

Areas for Summer Internship 2025 for PG Students

| Name of Faculty Mentor | Area of Summer Internship 2025 | Remarks |
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| Department of Astronomy, Astrophysics and Space Engineering (DAASE) | | |
| Dr. Unmesh Khati | <ol style="list-style-type: none"> 1. Remote Sensing applications development 2. Synthetic Aperture Radar Data processing 3. AI/ML for geospatial data processing 4. Algorithm testing for NASA-ISRO SAR mission 5. Drone based data acquisitions and applications | |
| Dr. Soumavo Ghosh | Galaxy dynamics: Origin of Type II disk break from JWST-mock images of the TNG50 cosmological simulations | |
| Dr. Narendra Nath Patra | Radio astronomy instrumentation Radio astronomy data analysis | |
| Department of Biosciences and Biomedical Engineering (BSBE) | | |
| Professor Kiran Bala | Bioremediation, Emerging contaminants, Bioplastics | |
| Professor Mirza Saqib Baig | Inflammation and Cancer | |
| Dr. Hitendra Kumar | Numerical modeling for scaffolds design; Reacting flow simulations in porous media for biomedical applications | |
| Dr. Hem Chandra Jha | Infection Bioengineering | |
| Dr. Sourav Chandra | Sensor based bio-mechanical analysis of human limb movements | |
| Dr. Lokesh Basavarajappa | Development of algorithms for microvessel detection using ultrasound. | |
| Department of Chemistry | | |
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| Dr. Dipak Kumar Roy | Organometallic Chemistry, Catalysis | |
| Professor Apurba K Das | Organic Chemistry | |
| Professor Chelvam Venkatesh | Synthesis of Anti-cancer Natural Products, Heterocycles, Carbocycles, Small Molecule Inhibitors, Diagnostic and Therapeutic Applications of New Targeting Ligands for Cancer, Inflammatory, Infectious and Neurodegenerative Diseases, Synthesis of Inhibitors for Drug Targets, Drug Delivery Systems, Near-infrared Fluorescence and Nuclear Radioisotopes Imaging, Bio-conjugate chemistry, Nanomaterials for Biodiesel Production | |
| Professor Sampak Samanta | Synthetic Organic and Medicinal Chemistry | |
| Professor Suman Mukhopadhyay | Porous Organic Polymer in Environmental Remediation | |
| Professor Rajneesh Misra | Organic chemistry/ Organometallics | |
| Dr. Debayan Sarkar | Organic Synthesis and Catalysis | |
| Dr. Pravarthana Dhanapal | Solid State Ionic Devices | |
| Department of Chemical Engineering | | |
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| Dr. Rajan Singh | ASPEN simulation of biomass gasification to produce hydrogen | |
| Dr. R. Kailasham | Stochastic thermodynamics, nonequilibrium statistical mechanics, active matter | |
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| Department of Civil Engineering (CE) | | |
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| Professor Manish Kumar Goyal | Water, Environment, Climate Change, AI, GIS | |
| Dr. Mayur Shirish Jain | Waste Management; Water Quality; Biomass Conversion | |
| Dr. Ashootosh Mandpe | Environmental Engineering: Waste (Solid & Liquid) Management, Circular Economy, Sustainability. | |
| Dr. Priyank J. Sharma | Machine Learning based Hydrological Modelling, Climate Extremes, Floods and Droughts | |
| Department of Computer Science and Engineering (CSE) | | |
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| Professor Somnath Dey | Computer Vision and Machine Learning | |
| Professor Surya Prakash | Computer Vision and Deep Learning | |

