Areas for Summer Internship 2026 for PG Students

Name of Faculty Mentor	Area of Summer Internship 2026
Department of Astronomy, Astrophysics and Space Engineering (DAASE)	
Dr. Saurabh Das	Climate and Space Weather modelling
Dr. Narendra Nath Patra	Big-data and AI/ML applications in radio astronomy data analysis
Dr. Unmesh Khati	1. SAR based soil moisture retrieval modeling using physics and ML-based models 2. Development of UI interface for ESA BIOMASS and NISAR data processing 3. Object dimension retrieval using calibrated images and photogrammetry
Dr. Soumayo Ghosh	1. Decoding the nature of spiral arms via chemical cartography in Milky Way-like galaxies 2. Quantifying azimuthal variation of bar-driven metallicity gradient from cosmological simulations 3. Understanding the interplay between disk breaks and impact of stellar bars 4. Decoding the dynamical impact of spiral arms in 'heating' the stars in Milky Way-like galaxie
Dr. Prakash Gaikwad	1. Large-Scale Structure and Cosmic Voids in the Sloan Digital Sky Survey 2. Development of Radiative Transfer Simulations for Cosmological Applications 3. Clustering and Small-Scale Structure Formation in the early Universe
Department of Chemical Engineering	
Dr. Kanala Venkata Sravana Chaithanya	Fluid Mechanics
Dr. Preetika Karnal	Numerical analysis of instabilities Design of a simple peeling setup Experimental characterization of soft materials

Department of Chemistry	
Professor Sampak Samanta	Synthesis of Bioactive Heterocycles
Professor Apurba K. Das	Organic Chemistry, Supramolecular Organic Chemistry, Bio-organic Chemistry
Dr Amrendra K. Singh	Catalyst design for small molecule activation, C-H activation, sustainable chemical processes and renewable energy solutions
Dr Tridib K Sarma	Physical Chemistry
Professor Chelvam Venkatesh	Synthesis of anti-cancer natural products, heterocycles and carbocycles, C-C, C-X bond formation reactions, Diagnostic and therapeutic applications of new targeting ligands for cancers, inflammatory and neurodegenerative diseases, Synthesis of inhibitors for drug targets, Drug delivery systems, Near-infrared fluorescence and nuclear radioisotopes imaging, and Bio-conjugate chemistry
Dr Dipak Kumar Roy	Organometallic and Main Group Chemistry, Catalysis
Dr Abhinav Raghuvanshi	Inorganic-Materials Chemistry
Professor Suman Mukhopadhyay	1. Metal-organic / covalent organic frameworks for supercapacitors 2. Metal ions in biological redox processes
Department of Civil Engineering (CE)	
Professor Manish Kumar Goyal	Water Resources, Climate Change, AI and Data Mining, Air Pollution, Remote Sensing
Professor Neelima Satyam	Geotechnical Engineering
Dr. Lalit Borana	Geotechnical Engineering /Geoenvironmental Engineering
Dr. Ashootosh Mandpe	1. Anaerobic Digestion for Renewable Energy – Biogas innovations, methane recovery & circular economy integration 2. Microbial Fuel Cells for Energy & Wastewater Treatment – Hybrid systems, microbial optimization & scaling challenges 3. Bio Enzymes in Waste Management – Sustainable catalysts, food waste-derived enzymes & microbial activity enhancement 4. GIS & Remote Sensing for Waste Monitoring – AI-driven landfill mapping, pollution tracking & predictive modeling 5. Landfill Analysis & Biogas Recovery – Leachate management, landfill microbiology &

	methane emission studies 6. Composting Technologies – AI-driven process optimization, microbial consortia & carbon sequestration potential 7. Briquetting Technology for Renewable Energy – Biomass briquettes, pollution reduction & industrial applicationss 8. AI/ML in Wastewater Analysis & Treatment – Predictive contaminant mapping, real-time monitoring & AI-driven optimization
Dr. Mayur Shirish Jain	Environmental Engineering; Waste Systems; Water Management; Wastewater Treatment; Green Infrastructure
Dr. Priyank J. Sharma	Flood modelling, River rejuvenation, Compound extremes
Dr. Gourab Sil	Traffic Engineering, Road Safety, Roadway Geometric Design
Professor Sandeep Chaudhary	Sustainable Construction
Department of Computer Science and Engineering (CSE)	
Dr. Nagendra Kumar	AI/ML, Natural Language Processing, Deep Learning, Data Science, LLMs
Dr. Soumi Chattopadhyay	Deep learning
Dr. Lawqueen Kanesh	Graph Algorithms, Parameterized Complexity and Algorithms, Approximation Algorithms
Dr. Puneet Gupta	Deep Learning
Dr. Ayan Mondal	IoT and Edge Computing
Professor Kapil Ahuja	Applied Machine Learning, Bioinformatics, Health Informatics, Economics of Networks, Computational Optimization, and Numerical Linear Algebra.
Dr. Debasish Pattanayak	Distributed Algorithms for Swarm Robots and Multi agent systems, Simulators and Graph Algorithms
Professor Surya Prakash	AI and Deep Learning
Dr. Bodhisatwa Mazumdar	Cryptography, Hardware Security, and ML Algorithms to these security aspects
Professor Gourinath Banda	IoT, Autonomous Cars/Aerial Vehicles. Software Defined Vehicles, Advanced Systems
Department of Electrical Engineering (EE)	
Dr. Ayush Tripathi	Biomedical Signal Processing, EEG signal processing, AI applications for biomedical

