Prospective Supervisors	Title of project 1	Title of Project 2	Title of Project 3
Kaustuv Manna	Single crystal growth and physical property characterization of Quantum materials	Investigating the Berry curvature tuned transport properties of 2D Quantum magnets	Single crystal growth and investigating the magneto-optical properties of quantum magnets
Pintu Das	Atomic scale imaging and scanning tunneling spectroscopy of quantum materials (experimental condensed matter phys)	Low -temperatrure electrical transport and carrier dynamics in quantum materials (experimental cond. matt. Phys.)	
Bhaskar Kanseri	Quantum Entanglement studies and teleportation under National quantum mission	Study of Quantum imaging and sensing under National quantum mission	Quantum memory for quantum communication under National quantum mission
Pradipta Ghosh	Phase transition and Gravitational Waves	Complementary new physics searches	N/A
Saswata Bhattacharya	Condensed matter physics: topic Altermagnetism	Condensed matter physics: topic Temperature dependent spectroscopy	Condensed matter physics: topic Valleytronics and anomalous hall effect
Prof. G Vijaya Prakash	Optical studies on Hybrid 2D semiconductors	Biophotonics of nanomaterials	optoelectronic studies on Molecular Heterostrctures

P K Muduli	Development of cryogenic non-volatile memory for quantum computing using spin-orbit torque	Quantum-Inspired Oscillator Ising Machines using spin Hall nanooscillator	Novel Spintronic devices using quantum materials
SANKALPA GHOSH	Twistronics and Moiré Materials (Theoretical Studies)	Strongly Correlated phases (including Fractional Chern Insulator phases) in Moiré systems of graphene and other layered materials	
Suprit Singh	Numerical Relativity and Computational Astrophysics	Observational Cosmology	
Brajesh Kumar Mani	Computational Atomic Physics/Computational Condensded Matter Physics	Atomic Structure Calculations using Quantum Computing	
Abhishek Iyer	Graph Neural Networks, Transformers and beyond for particle identification	Composite models	
Amita Das	Numerical simulations for anomalous light absorption by plasma	Particle in Cell simulations for laser interacting with magnetized plasma	Fluid and Partcile in cell simulations for Yang Mills plasma medium
Dalip Singh Mehta	Quantum Biophotonics, quantum imaging and sensing	Laser based photodynamic technique for cancer treatment	Raman spectroscopy for early stage cancer diagnosis

JP Singh	Study of quantum thermoelectric materials fabricated by glancing angle deposition		
Marshal	Using plasma methods for synthesis of Metal-organic frameworks (MOFs)	Developing electrical probe method for characterisation atmospheric plasma discharges	
Rohit Narula	Optical Response of Twisted Layered Materials		
Tarun Sharma	Quantum field theories		
Deepak Kumar	Experimental soft matter physics	Physics active granular matter	
Bodhaditya Santra	Quantum computing with cold atoms	Quantum sensing with cold atoms	High precision laser spectroscopy for quantum technology applications
Sunil Kumar	Optical physics of condensed matter systems		
Evan Matthew Aguirre	Investigations of ion dynamics in dusty plasmas		
Aloka Sinha	Study of Energy harvesting materials and wearable device fabrication	Design of optical metamaterials and device fabrication	Blue phase liquid crystals and scattering devices

Hemanta Kumar Kundu	Quantum transport properties in 2D hexagonal lattice systems	Emergent phases in low-dimensional electronic systems	
Vikrant Saxena	Numerical studies on laser-plasma interactions	Exploring magnetized plasma expansion	
Rajendra S. Dhaka	Solid state Sodium-ion batteries	Cathode materials	Physical properties of Complex oxides
Sujit Manna	Study superconductivity using scanning tunneling microscopy	Experimental study of magnet-superconductor hybrid quantum systems	
Amartya Sengupta	Optical Spectroscopy of random media	Optical processes in Semiconductor heterostructures and quantum materials	
Gargee Sharma	Condensed Matter Theory		
Nitin Yadav	Solar Flares and QPPs: MHD Wave Interaction with Magnetic Null Points	Heating the Lower Solar Atmosphere: The Role of Acoustic Waves	Coupling multi-wavelength observations and MHD simulations for a comprehensive study of solar vortex flows

Varsha Banerjee	Chiral metamaterials from patchy colloids (soft matter)		
Santanu Ghosh	Field emission studies of Carbon nanotube based nanohybrids	Magnetic and electronic properties of nanodimensional transition metal oxide and sulfide". Fellowship	
Sujeet Chaudhary	Growth and investigations of Orbital Spin Hall effect in Sputtered heterostructures	Exploring thin film heterostructures exhibiting Topological Spin Hall Effect and Complex Spin Textures	
Joyee Ghosh	Quantum Networks	Secure Quantum Communication	
Sarthak Parikh	AdS/CFT correspondence		
H. K. Malik	Space propulsion devices	Microwave plasma interaction	
Sujin Babu	Softmatter/Biophysics		