



Institute of Infrastructure, Technology, Research and Management. Ahmedabad.

Ph.D. Admission for Spring Semester (2023-24)
Potential List of Supervisors

DEPARTMENT OF BASIC SCIENCES

Sr. No.	Name of Faculty Member	Research Area	Discipline
1	Dr. Prakash Dabhi	Banach Algebras and Harmonic Analysis on weighted (semi)groups	Mathematics
2	Dr. Sudhakar Chaudhary	Numerical Methods for Partial Differential Equations	Mathematics
3	Dr. Mohit Kumar	Fuzzy Sets and its applications in Reliability, Multi-Criteria Decision Making, Optimization, and Statistics, Intuitionistic fuzzy set theory	Mathematics
4	Dr. Manoj Choudhuri	Number Theory, Dynamical Systems, Lie Groups & Topological Groups.	Mathematics
5	Dr. Brajesh Tiwari	Battery Materials, Solar photovoltaic, strongly correlated and 2d materials	Physics
6	Dr. Goutam Borisagar	Representation theory	Mathematics
7	Dr. Sourav Das	Coordination Chemistry, Supramolecular Chemistry, Molecular Magnetism, Electrocatalysis	Chemistry
8	Dr. Mahuya Bandyopadhyay	Material Chemistry, Heterogeneous Catalysis, Nanomaterials, Biofuels, CO2 utilization, Wastewater treatment	Chemistry

DEPARTMENT OF CIVIL ENGINEERING

Sr. No.	Name of Faculty Member	Research Area
1	Dr. Himanshu Sharma	Hydraulics and Water Resources Engineering
2	Dr. Manoj Langhi	Hydraulics and Water Resources Engineering
3	Dr. Jai Devi Jeyaraman	Environmental Engineering
4	Dr. Yogesh U. Shah	Pavement Engineering, Pavement Management System
5	Dr. Anand Mehta	Remote Sensing Data Processing
6	Dr. Mahesh Mungule	Structural Engineering, Sustainable Construction Materials, Fracture mechanics

7	Dr. Mamta Sharma	Stability analysis of RC structures under seismic excitation
8	Dr. Jiten Shah	Transport Planning, Road Safety (Broadly Transportation Engineering)

DEPARTMENT OF MECHANICAL AND AERO-SPACE ENGINEERING

Sr. No.	Name of Faculty Member	Research Area	Discipline
1	Dr. Ajit Kumar Parwani	CFD, Renewable energy, Aerodynamics, Heat pipe, Inverse Heat Transfer, IC Engine, Environment and Climate change	Mechanical Engineering
2	Dr. Gautam Choubey	Supersonic Combustion, Flow-field analysis of Supersonic combustor, CFD modelling of blood flow, Aerodynamics	Mechanical Engineering
3	Dr. PL. Ramkumar	CAD/CAM/CIM, Material Processing and Characterization, Polymer and Composite	Mechanical Engineering
4	Dr. Kumar Abhishek	Modeling and Optimization of Production Processes, Industrial Engineering	Mechanical Engineering
5	Dr. Dileep Kumar Gupta	Refrigeration, Indoor air quality, cold chain, thermal engineering, CFD, MEMS, Heat transfer in Bio Medicals	Mechanical Engineering
6	Dr. Sumit Tripathi	Computational and Experimental Fluid Dynamics, Complex Fluids, Interface Science	Mechanical Engineering
7	Dr. Pramod Bhingole	Manufacturing and Materials Engineering	Mechanical Engineering
8	Dr. Mithilesh Kumar Dikshit	Conventional and Nonconventional Machining Processes, High Speed Machining, Mechanics of Metal Cutting, Nanocomposites, Material Processing and Characterization, Molecular dynamics, Twin Manufacturing	Mechanical Engineering
9	Dr. Navneet Khanna	Additive Manufacturing, Subtractive Manufacturing, Digital Manufacturing	Mechanical Engineering
10	Dr. Ganesh Iyer	Solid and applied mechanics, Modelling and simulation of material defects & defect structures, Epitaxial thin films & devices.	Mechanical Engineering
11	Dr. Kamlesh Joshi	Non-Conventional machining, Thermal modelling, Machining of hard to machine material	Mechanical Engineering
12	Dr. Saurabh Kumar Yadav	Deep Learning Based Simulations, Fracture mechanics, Lubrication, XFEM, Vibration	Mechanical Engineering
13	Dr. Ajit Kumar	Data-driven Modeling and Parameter Identification, Flight Mechanics and Control, UAVs	Aero-Space Engineering
14	Dr. Jagat Jyoti Rath	Machine Learning and AI, Drones, Navigation and Control, Autonomous Robots	Aero-Space Engineering

DEPARTMENT OF ELECTRICAL ENGINEERING		
Sr. No.	Name of Faculty Member	Research Area
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.
2.	Dr. Axaykumar Mehta	Autonomous aerial vehicles/robotics and applications 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. Robust control for multi-agent system with application to UAVs/Microgrid/Power systems, Data-driven model identification for Autonomous aerial vehicles, Communication protocols for multi-agent system/Autonomous Aerial Vehicles, Wireless control protocol for networked systems.
3.	Dr. Abhishek Rawat	Drone Design and Navigation, Satellite Navigation, ROS, Antenna Design, Jamming
4.	Dr. Priyesh Chauhan	Power Electronics; Microgrids; Distributed Generation; Autonomous Generation; Transportation Electrification
5.	Dr. Manish Sharma	1. Applications of AI and Machine learning and IoT in Electrical Engineering for classification and prediction, 2 Application of Signal processing and Image Processing, communication for bio- images and biomedical signals.3 Autonomous vehicle and robotics application in defence, Machine Learning based automated system
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
7.	Dr. Kshitij Bhargava	Multilevel modeling of next generation pervoskite photo voltaic systems. Design and analysis of cylindrical-Gate-all around (CGAA) MOSFET for VLSI circuit applications.
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.

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.
10	Dr. K. Manjunath	Control of renewable energy systems, microgrid and Power System

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

Sr. No.	Name of Faculty Member	Research Area	Discipline
1	Dr. Meera Vasani	Eco-Criticism, Indigenous Literature, Feminism, Diaspora Studies, Cultural Studies, Environmental Humanities	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