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| Dr. Chandresh Kumar Maurya | AI, ML, and NLP | |
| Dr. Nagendra Kumar | Machine Learning, Deep Learning, Computer Vision, Natural Language Processing | |
| Dr. Puneet Gupta | Deep learning | |
| Professor Anirban Sengupta | Hardware security, IP protection and CAD VLSI | |
| Department of Electrical Engineering (EE) | | |
| Dr. Sharad Kumar Singh | Robotics, Control and Optimization | |
| Dr. Shaibal Mukherjee | (1) Android app development and image classification, (2) Cloud computing via wireless network (LORA, ZigBee etc) | |
| Dr. Lokesh Kumar Dewangan | Power Electronics and Power Systems | |
| Dr. Appina Balasubramanyam | Image processing and Machine learning | |
| Dr. Rinkee Chopra | RF transceiver for detection of Dielectric Discontinuity | |
| Dr. Saptarshi Ghosh | (1) Reconfigurable intelligent surface (RIS) (2) Holographic metasurface antenna (3) Phased array antenna (4) Time modulated frequency selective surface (FSS) | |
| Dr. Santosh Kumar Vishvakarma | VLSI Chip Design for AI | |
| Dr. Swaminathan R | 6G Communications | |
| Professor Vimal Bhatia | 1. AI/ML and Signal Processing 2. Wireless Communications (5/6G) 3. Quantum Communications | |
| School of Humanities and Social Sciences (HSS) | | |
| Dr. Aratrika Das | Medical Humanities | |
| Dr. Mohanasundari Thangavel | Agricultural and Natural Resource Economics | |
| Dr. Thapasya J. | Linguistics | |
| Department of Mathematics | | |
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| Professor Sk Safique Ahmad | Applied linear Algebra | |
| Dr. Santanu Manna | 1. Integral Transform 2. Linear Algebra for DATA Science | |
| Dr. Mohd. Arshad | Statistics | |
| Department of Mechanical Engineering (ME) | | |
| Dr. Harekrishna Yadav | Flow, Heat transfer and energy | |
| Dr. Vijai Laxmi | 1. Development of microfluidics device for disease diagnostics 2. Development of enhanced energy harvesting systems | |
| Dr. Santosh Kumar Sahu | Cooling of electronic components, battery modules, jet impingement, phase change materials | |
| Dr. Satyanarayan Patel | Piezoelectric, pyroelectric materials and energy storage | |
| Department of Metallurgy Engineering and Materials Science (MEMS) | | |
| Dr. Dharendra Kumar Rai | Energy Storage (Battery and Supercapacitor) | |
| Dr. Rupesh S. Devan | Nanomaterials for energy storage or conversion | |
| Dr. Mrigendra Dubey | Soft Materials | |
| Dr. Santosh S. Hosmani | Surface Engineering, Surface Alloying, Coatings, Tribology, Microstructure-Property Correlation | |
| Department of Physics | | |
| Dr. Dipankar Das | Advanced topics in Quantum Mechanics, Introductory Particle Physics, Computational | |
| Dr. Mritunjay Kumar Verma | String Theory and Holography | |
| Professor Sarika Jalan | Dynamical systems inspired Machine learning, Coupled Kuramoto model with applications in Power Grids | |
| Professor Krushna R Mavani | Thin film deposition of a functional oxide using PLD technique. | |
| Professor Somaditya Sen | Synthesis And Structural/Electronic Characterization Of Some Semiconducting Oxide Materials | |
| Professor Raghunath Sahoo | High energy nuclear physics and quark-gluon plasma, application of statistical | |

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| | mechanics, machine learning etc. | |
| Dr. Debajyoti Sarkar | Theoretical Physics. Particularly on topics of string theory, black holes and quantum information theory. | |
| Professor Rajesh Kumar | Smart electrochromic windows; Supercapacitors and energy storage; Nanoscience and nanotechnology; Raman spectroscopy and Raman microscopy | |
| Professor Pankaj R. Sagdeo | 1. Fabrication and characterization of nano material. 2. Fabrication and Characterization of multifunctional materials for various applications | |

Note:

1. **The Internship fees, once paid, are non-refundable.**
2. **The Postgraduate Students must contact the faculty mentor for any query/clarification.**
3. **Written email consent from the faculty mentor of IIT Indore is a must.**
4. **The last date to fill out the application form is March 31, 2025.**
5. **Only the selected students will get the payment link in April 2025.**