Chemical Kinetics and Reaction Mechanisms in Transition Metal Chemistry (CKRMTMC-19), 07-11 Jan 2019

Sponsored by: Ministry of Human Resource Development – Global Initiative of Academic Network (GIAN)

Organized by: School of Chemistry Bharathidasan University Tirchirappalli 620 024

सत्यमेव जयते

Registration Number						

REGISTRATION FORM

Name of the Participant : **Prof/Dr/Mr/Ms/Mrs**

Please tick : **Faculty /Student/Industry**

College / Institute :

University :

Address for communication :

E-mail :

Mobile No :

Date :

ACCOMODATION* : **YES/NO**

DD Number/Amount/Date and Bank details# :

Signature of Participant

Signature
Head of the Department / Institution

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*On payment basis
DD in favor of "The Course Coordinator, CHEM-GIAN Programme, Bharathidasan University, Tiruchirappalli" payable at Trichirappalli and for the fee details please see the attached brochure

To contact :**Email ID: gianbduchem@gmail.com and l.nagarajan@bdu.ac.in phone:9585016613 and 9843589418**
Last date to apply:02/01/2019 23.59 hrs

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ABOUT TRICHY

Tiruchirappalli is one of the ancient cities located at the centre of the state of Tamilnadu. The recorded history begins from the great king Karikalan of Chola dynastry who ruled over the entire southern region of India from Uraiyur city as the capital. He built the "Grand Anaicut" (known as Kallanai in Tamil language) across the "Kaveri" river in Tiruchirappalli in order to divert the waters of the Kaveri across the fertile delta region for irrigation. Down stream of the barrage, the river Kaveri splits into four streams known as Kollidam, Kaviri, Vernaru and Puthu Aru.The 83 metre high 3.8 billion years old rock contained a very well built rockfort temple is one of the important landmark of tiruchirappalli city. The city experiences a tropical savannah climate with no major change in temperature in summer and winter. Rainfall is heavier during north-east monsoon season. Notable persoralities such as Nobel laurate Dr Sir C V Raman is born in this city while former presidents R. Venkataraman and Dr. APJ Abdul Kalam, were educated at this city.

ABOUT BHARATHIDASAN UNIVERSITY

It is established in Feb 1984 and was named after the poet Bharathidasan. The University has totally 4 Faculties, 17 Schools, 35 Departments and 10 Specialized Research Centres. The main campus located in an area of 632 acres in Palkalaiperur. The motto of the University "We will create a brave new world" has been framed from Bharathidasan's poetic words "புதியதோர் உலகம் செய்வோம்".

SCHOOL OF CHEMISTRY

The School of Chemistry, Bharathidasan University made its humble beginning in 1977 as a research department of Madras University Post Graduate Center. Upgraded as School of Chemistry in 2004, it offers M.Sc, M.Phil, Ph.D courses and has acquired a prominent position in the academic map of India. All the nine faculty members have chosen to work on the modern and thrust areas in Chemistry, generated more than 90 Ph.Ds and published more than 800 quality research papers so far. Almost all the faculty members have undertaken sponsored research projects funded by various National agencies and have successfully completed more than 50 individual research projects. They have won several National and International honors and recognitions. Several international exchange visits regularly taken up by our faculty members have improved the quality of our teaching and research programs enormously.Now, impressed by the excellent and steady progress made by the School, DST has sanctioned Rs.3.1 crores and UGC has upgraded our School from DRS II level to Department of Special Assistance (DSA) to set up world-class sophisticated instruments facilities

THE COURSE:

Since Werner's ground-breaking discovery, coordination chemistry has played an enormous role in many aspects of chemistry, not the least in homogeneous catalysis and the understanding of metallcenzymes. Almost all the chemical process in nature involves a fair amount of complex coordination chemistry in it. For example, the natural photosynthesis involves various metal icns such as Mg^{2+}, $Mn^{2+/3+/4+}$, $Fe^{2+/3+}$ in their variable oxidation states without which the photosynthesis wouldn't be completed. Detailed spectroscopic technique have revealed the mechanism of photosynthesis and further elaborate the involvement of photosystem I (PSI) and photosystem II (PSII). After all the studies we now know that oxygen is evolved from water and not from carbon dioxide. Similarly, many process in homogenous catalysis (hydrogenation, hydroformylation etc) have been studied in great detail. Key to understanding mechanisms is the chemical kinetics which is a branch of chemistry that addresses the rate of chemical reactions and how this is related to the mechanism. This course work will elaborate the essential component of chemical kinetics in relation to transition metal chemistry and also many important aspects of transition metal organometallic chemistry and coordination chemistry with respect to their reaction mechanism.

