

Issue - 38
May 2012

Jawaharlal Nehru Centre for Advanced Scientific Research

Jakkur P.O., Bangalore-64

(A Deemed to be University)

JNC

NEWS

Focus

Dear Colleagues

The Centre has been recording an impressive growth in research and academic programmes. The recognition that the faculty members have received is an evidence of such progressive endeavour. Prof. CNR Rao has been honoured with the Einstein Professorship of Chinese Academy of Sciences.

It's heartening to know that JNCASR is ranked one among the top 10 Indian institutions in quality proxies as per SCImago Institutions Ranking (SIR) World Report 2011 based on Scopus data. Let me congratulate all the faculty colleagues for this unique distinction.

The new infrastructural facilities like CCMS, EOBU Lab, Nano Sciences, Seminar/Lecture Hall Complex are coming up and a new visiting students hostel is already ready and functional.

M R S Rao

President



inside this issue...

From the Editor's Desk	Fluid Dynamics Colloquia
Short Term Appointments	Discussion Meetings
Intellectual Property	Schools/Workshops/Symposia
Awards and Recognitions	Seminars
International Centre for Materials Science	Other Programmes
Endowment Lectures	Forthcoming Meetings
	Annual Faculty Meeting

From The Editor's Desk

The Centre has recorded some significant progress in academic and extension activities. The current student strength is 268. 8 students had joined the Centre for the mid-year admissions of 2011 -12 during January 2012.

12 students have been awarded Ph D, 3 M S (Engg) degree, 4 M S (in Materials Science), 3 MS in Biological Science and 1 MS in Chemical Science.

In the newly launched programme - Post Graduate Diploma in Science Education (PGDSE) 2 students had joined during August 2011. One student will be awarded the Diploma certificate this year. For the year 2012, advertisement was released in several newspapers. Around 700 applications were received. This programme is presently offered in the areas of Chemistry, Physics and Biology.

FELLOWSHIPS AND EXTENSION PROGRAMMES

Under SRFP and JNCASR-CICS (formerly known as CCSTDS) fellowship programmes 2012, 84 and 5 fellowships have been offered and utilized respectively. 11 fresh fellowships under POCE and 10 fellowships under the POBE programme, were offered for 2012. Ten students in POCE and 10 students joined the POBE programme on May 14 and 21 2012. Batch of 2010 will receive their Diploma in Chemistry and Biology and the batch of 2010 have returned for their training during this period to work under their respective faculty in the Centre. So far, 26 students have received the Diploma certificate in Chemistry and Biology each. In 2011-12 for Visiting Fellowship programme, the Centre had selected 7 scholars under the Physical Sciences category and 3 under the Biological Sciences category. 4 Visiting Fellows have completed the 1st spell of the programme, 3 are yet to join, 2 are presently undergoing the programme and 1 has completed the programme.

Prof C N R Rao Education Foundation has announced the Outstanding Science Teachers Prize for the year 2011. The awardees for the year 2011 are Shri S V Burli from Bijapur, Karnataka and Smt Meka Susatya Rekha from Rajamundry, Andhra Pradesh.

Sheikh Saqr Career awards have been given to Prof A Sundaresan and Prof Tapas Kumar Maji. Sheikh Saqr Student Fellowships have been awarded to Mr Anshuman J Das and Ms Urmimala Maitra. RAK-CAM Sheikh Saqr Senior Fellowship has been awarded to Prof G U Kulkarni. RAK-CAM Sheikh Saqr Junior Fellowship has been awarded to Mr Rama Krishna Matte H S S.

MoUs have been signed with RAK-CAM in December 2011 and with DFRL in January 2012.

"Chemistry Program" in celebration of IYC-2011 was organized at C N R Rao Hall of Science on December 7, 2011. Prof C N R Rao, Prof Anthony K Cheetham and Prof Uday Maitra delivered their respective lectures.

"Inspire Program" was organized at C N R Rao Hall of Science on December 29, 2011. Prof G U Kulkarni and Dr Rajesh Ganapathy delivered their lectures respectively followed by visit to the Chemistry of Materials Exposition & Prof C N R Rao Archives.

