



**CSIR
INTEGRATED
SKILL
INITIATIVE**

CSIR-NCL SKILL DEVELOPMENT PROGRAM

"Surface Characterization Techniques"



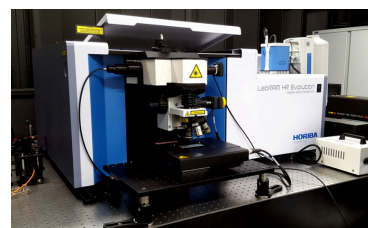
Elipsometer Spectroscopy



**Transmission Electron
Microscopy(TEM)**



XPS



Raman Spectroscopy



BET

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)
- Elipsometer Spectroscopy
- Raman Spectroscopy
- Transmission Electron Microscopy (TEM)



FOR WHOM

- Students
- Academic Researchers
- Industrial Professionals

HOW TO APPLY

Application form is available at -

<http://www.ncl-india.org/files/SDP/Default.aspx>

PRIME INSTRUCTOR

Dr. C. P. Vinod
Dr. Pankaj Poddar
Dr. Shatabdi Porel Mukherjee
Dr. Ratnesh kumar Jha
Dr. Rupali Waichal
Mr. Ramakrishna Gholap
Mr. Umesh Katamkar

COURSE DETAILS

Duration- 2 Week

Dates- 16 June - 27 June 2025

No. of Seats- 14

Eligibility- M.sc.(Chemical & Physical Sciences), MTech (Nanotechnology)

Course Fees -

Students	- 10,620 /-
Faculty	- 24,780 /-
Industrial Professional	- 50,740 /-

(The fees stated include 18% GST)
Accommodation-2 week + 2 days with affordable charges

Here is the reason why
WHY CHOOSE US



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



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



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