

Annexure II

Sr No	Name of Department	Desired Specialisation
1	Architecture and Planning	Architecture- Architecture, Urban Design, Sustainable Architecture, Landscape. Architecture, Architectural Conservation, Digital Architecture, Environmental Architecture, Planning- Housing, Transportation Planning, Urban Planning/City Planning/Town Planning, Other Building Science and Technology, Built Environment or any other related Field
2	Biotechnology	1. Artificial Intelligence in Biotechnology 2. System Biology 3. Bioreactor Scale up Design and Analysis 4. Stem Cell Technology
3	Biomedical Engineering	1. Hard Tissue Engineering 2. IoT in Biomedical Engineering 3. Medical Imaging 4. Therapeutic techniques / Devices
4	Chemical Engineering	Process Dynamics and Control, Process Modeling and Simulation, AI-ML in Chemical Engineering, Carbon Capture and Sequestration, Hydrogen Production and Storage, Chemical Sensors
5	Chemistry	Applied Chemistry, Organic Chemistry, Nanoscience and Nanotechnology, Computational Chemistry, Analytical Chemistry, Industrial Chemistry.
6	Information Technology	Virtual Reality, Augmented Reality, Mixed Reality, Extended Reality, Computer Graphics, Visual Computing, High Performance Computing, Neuroscience, Neuro Imaging, Privacy Preserving Systems, Statistical Learning Theory, Game Theory, Hardware Security, Digital VLSI, Digital Content Protection, Digital Content Forensics, Technology for social development, Cyber Physical Systems, System Dynamics, Affordable Health Care and Embedded Systems, Operating Systems, Compilers and Runtime Systems Algorithms and Complexity, Logic and Automata theory Formal Methods for Program Analysis, Verification, Semantic Verification, Concurrent Systems, Information Retrieval Systems
7	Metallurgy and Material Engineering	Advance Materials, Semi Conductor and Optoelectronic Materials, Extractive Metallurgy (ferrous and non-ferrous), Metallurgical Waste management and Recovery of Metals and

		Alloys, AI/ML /Data Science in Metallurgical and Materials Engineering, Computation Materials Modelling and Simulation (FEM, DFT, MD in Materials Application), Magnetic and Electronic Materials, Materials in Additive Manufacturing, Energy Materials, Surface Engineering and coating Technology
8	Mechanical Engineering	Industrial Engineering and Management or Equivalent Robotics and Automation or Equivalent Mechatronics or Equivalent
9	Mining Engineering	Mine Surveying, Remote Sensing & GIS, Rock Mechanics, Rock Slope Engineering and Ground Control, Mine Safety, Mine Ventilation, Mine Planning and Automation
10	Physics	Photonics, Lasers, Theoretical and Experimental Condense Matter Physics