

HANDS ON TRAINING IN CONFOCAL RAMAN SPECTROSCOPY

3 DAYS
23 - 25
FEBRUARY
2026

Confocal Raman Spectrophotometer is an advanced analytical instrument that combines Raman spectroscopy with confocal optical microscopy, enabling highly sensitive, non-destructive chemical analysis with excellent spatial resolution. The technique is based on Raman scattering, where monochromatic laser light interacts with molecular vibrations, resulting in scattered light with characteristic energy shifts. These shifts provide a unique molecular "fingerprint" that can be used for qualitative and quantitative analysis.

Confocal Raman spectrophotometry is widely used for molecular identification, phase analysis, polymorph detection, and reaction monitoring. This includes characterization of organic and inorganic compounds, catalysts, polymers, pharmaceuticals and nanomaterials. It also pays an important tool for the detection and characterization of environmental pollutants such as microplastics, pigments, and fibres in water, sediments, and biological samples. Overall, the confocal Raman spectrophotometer is a powerful and versatile analytical tool that supports advanced chemical and environmental research by providing rapid, precise, and spatially resolved molecular information.

The workshop is intended to provide basics of Raman spectrophotometer to the participants along with instrumentation and practical experience in some of the applications. The expected target group for this programme is Post-graduate students, PhD scholars and other researchers from Research Institutions, Colleges and Universities.



Accommodation Availability:

Shared Room:
(RS. 500+GST/Day)

Dormitory:
(RS. 200+ GST/Day)

Course Fee:
Rs. 5000.00 + GST
per person
(Total Rs. 5900.00)

Bank: State Bank of India, Peechi Branch
Account Name: Registrar, KSCSTE-KFRI
Account No: 10554112507
IFSC code : SBIN0002255

Maximum
number of
participants:
10 Nos

Organisers:



OXFORD
INSTRUMENTS

Centre for analytical Instrumentation-Kerala (CAI-K),
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M/s. OXFORD Instruments, Bangalore

Contact Person
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Registration Link