

1.2.1

Percentage of new courses introduced out of the total number of courses across all programmes offered during the last five years

Name of the programme	Name of the Course	Course Code	Year of introduction (during the last five years)	Link to the relevant document
Bachelors/Masters/Ph.D	Advance Ecological Statistics	NA	01-01-2019	
Bachelors/Masters/Ph.D	Analysis of Manufacturing Process	NA	01-01-2019	
Bachelors/Masters/Ph.D	Complex Analytical Techniques in Operator Theory	NA	01-01-2019	
Bachelors/Masters/Ph.D	Topics in random discrete structures	NA	01-01-2019	
Bachelors/Masters/Ph.D	Mathematical Physics	NA	01-01-2019	
Bachelors/Masters/Ph.D	Cell Mechanics	NA	01-01-2019	
Bachelors/Masters/Ph.D	Research communication	NA	01-01-2019	
Bachelors/Masters/Ph.D	Quantum Measurement and Control	NA	01-01-2019	
Bachelors/Masters/Ph.D	Neural Networks for Signal Processing	NA	01-01-2019	
Bachelors/Masters/Ph.D	Ocean Modelling	NA	01-01-2019	
Bachelors/Masters/Ph.D	ML in Neuroscience	NA	01-01-2019	
Bachelors/Masters/Ph.D	Aerodynamic Testing Facilities	NA	01-01-2019	
Bachelors/Masters/Ph.D	Topics in Neural computation	NA	01-01-2019	
Bachelors/Masters/Ph.D	Computation Linear Algebra	NA	08-01-2019	
Bachelors/Masters/Ph.D	Electrochemical Systems	NA	08-01-2019	
Bachelors/Masters/Ph.D	Switched Reluctance Machines and Drives	NA	08-01-2019	
Bachelors/Masters/Ph.D	Sensors and Transducers	NA	08-01-2019	
Bachelors/Masters/Ph.D	Environmental Fluid Dynamics	NA	08-01-2019	
Bachelors/Masters/Ph.D	Program Synthesis meets Machine Learning	NA	08-01-2019	
Bachelors/Masters/Ph.D	Research in Computer Science	NA	08-01-2019	

Bachelors/Masters/Ph.D	Topics in Algorithms	NA	08-01-2019	
Bachelors/Masters/Ph.D	Machine Learning	NA	08-01-2019	
Bachelors/Masters/Ph.D	Fundamental of Bio-Engineering -1	NA	08-01-2019	
Bachelors/Masters/Ph.D	Fundamental of Bio-Engineering – II	NA	08-01-2019	
Bachelors/Masters/Ph.D	Bio – Informatics	NA	08-01-2019	
Bachelors/Masters/Ph.D	Ecosystems and Global Change	NA	08-01-2019	
Bachelors/Masters/Ph.D	Multi-omics approaches for Biologists	NA	08-01-2019	
Bachelors/Masters/Ph.D	Polymer Physics	NA	01-01-2020	
Bachelors/Masters/Ph.D	Field Hydrology, River Engineering and Basin Studies	NA	10-01-2020	
Bachelors/Masters/Ph.D	Topics in Networked and Distributed Control - Electrical Engineering	NA	10-01-2020	
Bachelors/Masters/Ph.D	Fundamentals of Nanoscale Conduction heat transport – Mechanical Engineering	NA	10-01-2020	
Bachelors/Masters/Ph.D	Robot dynamics and control – Cyber Physical Systems	NA	10-01-2020	
Bachelors/Masters/Ph.D	Robot Learning and Control – Cyber Physical Systems	NA	10-01-2020	
Bachelors/Masters/Ph.D	Topics in Artificial Intelligence	NA	01-01-2020	
Bachelors/Masters/Ph.D	Fundamentals of MOS Analog Integrated Circuits	NA	01-01-2020	
Bachelors/Masters/Ph.D	Sensors Transducers Laboratory	NA	01-01-2020	
Bachelors/Masters/Ph.D	Advanced Signal Processing	NA	01-01-2020	
Bachelors/Masters/Ph.D	Environmental Fluid Mechanics	NA	01-01-2020	
Bachelors/Masters/Ph.D	Special topics in Nanoelectronics	NA	01-01-2020	
Bachelors/Masters/Ph.D	Vibrations	NA	01-01-2020	