Under Science Outreach Program, Prof K S Valdiya has delivered lectures at various places in Uttarakhand.

The Book '*Rasayanshastrada Arivu*' authored by Prof C N R Rao was translated by Mrs Indumati Rao, edited, formatted and made print-ready at ETU for Karnataka Rajya Vignyana Parishath (KRVP). The book sponsored by Vision Group on Science & Technology, Dept. of Science & Technology, Govt. of Karnataka to commemorate International Year of Chemistry-2011 was released at a function held at AMRL Conference Hall, JNCASR

The C N R Rao Hall of Science & Education Technology Unit along with SOP-ETU took up a project of conducting four workshops for 100 pre-university teachers from different places in Karnataka in using the College Chemistry Kit. The project sponsored by the Vision group on Science & Technology, DST, Govt. of Karnataka and was taken up by ETU and SOP-ETU jointly.

Mrs Indumati Rao presented a 30-minute Multimedia presentation of excerpts from the CD-ROM '*Nanoworld*' for students at the Sheikh Saud Bin Saqr Al Qasimi Foundation for Policy Research and Ras Al Khaimah Centre for Advanced Materials, Ras Al Khaimah.

A new building of the Centre's Clinic, '*Dhanvantari*' was inaugurated on December 09, 2011.





Short Term Appointments

Visiting Scientists

Dr Priyanka Shukla
 Dr Dinesh Jagadeesan
 Dr Thirumurugan
 Dr Soumyajit Roy
 Dr M.A. Shah
 Dr Mohd. Ikram
 Dr Anil Kumar
 Dr Prasenjit Ghosh
 Dr Jay Ghatak
 Dr B E Amitha Rani
 Dr Sharvan Kumar Payli

Visiting Scholars

Mr Anirban Ghosh
 Mr Pradeep Balaji
 Mr Shobith Rangappa
 Mr Vivek Rohidas Vartak
 Mr Siva Pradyumna
 Miss Apurva Talgery

Markus Hosel

Research Associates

Dr Sanyasinaidu Boddu
 Dr Kishore V Chellappan
 Dr Ram Murthy A
 Dr Ganapati Natarajan
 Dr Arti Baban Dumbrepatil
 Dr Santhosh Sathe
 Dr Ashish Malik
 Dr Krishnendu Biswas
 Dr G Parameshwarappa

Research Associates (Provisional)

Dr S Bharath
 Dr Himadri Barman
 Dr Moumita Maiti

Deans

Prof GU Kulkarni (Academic Affairs)

Prof Namita Surolia (Fellowship & Extension Programme)

Prof K S Narayan (Research & Development)

CPMU Chairman

Prof S Balasubramanian

Vigilance Officer

Prof Anuranjan Anand

Dr Vikram Sarabhai Professorship

Prof K B Sinha

Hindustan Lever Research Professorship

Prof S Chandrasekaran, IISc, Bangalore

DST Ramanujan Fellow

Dr Kanishka Biswas (NCU)

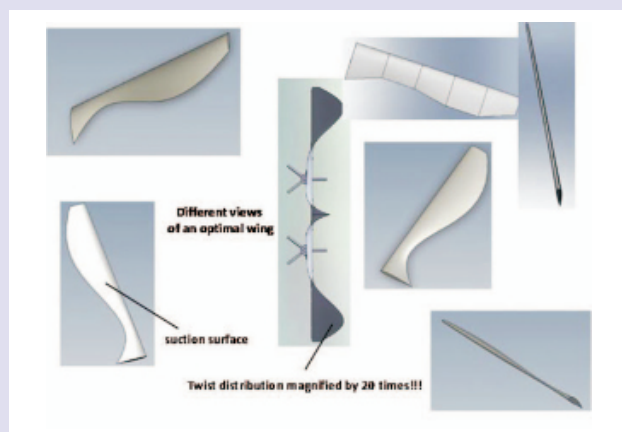
Intellectual Property

The Centre has obtained one European Patent (No. 1694622) for the invention 'Polyisoprenyl Benzophenones as Inhibitors of Histone Acetyl Transferases and Uses Thereof' developed by Prof. Tapas Kundu and his group recently.

