

# CECRI *news*

CENTRAL ELECTROCHEMICAL RESEARCH INSTITUTE, KARAİKUDI - 630006

*Jan - Feb 2008*



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## National Science Day

National Science Day 2008 was celebrated at CECRI on 28th February 2008. On this occasion Dr.R.A.Mashelkar FRS, CSIR Bhatnagar Fellow, National Chemical Laboratory, Pune delivered National Science Day Lecture. He explained the three pillars, Techno-national, Techno-globalism and Science & Technology for inclusive growth. According to him Solar Energy utilization is to be the most favoured challenges before us. On Information Technology field, India is in front due to skill based concept rather than product based one. We had Brain-drain problem once. But it



has become Brain-gain. Science and Technology requires innovation, passion and compassion. He stressed the need for 0.5% working population in Research and Development Sector.

Earlier, Professor A.K.Shukla, Director, CECRI welcomed the gathering. Shri C.Sri Vidya Rajagopalan, Chairman, Organizing Committee proposed vote of thanks.

Prior to the above function, Dr.R.A.Mashelkar addressed the M. Tech and B.Tech students and was interacting with the students.

He also unveiled the bust of Sir.C.V.Raman situated at the entrance of CECRI main building and planted samplings in the guest house premises.

## Visit of Foreign Scientist

We have invited Professor Bernd Speiser, Institute of Organic Chemistry, Tuebingen University under CSIR-DAAD Exchange Programme.



He visited CECRI during 21- 26 February 2008. He has also delivered lecture on Combinatorial microelectrochemistry -



Electro Synthetic Applications.

Professor Scott Calabrese Barton, Department of Chemical Engineering and Materials Science, Michigan State University, USA visited CECRI during 22-25 Feb 2008. He delivered a lecture on Mixed Feed Direct Methanol Fuel Cells: Materials and Design Solutions.

Dr. Roque Calvo, Executive Director, The Electrochemical Society, Pennington, USA visited CECRI during 28 February - 1 March 2008. He delivered a lecture on the activities of Electrochemical Society to Indian audience.

Professor Krishnan Rajeshwar, Editor, Interface, The Electrochemical Society, Pennington, USA visited CECRI during 28 February- 1 March 2008. He delivered a lecture on Electrochemistry for Fun and Profit.



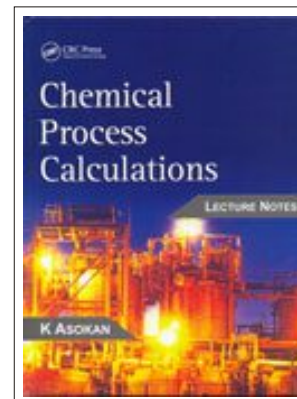
## Foreign Deputation

We have deputed our Scientist Dr.K.N.Srinivasan to France for three weeks from 25.02.2008 under INSA French Academy of Sciences Exchange Programme. He visited ENSCP Laboratoire d'electrochimie et de chimie analytique, Paris to have interaction on Electroless Plating with Professor. Michael Cassir.



## Global recognition

Our Scientist, Dr.K.Asokan's book on "Chemical Process Calculations" gets GLOBAL RECOGNITION. The book is now published by CRC Press LLC, Taylor & Francis Group, Boca Raton, USA.



Chemical Process Calculations is a core subject for the undergraduate Chemical engineering, Biotechnology, Petroleum technology and Pharmaceutical technology

courses and post graduate courses in Industrial bio-technology and Applied Chemistry.

The book is distributed in South Asian countries by Orient Longman Private Ltd., Hyderabad, India and in the rest of the world by CRC Press, Boca Raton, USA. International price of the 264 page book containing 173 worked examples and 154 exercise problems with answers is \$ 129.95.

## Patents:

Promising Patents sent for filing in India. Title: New types of self-supported polymeric Hybrid membranes for air humidification in Polymer Electrolyte Fuel

cell Stacks.

