

Institute of Infrastructure, Technology, Research And Management  
Ahmedabad

List of Potential Supervisors



Ph.D. 2022-2023 (Spring Semester) Admission

## List of Potential Supervisor 2022-2023 for Spring Semester:

### DEPARTMENT OF BASIC SCIENCES

Sr. No.	Name of Faculty Member	Research Area	Discipline
1.	Dr. Mahuya Bandyopadhyay	Material Chemistry, Heterogeneous Catalysis, CO <sub>2</sub> Utilization	Chemistry
2.	Dr. Sourav Das	Coordination Chemistry, Magnetism, Organic/Inorganic Hybrid Materials	Chemistry
3.	Dr. Mohit Kumar	Fuzzy Optimization	Mathematics
4.	Dr. Dheeraj Kumar Singh	Nanomaterials, Solar Energy, Material Science, Spectroscopy	Physics
5.	Dr. Brajesh Tiwari	Condensed Matter Physics	Physics

### DEPARTMENT OF CIVIL ENGINEERING

Sr. No.	Name of Faculty Member	Research Area
1.	Dr. Manoj Langhi	Hydraulics and Water Resources Engineering
2.	Dr. Jai Devi Jeyaraman	Environmental Engineering
3.	Dr. Yogesh U. Shah	Pavment materials and pavment design
4.	Dr. Jiten Shah	Transportation Engineering
5.	Dr. Mahesh Mungule	Structural Engineering
6.	Dr. Mamta Sharma	Structural Engineering

**DEPARTMENT OF ELECTRICAL AND COMPUTER SCIENCE ENGINEERING**

<b>Sr. No.</b>	<b>Name of Faculty Member</b>	<b>Research Area</b>	<b>Discipline</b>
1.	Dr. Dipankar Deb	Adaptive Control of Aerial Robotic Systems, Guidance, Navigation and Control of Fixed-wing, Rotary-wing and Hybrid Vehicles for Defence applications, ML and AI for Renewable Energy Systems: Solar, Wind, Biomass, Microbial Fuel Cells, and BESS (Battery Energy Storage Systems); ML and AI for Drones and E-mobility.	Electrical Engineering
2.	Dr. Axaykumar Mehta	Autonomous aerial vehicles/robotics and applicaitons in defence, Autonomous ground vehicles with AI and ML, Control of Multi-agent system, and its applications in Smartgrid, Networked control system and IoTs with communication protocols Wi-Fi, Cloud, 5G	Electrical Engineering
3.	Dr. Abhishek Rawat	Drone Design and Navigation, Satellite Navigation, ROS, Antenna Design, Jamming	Electrical Engineering
4.	Dr. Priyesh Chauhan	Power Electronics; Microgrids; Distributed Generation; Autonomous Generation; Transportation Electrification	Electrical Engineering
5.	Dr. Manish Sharma	1. Applications of AI and Machine learning and IoT in Electrical Eneineering for classification and prediction, 2 Application of Signal processing and Inage, communication for bio- images and biomedical signals.3 Autonomous vechile and robotics application in defence	Electrical Engineering
6.	Dr. Krupa Shah	Special Electrical Machines for Electrical Vehicles, Condition Monitoring and Fault Diagnostics in Electrical Machines, Battery Management, Charging Infrastructure, Applications of Power Electronics, Optimisation Algorithms and AI/Machine Learning Techniques in Electrical Engineering	Electrical Engineering