Five Indian Provisional Patent Applications were filed in respect of inventions of faculty members Prof K S Narayan, Prof G U Kulkarni, Prof Ranga Udaykumar, Prof Tapas Kundu and Dr Jayanta Halder as Principal Inventors.

National Phase Applications were filed for three inventions: (a) 'Optimal wing planforms for reducing the induced or total drag of the wing of an aircraft driven by wing-mounted tractor propellers/rotors' by Prof R Narasimha, filed in USA, Europe, China, Brazil, Japan, Korea; (b) 'Inhibition of Histone Acetyltransferases by CTK7A and methods thereof' by Prof Tapas K Kundu, filed in USA, Europe and China; (c) 'A novel process for micropattern generation on polymer thin films using pulsed laser diffraction' by Prof G U Kulkarni in collaboration with IIT-K, filed in USA.

During the last six months the Centre has successfully licensed 5 inventions of Prof G U Kulkarni, Dr Subi J George and Dr T Govindaraju as principal inventors.



(Fig: 'Optimal wing planforms for reducing the induced or total drag of the wing of an aircraft driven by wing-mounted tractor propellers/rotors' by Prof. R. Narasimha, filed in USA, Europe, China, Brazil, Japan, Korea.)

AWARDS & RECOGNITIONS

Prof C N R Rao

Ernesto Illy Trieste Science Prize, 2011 for his monumental contributions to the Chemistry of Materials for over 50 years

Diploma and Insignia of the Honoris Causa Doctorate Degree from the University Joseph Fourier, Grenoble.

Einstein Professor of Chinese Academy of Sciences 2012

Invited as a speaker in the celebrations of the 100th anniversary of the first Solvay Conference on Physics in Belgium (October 18, 2011).

Erudite Visiting Professorship from Mahatma Gandhi University, Kottayam

Prof P Rama Rao

Foreign Associateship of National Academy of Engineering, USA

Prof K B Sinha

Elected as Emeritus Scientist of Indian Statistical Institute, Kolkata

Prof Roddam Narasimha

Sir M Visvesvaraya Senior Scientist State Award 2010

Prof M M Sharma

Hari Om Ashram Sr Scientist Award, PRL Ahmedabad

Prof Shobhana Narasimhan

Dr Kalpana Chawla Young Women Scientist Award 2010.

Woman Scientist of the Year Award from the Shree Shakti Samman Science Foundation.

Prof S Balasubramanian

Fellow of Indian Academy of Sciences, Bangalore, 2012

Prof Vijay Kumar Sharma

Fellow of Indian Academy of Sciences, Bangalore, 2012

Prof Maneesha S Inamdar

National Bioscience Award for Career Development 2011

Awarded Wellcome Trust Grant, UK

National Bioscience Award for Career Development 2011

Prof Tapas Kumar Kundu

GD Birla Award for scientific research for 2011.

Dr Ganesh Subramanian

2012-2013 Fulbright-Nehru fellowship for senior researchers

Dr Subir K Das

Young Scientist Award (Buti Foundation), 2012 of the Indian Physics Association

Dr Rajan Datta

Associate of Indian Academy of Sciences

Dr Ravi Manjithaya

Awarded DBT Wellcome Trust Fellowship.

Mr Sachin S Belvadi

Young Achievers Award 2012 by KKS Social Welfare Trust

Awards Received by Students

1. Vijay Kumar S (PhD student, NCU) received Second Prize in the poster competition held at Catalyst 2011 - Dr Reddys Technical Conclave on Chemistry, Hyderabad, December 16-17, 2011.
2. Mr Ramakrishna Matte (PhD student, CPMU) has received Malhotra Weikfield Foundation Award at 4th Bangalore Nano 2011.
3. Ritu Gupta (PhD student, CPMU) received the 2nd Best Poster Presentation Prize in International Conference on Nanoscience and Nanotechnology (ICONSAT-2012) held in Hyderabad, January 20-23, 2012.
4. Abhishek Sinha (PhD student, MBGU) received Poster Award for research presented at the meeting "Rediscovering pluripotency: from teratocarcinomas to embryonic stem cells conference", October 10-12, 2011 National Museum Cardiff, Wales.
5. Rohan Jayant Khadilkar (PhD student, MBGU) received DST Travel award for attending the "53rd Annual Drosophila Research Conference", Chicago, IL, USA, March 7-11, 2012.