Bachelors/Masters/Ph.D	Human factors in Aerospace	NA	01-01-2020
Bachelors/Masters/Ph.D	Topics in Harmonic Analysis	NA	01-01-2020
Bachelors/Masters/Ph.D	Fundamentals of Nanoscale Conduction heat transport	NA	01-01-2020
Bachelors/Masters/Ph.D	Polymer Physics	NA	01-01-2020
Bachelors/Masters/Ph.D	Field Hydrology, River Engineering and Basin Studies	NA	01-01-2020
Bachelors/Masters/Ph.D	Topics in Networked and Distributed Control	NA	01-01-2020
	Riemann Surfaces	NA	01-08-2020
Bachelors/Masters/Ph.D	Topics in Geometric Topology: Geometric Structures	NA	01-08-2021
Bachelors/Masters/Ph.D	Introduction to Differentiable Manifolds	NA	01-08-2021
Bachelors/Masters/Ph.D	Optimization for Machine Learning	NA	01-08-2021
Bachelors/Masters/Ph.D	Antenna Theory and Practice	NA	01-08-2021
Bachelors/Masters/Ph.D	Neural Signal Processing	NA	01-08-2021
Bachelors/Masters/Ph.D	Representation theory of affine lie algebras	NA	01-08-2021
Bachelors/Masters/Ph.D	Sustainable wastewater management	NA	01-08-2021
Bachelors/Masters/Ph.D	Separation Technologies for Sustainable Industrial processes	NA	01-08-2021
Bachelors/Masters/Ph.D	Introduction to Calculus of Variations	NA	01-08-2021
Bachelors/Masters/Ph.D	Haptic Systems Design	NA	01-08-2021
Bachelors/Masters/Ph.D	Stochastic Dynamic optimization	NA	01-08-2021
Bachelors/Masters/Ph.D	Mechanical Vibrations	NA	01-08-2021
Bachelors/Masters/Ph.D	Introduction to Fourier Optics	NA	01-08-2021
Bachelors/Masters/Ph.D	S&T policy	NA	01-08-2021
Bachelors/Masters/Ph.D	Radioactive transport	NA	01-08-2021

Bachelors/Masters/Ph.D	Laminar flows	NA	01-08-2021
Bachelors/Masters/Ph.D	Algorithmic Foundations of Big Data	NA	01-08-2021
Bachelors/Masters/Ph.D	Biology	NA	01-08-2021
Bachelors/Masters/Ph.D	Topics in Artificial Intelligence	NA	01-08-2021
Bachelors/Masters/Ph.D	Hydro-climatology	NA	01-08-2021
Bachelors/Masters/Ph.D	Electronic Systems Engineering	NA	01-08-2021
Bachelors/Masters/Ph.D	Programme Specialization	NA	01-01-2022
Bachelors/Masters/Ph.D	Introductory Theoretical & Applied Statistics	NA	01-01-2022
Bachelors/Masters/Ph.D	Advanced Topics in Networking	NA	01-01-2022
Bachelors/Masters/Ph.D	Introduction to Integrated Circuit (IC) Design	NA	01-01-2022
Bachelors/Masters/Ph.D	Introduction to Integrated Circuit (IC) Design online	NA	01-01-2022
Bachelors/Masters/Ph.D	Stochastic Dynamics and Stochastic Control with applications to Machine Learning	NA	01-01-2022
Bachelors/Masters/Ph.D	Dynamical Systems Biology	NA	01-01-2022
Bachelors/Masters/Ph.D	Introduction to Integrated Circuit (IC) Design	NA	01-01-2022
Bachelors/Masters/Ph.D	Relaxation Theory and Applications to Solution	NA	01-01-2022
Bachelors/Masters/Ph.D	State Biomolecular NMR Spectroscopy	NA	01-01-2022
Bachelors/Masters/Ph.D	Thermodynamics of crystalline solids	NA	01-01-2022
Bachelors/Masters/Ph.D	Concrete Technology: fundamentals and sustainable practices	NA	01-01-2022
Bachelors/Masters/Ph.D	Introduction to Quantum Measurement Advanced Quantum Technology Lab	NA	01-01-2022

