INTEGRAL UNIVERSITY

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A report on Guest Lecture by Dr. Christoph

2 messages

Mohd Aamir Qureshi <aamirq@iul.ac.in> Fri, Nov 7, 2025 at 11:31 AM
To: Head Bio-Sciences <headbios@iul.ac.in>

A guest lecture on"Characterization Methods and Colorful Data Analysis Methods" organized by the Department of Bioengineering and Department of Biosciences on 06- Nov-2025

The Department of **Bioengineering and Department of Biosciences** organized an enlightening **guest lecture** on **6 November 2025**, titled *"**Characterization Methods and Colorful Data Analysis Methods**"*, delivered by the distinguished scientist **Dr. Christoph**. The event was graced by **Prof. Snober S. Mir,** Head, Department of Biosciences, and **Prof. Alvina Faraqui**, Head, Department of Bioengineering, who jointly inaugurated the session and welcomed the esteemed speaker.

Dr. Christoph began his lecture by discussing the fundamental principles of **black body radiation**, explaining its importance in understanding the interaction between matter and electromagnetic radiation. He further elaborated on **colorimetric methods**, demonstrating how temperature variations influence current and voltage in a sample, thereby affecting its optical and thermal behavior.

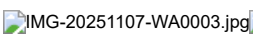
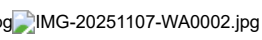
The speaker provided an in-depth overview of numerous **characterization techniques** essential for materials science and biosciences research. These included **absorption and UV-visible spectroscopy**, **fluorescence analysis**, **Dynamic Light Scattering (DLS)** for determining particle size distribution, **Atomic Absorption Spectroscopy (AAS)** for elemental composition analysis, **Scanning Electron Microscopy (SEM)**, **Transmission Electron Microscopy (TEM)**, **Raman spectroscopy**, and **X-ray Diffraction (XRD)**. He also elaborated on **interference phenomena** and **Infrared (IR) spectroscopy**, emphasizing how these tools help in identifying molecular structures, surface morphology, and compositional properties of biological and material systems.

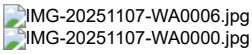
The lecture offered deep insights into how these methods collectively enhance data interpretation, contributing to cutting-edge research in **bioengineering, nanoscience, and analytical biochemistry**. The event witnessed active participation from over 5**0 research scholars and faculty members**, who found the session intellectually stimulating and highly informative.

The session concluded with a lively **Question and Answer round**, where participants engaged enthusiastically with Dr. Christoph. Their queries focused on the practical applications of spectroscopy, DLS and microscopy in experimental research. Dr. Christoph's comprehensive explanations and real-world examples provided great clarity and inspiration.

Overall, the lecture proved to be **informative, interactive, and impactful**, enriching participants' understanding of modern characterization and data analysis methods in scientific and engineering research.

The Glimpses of the events are as follows



Attachment: Notice of the event

Regards

Dr. Mohd Aamir Qureshi

Assistant Professor

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Head Bio-Sciences <headbios@iul.ac.in> Wed, May 13, 2026 at 7:08 PM
To: Taiba Saeed <taiba@iul.ac.in>, Mohd Aamir Qureshi <aamirq@iul.ac.in>

Best Regards
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