



# Hands-on Training Program on **Powder X-ray Diffraction and UV-Visible Spectroscopy**

Organized by Central Instrumentation Center (CIC), under the  
aegis of IQAC, A. N. College, Patliputra University, Patna

Date :- 12.02.2026 to 16.02.2026



## **Who can participate**

- ✓ PG students
- ✓ Ph.D. students
- ✓ Project fellows
- ✓ Teachers
- ❖ First come first serve
- ❖ Limited seats only

## **Topics to be covered**

- ❑ Crystallography and basic Principles of X-ray diffraction
- ❑ Diffractometer: Theory and Instrumental details
- ❑ Phase identification and crystallite size analysis along with visualization
- ❑ ICDD/COD database
- ❑ UV-Visible Spectroscopy- Theory and Experiment

## **XRD and UV- Vis Spectroscopy**

- XRD technique is used to determine the crystal structure, phase composition of the compounds
- UV-Vis is used to identify, quantify and analyse unknown substances

## **Resource Persons**

- Prof. Seema Sharma (Physics)
- Dr. Nisha Kumari (Chemistry)
- Dr. Ruchi Rashmi (Electronics)
- Dr. Kashif Shamim (Physics)

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Either click on the link or Scan for Registration

## **Registration Details:**

Registration Fee: ₹500

Last Date of Registration: 31<sup>st</sup> January 2026

## **Coordinator:**

Prof. Seema Sharma, CIC (Prof-In-Charge),  
A.N. College  
Email :- [seema\\_sharma26@yahoo.com](mailto:seema_sharma26@yahoo.com)

## **Contact for Technical / Lab Queries**

Kundan Kumar (Lab Incharge)  
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Note: Certificates will be issued on the last day of workshop



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**Time:- 10:00 AM - 5:00 PM**

## **DAY 1    12.02.2026**

- ☐ Inauguration - Principal, A.N. College, Patna
- ☐ Orientation - Prof. Tripti Gangwar (Dept. of Chemistry)
- ☐ Crystallography - Prof. Seema Sharma (Dept. of Physics)

## **DAY 2    13.02.2026**

- ☐ XRD – Lecture: 1 - Dr. Kashif Shamim (Dept. of Physics)
- ☐ XRD – Lecture: 2 - Dr. Seema Sharma (Dept. of Physics)
- ☐ Sample Preparation and Acquaintance with XRD Instrument - Mr. Kundan Kumar (C.I.C)

## **DAY 3    14.02.2026**

- ☐ Analysis of the XRD Sample data - Dr. Ruchi Rashmi (Dept. of Electronics)
- ☐ UV-Vis Spectroscopy – Lecture: 1 - Dr. Nisha Kumari (Dept. of Chemistry)

## **DAY 4    15.02.2026**

- ☐ UV-Vis Spectroscopy- Lecture: 2 - Dr. Nisha Kumari (Dept. of Chemistry)
- ☐ Sample Preparation and Analysis - Dr. Nisha Kumari (Dept. of Chemistry)

## **DAY 5    16.02.2026**

- ☐ Assessment and Evaluation
- ☐ Valedictory and Certificate Distribution