

TENTATIVE AREAS FOR PH.D. ADMISSIONS (October-2022) (Part-Time Only)

Faculty of Technology and Engineering

| | Area | Number of Seats |
|---|--|-----------------|
| Chemical Engineering | Catalysis, Biofuels, Green Processes, Gasification & Pyrolysis | 2 |
| | Abatement of Industrial Pollution, Nanotechnology for environmental applications | 2 |
| | Process Integration, Process Simulations, Process Design, Phase Equilibrium | 1 |
| | Polymer Technology, polymers in drug delivery | 2 |
| | Green Chemical Engineering | 1 |
| | Wastewater Treatments, catalysis | 1 |
| | Polymer Technology | 3 |
| Civil Engineering | Structural Engineering | 10 |
| | Geotechnical Engineering | 1 |
| | Concrete Technology, Special Concrete, Construction Materials, Recycled Materials, Repair and Retrofitting of structures | 4 |
| | Geomatics | 1 |
| Computer Science & Engineering | Cloud computing and its application, Software defined networking, high performance computing, AI in HPC | 2 |
| | Machine Learning and Deep Learning, Networks, Optimization | 2 |
| | Data and Web Mining, Natural Language Processing, Machine Learning, Deep Learning and their applications | 1 |
| | D2D Communication, Network Security, Blockchain Technology, Machine Learning, Deep Learning | 3 |
| | Wireless Networks | 2 |
| | Big Data Analytics, Community Detection and Prediction. | 2 |
| | HCI, AR/VR, IOT and Machine learning | 2 |
| | Machine Learning, Deep Learning, IoT and Wireless Networks | 2 |
| | Machine Learning, Big Data Analytics, Healthcare | 2 |
| | Big data storage and Analytics | 1 |
| | Machine Learning, Deep Learning, Image Processing, Satellite Image Analysis | 2 |
| | Audio and Speech Processing, Machine Learning, Information Retrieval Systems | 2 |
| Cloud Computing, Deep Learning and Cyber Security | 2 | |

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|--|---|---|
| | Natural Language Processing, Machine Learning/Deep Learning, Medical Image Processing, Hyperspectral Image Processing | 2 |
| | Optical Communications, Wireless Networking, Network Security, Blockchain, Artificial Intelligence | 2 |
| Electrical Engineering | Power Electronics, Drives, and Power Quality Improvement | 1 |
| | Electrical Power Systems and High Voltage Engineering, Electrical Machines. | 1 |
| | Power Electronics applications to Power System, Power Quality, Artificial Intelligence based Power Electronic Systems | 2 |
| | Power System Optimization, Optimization Techniques | 2 |
| | Power electronic converters, On-board and off-board electric vehicle charger, battery management system for electric vehicle, renewable integration with grid, generation of electricity by waste water treatment | 2 |
| | Design, performance analysis, and optimization of Advanced Electrical Machines | 1 |
| Electronics & Instrumentation Engineering | Control Engineering, Soft computing Applications, Industrial Control System Design | 4 |
| | Industrial Automation & Robotics, Biomedical Instrumentation, Industrial Applications of Machine Learning, Sensors & Measurement Techniques | 4 |
| | Image Processing, Machine Learning, Signal Processing, Biomedical Instrumentation | 3 |
| Mechanical Engineering | Renewable Energy / Thermal Engineering | 1 |
| | Manufacturing Engineering | 3 |
| | Sheet metal forming, VoC abatement, Quality assessment | 2 |
| | Metal Joining, Metal Casting, Microwave based melting, Friction stir processing | 2 |
| | Thermal Engineering | 2 |
| | Stress Analysis, Fracture Mechanics Advanced Materials | 4 |
| | Robotics | 1 |
| | Design Engineering, ROBOTICS, MEMS, BIO MECHANICS, FEA, OPTIMIZATION | 4 |
| | Robotics, Stress Analysis, | 1 |
| | Production and Industrial Engineering, Manufacturing Engineering | 3 |
| | Thermal and Fluid Science. | 1 |
| | Design and Dynamics, Vibration, Condition monitoring of mechanical equipment. | 1 |
| | Thermo-chemical Conversion of biomass/coal - pyrolysis, gasification, combustion-, Renewable energy | 2 |

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| | Processing and Characterization of Composite Materials, Machine Design and Finite Element Analysis, Additive Manufacturing | 2 |
| | Manufacturing, Sustainable Machining, Materials Processing, Additive Manufacturing, Machine learning and Manufacturing | 2 |
| | Fluid Flow and Heat Transfer | 1 |
| Electronics & Communication Engineering | Optical Communication Networks, Free space Optical Communication and Wireless Networks | 2 |
| | Digital communication, wireless communication, signal processing and remote sensing. | 2 |
| | VLSI Design and Test | 2 |
| | Analog mixed signal VLSI design, High speed Current mode circuit, biological process based analog circuits design, Chip design for Healthcare device application | 2 |
| | Embedded and VLSI Design, Machine Learning using Embedded Systems | 2 |
| | Wireless, Networks, Internet of Things Embedded Systems | 1 |
| | Optical Wireless Communication and Embedded system | 2 |
| | VLSI Design and Embedded System | 1 |
| | VLSI Design | 3 |
| | RF MEMS Design. Analog VLSI Design, Embedded system | 1 |
| | Computer Vision, Machine Learning, Image Processing | 2 |
| Mathematics and Humanities | Mathematics | 11 |
| | Economics | 3 |
| | English | 4 |
| | Total Seats | 147 |

Faculty of Pharmacy

| Areas of Research | Number of Seats |
|--------------------------|-----------------|
| Pharmaceutics | 2 |
| Pharmacology | 1 |
| Pharmaceutical Analysis | 5 |
| Pharmaceutical Chemistry | 2 |
| Pharmacognosy | 2 |
| Total Seats | 12 |

Faculty of Law

| Areas of Research | Number of Seats |
|---|-----------------|
| Economics | 4 |
| Constitution, Administrative Law & Human Rights | 1 |
| Total Seats | 05 |

Faculty of Science

| Areas of Research | Number of Seats |
|--------------------------|------------------------|
| Life Science | 01 |
| Chemistry | 09 |
| Physics | 02 |
| Total Seats | 12 |

Faculty of Architecture & Planning

| Areas of Research | Number of Seats |
|---|------------------------|
| Architecture (Urban Planning, Urban Design, Nature Based Solutions, Environmental Management) | 03 |
| Total Seats | 03 |