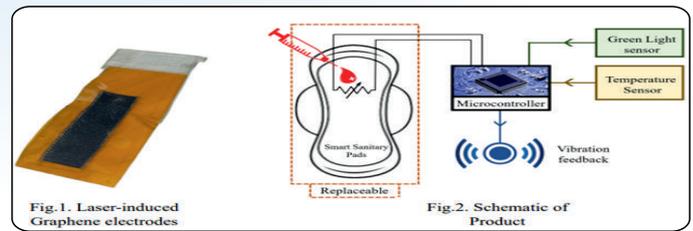
New therapeutic tools for the treatment of tuberculosis and drug resistance tuberculosis



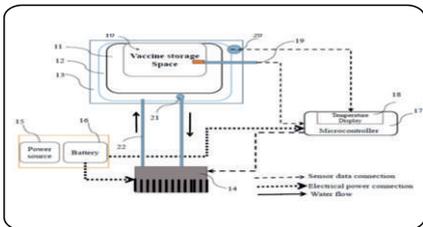
GOBAiR based light weight concrete



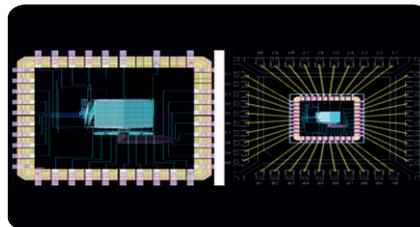
Fast cancer screening device for early-stage cancer diagnosis, using aquantitative photoacoustic spectral response technique



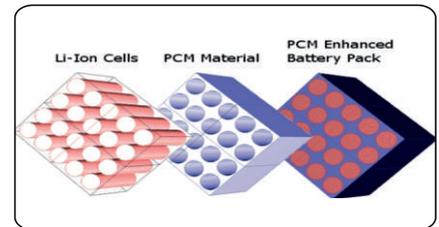
IoT-enabled smart absorbent material (Laser Induced Graphene) and Sanitarydevice



Vaccine and biological material carrier box



Low power Memory Design



Novel Phase change composites for e-vehicles

## Centers

- Center for Rural Development and Technology (CRDT)
- Center for Electric Vehicle and Intelligent Transport Systems (CEVITS)
- DST-FIST Centre of Excellence in Gear Engineering
- Central Workshop
- Center for Advanced Electronics (CAE)

- JPN National Centre of Excellence in the Humanities
- Center of Futuristic Defense and Space Technology (CFDST)
- Center for Indian Scientific Knowledge Systems (CISKS)
- Sophisticated Instrumentation Center (SIC)- A National Facility
- Computer and Information Technology Center (CITC)

## Total Number of International MoUs: 100+



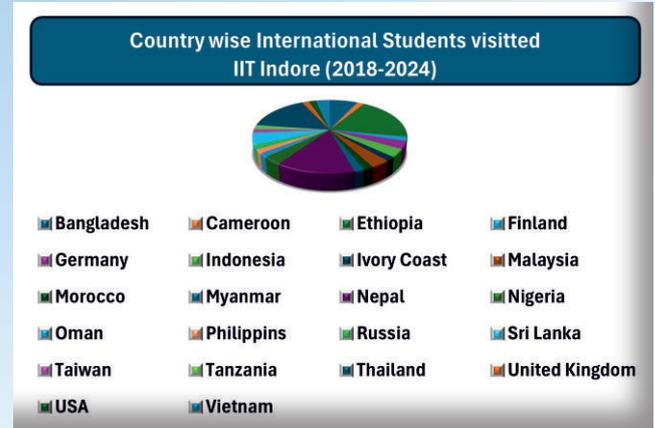
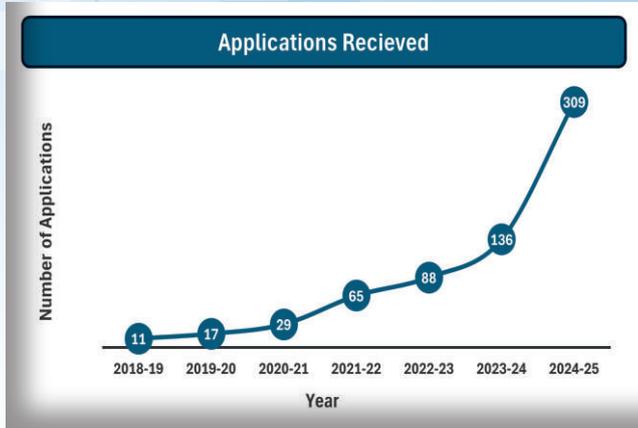
## International Conferences and Workshops