INTERNATIONAL CENTRE FOR MATERIALS SCIENCE (ICMS)

The Centre for Computational Materials Science (CCMS) of ICMS is expanding its activities and laboratories under a new project: "Thematic Unit of Excellence on Computational Materials Science".

ICMS has expanded its infrastructure by installing sophisticated equipments like Superconducting Quantum Interference Device (SQUID), Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES), UV Spectrometer, Photoluminescence Spectrometer (PL), etc.

MoU has been signed with RAK-CAM to establish the Sheikh Saqr Laboratories. The construction of the new building has commenced and is proposed to be ready in a year and a half period.

ENDOWMENT LECTURES

Annual Chemistry Lecture: "Chemistry Inspired by Interstellar Molecules", Prof Herbert W Roesky, University of Gattingen, Institute of Inorganic Chemistry, February 23, 2012.

ICMS-Second Annual Materials Science Lecture: Prof Satishchandra B Ogale, Centre of Excellence in Solar Energy, Physical and Materials Chemistry Division, National Chemical Laboratory (CSIR-NCL), Pune, March 20, 2012.

Prof M K Chandrashekar Memorial Lecture: "A Brief History of Internal Time", Prof Serge Daan, Niko Tinbergen distinguished honorary chair in Behavioral Biology, Linnaeusborg, University of Groningen, The Netherlands, January 19 - 20, 2012.

A V Rama Rao Foundation Lecture in Chemistry: "Fluorescent Molecular Architectures with Exceptional Properties", Dr A Ajay Ghosh, CSIR-Outstanding Scientist, Chemical Sciences & Technology Division, NIIST, Trivandrum and Prize Lecture: "Luminescent Nano Materials for Photonic Applications", Dr Amitava Patra, Department of Materials Science, Indian Association for the Cultivation of Science, Kolkata, May 16, 2012.

SPECIAL LECTURES

1. Conference on Science Communication Addressing Women's Issues, Mr A P Deshpande, NCSC, Mumbai, January 7 - 8, 2012
2. "Can the Poor afford Solar Lamps", Dr Harish Hande, January 10, 2012
3. "Regulation of genome transcription: research strategy and tactics", Prof Akira Ishihama, Professor and Head, Department of Frontier Bioscience, Hosei University, Tokyo, Japan, March 19, 2012.
4. "Women, Law and Society", Justice Mrs Sudha V Manohar, Former Judge of Supreme Court of India, March 26, 2012
5. "Recent Trends in Neurosurgery", Dr D V Rajakumar, Fortis Hospital, Bangalore, April 11, 2012.

FLUID DYNAMICS COLLOQUIA

1. Numerical Simulation of HP Vane cascade under free stream turbulence, Dr Sanjiva Lele and Dr R Bhaskaran, Department of Mechanical Engineering and Astronautics and Aeronautics, Stanford University, November 18, 2011.
2. The PSE-3D instability analysis methodology for flows depending strongly on two and weakly on the third spatial dimension, Pedro Paredes, Vassilios Theofilis and Daniel Rodra guez, School of Aeronautics, Universidad Politecnica de Madrid, E-28040 Madrid, Spain 2 Division of Engineering and Applied Science, California Institute of Technology, Pasadena CA, USA, November 30, 2011.
3. On the relation between the equation for large-eddy simulation of turbulent flow and for weakly nonlinear evolution of disturbances for flows in

transition, Prof V Vasanta Ram, Ruhr University, Bochum, November 22, 2011.

