**Registration Form**

**Workshop on 1D and 2D NMR Spectroscopic Techniques**

January 21-22, 2016

**Personal Details**

Name:

Designation:

Institution/Industry:

Address for Communication:

Telephone:

Mobile:

E-mail:

**Payment Details**

DD No:  

Amount in Rs.:

Bank:

Date:

**Signature of the participant**

Date:

Station:

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**Registration Fee Details**

Students: Rs. 500/-

Faculty: Rs. 1000/-

Industrial Persons: Rs. 1500/-

DD should be drawn in favour of “The Director, NIT, Tiruchirappalli” Payable at Tiruchirappalli.

Based on the availability, accommodation will be arranged in the guest house/hostel of the institute upon request. Charges have to be borne by the applicant.

Registration form completed in all aspects is to be sent to:

**Dr. S. Velmathi**

Associate Professor

Department of Chemistry

National Institute of Technology

Trichy-620 015

Tamil Nadu

Tel: 0431-2503640

Mobile: +91-9486067404

E-mail: velmathis@nitt.edu

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**Workshop on 1D and 2D NMR Spectroscopic Techniques**

January 21-22, 2016

**Convener**

**Dr. S. Velmathi**

**Organized by**

Department of Chemistry

National Institute of Technology

Tiruchirappalli- 620 015

www.nitt.edu
About The Institute
The National Institute of Technology (formerly known as Regional Engineering College) Tiruchirappalli is one of the most pioneering education institutions in the country serving to the society of five decades. It has been always striving so hard with the great enthusiasm and charm to keep itself a breast with the latest developments in science and technology that occur in and around the world. At present, ten under graduate programs are offered besides Ph.D in all departments.

About The Department
Our Department has a long history of providing PG in general chemistry and research program in frontier areas of chemistry and acquires excellent facilities, sophisticated equipments, especially, 500 MHz Bruker NMR Spectrometer and well equipped laboratories. The department has been affianced in imparting the highest level and quality of academic education and has focused upon addressing key scientific problems which have gathered national level appreciation. The department has been receiving funds from various funding agencies, CSIR, DRDO, DST

Scope of the Course
NMR spectra are unique, well-resolved, analytically tractable and often highly predictable for small molecules. Thus, in organic chemistry practice, NMR analysis is used to confirm the identity of a substance. Different functional groups are obviously distinguishable, and identical functional groups with differing neighboring substituent still give distinguishable signals. NMR has largely replaced traditional wet chemistry tests such as color reagents for identification.

Two-dimensional NMR spectra (2D-NMR) provide more information about a molecule than one-dimensional NMR spectra and are especially useful in determining the structure of a molecule, particularly for molecules that are too complicated to work with using one-dimensional NMR. A common goal of these investigations is to obtain high resolution 3-dimensional structures of the protein, similar to what can be achieved by X-ray crystallography.

Two-dimensional nuclear magnetic resonance spectroscopy (2D NMR) is a set of nuclear magnetic resonance spectroscopy (NMR) methods which give data plotted in a space defined by two frequency axes rather than one. Types of 2D NMR include correlation spectroscopy (COSY), J-spectroscopy, exchange spectroscopy (EXSY), and nuclear Overhauser effect spectroscopy (NOESY).

The scope of the workshop is to make clarity on the basics, instrumentation and experiments of NMR Spectrometer. Characterization of the organic molecules by 1D and 2D NMR spectroscopic techniques would be lectured clearly to the core.

Resource persons from academic institutes and industries will handle the lectures and demonstration.

Who can participate?
PG students, Research Scholars, Faculties and Industrial persons could participate in the workshop.

Important Dates
Deadline for the registration 18.01.2016
Intimation of the selection (by email only) 19.01.2016

Limited Seats are available. The selection will be on the basis of first come first serve.