- Department of Chemistry, Indian Institute of Technology Indore organized an International INDO-GERMAN conference on "Sustainable Chemistry-2023".
- International Relations, IIT Indore organized a 2 day DAAD iHED workshop on "Internationalization at Indian Higher Education institutions- structures and services" in collaboration with German Academic Exchange Service (DAAD), October 30-31, 2023.
- Department of Mathematics organized International Conference on Applied Mathematics and Mechanics (ICAMM 2023), October 18-20, 2023.
- Department of Astronomy, Astrophysics & Space Engineering (DAASE) organized 6th Conference on India Radar Meteorology (IRAD-2024), January 10-12, 2024.
- Department of Metallurgical Engineering and Materials Science (MEMS) organized International Workshop on "Energy Conversion and Sustainable Future", January 23-24, 2024.
- IIT Indore with Julius Maximilian University of Würzburg has jointly organized International Research Training Group (IRTG) workshop, April 11-13, 2024.
- IIT Indore hosted One day German Research Day Conference on April 15, 2024.

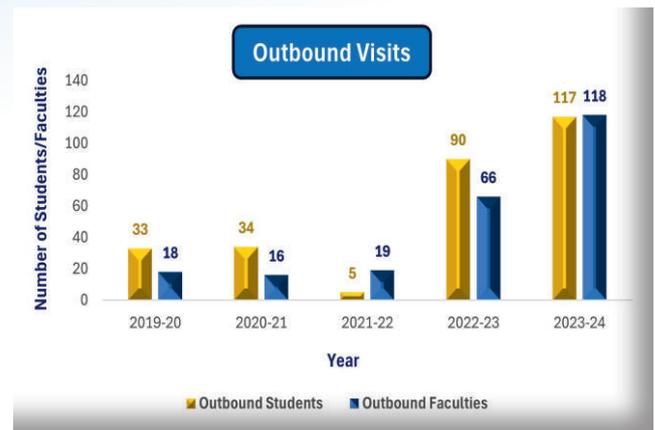
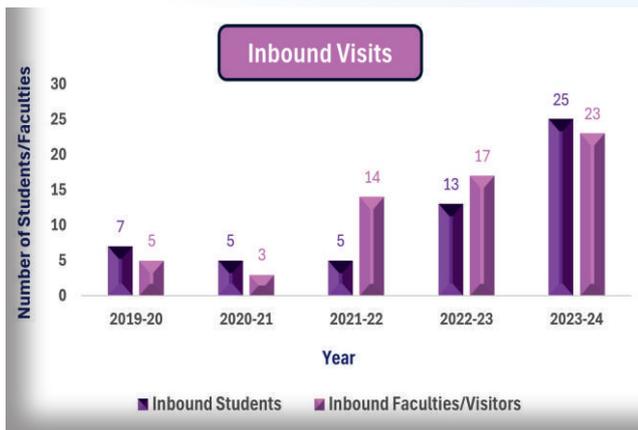
# Inbound and Outbound Visits



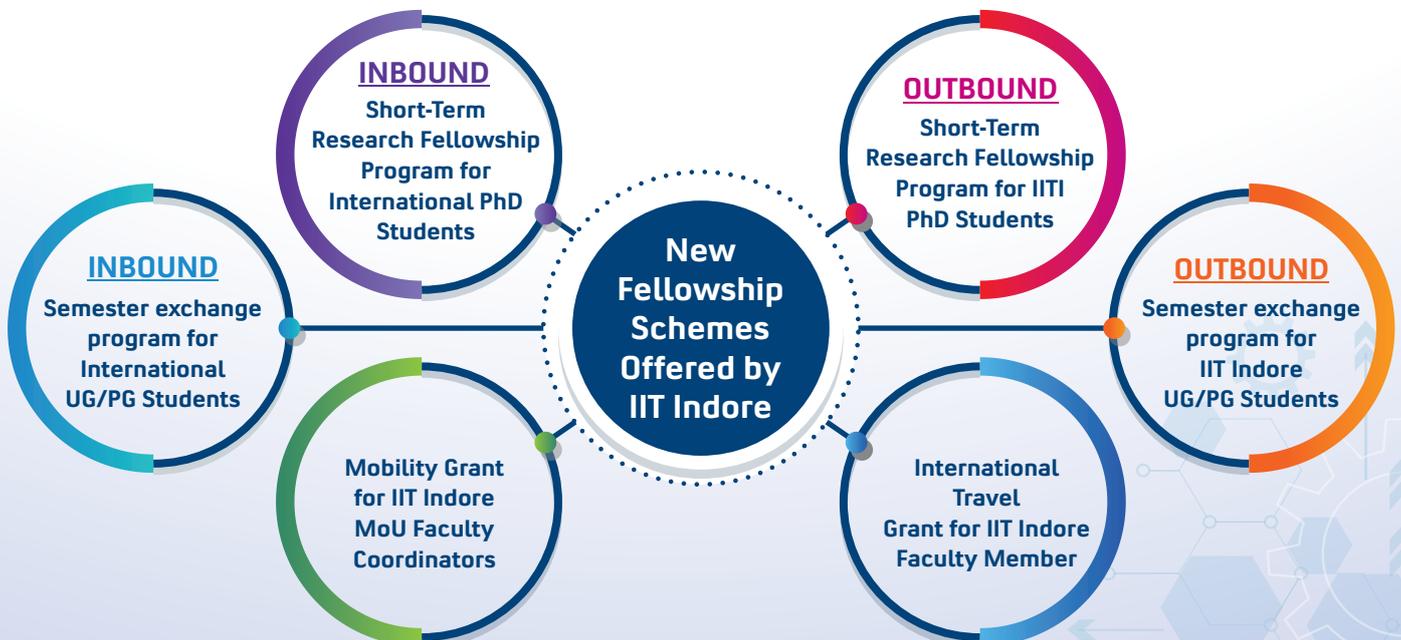
## 300+ Applications received from 39 countries (2024-25)



