

**TUMKUR  UNIVERSITY**  
**UNIVERSITY COLLEGE OF SCIENCE**  
**DEPARTMENT OF CHEMISTRY**

**REPORT**

**on**

**One day UGC-CPE sponsored skill development  
workshop**

**on**

**“Spectroscopic methods for analysis of simple  
compounds/molecules”**

**held**

**on**

**17<sup>th</sup> July 2018**

## REPORT

The Department of Chemistry, University College of Science, Tumkur University, Tumakuru had organized UGC-CPE sponsored one day workshop on 'Spectroscopic methods for analysis of simple compounds/molecules' on 17<sup>th</sup> July 2018 at Room No. F-75, 1<sup>st</sup> floor, Department of Chemistry, University College of Science, Tumkur University. The workshop mainly aimed at providing an opportunity for final year B.Sc. students of the University College of Science, Tumkur University to provide hands on training in enhancing their skills in data interpretation and analysis of simple compounds/molecules in the field of spectroscopy. Spectroscopy is one of the important techniques used in academics as well as in industries and training students on the above subject would be beneficial to the bachelor's degree students who have opted chemistry as one of the subject.

The inaugural session of the workshop was held at 10.00 AM. The Chief Guests of the session were Dr. Channegowda, Professor, Department of Chemistry, Mysore University, Mysore and Dr. Shet Prakash M, Coordinator-PG Chemistry, University College of Science, Tumkur. Dr. G R Vijaukumar, Former HOD and Dr. T N Ramesh, HOD, Department of Chemistry, University College of Science, Tumkur were present on the occasion and Smt. Shalini, Principal, University College of Science, Tumkur, presided over the function.



The program started with an invocation. The welcome address was delivered by Dr. Raghavendrakumar P from Department of Chemistry, University College of Science and briefed about the objective of the skill development workshop. The guests of the workshop inaugurated by lighting the lamp. In the inaugural address, Prof. Channegowda had shared his views on the significance of conducting skill development workshop. Prof. Channegowda advised students to make use of such skill development workshops organized by the department. Ramesh T N, HOD-chemistry mentioned that the theme of the workshop in addition to enhancing the skills of the students will be useful for their academics as spectroscopy is one of the theory paper for final year BSc students. In a presidential remark,

Smt. Shalini B R, Principal, UCS, expressed her willingness and enthusiasm to assist and promote the department to conduct more such programs so that the student fraternity of our college shall stand better in terms of skills and knowledge related to such topics compared to their contemporaries. After the presidential remarks, Smt. Savitha K R proposed vote of thanks.

In the first session, Dr. Narendra N introduced the resource person to the gathering. Prof. Channegowda. In first session of the workshop, Sir had explained the fundamental concepts in the spectroscopy. The second session focused on the basic principles of UV-visible and NMR spectroscopic technique. Prof. Channegowda mainly focused on the Nuclear Magnetic Resonance Spectroscopy (NMR). The participants took note of each lecture. Questions and free-ranging discussions invariably spilled over into the breaks between lectures in the session. All the participants were inspired and motivated by his talk. Spectroscopic methods provide with very useful qualitative and quantitative information about the molecules/compounds. Infrared spectroscopy is considered as powerful, fast, accurate and non-destructive analytical tool that can be considered as a replacement of traditional chemical analysis. Dr. Shet Prakash M explained the modern theories to explain the basic concepts of molecular vibrational spectroscopy. Dr Shet Prakash described the importance of infrared spectroscopy in interpretation of simple molecules and compounds. The participants had questions and the resource person had responded.



After lunch break, students visited research laboratories in the Prof. C N R Rao Block, Tumkur University for hands on training session. Mr. Golla Ramesh and Mr. Satheesh M and Mr. Manjunath D L assisted students to organize themselves for the hands on training of Infrared spectrometer, UV-visible spectrometer, Polarimeter. After experimental demonstrations and training on the above equipments, Dr. Pooja Kamath and Dr. M K Shivananda had distributed handout to all the students and were given hints to identify the molecules/compounds using the spectra given. Students actively participated, analyzed and could interpret the structure of the unknown compounds given to them based on the

knowledge gained from theory as well as experiments performed during the workshop. Dr. Ramesh T N proposed vote of thanks at the end of the workshop. He thanked the resource persons of the afternoon session: Dr. ShetPrakash M and Dr. MK Shivananda for sharing their expertise in interpretation of NMR, IR and UV-visible spectroscopy and extending their assistance to students to enhance their skills. He also expressed deepest gratitude to Principal, University College of Science and administrative staff of University College for providing valuable support for the successful completion of the workshop.



52 students of final year B.Sc students, faculty of the department had participated in the workshop. Feedback from the students was collected and majority of them are of the view that more number of such workshops should be conducted in future. In the valedictory program, the participants especially the students expressed their happiness and expressed their views. They appreciated the coordinator and mentioned that the workshop was well organized, lectures were very interesting, and suggested the department of chemistry, to conduct many more workshops like this in future

Date:

HOD