VISITING FACULTY

Ola F. Wendt received his post-graduate and Ph.D degree at Lund University (1992-97) under Lars Ivar Elding. He then moved to Caltech in Pasadena to do postdoctoral work with John Bercaw. He was appointed assistant professor at Lund University in 2000 on a Swedish Research Council grant. He became "Docent" in 2003 and is since October 2007 he holds a Special Research position in Green Chemistry sponsored by the Swedish Research Council. In February 2010 he became a full professor of Inorganic Chemistry and since January 2018 he is Deputy Head of the Department of Chemistry. His research interest is on organotransition metal chemistry and the goal is to find and develop organometallic reactions with possible applications in catalysis. Activation of smal molecules is a major theme in the group. Also, developing new catalysts for C–H activation with ligands that render the metal centre more reactive and that allow for binding of the catalyst on a solid support. He always try to understand reaction mechanisms in as much detail as possible using, inter alia, kinetics measurements and spectroscopic identification of inter-mediates.In looking for new catalysis he also develop the basic organometallic chemistry of e.g. pincer ligands and complexes. He has supervised thirteen Ph.D scholars, eleven post-docs and more than 50 graduate level and under-graduate level students. He co –authored 127 publication with h-index of 22.0.

THE COURSE COORDINATOR

Dr. Nagarajan Loganathan obtained his master's degree from Indian Institute of Technology, Madras (IIT-Madras, 2003), doctoral degree under Prof. Vadapalli Chandrasekhar in March 2009 from IIT Kanpur (2009). He worked as Post-doctoral researcher in Centre for Analysis and Synthesis (CAS), Lund University Sweden (with Prof. Ola F Wendt) and University of the Freestate, Bloemfontein (UFS-Bloem), South Africa (with Prof. Andreas Roodt). Since Dec-2014 he is an UGC – Assistant Professor in inorganic chemistry at School of Chemistry, Bharathidasan University (BDU-Trichy), Tamilnadu, India recruited under UGC-Faculty Recharge Programme, UGC -India. Since then he has guided four M.Phil students and thirteen M.Sc students. Currently seven Ph.D scholars, one M.Phil and seven M.Sc students are working under him. His research interest is on structural chemistry of Transition metal organometallic compounds for medicinal and catalytic applications. He is the member of South African Crystallographic Institute (SACI since 2013), European Crystallographic Association since 2013. He co –authored 21 publication with h-index of 8.0.

How to apply?

The workshop is aimed for maximum of 100 participants who may be Young researchers (M.Sc., M.Phil and Ph.D students) / Young Teaching Faculty at the college level any where from India and abroad. The fee will be accepted in the form of demand draft (DD) in favour of "The Course Coordinator, CHEM-GIAN programme, Bharathidasan University, Tiruchirappalli" payable at Tiruchirappalli. Spot registration will not be accepted. DD shall be sent to below address along with registration form.

Further details, Please contact Course Coordinator:

Dr. Nagarajan Loganathan,
UGC – Assistant Professor, School of Chemistry
Bharathidasan University,Tiruchirappalli 620 024.
E-Mail: l.nagarajan@bdu.ac.in / gianbduchem@gmail.com
Cell:+91 - 9585016613,9843589418

Course Registration Fee

Participants from India:

Faculties / Scientists	: Rs. ~~3,000/-~~ 1500/-
Students (Ph.D.,/M.Sc., / M.Phil.,)	: Rs. ~~2,000/-~~ 1000/-
Industry / Research Organizations	: Rs. ~~5,000/-~~ 3000/-
SAARC Countries	: US$ ~~400~~ 200
Non-SAARC Countries	: US$ ~~500~~ 250
Registration Open	: 09 Nov 2018
Registration Closed	: 02 Jan 2019

Registration fee includes course materials and lunch only. Accommodation based on payment basis in the BDU guest house (Limited seats) and hotels

Confirmation of registration will be communicated to the participants by email on 03/01//2019.

http://www.bdu.ac.in/events/GIAN-Chemistry.pdf