## Inbound and Outbound Visits



## Fellowships offered by IIT Indore: 48



# Foreign Students Testimony



**Mr. Arjun Hasibuan**  
PhD, Mathematics



**Indonesia**

"I choose to study at Indian Institute of Technology Indore (IITI) because I always wanted an opportunity to study at a top-level institution and participate in an outstanding program. The University has great academic standards and holds high ranking world wide. Studying at IIT Indore has allowed me to experience rich cultural environment and gain new perspectives."

**Mr. Joemer Adorna Jr.**  
PhD, Civil Engineering



**Philippines**

"My life in IIT Indore and in India has been wonderful - the people here are very accommodating to a foreigner like me. Mainly, I came to India looking for two things to experience, the research culture and the food. Indian food may be the best motivator as I love Indian food ever since I got introduced to it. The mess hall, specifically Gauri catering, prepares so much great food. As a non-veg, I just hoped that there are a lot more options on the mess hall, and on the university premises as well."



**Mr. Ivan Malkov**  
PhD, Mathematics



**Russia**

"My Name Is Mlkov Ivan and I am from Tyumen region, Russia. I have got a chance to do a part of my research in India under guidance of Dr. Bapan Ghosh from the Mathemtaics Dpartment at IIT Indore under the Short Term Collaborative Research program of IIT Indore. If got a chance I would love to come back to IIT Indore in the future".

**Dr. Isuru Dasanayake**  
AIRTF Fellow, Electrical Engineering



**Sri Lanka**

My Name is Dr. Isuru Dasanayake. I joined IIT Indore as ISRF Fellow for the tenure of 3 months . I am from University of Peradeniya, Srilanka. I got a chance to work with Prof. Santosh Kumar Vishwakarma from electrical Engineering Department at IIT Indore. My three-month visit to IIT Indore was an enlightening experience. It provides a unique opportunity for me to experience the cutting-edge work being carried out by talented researchers and engineers."



**Dr. Soloman Abebe**  
CV Raman Fellow, Mathematics



**Ethiopia**

"Before joining IITI I was worried that studying in India would look tough but after my application, I had interviews with different professors and Doctors in the online session, after which I was admitted. At IITI they look for the best students, and you get an outstanding academic education. Moreover, university life here also differs a lot from what you would get in where I come from, which is Ethiopia, it involves much more than the academic part: societies, sports and living in College."

**Dr. Thanogsak Imjai**  
ISRF Fellow, Civil Engineering



**Thailand**

"My name is Dr. Thanogsak Imjai. I had joined IIT Indore as AIRTF fellow and I was working with Prof. Sandeep Chaudhary from Civil Engineering Department. During my stay it was the fantastic experience I had with respect to studies, the technology IIT Indore is using, my accomodation and other colleagues in the department. IIT Indore having excellent infrastructure and superb quality of research for overall performance in the field of Academia and Research. I would love to come again and work again at IIT Indore in the future."



## IR Team



**Prof. Suhas S. Joshi**  
Director



**Prof. Avinash Sonawane**  
Dean  
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**Mr. Rajan Thomas**  
Assistant Registrar  
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**Dr. Arpit Kumar Shrivastava**  
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**Mr. Vinay Kumar**  
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**Mr. Mohib Rahim**  
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**Ms. Swati Bilaiya**  
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**Mr. Sanjay Rathore**  
Office Attendant  
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# IIT INDORE CAMPUS



Learning Resource Centre



Lecture Hall Complex



Academic Building



Health Centre



Central Dining Facility



Sports Complex



Vindhyachal Guest House



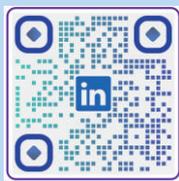
Central Workshop



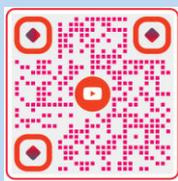
Hostel Accommodation



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