



Science Academies' Refresher Course in Recent Advances in Chemistry 14–26 December 2015

Sponsored by
Indian Academy of Sciences, Bengaluru
Indian National Science Academy, New Delhi
The National Academy of Sciences, India, Allahabad

In collaboration with
Department of Chemistry, A. S. College, Deoghar, Jharkhand
(Under S. K. M. University, Dumka, Jharkhand)
and
Department of Applied Chemistry, BIT, Mesra
(Deoghar Campus), Deoghar, Jharkhand

A Refresher Course in **Recent Advances in Chemistry** for college/university teachers and research scholars will be organized at BIT, Mesra (Deoghar Campus) in association with A. S. College, Deoghar, Jharkhand for two weeks from **14 to 26 December 2015**. The Course is aimed at teachers teaching at UG/PG level and research scholars. The Course will cover both basic and advanced topics in Chemistry through lectures and tutorials. College/university teachers having at least a Master's degree in Chemistry are eligible to apply.

Topics: Selected topics in a standard UG/PG level course syllabus will be covered. There will be four modules:

1. **Module 1:** Basic Quantum Chemistry, Symmetry and Group Theory, Spectroscopy, NMR, FTIR, Mass Spectrometry and their applications
2. **Module 2:** Density Functional Theory and Molecular Modelling, Computational Chemistry and Weak Interactions, Computer Simulations
3. **Module 3:** Reaction Dynamics, Thermodynamics and Kinetics, Electrochemistry
4. **Module 4:** Green Chemistry, Nano materials, Nano materials as Catalyst in Organic Synthesis. Organic synthesis and Reaction Mechanism

Confirmed resource persons: Bidyendu Deb (VB), Amalendu Chandra (IIT Kanpur), G. Narahari Sastry (IICT), P. K. Chattaraj (IIT Kharagpur), Subramanian Venkatesan (CLRI), Susanta Mahapatra (UoH), Swapan K. Ghosh (BARC) and B. C. Ranu (IACS, Calcutta).

Course Director: Prof. P. K. Chattaraj (IIT Kharagpur)

Course Co-ordinator

Dr Bijoy K. Choudhary
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Co-coordinator

Dr S. S. Majhi
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Teachers/research scholars who wish to participate in this Refresher Course should submit their completed application form online by clicking on the following link:

<http://web-japps.ias.ac.in:8080/Refreshcourse/RCRC.jsp>

A hard copy of the application through the Head of the institution should also be sent by speed post to: **Dr Bijoy K. Choudhary**, Course Coordinator, Department of Chemistry, A. S. College, Deoghar 814 112, Jharkhand. For any other query, applicants can send an e-mail to: bkc958skmu@gmail.com or ssmajhi@bitmesra.ac.in

Last date for the receipt of online application: **20 September 2015**.

The selected outstation participants will be provided with local hospitality and round-trip bus/train (3-tier AC) by the shortest route.