4. Climate Science, Waves, and PDEs for the Tropics: Observations, Theory, and Numerics, Prof Andrew J Majda, Morse Professor of Arts and Sciences, Department of Mathematics and Climate, Atmosphere, Ocean Science (CAOS), Courant Institute of Mathematical Sciences, New York University, December 9, 2011.
5. Some insights into wetting hysteresis - experiments and modeling, Prof Mahesh Panchagnula, Department of Applied Mechanics, IIT Madras, January 13, 2012.
6. Optimal Path to Turbulence in Shear Flows, Prof Dan Henningson, Professor in Fluid Mechanics, FLOW, KTH Mechanics, Sweden, January 17, 2012.
7. Drag reduction and the nonlinear dynamics of Newtonian and viscoelastic turbulence, Prof Michael D Graham, Department of Chemical and Biological Engineering University of Wisconsin-Madison, USA, January 24, 2012.
8. Some insights into wetting hysteresis - experiments and modeling, Prof Mahesh Panchagnula, Department of Applied Mechanics, IIT Madras, January 24, 2012.
9. Generation of solitary waves in an oceanic thermocline by internal gravity waves, Prof Chantal Staquet, Laboratory of Geophysical and Industrial Fluid Flows (LEGI), Grenoble, France, February 14, 2012.
10. Dynamical systems approach to the investigation of thermoacoustic instabilities, Dr Priya Subramanian, Department of Aerospace Engineering, Indian Institute of Technology Madras, March 21, 2012.
11. Non-normal and nonlinear instabilities in thermoacoustic interactions, Prof Sathesh Mariappan, Department of Aerospace Engineering, Indian Institute of Technology Madras, May 23, 2012.

DISCUSSION MEETINGS

1. National Conference, PLD-2011, Prof S B Krupannidhi, IISc, November 9 - 11, 2011.
2. 5th ASIAHORCs Meeting, JNCASR, November 27, 2011.
3. Four days workshop on magnetism: practice and theory, Dr Dipankar Das Sarma, IISc, November 30 - December 4, 2011.
4. Opening scientific doors: exploration of potential areas for collaboration in chemistry and physics, Discussion Meeting with George Town University, USA, January 5 - 7, 2012.
5. Indo-UK Excitonic Solar Cell Meeting, Prof K S Narayan, January 9 - 11, 2012.

6. Contemporary Issues in Condensed Matter Science, Prof Rahul Pandit, January 30 - February 1, 2012.
7. Indian Society of Neuro-Oncology (ISNOCON 2012), Dr Vani Santhosh, April 6 - 8, 2012.