Bachelors/Masters/Ph.D	Advanced Quantum Computation and Information	NA	01-01-2022
Bachelors/Masters/Ph.D	Introduction to Materials for Quantum Technologies	NA	01-01-2022
Bachelors/Masters/Ph.D	Class field theory, a course in arithmetic geometry	NA	01-01-2022
Bachelors/Masters/Ph.D	Principles of Electrochemistry and Corrosion	NA	01-01-2022
Bachelors/Masters/Ph.D	Neuromorphic Analog VLSI design	NA	01-01-2022
Bachelors/Masters/Ph.D	Robotic Perception	NA	01-01-2022
Bachelors/Masters/Ph.D	Experimental Techniques for Robotics and Automation	NA	01-01-2022
Bachelors/Masters/Ph.D	Computational Methods for Reacting Flows	NA	01-01-2022
Bachelors/Masters/Ph.D	Robot Learning and Control	NA	01-01-2022
Bachelors/Masters/Ph.D	Basic Concepts of Planning and Design of Hydro- Mechanical Components in Dam	NA	01-01-2022
Bachelors/Masters/Ph.D	Disaster Management for Dams	NA	01-01-2022
Bachelors/Masters/Ph.D	Graph Algorithms Quantum Safe	NA	01-01-2022
Bachelors/Masters/Ph.D	Cryptography	NA	01-01-2022
Bachelors/Masters/Ph.D	Motion Planning for Autonomous Systems	NA	01-01-2022
Bachelors/Masters/Ph.D	Integrated photonics Lab	NA	01-01-2022
Bachelors/Masters/Ph.D	Semiconductor devices for RF and microwave Electronics	NA	01-01-2022
Bachelors/Masters/Ph.D	Sediment Management in Reservoirs	NA	01-01-2022
Bachelors/Masters/Ph.D	Applied Mathematics for Mechanics	NA	01-01-2022
Bachelors/Masters/Ph.D	Formal Analysis and Control of Autonomous Systems	NA	01-01-2022

Bachelors/Masters/Ph.D	Real-time Embedded Systems	NA	01-01-2022
Bachelors/Masters/Ph.D	Earth Retaining Structures and Earthen Dams	NA	01-01-2022
Bachelors/Masters/Ph.D	Digital Epidemiology	NA	01-01-2022
Bachelors/Masters/Ph.D	Human Robot Interaction	NA	01-08-2022
Bachelors/Masters/Ph.D	Introductory Statistics	NA	01-08-2022
Bachelors/Masters/Ph.D	Chemical Dynamics	NA	01-08-2022
Bachelors/Masters/Ph.D	Introductory Probability Theory	NA	01-08-2022
Bachelors/Masters/Ph.D	Regression and Time Series Analysis	NA	01-08-2022
Bachelors/Masters/Ph.D	Synthetic Biology and Genetic Engineering	NA	01-08-2022
Bachelors/Masters/Ph.D	Biological Safety: Principles and practices	NA	01-08-2022
Bachelors/Masters/Ph.D	Contact and Impact Mechanics	NA	01-08-2022
Bachelors/Masters/Ph.D	Nonlinear Dynamics of Physical Systems	NA	01-08-2022
Bachelors/Masters/Ph.D	Algebraic graph theory	NA	01-08-2022
Bachelors/Masters/Ph.D	Power Electronics Design	NA	01-08-2022
Bachelors/Masters/Ph.D	Piezoelectric MEMS: Theory, Design and Application	NA	01-08-2022
Bachelors/Masters/Ph.D	Statistical and probabilistic data analysis techniques	NA	01-08-2022
Bachelors/Masters/Ph.D	Introduction to Data Science	NA	01-08-2022
Bachelors/Masters/Ph.D	Design of Electric Motors	NA	01-08-2022
Bachelors/Masters/Ph.D	Introduction to Stochastic Processes	NA	01-08-2022
Bachelors/Masters/Ph.D	Lysosomes and Autophagy	NA	01-08-2022
Bachelors/Masters/Ph.D	Geodetic signal processing	NA	01-08-2022
Bachelors/Masters/Ph.D	Watershed Modeling	NA	01-08-2022
Bachelors/Masters/Ph.D	Electronic Materials and Devices	NA	01-08-2022

