

### **ABOUT THE UNIVERSITY & DEPARTMENT**

Guru Nanak Dev University was established on November 24, 1969 to commemorate the 500<sup>th</sup> birth anniversary of Shri Guru Nanak Dev Ji, the founder of Sikhism. The UGC conferred this university with status of "University with Potential for Excellence" in 2012. The National Assessment and Accreditation Council (NAAC), Bangalore in December 2022 re-accredited the University in 4<sup>th</sup> cycle with CGPA of 3.85 out of 4-point scale at A<sup>++</sup> grade highest level, as per accreditation framework of NAAC. Apart from traditional areas of higher education, university has a reputation of promoting education and research in professional and technological fields, with the aim of creating human resources in the new but highly required areas in the country. In addition to academics, the University has the pride of winning the highest Inter-University National Sports Award of the country "Maulana Abul Kalam Azad" (MAKA) Trophy for a record number of 25 times.

The Department of Chemistry was established in 1971 and over a period of time it has emerged as one of the premier departments not only in the university but also has acquired a prestigious status at the national level. The department has been granted the status of "Centre of Advanced Studies". The Department of Science and Technology (DST) also sanctioned a grant of Rs. 256 lakh (2009–2014) and 295 lakh (2018–2022) under FIST. The state of the art instrumentations facilities are available in the department. The department offers M.Sc. (FYIP) Chemistry, M.Sc. Chemistry, M. Sc. (Pharmaceuticals) and Ph. D in frontline areas of chemical science. The research activities of the department focus on supramolecular chemistry, synthetic organic and inorganic chemistry, biological chemistry, chemistry of ionic liquids, electrochemistry, material, medicinal, surfactant chemistry, oils and fats chemistry, thermodynamics, analytical chemistry. The research projects are funded significantly by agencies like CSIR, SERB, UGC, DST, DRDO, DAE and DBT. The role of the department in the development of chemical sciences is evident from a significant number of research papers published/being published in high impact international journals of repute.

## **ABOUT THE WORKSHOP**

Nuclear Magnetic Resonance (NMR) is a powerful non-destructive analytical method for Chemistry, Materials science, Biology and Medicine. It helps in determination of chemical structures, properties and reactions of atoms, molecules in a liquid and solid phase. NMR technique is based on absorption of radiofrequency by the atomic nuclei of the molecules in the sample placed in a magnetic field. The emitted energy is converted into electrical signals and displayed in the form of a spectrum called NMR spectrum.

#### HIGHLIGHTS

It helps to understand the FT-NMR instrument via demonstration. The researchers would get the information about materials characterization.

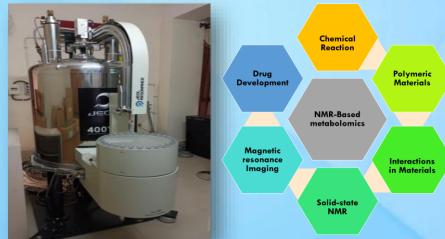
- Structural elucidation of organic compounds, proteins, and nucleic acids.
- To quantify the concentration of specific compounds in a mixture.
- Studying protein-ligand interactions, aiding drug development.
- To characterize materials like polymers, catalysts, and nanoparticles.

#### TARGET AUDIENCE

Beginners: those who are new to NMR technique.

Undergraduate and postgraduate students of science and engineering discipline looking for certified courses

Research scholars working in the area of Chemistry, Physics and Biology.



### **No Registration Fees** Receipt of application : September 19, 2024

**Our Sponsors** 

BRÚKÉR

Contact Information Dr. Amanpreet Kaur, Assistant Professor Department of Chemistry, GNDU Amritsar – 143005 Five days workshop on **NMR: Instrumentation & Applications** 

21<sup>st</sup>-25<sup>th</sup>, Oct 2024



PATRON Prof. (Dr.) Jaspal Singh Sandhu Vice-Chancellor, Guru Nanak Dev University, Amritsar

# **PROGRAM COORDINATORS**

Dr. Prabhpreet Singh Dr. Amanpreet Kaur



Department of Chemistry **GURU NANAK DEV UNIVERSITY** Amritsar – 143005, Punjab, INDIA Website: www.gndu.gc.in