SCHOOLS / WORKSHOPS / SYMPOSIA

1. Four days workshop on Magnetism: Practice and Theory, Dr Dipankar Das Sharma, IISc
2. ICMS Winter School, JNCASR, December 5 - 10, 2011.
3. 8th Indo-Australia Biotechnology Conference on Stem Cell Biology, December 7 - 9, 2011.
4. Indo-US Workshop and Seminar on Malaria, January 16-18, 2012.
5. EOBUSymposium, JNCASR, Bangalore, January 19 - 20, 2012.
6. Unifying Concepts in Materials, James A Krumhansl School and Symposium (JAKS-2012), Prof Srikanth Sastry, JNCASR, Bangalore, January 30 - February 5, 2012.
7. 6th RNA Group Meeting, Prof Saumitra Das, March 30 - 31, 2012
8. Bouncing jets, Prof Navish Wadhwa, Engineering Science and Mechanics, Virginia Tech, Blacksburg, USA, December 19, 2011.
9. Hybrid photovoltaics, Dr Dinesh Kabra, Cavendish Laboratory, Cambridge, December 21, 2011
10. Nephronectin: its role in heart valve morphogenesis, Dr Chinmoy Patra, Max Planck Institute for Heart and Lung Research, Germany, December 22, 2011.
11. Towards autonomous soft matter: gel emulsions, self-organizing oscillators and squirming droplets, Dr Shashi Thutupalli, Max Planck Institute for Dynamics and Self-Organization, Gatingen, Germany, December 22, 2011.
12. Connection of metabolism and transcription by methionine adenosyltransferase, Prof Kazuhiko Igarashi, Tohoku University Graduate School of Medicine, December 23, 2011.
13. Magnetism, structural transition and orbital order in the iron pnictide materials, Dr Rajiv Singh, University of California, Davis, December 27, 2011.
14. Rare beneficial mutations can halt Muller's ratchet, Dr Sidhartha Goyal, Kavli Institute for Theoretical Physics, University of California, Santa Barbara, CA, December 29, 2011.
15. Field-theoretic modeling of supramolecular polymer networks and gels, Dr Aruna Mohan, Exxon Mobil Upstream Research Company, Houston, TX, USA, January 3, 2012.
16. Reciprocal changes in Th17 and Regulatory T cells in HIV disease progression, Dr Madhu Vajpayee, Department of Microbiology, All India Institute of Medical Sciences, New Delhi, January 3, 2012.
17. Quantum dot solar cells, Prof Prashant V Kamat, Department Of Chemistry and Biochemistry Radiation Laboratory, University of Notre Dame Notre Dame, USA, January 9, 2012.
18. The curious case of cytochrome c oxidase: elusive mutational effects on proton transport pathways, Dr Suman Chakrabarty, Department of Chemistry, University of Southern California, Los Angeles, USA, January 10, 2012.
19. Inhomogeneous shear flow of soft jammed materials, Dr Pinaki Chaudhuri, University of Duesseldorf, Germany, January 11, 2012.
20. Genetic and epigenetic mechanisms of mitochondrial retrograde signaling and its role in cancer progression, Prof Narayan G Avadhani, Professor of Biochemistry, University of Pennsylvania, USA, January 11, 2012.
21. From carrier multiplication and hot-electron transfer to the mysteries of quantum dot blinking due to sub-excitonic dimensions, Prof Victor I

SEMINARS & LECTURES

1. Growth of amyloid fibrils, Dr Govardhan Reddy, Institute for Physical Science and Technology University of Maryland-College Park, Maryland, November 23, 2011.
2. Vijyoshi (Vigyan Jyothi Shibir) Program, November 26-28, 2011.
3. Dynamics of phase transformation conference, JNCASR, November 27 - 30, 2011.
4. Catalysis Using Gold and Gold-palladium Nanoparticles, Prof David Knight, Department of Chemistry Cardiff University, UK, December 1, 2011.
5. Computation of basic nanoparticle transport properties by path-integration, Dr Jack F Douglas, Polymers Division, Centre for Theoretical and Computational Materials Science, National Institute of Standards and Technology, Gaithersburg, MD 20899, USA, December 7, 2011.
6. Double exchange in double perovskites: novel ground state magnetic phase transitions, Dr Prabuddha Sanyal, Physics Department, Hyderabad University, Hyderabad, December 13, 2011.
7. From molecular catalyst to nano-structured materials, skeletons and catalysts, Prof Yoshinori Yamamoto, Director, WPI-AIMR (Advanced Institute for Materials Research), Tohoku University, Japan, December 13, 2011.

