VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

A Workshop on

UV, IR, NMR and Mass Spectral Techniques: Basic Principles and Their Applications for the Structural Elucidation of Small Molecules

November 8th & 9th 2025

Organized by

Department of Chemistry, School of Advanced Sciences

About VIT

Dr. APJ Abdul Kalam was right in stating, "Dreams transform into thoughts, and thoughts lead to action." This is exemplified by the Vellore Institute of Technology (VIT), which is the realization of Chancellor Dr. G. Viswanathan's vision. Established in 1984 as Vellore Engineering College, VIT has experienced tremendous growth and has become one of the premier institutions in India.

Our Strengths at a Glance

- Over 67, 000 students from across India and 54 different countries worldwide

- More than 1,900 fully qualified and highly experienced faculty members, along with 230 adjunct professors from foreign universities

- Over 280 Memoranda of Understanding (MoUs) with academic and research institutions in India and abroad

- 1,000 industry partners

- The highest number of research publications in India, according to the Scopus Database (2016-2022)

About the School

School of Advanced Sciences (SAS), consists of the Departments of Mathematics, Physics, and Chemistry. The school's vision is to provide high-quality teaching and research that exerts a significant impact on a global scale. Currently, SAS comprises a faculty of 283 experienced and dedicated professionals, including 145 in Mathematics, 64 in Physics, and 74 in Chemistry. Most of the faculty members possess high expertise in their research fields, demonstrated by extensive publications and successful research funding applications. Many have gained valuable experience at esteemed institutions both in India and internationally. The departments have also been recognized by the Department of Science and Technology (DST) under the Fund for Improvement of S &T Infrastructure in Higher Educational Institutions (FIST) for establishing sophisticated instrumental facilities.

SAS offers Master's programs in various disciplines, including Data Science, Computational Statistics, Data Analytics**,** Physics and Chemistry (with Analytical/Inorganic/Organic/General Chemistry/Pharmaceutical Chemistry as a specialization)**.** Our MSc Chemistry program is accredited by the Royal Society of Chemistry (RSC) and includes a full-time, six-month research-based capstone project in the fourth semester. In addition to traditional classroom and laboratory instruction, students are engaged in experiential learning through research participation. The Curriculum for Applied Learning (CAL) fosters the practical application of knowledge. The Semester Abroad Program (SAP) provides valuable international exposure, effectively preparing students for professional careers or advanced research degrees in both basic and applied sciences.

SAS offers Ph.D. programs in cutting-edge research areas across all three disciplines. Candidates are selected through a national-level examination followed by a comprehensive interview process, after which they engage in extensive coursework. Presently, there are 750 Ph.D. scholars (both full-time and part-time). Faculty members have been awarded national and international projects to the tune of 38.54 crores (5.166 million US Dollars) and they regularly publish their findings in internationally recognized SCOPUS-indexed journals while securing patents. SAS publishes over 500 SCOPUS-indexed publications annually, and the departments are equipped with multiple teaching and research laboratories with essential instruments for research activities. The School also offers valuable services to other institutions and regularly conducts extension programs, including conferences, workshops, seminars, and symposia on pertinent topics.

The subject of Chemistry in VIT is ranked within the top 10 in India and top 401-450 in the world as per QS World University Rankings by Subject 2024 and 14th place at National level with 4 STAR rating in QS World Ranking. In India, VIT has been ranked 15th among the top universities for Subject of Chemistry in Best Global Universities ranking by U.S. News & World Report. The subjects of Physics and Mathematics are also recognized, ranking between 201-250 globally according to the QS Subject Rankings and are placed within the top 7-8 & 7-9 in India respectively. Graduates of the program secure placements within reputable organizations both domestically and internationally and are successful in gaining admission for further studies in India and abroad.

About the Workshop

Ultraviolet (UV), infrared (IR), nuclear magnetic resonance (NMR), and mass spectral techniques are essential tools in chemistry. A solid understanding of their fundamental principles and applications is crucial for effectively elucidating the structure of small molecules. This knowledge enables researchers to navigate the complexities of compound identification and characterization. To facilitate this learning, the Department of Chemistry at the School of Advanced Sciences, Vellore Institute of Technology, is conducting a two-day workshop on “UV, IR, NMR, and Mass Spectral Techniques: Basic Principles and Their Applications for the Structural Elucidation of Small Molecules”.

Eligibility: The workshop is open to M.Sc. Chemistry students and 3rd-year B.Sc. Chemistry students.

Resource Persons and Coordinators

Dr. V. Vijayakumar, Professor, Department of Chemistry, SAS, VIT-Vellore
Dr. S. Sarveswari, Professor, Department of Chemistry, SAS, VIT-Vellore

Registration

Registration fee per participant is Rs. 120 + Rs. 22 as GST

Registration and payment details can be found in the link: https://events.vit.ac.in/

New users can register their name, e-mail address and create a password. Once you register, a link will be sent to your e-mail. You can activate your account using this link

Only registered participants are allowed to participate inthe event

Late date for the registration: 8th November, 2025

Venue: Smart Class Room, SMV-210 **Time: 9.30 AM- 5.00 PM**

We look forward to your participation! Accommodation facilities for out station students will be available in hostels upon request and will be provided on a payment basis.

Contact details: 9443916746: Dr. V. Vijayakumar (vvijayakumar@vit.ac.in)