

TENTATIVE AREAS FOR PH.D. ADMISSIONS – 2024-2025

Faculty of Technology and Engineering (Full-Time and Part-Time)

	Area	Number of Seats
Chemical Engineering	<ul style="list-style-type: none"> • Catalysis, Biofuels, Green Processes, Gasification & Pyrolysis • Abatement of Industrial Pollution, Nanotechnology for environmental applications • Process Integration, Process Simulations, Process Design, Phase Equilibrium • Polymer Technology, polymers in drug delivery • Green Chemical Engineering • Wastewater Treatments • Hydrogen Energy, Bio-fuels • Multiphase flow, Transport Phenomena 	19
Civil Engineering	<ul style="list-style-type: none"> • Structural Engineering • Construction Materials, Technology and Management • Geo-Technical Engineering • Geomatics • Concrete Technology 	17
Computer Engineering	<ul style="list-style-type: none"> • Machine Learning and Deep Learning, Optimization, Data and Web Mining, Natural Language Processing • Networks, D2D Communication, Wireless Networks • Network Security, Blockchain Technology, Cyber Security • Big Data Analytics, Community Detection and Prediction, Medical Image Processing • Human Computer Interaction (BCI and Eye Tracking), AR/VR, Audio and Speech Processing, Computer Vision • Internet of Things, Geospatial Data Analytics • Healthcare, Image Processing, Satellite Image Analysis • Cloud computing and its applications, Quantum Computing 	69
Electrical Engineering	<ul style="list-style-type: none"> • Power Electronics Devices, Converters, Drives, and Power Quality Improvement, Artificial Intelligence based Power Electronic Systems • Electrical Power System Analysis; Power System Dynamics, Modelling, Optimization and Intelligent techniques in Power Systems, Solar and Wind based Renewable 	09

	<p>integration with Grid, Smart Grid, High Voltage Engineering</p> <ul style="list-style-type: none"> • Design, Modelling, Performance analysis, and Optimization of Conventional and Advanced Electrical Machines • Electrical Vehicles, On-board and off-board Electric Vehicle Chargers, Battery Management System, etc. • Applications of IoT, Data Analytics, Load and Generation Forecasting in Electrical Engineering, etc. • Generation of Electricity by Waste Water Treatment, Applications of Plasma, Recent topics and innovation in Electrical Engineering 	
Electronics & Instrumentation Engineering	<ul style="list-style-type: none"> • Control Engineering, Soft computing Applications, Industrial Control System Design • Industrial Automation & Robotics, Biomedical Instrumentation, Industrial Applications of Machine Learning, Sensors & Measurement Techniques • Image and Signal Processing • Embedded system for automation, Power electronics 	18
Mechanical Engineering	<ul style="list-style-type: none"> • Thermal and Fluid Engineering • Renewable Energy • Thermo-chemical Conversion of biomass/coal -pyrolysis, gasification, combustion • I. C. Engine and Alternate fuels • Multiphase flow • Microfluidics • Turbomachine • Computational Fluid Dynamics and Heat Transfer • Heat Exchangers • Rarefied gas flow • Manufacturing Engineering • Additive Manufacturing, Sustainable manufacturing • Metal Joining • Metal Casting • Microwave based melting • Friction stir processing • Sustainable Machining • Sheet Metal Forming • Machine Learning and Manufacturing • Advanced Materials • Processing and Characterization of Composite Materials • Production and Industrial Engineering 	39

	<ul style="list-style-type: none"> • Quality Engineering • Design Engineering • Stress Analysis • Finite Element Analysis • Fracture Mechanics and Bio Mechanics • Robotics • Vibration • Condition monitoring of mechanical equipment 	
Electronics & Communication Engineering	<ul style="list-style-type: none"> • VLSI Design, Test and Verification • Embedded Systems • Wireless Communication and Networking • Signal and Image Processing • Machine Learning and Computer Vision • Cyber Physical System 	24
Mathematics	<ul style="list-style-type: none"> • Mathematics 	09
Humanities and Social Science	<ul style="list-style-type: none"> • Economics 	03
	<ul style="list-style-type: none"> • English 	01
	Total Seats	208

Faculty of Pharmacy (For Full-Time& Part-Time)

Areas of Research	Number of Seats
Pharmaceutical Analysis	10
Pharmaceutical Chemistry	18
Pharmaceutics	8
Pharmacognosy	9
Pharmacology	10
Total Seats	55

Faculty of Law (For Full-Time& Part-Time)

Areas of Research	Number of Seats
Environmental Law	01
Economics	02
Constitution, Administrative Law & Human Rights	01
Political Science	02
Total Seats	06

Faculty of Science (For Full-Time& Part-Time)

Areas of Research	Number of Seats
Life Science	8
Physics	6
Chemistry	10
Total Seats	24

Faculty of Architecture & Planning (For Full-Time & Part-Time)

Areas of Research	Number of Seats
Architecture (Urban Planning, Urban Design, Nature Based Solutions, Environmental Management)	05
Total Seats	05

Faculty of Management (For Full-Time Only)

Areas of Research	Total Number of Seats
Economics	03
Finance & Accounting	07
Marketing	05
Operations Management & Decision Science	02
Information Management	01
Total Seats	17

Faculty of Management (For Part-Time Only)

Areas of Research	Number of Seats
Economics	02
Finance & Accounting	07
Marketing	02
Operations Management & Decision Science	01
Total Seats	09