7.	Dr. Kshitij Bhargava	1) Cell and Module Level Designing of Next Generation Photovoltaics (2) Designing of Highly Efficient Perovskite Solar Cells using Machine Learning Approach	Electrical Engineering
8.	Dr. Raghavendra Bhalerao	medical image analysis, image classification for disease identification, object detection, tracking and navigation for drone and autonomous vehicle. Satellite image processing.	Electrical Engineering
9.	Dr. Dharmendra Sadhwani	Performance analysis of wireless communication systems, secrecy analysis of cognitive radios, characterization of fading channels, approximate computation of the Gaussian Q function, digital modulation techniques, 5G communications.	Electrical Engineering
10.	Dr. Manish Chaturvedi	Large scale ICT System design using Industry 4.0 Technologies (IoT, ML, Cloud), Computer Networking, Vehicular Communications, Intelligent Transportation Systems	Computer Science Engineering
11.	Dr. Ramnarayan Yadav	Design and Analysis of Distributed Algorithms in Networks, Resource Allocations in the Internet of Things, Edge/Fog and Cloud Computing, Applications of AI/ML in real-time applications, Next Generation Networks	Computer Science Engineering

**DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES**

<b>Sr. No.</b>	<b>Name of Faculty Member</b>	<b>Research Area</b>	<b>Discipline</b>
1.	Dr. Meera Vasani	Eco-Criticism, Indigenous Literature, Feminism, Diaspora Studies, Cultural Studies	English
2.	Dr. Watitula Longkumer	Indigenous literatures, Indigenous Knowledge Systems, Contemporary Indigenous Feminisms and related Indigenous women's history and literature, Gender Studies	English
3.	Dr. Pravin Jadhav	International Business, Infrastructure Planning and Management	Economics
4.	Dr. Shukkoor T.	Health, Wellness & Society, Development and Social Change, Technology and Society, Infrastructure and Society	Sociology

**DEPARTMENT OF MECHANICAL AND AERO-SPACE ENGINEERING**

<b>Sr. No.</b>	<b>Name of Faculty Member</b>	<b>Research Area</b>	<b>Discipline</b>
1.	Dr. Dileep kumar Gupta	Eco-Friendly Refrigeration, CO2 Transcritical System, Climate Change, Indoor Air Quality, heat transfer simulation	Mechanical Engineering
2.	Dr. Navneet Khanna	Sustainable Manufacturing, Additive Manufacturing of Aerospace Alloys	Mechanical Engineering
3.	Dr. Ajit Kumar Parwani	Carbon Capture, Environment sustainability, Renewable energy, Inverse heat transfer, CFD, Heat pipe for aerospace application	Mechanical Engineering
4.	Dr. PL. Ramkumar	Polymers and Composites, CAD, Additive Manufacturing	Mechanical Engineering
5.	Dr. Mithilesh Kumar Dikshit	Conventional and nonconventional machining, Nanocomposite, Manufacturing	Mechanical Engineering
6.	Dr. Sumit Tripathi	Experimental and Computational Fluid Dynamics, Rheology, Multiphase Flow, Droplet Dynamics	Mechanical Engineering
7.	Dr. Saurabh Kumar Yadav	Finite element Method, Lubrication	Mechanical Engineering
8.	Dr. Kumar Abhishek	Modeling and Optimization of Production Processes, Composite machining, Non-Conventional Machining, Supply Chain Management, Advance welding techniques	Mechanical Engineering
9.	Dr. Ganesh Iyer	Solid Mechanics, Computational Materials Science	Mechanical Engineering
10.	Dr. Gautam Choubey	Supersonic combustion, Turbulence modeling in high-speed flows and high-speed jet engines, Propulsion, Shock-Boundary Layer Interaction, Computational combustion, Aerodynamics, Computational modelling, CFD simulation of blood flow	Mechanical Engineering
11.	Dr. Kamlesh Joshi	Non conventional machining, thermal modelling of machining, Micro-structural characterization	Mechanical Engineering
12.	Dr. Pramod Bhingole	Composite materials, Al-Mg alloy processing, micro-Nano composites. Materials processing and characterization	Mechanical Engineering
13.	Dr. Jagat Jyoti Rath	Dynamics, Control and Optimization	Aerospace Engineering
14.	Dr. Ajit Kumar	Flight Mechanics and Control, AI/ML based Dynamical System Identification, UAV, Industrial Automation, Industry 4.0	Aerospace Engineering

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