Bachelors/Masters/Ph.D	Topics in Non-linear Functional Analysis	NA	01-08-2022
Bachelors/Masters/Ph.D	Diagnostics and Devices Algorithms Under Uncertainty	NA	01-08-2022
Bachelors/Masters/Ph.D	Computer Networks	NA	01-08-2022
Bachelors/Masters/Ph.D	Computational Mathematics for Materials Engineers	NA	01-08-2022
Bachelors/Masters/Ph.D	Space Biology and Bioengineering	NA	01-08-2022
Bachelors/Masters/Ph.D	Discrete Photonics and Quantum Analogies	NA	01-08-2022
Bachelors/Masters/Ph.D	Stem Cell Technology	NA	01-08-2022
Bachelors/Masters/Ph.D	Physics and Engineering Foundations	NA	01-08-2022
Bachelors/Masters/Ph.D	for Quantum Technologies	NA	01-08-2022
Bachelors/Masters/Ph.D	Applied Linear Algebra and Optimization	NA	01-08-2022
Bachelors/Masters/Ph.D	Physics Beyond Standard Model	NA	01-08-2022
Bachelors/Masters/Ph.D	Introduction to Data Science for Bioengineers	NA	01-08-2022
Bachelors/Masters/Ph.D	Random Variates in Computation	NA	01-08-2022
Bachelors/Masters/Ph.D	Applied Dynamics II	NA	01-08-2022
Bachelors/Masters/Ph.D	Essentials of Research and Innovation	NA	01-08-2022
Bachelors/Masters/Ph.D	Applied Dynamics I	NA	01-08-2022
Bachelors/Masters/Ph.D	Advanced Deep Representation Learning	NA	01-08-2022
Bachelors/Masters/Ph.D	Communicating science to nonexperts	NA	01-08-2022
Bachelors/Masters/Ph.D	Evolutionary Genetics	NA	01-08-2022
Bachelors/Masters/Ph.D	Materials design principles for electronic, electromechanical and optical functions	NA	01-08-2022

Bachelors/Masters/Ph.D	Discrete Photonics and Quantum Analogies	NA	01-08-2022
Bachelors/Masters/Ph.D	Magnetism, Magnetic Materials, and Devices	NA	01-08-2022
Bachelors/Masters/Ph.D	Optical Communication Systems	NA	01-08-2023
Bachelors/Masters/Ph.D	Tensor Computations for Data Science	NA	01-08-2023
Bachelors/Masters/Ph.D	Topics in function theoretic operator Theory	NA	01-08-2023
Bachelors/Masters/Ph.D	Electron microscopy and 3D image processing for Life sciences	NA	01-08-2023
Bachelors/Masters/Ph.D	Analysis And Design of Composite Structures	NA	01-08-2023
Bachelors/Masters/Ph.D	Micro-hydrodynamics	NA	01-08-2023
Bachelors/Masters/Ph.D	Introduction to Manufacturing Science	NA	01-08-2023
Bachelors/Masters/Ph.D	Metal Forming Processes	NA	01-08-2023
Bachelors/Masters/Ph.D	Quantum Error-Correcting Codes	NA	01-08-2023
Bachelors/Masters/Ph.D	Semiconductor devices for nanoelectronics	NA	01-08-2023
Bachelors/Masters/Ph.D	Fundamentals of Molecular Biology	NA	01-08-2023
Bachelors/Masters/Ph.D	Neuronal Ion Transport in Health and Disease	NA	01-08-2023
Bachelors/Masters/Ph.D	Communication Networking Lab	NA	01-08-2023
Bachelors/Masters/Ph.D	Microcontroller and its Applications	NA	01-08-2023
Bachelors/Masters/Ph.D	Machine Learning for Wireless Communication	NA	01-08-2023
Bachelors/Masters/Ph.D	Open Science: Policy and Practice	NA	01-08-2023
Bachelors/Masters/Ph.D	STI Policy: Introduction and Contemporary Issues	NA	01-08-2023

