

## Workshop on

# Materials Characterisation: Analysing and Interpreting Powder X-Ray Diffraction (p-XRD), X-ray Photoelectron Spectroscopy (XPS) & Electrochemical Data

Organised by  
**Department of Chemistry**  
(School of Science and Environmental Studies)

Characterisation techniques such as X-ray Diffraction (XRD), X-ray Photoelectron Spectroscopy (XPS) and electrochemical measurements are essential steps towards the development of advanced functional materials used in batteries, sensors, catalysis, supercapacitors, fuel cells, solar cells, environmental remediation, corrosion studies, and biomedical devices. While many students learn the theory behind these techniques, interpreting real experimental data often remains a challenge.

This workshop is specially designed for beginners to bridge this gap. It is ideal for undergraduate and postgraduate students, research scholars, and early-career faculty who are starting their journey in these research areas. By the end of the workshop, participants will be able to confidently analyse and interpret XRD, XPS and electrochemical data, and effectively apply these techniques in their research.

### Key Modules to be Covered

**Module 1:** X-Ray Diffraction (XRD) Pattern Analysis

**Module 2:** Electrochemical Techniques and Data Analysis

**Module 3:** X-Ray Photoelectron Spectroscopy (XPS) Data Analysis

### Targeted Participants with Registration Fee

Participants Category	Registration Fee
UG/PG Students	Rs. 250/-
Ph.D. students/RA	Rs. 500/-
Research Associate/Post-Doc/Faculty	Rs. 600/-
Industry	Rs. 1200/-

### Steps for Registration:

1. Fill out the Google Form:  
<https://forms.gle/f2upXAPjqnAZGrgR7>
2. On completion of Step 1, A Unique ID along with a Payment QR Code will be sent to your registered email ID.
3. Open the email, complete the payment, and Finalise your registration.

### Scan for Registration



### Resource Persons



**Dr. Jayashree S.**

Scientist, CSIR-National Physical Laboratory,  
New Delhi



**Dr. Partha Pratim Bag**

Associate Professor, SRM University Sikkim

### Important Dates :

- Last Date of Registration: **12<sup>th</sup> May 2026**
- Date of the Workshop: **15<sup>th</sup> - 16<sup>th</sup> May 2026**
- Mode of Workshop: **Online**

### Organising Committee

**Dr. Meghana Gote**, Program Director, Department of Chemistry  
**Dr. Soumava Biswas**, Asst. Prof., Department of Chemistry  
**Mr. Sanjay Bhagwat**, Asst. Prof., Department of Chemistry  
**Dr. Parineeta Das**, Asst. Prof., Department of Chemistry  
**Dr. Vandana Mooss**, Asst. Prof., Department of Chemistry

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