- Klimov, Center for Advanced Solar Photophysics, Chemistry Division, Los Alamos, New Mexico, January 12, 2012.
22. Functional coupling of transcription and splicing, Dr Jean Beggs, University of Edinburgh, Edinburgh, UK, January 12, 2012.
 23. From pattern to process: eyespots and sexual parasites in butterflies, Dr Ullasa Kodandaramaiah, Cambridge University, UK, January 16, 2012.
 24. On vector spin glasses, Dr Auditya Sharma, International Institute of Physics-UFRN Natal, Brazil, January 17, 2012.
 25. Defining hydrogen bonds to determine the structure and dynamics of water and aqueous solutions, Dr Richard Henchman, Manchester Interdisciplinary Biocentre, University of Manchester, UK, January 18, 2012.
 26. Maskless photolithography system, Dr Jay Sasserath, Chief Executive Officer, Intelligent Micro Patterning, LLC, January 19, 2012.
 27. Extinction as a breakdown phenomenon, D. P K Mohanty, TCMP division, Saha Institute of Nuclear Physics, Kolkata, January 19, 2012.
 28. Group Research Conference, Dr U N Sinha, Distinguished Scientist, CSIR Centre for Mathematical Modelling and Computer Simulation (C-MMACS), Bangalore, January 19, 2012.
 29. Gene-based vaccination against influenza in multiple animal models, Dr Srinivas Rao, Chief, Laboratory Animal Medicine Vaccine Research Center, NIAID, January 27, 2012.
 30. Horror autotoxicus: T cell receptor recognition of self and foreign antigens, Dr Dhruv Sethi, Dana-Farber Cancer Institute, Harvard Medical School, Boston, USA, February 2, 2012.
 31. Multi-objective optimization for rapidly rotating flows, Dr Ajit Kumar Mahendra, BARC, February 6, 2012.
 32. Proteomics, ITSI CEO, USA, February 6, 2012.
 33. Chemistry on carbon nanotubes, Dr Alberto Bianco, CNRS, Institut de Biologie Moléculaire et Cellulaire, Laboratoire de Immunologie et Chimie Thérapeutiques, Strasbourg, France, February 9, 2012.
 34. Flows of microparticles, Prof Eric Clement, Institute of Fluids Mechanics Toulouse, France, IMFT Deputy Director and Head of the Master program on Fluids Engineering for Industrial Processes, February 9, 2012.
 35. Approaches to transition state analogs of amino acids through Asymmetric Michael Addition of Phosphonates and Phosphites to electron deficient alkenes, Prof Irishi N Namboothiri, Department of Chemistry, Indian Institute of Technology, Bombay, February 10, 2012.
 36. The Midas Touch - Let us talk about Gold, Prof Suresh Bhargava, RMIT, February 13, 2012.
 37. The Attraction of Magnetic Nanomaterials, Prof Raju V Ramanujan, School of Materials Science and Engineering, Nanyang Technological University, Singapore, February 14, 2012.
 38. DFT Studies of Structural and Electronic Properties of Bare and Supported Small Palladium Clusters, Dr Bulumoni Kalita, JNCASR, February 14, 2012.
 39. Nanotechnologies: Towards Safety and Health Regulatory Monitoring, Dr Geok Bee, Division of Chemistry and Biology, School of Arts and Science, Tunku Abdul Rahman College, Kuala Lumpur, Malaysia, February 20, 2012.
 40. Revisiting the hexagonal manganites, Prof Nicola Spaldin, Materials Theory, ETH Zurich, Switzerland, February 20, 2012.
 41. An introduction to branching processes, Prof Kishna B Athreya, Departments of mathematics and statistics, Distinguished professor, College of Liberal Arts and Sciences, Iowa State University Ames, Iowa, USA, February 21, 2012.
 42. Nano-structured graphene fabricated from the top-down and the bottom-up approaches compared to current materials, Prof Padma Gopalan, University of Wisconsin, USA, February 27, 2012.
 43. Life beyond DNA, Prof Stefan Dimitrov, Institut Albert Bonniot, Domaine de la Merci, France, March 2, 2012.
 44. Synchrony based evolution of microtubule and its applications, Prof Satyajit Sahu, NIMS, Tsukuba, Japan, March 5, 2012.
 45. Population-based association mapping of quantitative traits: stratification issues and family-based alternatives, Dr Saurabh Ghosh, Indian Statistical Institute, Kolkata, March 6, 2012.
 46. Galectin-1: a key morphoregulator in mesenchymal and epithelial pattern formation, Dr Ramray Bhat, Lawrence Berkeley National Laboratory, Berkeley, USA, March 7, 2012.
 47. The studies of magnetoplumbite-type (M-type) ferrites, Dr Geok Bee, Division of Chemistry and Biology, School of Arts and Science, Tunku Abdul Rahman College, Kuala Lumpur, Malaysia, March 7, 2012.
 48. Development of "feram" free software, a fast molecular dynamics simulator for bulk and thin-film ferroelectrics, Dr Takeshi Nishimatsu, Institute for Materials Research, Tohoku University, Katahira, Aoba-ku, Sendai, Japan, March 20, 2012.

