

# Course on Supramolecular Photochemistry

## Overview

**Supramolecular chemistry** refers to the domain of chemistry beyond that of molecules and focuses on the chemical systems made up of a discrete number of assembled molecular subunits or components. Important concepts that have been demonstrated by supramolecular chemistry include molecular self-assembly, folding, molecular recognition, host-guest chemistry, mechanically-interlocked molecular architectures, and dynamic covalent chemistry. Biological systems are often the inspiration for supramolecular research.

Internationally renowned professor with experience and expertise in the proposed research field will deliver the lectures and tutorial sessions in the course. This course will help to understand variety of research areas, including porous materials, reactions in confined spaces, excited state chemistry etc.,

## Objectives

- Introduce the concepts of supra molecular chemistry and their photophysical properties
- Recent research trends in the field of supramolecular chemistry
- Scope of the reactions in confined spaces
- Photochemistry of supramolecules

<b>Modules</b>	<b>Supramolecular photochemistry: January 05-12, 2017</b> <b>Number of participants for the course will be limited to 50.</b>
<b>You Should Attend If...</b>	<ul style="list-style-type: none"><li>▪ Undergraduate, Postgraduate, PhD students and Faculty in Chemistry/ /Physics/Material science, and allied engineering disciplines.</li><li>▪ Early career, Middle level and senior scientists working in the field, supramolecules, host -guest chemistry, Fluorescent molecules, nano drug delivery systems requiring an in-depth understanding of photo physical properties of molecules in confined spaces can learn and gain competitiveness</li><li>▪ Scientists and research fellows from Government/Public sectors research organizations</li></ul>
<b>Fees</b>	The participation fees ( <b>Excluding Lodging &amp; Boarding</b> ) for taking the course is as follows: <b>Student Participants without/with Grading : Rs. 500/Rs. 1,000</b> <b>Faculty (Internal &amp; External) &amp; Scientists : Rs. 3,000</b> <b>Persons working in Industry / Consultancy firms : Rs. 6,000</b> <b>Student Participants from Abroad : USD 50</b> <b>Other Participants from Abroad :USD 100</b> The above fee include all instructional materials, computer use for tutorials and assignments, laboratory equipment usage charges. The participants will be provided with accommodation on payment basis.
<b>How to Register</b>	Stage 1:Web (Portal) Registration: Visit GIAN Website at the link: <a href="http://www.gian.iitkgp.ac.in/GREGN/index">http://www.gian.iitkgp.ac.in/GREGN/index</a> and create login User ID and Password. Fill up blank registration form and do web registration by paying Rs. 500/- online through Net Banking/ Debit/ Credit card. This provides the user with life time registration to enrol in any no. of GIAN courses offered. Stage 2: Course Registration (Through GIAN Portal): Log in to the GIAN portal with the user ID and Password created. Click on "Course Registration" option given at the top of the registration form. Select the Course titled "supramolecular photochemistry" from the list and click on "Save" option. Confirm your registration by Clicking on "Confirm Course". Only Selected candidates will be intimated through E-mail by Course Co-ordinator. They have to remit the necessary course fee in the form of DD drawn in favour of 'The Director, NIT, Tiruchirappalli-15' payable at SBI-NIT-Tiruchirappalli.

# The Faculty



**Prof. V. Ramamurthy** is currently working as Professor of Chemistry, University of Miami, Coral Gables. Before moving to Miami, he was working in the Department of Organic Chemistry, Indian Institute of Science, Bangalore, India and as *Bernard-Baus Professor of Chemistry*, Tulane University, New Orleans, LA. His research interests are molecular and supramolecular photochemistry. He has received many awards including **Indian National Academy of Sciences Golden Jubilee Research Fellow, Fellow of the Indian Academy of Sciences, Grammatikakas–Neuman Prize of the European Photochemical Society, Fulbright Fellowship, Chemical Research Society of India (CRSI) Medal, Fellow of the American Chemical Society, Japan Society for Promotion of Science (JSPS) Invitation Fellow, Fulbright-Nehru Distinguished Chair etc.**, So far he has guided 42 Ph.D scholars and published 385 papers in highly reputed international journals. Authored many books and monographs on molecular and supramolecular photochemistry. **Served in the Editorial Board of journals like Langmuir (1998-2004) Indian Journal of Chemistry: B (1995-2000) Journal of Photochemistry: C (2001-current) Journal of Photochemistry: A (2002-current) Supramolecular Catalysis (2014-current) and currently senior Editor of Langmuir (ACS publication).** He has visited many universities and institutes in world for giving invited lectures and hold visiting professor position in many universities. Organised many conferences as chair professor.



**Dr.S.Velmathi** is an associate professor in the Chemistry Department of the National Institute of Technology Tiruchirappalli, Tamil Nadu. After her Ph.D she received Post Doctoral Fellowship from AIST, Japan and worked for three years at National Institute of Advanced Industrial science and Technology, AIST, Tsukuba, Japan. She holds visiting professorship in institutes like National Institute of Materials Science, Japan, Dong A University, Busan, South Korea, National Chiao Tung University, Taiwan and University of Connecticut USA. Received the prestigious **Tamil Nadu Young Women Scientist Award-2012** for Chemical Sciences. Also selected to receive the **INSA Bilateral Exchange Fellowship-2015**. She is an elected **Fellow of Tamil Nadu Academy of Sciences, Chennai**. Her major research areas of interest are Fluorescent chemo sensors, asymmetric synthesis, and catalysis. To her credit she has published more than 100 papers in highly reputed international journals. She has delivered invited lectures in many national and international conferences. So far 7 Ph.D and 33 Masters Students have graduated under her guidance and currently 8 scholars are doing their Ph.D degree under her supervision. She is a Life member in Chemical Research Society of India, Life member in Catalysis Society of India, Life member in Materials Research Society of India.

## Course Co-ordinator

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