	signals, automated sleep analysis
Professor Swaminathan R	6G Wireless Technologies
Dr. Subhadeep Paladhi	Power System Monitoring and Protection
Dr. Sumit Gautam	Wireless Communications, Wireless Power Transmission, Wireless Energy Harvesting, Optimization Techniques, AI/ML
Dr. Appina Balasubramanyam	Image and Video Processing
Dr. Saptarshi Ghosh	1. FSS-based absorber using Deep Learning 2. Coded metamaterials for stealth applications 3. FSS-based band pass radome 4. Conformal microwave antenna
Professor Trapti Jain	Data analytics in smart grid, AI applications in power systems
Professor Vimal Bhatia	AI/ML, IoT, Wireless Communications, Quantum Communications
Dr. B Prathap Reddy	Power Electronics and Electrical Machines
Professor Vivek Kanhangad	Image processing, Deep learning
Professor Ram Bilas Pachori	Signal Processing and Machine Learning
Dr. Lokesh Kumar Dewangan	Power System and Power Electronics
Department of Humanities and Social Sciences (HSS)	
Dr. Abhishek Yadav	Philosophy of Mind, Philosophy of AI
Dr. Kedarmal Verma	Environmental Cognition Sleep and Cognition
Professor Ruchi Sharma	Economics of Innovation, International Economics, Industrial Economics
Dr. Kalandi Charan Pradhan	Contemporary Issues in Development Economics and Socioeconomic Impacts of Climate Change
Dr Aratrika Das	Medical humanities
Dr Thapasya I	Language Variation and Cognition (Linguistics)
Professor Nirmala Menon	Digital Humanities, Publishing studies, Bibliometrics and AI for Humanities
Dr Mohanasundari Thangavel	Digital Health, Agricultural Economics

Department of Mathematics	
Dr. Mohd. Arshad	Statistics
Professor Sk Safique Ahmad	Numerical Linear Algebra
Dr. Santanu Manna	Project 1: Solving wave equations using a neural network; OR Project 2: Deep operator network (DeepONet) for wave propagation prediction
Department of Mechanical Engineering (ME)	
Dr. Harekrishna Yadav	Fluid Flow, Heat Transfer Enhancement, Renewable Energy
Professor Dhinakaran Shanmugam	Thermal Science and Engineering (CFD)
Professor Santosh Kumar Sahu	Thermal Engineering, Jet impingement, Phase change composite, Thermal Management, HVAC systems, LNG powered vehicles
Dr. Vijai Laxmi	1.Multiphase Modelling of Blood Flow for Hemodynamic Assessment of Atherosclerosis. 2.Multiphysics Modelling of Electrokinetic Energy Harvesting in Microchannels
Dr. Satyanarayan Patel	Piezoelectric energy harvesting, energy storage
Dr Pradeep Kundu	Digital Twin, Scientific Machine Learning, Standardised Software Architecture, Condition Monitoring, Fault Prognostics, Semiconductor Process Monitoring, Battery Health Monitoring
Department of Mehta Family School of Biosciences and Biomedical Engineering (MFSBSBE)	
Professor Amit Kumar	Drug Discovery, Protein biology, RNA biology, Bioinformatics
Dr Hem Chandra Jha	Infection Bioengineering
Professor Mirza S. Baig	Inflammation and Cancer Biology
Department of Mehta Family School of Sustainability (MFSOS)	
Professor Kiran Bala	Environmental Biotechnology, Bioplatics, biodegradation
Professor Pritee Sharma	Sustainability Studies: Environmental Economics (Food-Water-Energy Resources Analysis)

Department of Metallurgy Engineering and Materials Science (MEMS)	
Professor Rupesh Devan	Materials Energy Storage/Conversion
Dr Mrigendra Dubey	Soft materials for energy applications
Dr Jayaprakash Murugesan	Mechanical behavior of materials, alloy development, materials joining, advanced materials
Dr Dhirendra Kumar Rai	Energy storage, Energy harvesting
Professor Vinod Kumar	Metal recovery from industrial wastes; and Development of Nanocomposites
Department of Physics	
Dr. Debajyoti Sarkar	Quantum information theory
Professor Somaditya Sen	Experimental Condensed Matter Physics
Dr Mritunjay Verma	String theory
Professor Raghunath Sahoo	Quark Gluon Plasma and the Large Hadron Collider
Professor Sarika Jalan	Nonlinear dynamics and Machine learning
Professor Krushna R Mavani	Characterization of thin films
Professor Rajesh Kumar	Smart electrochromic windows; Supercapacitors and energy storage; Nanoscience and nanotechnology; Raman spectroscopy and Raman microscopy
Dr Srimanta Pakhira	Physics, Chemistry and Engineering
School of Innovation	
Dr Pallavi Rani	Design, Visual communication

Note:

1. **The Internship fees are non-refundable once paid.**
2. **Postgraduate students must contact their faculty mentor with any queries or clarifications.**

3. **Written email consent from the faculty mentor at IIT Indore, in the prescribed format, is mandatory.**
4. **The last date to fill out the application form is April 20, 2026.**
5. **Only the selected students will get the payment link.**
6. **For the Temporary Entry Pass, the students need to fill out the Google Form https://docs.google.com/forms/d/e/1FAIpQLSeuY1NdoTw4NScs7G3Uawb8CRrcfj1WpWLOwHRs75ge4oAlfQ/viewform**