49. Molecules, morphology, and back: Phylogenetic revision and evolution of gingers (Alpinioideae, Zingiberaceae), Dr Vinita Gowda, Department of Botany, National Museum of Natural History, Smithsonian Institution, Washington DC, USA, March 22, 2012.
 50. Fluorescence resonance energy transfer to nanoparticles, graphene and carbon nanotubes”, Prof K L Sebastian, Department of Inorganic and Physical Chemistry, Indian Institute of Science, Bangalore, India, March 27, 2012.
 51. Untangling the genetic basis of complex neurodevelopmental disorders, Dr Santhosh Girirajan, Department of Genome Sciences, University of Washington, Seattle, WA, USA, March 29, 2012.
 52. Universality of the plastic instability in strained amorphous solids, Dr Ratul Dasgupta, Postdoctoral Fellow, Department of Chemical Physics, Weizmann Institute of Science, Israel, March 30, 2012.
 53. GTPases involved in Ribosome biogenesis, Prof Balaji Prakash, IIT, Kanpur, April 2, 2012.
 54. Research activities of St. Petersburg Electro-technical University "LETI", Dr M Odit, St. Petersburg Electrotechnical University LETI, April 6, 2012.
 55. Gene networks in theory and practice, Dr Mukund Thattai, Computational and Evolutionary Cell Biology, National Centre for Biological Sciences, Bangalore, April 12, 2012.
 56. T Cell Immunobiology in the lung: implications for pulmonary fibrosis, Dr Sambuddho Mukherjee, Department of Cell Biology, Duke University Medical Center, USA, April 12, 2012.
 57. Genome Architecture and Disease, Dr Tom Misteli, NIH and Editor-in-chief, Journal of Cell Biology, Bethesda, USA, April 13, 2012.
 58. Lecture on LBM, Dr Santosh Ansumali, JNCASR, Bangalore, April 18, 2012.
 59. Quantum theory of materials: methods and applications, Dr Manish Jain, Lawrence Berkeley National Laboratory, Department of Physics, University of California, Berkeley, May 1, 2012.
 60. Charge Separation and Recombination in Organic Photoconversion Systems, Dr Akshay Rao, Cambridge University, UK, May 2, 2012.
 61. Science Outreach Programme - Summer 2012, Prof K S Valdiya, JNCASR, May 6 - 9, 2012.
 62. Density controlled bio-functionalized nanostructures, Dr Loredana Casalis, Sincrotrone Trieste S.C.P.A., Trieste, Italy, May 14, 2012.
- Other Programmes**
- Administrative Staff Orientation Programme, Dr S Ramesh Babu, November 29, 2011.
 - Local Faculty Meeting, February 7, 2012.
- FORTHCOMING MEETINGS**
1. **Prof V Ramalingaswami Memorial Lecture**, Act of observation and Cancer Biology, Prof. R.A. Badwe, Director, Tata Memorial Centre, Mumbai, July 9, 2012.
 2. **Recent advances in electro chemical energy materials and devices**, Prof A J Bhattacharyya, IISc, July 24 - 27, 2012.
 3. **C N R Rao Oration Award Lecture**, Prof Ranga Udaykumar, August 6, 2012.
 4. **DAE - Raja Ramanna Lecture in Physics**, Dr Ramesh Chandra Budhani, NPL and Prof. Anil Kumar, IISc. (Prize Lecture), September 28, 2012
 5. **ISRO Satish Dhawan Lecture**, Dr T Ramasami, Secretary, Department of Science and Technology (DST), October 16, 2012.
 6. **FCBS workshop** for post graduate students & teachers in chemistry, Prof M V George, NIIST, Trivandrum, November 8 - 10, 2012.
 7. **International conference on biomolecular forms and functions:** a celebration of 50 years of the Ramchandran Map, Prof Manju Bansal, January 8 - 11, 2013.
- ANNUAL FACULTY MEETING**
- The Annual Faculty Meeting of the Centre is scheduled to be held on November 19, 2012 which will be followed by lectures by the faculty and honorary faculty members. An in-house symposium is scheduled to be held on November 20, 2012 at Jakkur Campus.