

RG-03: Applied Sciences and Material Research

Research Director: Dr. Meena Kapahi



Vision:

To advance knowledge in Applied Sciences and Materials, fostering interdisciplinary collaboration advancing sustainable development and contributing to societal progress.

Thrust Areas:

- Environmental Materials and Remediation
- Nanotechnology and Nanomaterials
- Energy Materials and Sustainability
- Atmospheric and Space Science
- Interdisciplinary Collaborations and Outreach

Research Areas:

- Develop advanced functional materials and membranes using polymer chemistry and nanomaterials.
- Develop wastewater treatment technologies utilizing naturally available materials and sustainable technologies.
- Focus on nanomaterials for functional materials and membranes.
- Develop cost-effective solar desalination processes.
- Innovate in electrochemical batteries to improve energy storage.
- Develop third-generation biofuels using algal biomass.
- Explore the use of waste cooking oil for biodiesel production.
- Identify new feed stocks for bioenergy production.
- Monitor aerosol distribution and seasonal variation in the lower atmosphere.
- GIS-RS based monitoring of air pollution in Delhi NCR.