ChemInstruments: Hands-On Experience in Analytical Chemistry

The chemInstruments Internship Program offers an exciting opportunity for aspiring chemists to gain hands-on experience with analytical instrumentation, including Fourier Transform Infrared (FTIR) Spectroscopy and UV-Visible Spectroscopy. This program is designed to equip participants with both theoretical knowledge and practical skills necessary to analyze complex chemical compounds and materials. Interns will be trained in the operation of high-precision instruments and result interpretation.

Over the course of the internship, participants will engage with a variety of laboratory activities, including sample preparation, instrument calibration and spectral data analysis. Emphasis will be placed on understanding the principles of spectroscopy, mastering instrument setups, and developing skills to interpret and present findings from FTIR and UV-Vis spectral data.

**Duration: 60 Hours

Key Learning Outcomes:

1. Understanding of Spectroscopic Techniques:
Gain a thorough understanding of **FT-IR** and **UV-Visible Spectroscopy**—key methods in chemical analysis. Learn how these techniques work, the theory behind them, and how they apply to identifying molecular structures, functional groups, and electronic transitions in various samples.

2. Hands-On Instrumentation Experience:
Develop practical skills by operating advanced FT-IR and UV-Vis spectrophotometers. Interns will work with real datasets to identify chemical properties, understand the significance of spectral peaks, and correlate results to the chemical composition of the sample.

3. Report Writing and Presentation Skills:
Interns will be encouraged to document their findings in clear, concise technical reports.

4. Application of Spectroscopy in Research and Industry:
Understand how FTIR and UV-Vis are applied across different industries, including pharmaceuticals, environmental monitoring, food safety, and materials science.

By the end of the internship, participants will be well-equipped to contribute to research or industrial projects involving spectroscopic analysis, and will have a strong foundation in the techniques and tools that are widely used in academic laboratories.

Eligibility: Pursuing UG course

Number of Seats Available:: 20 seats

Fee:Rs. 1000

Contact:

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Note
This program is ideal for undergraduate in chemistry, organic chemistry, material chemistry or related fields who are interested in gaining practical skills in analytical chemistry and instrumentation.