



Amity Institute of Applied Sciences

DEPARTMENT OF Physics

Research/Interest Areas

1. Astrophysics
2. Plasma Physics
3. Nonlinear Optics, Thin Films
4. Laser-Plasma Interaction, Space plasma Applications
5. Photonic Crystal
6. Space & Atmospheric Sciences
7. Study of Aerosol
8. Solid State Physics
9. Soft Materials, Nanomaterials, Nano/micro-Composites of Soft Materials, Microcavity, Liquid Crystals based Photonics and Displays
10. Quantum Optics
11. Experimental High Energy Physics, Physics at the Large Hadron Collider (LHC), Cosmic Ray/Astro-Particle Physics
12. Ceramics
13. Molecular spectroscopy and Nano Materials
14. High Temperatures and High pressures Physics
15. Liquid crystals
16. Diagnosis & Management of Cancers, Identification of biomarkers in cancers.
17. Low energy nuclear physics
18. Observational Astrophysics
19. Plasmonic
20. Radio-protection using herbal drugs
21. Spintronics and ferromagnetic thin film physics
22. Hydrogen production, storage and utilization. Advanced Characterization, Catalysts design
23. Spintronics, Spatial Magnetic Mapping, Time resolved mapping, MEMS sensors, Electron Holography, TEM, FIB
24. Biosensor & Bioelectronics Medical Devices
25. Spintronics, Magnetic nanoparticles and thin films, Magnetic Hyperthermia, Electrochemistry, Metal-oxide based sensors