

P.G Department of Physics NIT Srinagar (FIST Supported)		<i>Project 4th SEM + Related Elective</i>
M.Sc. PHYSICS		SEMESTER IV
(SPRING SESSION – 2022)		
Supervisors	Name of the students	Name of the Project
Prof S Rubab	Research Methodology & Scientific Writing	Monday/ Tuesday/ Wednesday (2.00- 4.00 PM)
Dr. M.A.Shah	Raj Jivani/ Tanzeela Hassan/ Malik Mudasir	1. The Nickel oxide Nano particles and its applications in supercapacitors. 2. Magnetic metal oxide nanomaterials and their bio applications. 3. Exfoliation of two dimensional materials specially Graphene and their applications.
Prof. M. Ikram	Asim Rashid/Aadil Hassan/ Adil Mehraj	1. Synthesis and characterization of Gadolinium (Gd) doped LiBaPO ₄ by solid state reaction. 2.Synthesis and characterization of Mg doped LiBaPO ₄ 3. Studies of structural, surface and optical properties of triple layered pervoskite oxides.
Prof S Rubab	Khushboo Iqbal / Owais Shafi/Arjumand	1. Synthesis and characterization of iron doped Titanium dioxide 2. Development of typical meteorological year data methodologies applied to spectral irradiance PV system in Kashmir valley. 3. Study the adaptive thermal comfort for Kashmir valley.
Dr.P A Ganaie	Durakhshan /Shubham / Taha Rabbani/Tariq	1.Galaxy Clusters 2.Electrodynamics of Black Holes 3.Open Quantum Systems 4.Black Hole Thermodynamics
Dr. Vijay Kumar	Peerzada Faizan/ Sameer Ah/ Asif Maqbool	1. Fabrication and characterization of gum based hydrogels for waste water treatment applications. 2. Synthesis and characterization of biodegradation of gum Arabic based hydrogels. 3. Synthesis and characterization of gum Tragacant based hydrogel and its soil moisture retention application
Dr. M Z Ansari	Surbhi Rajpoot/ Shakir Ahmad/ Hari Prasad	1. Synthesis and characterization of MoS ₂ doped TiO ₂ nanoparticles and their potential application in waste water treatment. 2. To study the structural and optical properties of cadmium sulphide thin films. 3. GC hydrogel charcoal filters.
Dr. H. Singh	Rashed Hussain/ Sahreena /Ummar Habib	1.Quantum Simulation of molecules and a spin system. 2.Quantum image steganography 3.Investigation of Low Dimensional materials

Note: Please seek proper and prior permission for any Leave so that class engagement can be made well in time by the T/T in charge.

Dr. Vijay Kumar (I/C Time Table)

Dr. M. A. Shah (Head, Physics)