

TENTATIVE AREAS FOR PH.D. ADMISSIONS (December-2022)

Full Time under Visvesvaraya Scheme & Part-Time

Faculty of Technology and Engineering

Computer Science & Engineering (Category A &B)	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
	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 (Category A &B)	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 (Category A &B)	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
Electronics & Communication Engineering (Category A &B)	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	

	Area	Number of Seats
Chemical Engineering (Category B)	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 (Category B)	Structural Engineering	10
	Geotechnical Engineering	1
	Concrete Technology, Special Concrete, Construction Materials, Recycled Materials, Repair and Retrofitting of structures	4
	Geomatics	1

Mechanical Engineering (Category B)	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
	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	
Mathematics and Humanities (Category B)	Mathematics	11
	Economics	3
	English	4
	Total Seats	147

Faculty of Pharmacy (Part-Time only)

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

Faculty of Law (Part-Time only)

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

Faculty of Science (Part-Time only)

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

Faculty of Management (Part-Time only)

Areas of Research	Number of Seats
Operations Management & Quantitative Techniques	03
Human Resource Management	01
Total Seats	04

Faculty of Architecture & Planning (Part-Time only)

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