

Science Academies Sponsored Three Days Lecture Workshop on

## Emerging Trends in Chemistry

December 18 - 20, 2015

Organised by

Department of Chemistry, St. Joseph's College (Autonomous), Tiruchirappalli

*Sponsored by*

**INDIAN ACADEMY OF SCIENCES (IAS), Bangalore**  
**INDIAN NATIONAL SCIENCE ACADEMY (INSA), New Delhi**  
**THE NATIONAL ACADEMY OF SCIENCES INDIA (NASI), Allahabad**

### Programme & Lecture Schedule

<b>18.12.2015 Friday</b>		
09.00 am – 10.00 am	Registration	
10.00 am – 10.30 am	Inaugural Session	
	Welcome Address	<b>Dr. S. R. Bheeter</b> , HOD
	About Lecture Workshop	<b>Prof. M. Palaniandavar</b> , IITB
	Presidential Address	<b>Rev. Dr. F. Andrew</b> , SJ Principal
	Felicitations	<b>Rev. Dr. S. John Britto</b> , SJ Rector <b>Rev. Dr. S. Sebastian</b> , SJ Secretary
	Inaugural Address	<b>Prof. M. Lakshmanan</b> Bharathidasan University
	Vote of Thanks	<b>Dr. S. Britto</b> Coordinator, LWS
10.30 am – 10.45 am	Tea Break	
10.45 am – 12.00 pm	Technical Session - I	Chair: Prof. R. Murugavel
	<b>Prof. Dr. M. Palaniandavar</b> IITB	<b>Structure and Function of Metallo-biomolecules</b>
12.00 pm – 01.15 pm	Technical Session - II	Chair: Prof. M. Palaniandavar
	<b>Prof. Dr. R. Murugavel</b> IITB, Mumbai	<b>100 Years of Chemical Bonding</b>
1.15 pm – 02.00 pm	Lunch	

02.00 pm – 03.15 pm	Technical Session - III	Chair: Prof. M. Palaniandavar
	<b>Prof. Dr. R. Murugavel</b> IITB, Mumbai	<b>New Developments in the Chemistry of Porous Solids</b>
03.15 pm – 03.30 pm	Tea Break	
03.30 pm – 04.45 pm	Technical Session - IV	Chair: Prof. R. Murugavel
	<b>Prof. Dr. M. Palaniandavar</b> IITB, Mumbai	<b>Metal Complexes as Probes for DNA Structure</b>
04.45 pm – 05.30 pm	Technical Session - V	Chair: Prof. M. Palaniandavar
	<b>Dr. V. Raja</b> IITK, Kanpur	<b>Nickel Containing Enzymes, Functions and Their Environmental Importance</b>
<b>19.12.2015 Saturday</b>		
09.30 am – 10.45 am	Technical Session - VI	Chair: Prof. M. Palaniandavar
	<b>Prof. Dr. S. Muthusamy</b> Bharathidasan University	<b>Rhodium(II) Catalyzed Synthesis of Macrocyclic Esters - I</b>
10.45 am – 11.00 am	Tea Break	
11.00 am – 11.15 am	Group Photo	
11.15 am – 12.30 am	Technical Session VII	Chair: Dr. V. Subramanian
	<b>Prof. Dr. S. Muthusamy</b> Bharathidasan University	<b>Rhodium(II) Catalyzed Synthesis of Macrocyclic Esters (Part II)</b>
12.30 am – 01.30 pm	Lunch	
01.30 pm – 02.45 pm	Technical Session VIII	Chair: Prof. S. Muthusamy
	<b>Dr. V. Subramanian</b> CLRI, Chennai	<b>Prediction of Vibrational Spectra of Small Molecules using Computational Chemistry Tools</b>
02.45 pm – 03.00 pm	Tea Break	
03.00 pm – 04.15 pm	Technical Session IX	Chair: Prof. M. Palaniandavar
	<b>Dr. R. Mayil Murugan</b> Madurai Kamaraj University	<b>Iron(II)-Based PARACEST MRI-Contrast Agents</b>
04.15 pm – 05.30 pm	Technical Session X	Chair: Prof. M. Palaniandavar
	<b>Dr. V. Subramanian</b> CLRI	<b>Prediction of Nuclear Magnetic Resonance and Electronic Spectra of Small Molecules using Density Functional Theory</b>
<b>20.12.2015 Sunday</b>		
09.30 am – 10.45 am	Technical Session XI	Chair: Prof. S. Natarajan
	<b>Prof. Dr. E. Arunan</b> IISc Bangalore	<b>Why Do Molecules Absorb/Emit radiation?</b>

10.45 am – 11.00 am	Tea Break	
11.00 am – 12.15 pm	Technical Session XII	Chair: Prof. E. Arunan
	<b>Prof. Dr. S. Natarajan</b> IISc, Bangalore	<b>The Usefulness of Transition Metals in Inorganic Colors</b>
12.15 pm – 01.30 pm	Technical Session XIII	Chair: Prof. E. Arunan
	<b>Prof. Dr. E. Arunan</b> IISc, Bangalore	<b>Molecular Beam Microwave Spectroscopy</b>
01.30 pm – 02.15 pm	Lunch	
02.15 pm – 03.30 pm	Technical Session XIV	Chair: Prof. S. Natarajan
	<b>Prof. Dr. S. Natarajan</b> IISc, Bangalore	<b>Hard and Soft Acids and Bases</b>
03.30 pm – 04.00 pm	Valediction	
04.00 pm	High Tea	

## List of Experts

1. Prof. Dr. R. Murugavel, FASc, FNA  
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2. Prof. Dr. M. Palaniandavar, FASc, FNA  
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3. Prof. Dr. S. Natarajan, FASc, FNASc, FNA  
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4. Prof. Dr. E. Arunan, FASc  
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5. Prof. Dr. S. Muthusamy  
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6. Dr. V. Subramanian, FASc, FNASc  
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