


 <https://nclsdp.ncl.res.in/>

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 CSIR-National Chemical Laboratory, Dr. Homi Bhabha Road, Pashan, Pune-411008

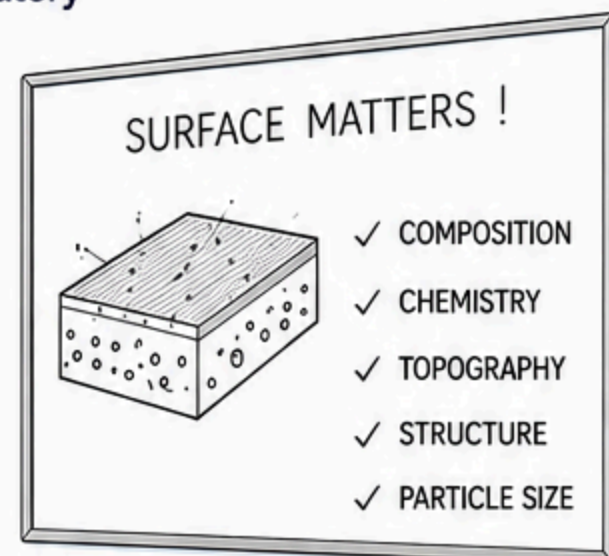


CSIR - National Chemical Laboratory



**CSIR
INTEGRATED
SKILL
INITIATIVE**

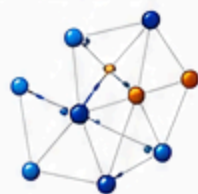
“Surface Characterization Techniques”



CSIR-NCL SKILL DEVELOPMENT PROGRAM

ABOUT COURSE

Surface analytical techniques play a crucial role in characterizing the properties and composition of materials at the atomic and molecular levels. These techniques enable scientists and researchers to gain valuable insights into the surface chemistry, elemental composition, and particle size distribution of various materials.



COURSE CONTENT

- BET Surface Analysis
- X-Ray Photoelectron Spectroscopy (XPS)
- Scanning Electron Microscopy - Energy Dispersive X-ray Analysis (SEM-EDAX)
- Ellipsometer Spectroscopy
- Raman Spectroscopy
- Transmission Electron Microscopy (TEM)
- Dynamic Light Scattering (DLS)

COURSE DETAILS

- Duration- 2 Week
- Dates- 06th July - 17th July 2026
- No. of Seats- 14
- Eligibility- M.Sc.(Chemical & Physical Sciences), MTech (Nanotechnology)
- Course Fees -
 - Students - 11,800 /-
 - Faculty - 24,780 /-
 - Industrial Professional - 50,740 /-(The fees stated include 18% GST)
- Accommodation-2 week + 2 days with affordable charges

WHY CHOOSE US

Here is the reason why

- ✓ More weightage on hands-on practice
- ✓ Interactive sessions
- ✓ Robust & sustainable training module
- ✓ Affordable fee structure
- ✓ Brief on career options
- ✓ Networking



PRIME INSTRUCTOR & TEAM

- Dr. Pankaj Poddar
- Dr. C. P. Vinod
- Dr. Shatabdi Porel Mukherjee
- Dr. Sayan Bagchi
- Mr. Ramakrishna Gholap
- Dr. Ratnesh Kumar Jha
- Dr. Rupali Waichal
- Mr. Umesh Katamkar

FOR WHOM

- Students
- Academic Researchers
- Industrial Professionals



HOW TO APPLY

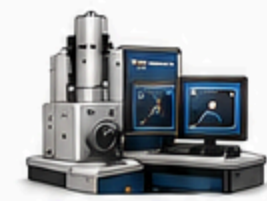
Application form is available at -
<http://www.ncl-india.org/files/SDP/Default.aspx>



BET



XPS



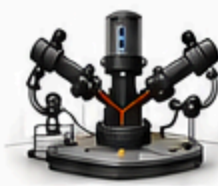
Scanning Electron Microscopy (SEM-EDAX)



Transmission Electron Microscopy (TEM)



Raman Spectroscopy



Ellipsometer Spectroscopy

Envalor
Imagine the Future

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