Bachelors/Masters/Ph.D	MTech Project	NA	01-08-2023
Bachelors/Masters/Ph.D	Artificial Intelligence for Medical Image Analysis	NA	01-08-2023
Bachelors/Masters/Ph.D	Discrete Control and Estimation	NA	01-08-2023
Bachelors/Masters/Ph.D	Topics in Reinforcement Learning	NA	01-08-2023
Bachelors/Masters/Ph.D	Green Catalysis in Chemical Industries	NA	01-08-2023
Bachelors/Masters/Ph.D	Microelectronics Technology For VLSI Engineers	NA	01-08-2023
Bachelors/Masters/Ph.D	VLSI Design Principals for Device Engineers	NA	01-08-2023
Bachelors/Masters/Ph.D	Sliding mode control and its applications	NA	01-08-2023
Bachelors/Masters/Ph.D	Probabilistic Machine Learning: Theory and Applications	NA	01-08-2023
Bachelors/Masters/Ph.D	Formal Analysis and Control of Autonomous Systems	NA	01-08-2023
Bachelors/Masters/Ph.D	Quantum Information Theory	NA	01-08-2023
Bachelors/Masters/Ph.D	Computational Imaging	NA	01-08-2023
Bachelors/Masters/Ph.D	Opportunities and Extensions in Life Sciences - Pa	NA	01-08-2023
Bachelors/Masters/Ph.D	Opportunities and Extensions in Life Sciences - Pa	NA	01-08-2023
Bachelors/Masters/Ph.D	Laboratory course in Molecular Techniques	NA	01-08-2023
Bachelors/Masters/Ph.D	Interacting Particle Systems	NA	01-08-2023
Bachelors/Masters/Ph.D	Introduction to electronic properties of Materials	NA	01-08-2023
Bachelors/Masters/Ph.D	Materials in Extreme environments	NA	01-08-2023
Bachelors/Masters/Ph.D	Developmental Biology and Genetics	NA	01-08-2023
Bachelors/Masters/Ph.D	Physiology and Neurobiology	NA	01-08-2023

Bachelors/Masters/Ph.D	Machine Learning for Materials and Molecules	NA	01-08-2023
Bachelors/Masters/Ph.D	Laboratory course in Genetics and Ecology	NA	01-08-2023
Bachelors/Masters/Ph.D	Biochemistry and Biophysics	NA	01-08-2023
Bachelors/Masters/Ph.D	Ecology and Evolution	NA	01-08-2023
Bachelors/Masters/Ph.D	Systems for Machine Learning	NA	01-08-2023
Bachelors/Masters/Ph.D	Linear and Nonlinear Optimization	NA	01-08-2023
Bachelors/Masters/Ph.D	Data Science for Smart City Applications	NA	01-08-2023
Bachelors/Masters/Ph.D	Advanced Laboratory - 1	NA	01-08-2023
Bachelors/Masters/Ph.D	Advanced Laboratory - II	NA	01-08-2023
Bachelors/Masters/Ph.D	Chemistry of Biomolecules	NA	01-08-2023
Bachelors/Masters/Ph.D	Spectroscopic Methods for Structure Determination	NA	01-08-2023
Bachelors/Masters/Ph.D	Research Project	NA	01-08-2023
Bachelors/Masters/Ph.D	Microbiology, Virology and Immunology	NA	01-08-2023
Bachelors/Masters/Ph.D	Dissertation project	NA	01-08-2023
Bachelors/Masters/Ph.D	MTech EPD Dissertation Project	NA	01-08-2023
Bachelors/Masters/Ph.D	Inorganic Chemistry-2: Organometallic Chemistry	NA	01-08-2023
Bachelors/Masters/Ph.D	Signal Processing in Practice	NA	01-08-2023
Bachelors/Masters/Ph.D	MTech Dissertation Project	NA	01-08-2023
Bachelors/Masters/Ph.D	Field Robotics	NA	01-08-2023
Bachelors/Masters/Ph.D	Reinforcement Learning	NA	01-08-2023
Bachelors/Masters/Ph.D	Advanced Deep Representation Learning	NA	01-08-2023
Bachelors/Masters/Ph.D	Foundations of Robotics	NA	01-08-2023
Bachelors/Masters/Ph.D	Hydrologic Safety Evaluation of Dams	NA	01-08-2023

Bachelors/Masters/Ph.D	Dam safety surveillance, instrumentation and monitoring	NA	01-08-2023
Bachelors/Masters/Ph.D	Integrated Investigation of Dams	NA	01-08-2023
Bachelors/Masters/Ph.D	Deep Learning for Visual Analytics	NA	01-08-2023
Bachelors/Masters/Ph.D	Transportation Logistics	NA	01-08-2023
Bachelors/Masters/Ph.D	Swarm Robotic System	NA	01-08-2023
Bachelors/Masters/Ph.D	Mathematical methods for machine learning	NA	01-08-2023
Bachelors/Masters/Ph.D	Modelling and Forecasting	NA	01-08-2023