Authors: A.K. Shukla, S. Pitchumani, P. Sridhar  
S.D. Bhat, A. Manoharan

Title: Development of an efficient anode backfill based on ion conducting paste for cathodic protection of iron and steel strippers and pipelines buried under the soil.

Authors: R. Baskaran, N. Palanisamy, K.K. Sathesh Kumar, M.T. Vijayan, S. Geetha

## Calibration of Equipments

Periodical Calibration of equipments is essential for precise measurements of parameters in Science and Industries. As components age and equipment undergoes changes in temperature or sustains mechanical stress, critical performance gradually degrades. This is called drift. When this happens your test results become unreliable and both design and production quality suffer. Whilst drift can not be eliminated, it can be detected and contained through the process of calibration.

CECRI has facilities to calibrate

instruments, rectify errors and to Calculate the error percentage. Our Standard Instruments that are given below are annually calibrated at ETDC (Electronic Test and Development Center) Chennai so as to establish its traceability to national ISO/IEC standards (NABL accredited lab).

1. Fluke multiproduct calibrator with scope option
2. Testo Temp. Indicator with thermocouples
3. Kiethley 6 1/2 digit multimeter
4. Vasashika low and high standard resistors
5. Hewlett packard storage oscilloscope

Following Instruments and devices can be calibrated in CECRI Battery Testing Equipments, Digital and Analogue Ammeters, Voltmeters, Multimeters, Frequency meters, LCR meters, Oscilloscopes, pH meters, conductivity meters, Digital Panel meters, Clamp meters, thermocouples, RTDs, Temp. Cotrollers, / Indicators and All other Instruments contain above parameters also can calibrate.

## Retirements on Superannuation

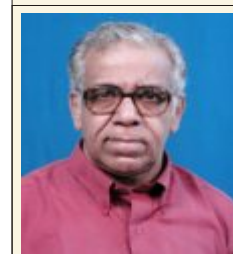
January 2008



Dr. Malathy Pushpavanam  
Designation: Gr.IV (5)



Dr. P. Thirunavukkarasu  
Designation: Gr.IV (5)



Dr. V.S. Muralidharan  
Designation: Gr.IV (5)





L. Chellappan  
Designation: Technical Gr.II (4)



S. Bhaskaran  
Designation: Assistant (S&P)

**February 2008**



Shri. N. Upendra Nayak  
Designation: Gr.IV(5)



Shri. K. Neelamegam  
Designation: Technical. Gr. II (3)

**Technical Services undertaken:**

| SI No | Title  | Organisation                               | Value in Rs. |
|-------|--|--|--------------|
| 1     | Testing of 12V, 7Ah VRLA batteries.  | Ammini Solar P Ltd., Trivandrum            | 56180/-      |
| 2     | Testing of Organo -phosphonate samples   | NLC Ltd., Neyveli                          | 56180/-      |
| 3     | Supplying 40 numbers of Mixed metal oxide (MMO) coated Titanium anodes for cathodic protection | Protech Anode & alloy Engineers, Karaikudi | 80899/-      |
| 4     | Evaluation of Galvalume roofing sheet.   | Japan metal Building systems, Bangalore    | 55619/-      |
| 5     | Evaluation of "Base" tubular battery for capacity test as per IS13369                          | Base Corp. Chennai                         | 58427/-      |
| 6     | Special training programme on "Elelectroplating Processes"                                     | Hindustan Aeronautics Ltd., Bangalore      | 213484/-     |

**Grant-in-aid/ Sponsored Projects:**

| SI No | Title   | Organization   | Value in Rs. |
|-------|---|----------------|--------------|
| 1     | Development of electroanalytical sensor for pesticides analysis | DST, New Delhi | 1690560/-    |

**Consultancy:**

| SI No | Title  | Organization              | Value in Rs. |
|-------|--|---------------------------|--------------|
| 1     | Electro refining of lead from smelted lead/scrap lead acid batteries | Empire Industries, Mumbai | 224720/-     |