

CECRI *news*



September - October 2008



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Faraday Lecture

Professor M. M. Sharma, Emeritus Professor of Eminence and former Director of Mumbai University Institute of Chemical Technology, Mumbai delivered Faraday Lecture on "Some aspects of Electrochemical Science and Technology" at CECRI, Karaikudi on Friday, October 17, 2008. In his lecture, he emphasized that there was a great scope for scientists to undertake research on using batteries. He appealed to researchers in electrochemistry to focus their attention on energy generation. He advised them to do intense research on fuel cells and rechargeable lithium



polymer batteries, as they have a huge market potential. He said usage of batteries, particularly for mobile phones and others had gone up manifold. The global demand for batteries would go up rapidly.

He hoped that the Indian scientists would make a strong mark in this field. Mentioning the various aspects of electrochemical technology and engineering, he said chemical reaction engineering had received some attention but much more needed to be done. Professor Sharma said many industries were linked with hydrogen generation. Even at 2200 degrees centigrade, it was not easy to split water. On the other hand, he mentioned that by applying

thermodynamic principle, and coupling appropriate electrochemical techniques water can be split to get hydrogen.

Earlier, Professor A K Shukla, Director, CECRI and Managing Trustee, Michael Faraday Memorial Private Trust welcomed the gathering. Professor M.S. Ananth, Director, Indian Institute of Technology, Chennai and Chairman, Research Council of CECRI presided. Dr. T. Premkumar, Scientist, CECRI and Secretary, Michael Faraday Memorial Private Trust proposed the vote of thanks.

CSIR Foundation Day

CSIR Foundation Day was celebrated at CECRI on September 26, 2008. Professor A K Shukla, Director presided over the function. He distributed the Mementos, Shawl and Sammon Patra to the staff who retired during SEP 2007





AUG 2008. He also distributed mementos to the staff who have completed 25 years of service during this year in CSIR.

Essay competitions were conducted for the wards of CECRI staff as a part of the celebrations. Prizes were distributed to the winners by Dr. V. Yegnaraman, Scientist.

Cash awards were given to the wards of CECRI staff who excelled in the science



subjects in the Higher Secondary Examinations held in April 2008.

Earlier, Dr. V. Yegnaraman, Scientist welcomed the gathering. Dr. A. Muthukrishnan, Controller of Administration proposed the vote of thanks.

Foreign Deputation

Our Scientist Dr N. Kalaiselvi was deputed to South Korea from September 22 to October 3, 2008 to have formal discussions on the possibility of formulating joint collaborative project on lithium intercalating electrode materials with the research team led by Professor Yang-Kook Sun, Director, Centre for Information and Communication Materials, Department of Chemical Engineering, Hanyang National University, Seoul. Her visit is sponsored by Hanyang National University.



Our Scientist Dr. M. Vijayan was deputed to



Korea on Sabbatical leave for one year from October 1, 2008 to take part in the project on High speed clean synthesis of Bio-diesel at Korea Electro-technology Research Institute under the Brain Pool programme of Korean Federation of Science and Technology Societies.

Our Scientist Dr. P. Sridhar, Madras unit was deputed to Denmark to present his paper at the International Conference on Fuel Cells Science and Technology held at Copenhagen during October 7-9, 2008.



Special Training Programmes Conducted

Name of the course: Special course on Electroforming conducted at Dewas on 9th and 10th August 2008

Organized for: Bank Note Press, Dewas

Amount in Rs.: 89,888/-

Name of the course: Essentials of Batteries, Fuel Cells and Super capacitors with special Emphasis to Lead-Acid Batteries and Polymer Electrolyte Fuel Cells” at CECRI Madras unit on 29th and 30th September 2008

Organized for: M/s T V S Motor Company, Hosur

Amount in Rs.: 1,00,000/-

Consultancy services undertaken

1. Title:

Testing of gold content in the gold electroplating

Organization:

Smart Creations, Chennai

Value in Rupees: 1,00,000/-

2. Title:

Permanent cathodic protection system

Organization:

Protech Anode, Karaikudi

Value in Rupees: 1,68,540

Industry Oriented Technology Courses

CECRI offers a variety of courses to scientific and technical personnel working in Private industries, Government Departments and Academic institutions. These courses are designed to impart the necessary knowledge and skills. Participants will be given ample opportunities to have hands on experience. The following courses were conducted during August and September 2008

S. No.	Name of the course	Duration	No. of participants	Fees collected Rs.
1.	Corrosion Control in Boilers and Heat Exchangers	4-8, Aug'08	7	42,000/-
2.	Corrosion of Steel in Concrete	9-12, Sep'08	2	12,000/-
3.	Cathodic Protection Systems and Devices	22-26, Sep'08	2	12,000/-
4.	Paints for Corrosion Protection	13-17, Oct'08	29	1,74,000/-

Technical services undertaken

Title	Organization	Value in Rs.
Testing of Organophosphonate chemical samples – 2 times	NLC Ltd., Neyveli	1,12,360/-
Testing of non-Organophosphonate chemical samples	NLC Ltd., Neyveli	56,180/-
Testing of liquid paint samples	NLC Ltd., Neyveli	56,180/-
Testing of blended Organophosphonate samples	NLC Ltd., Neyveli	56,180/-
Testing of CPCC coated reinforcement rods in construction of substructure with pile foundation as part of construction of bridge No. HR-1 (Venduruthy Railway bridge) between Ernakulam Jn. & Cochin Harbour terminus (additional work) as per CECRI Code of Practice	Cherian Varkey Construction Company (P) Ltd., Cochin	51,620/-
Testing of CPCC coated reinforcement rods in construction of high level bridge on Alandur Road, Chennai as per CECRI Code of practice	Subhash Projects and Marketing Ltd., Chennai	56,180/-
300 W portable PE Fuel cell	Genex Science & Tech Private Ltd., Mumbai	5,61,800/-

Sponsored Projects undertaken

1.	Exploration of metal cyano-complex gels to tailor-make bimetallic alloys/mixed oxides for application in electrocatalysis of fuel cell reactions	DST, New Delhi	17,77,000/-
2.	Development of electrochemical process for the production of tetra ethyl ammonium hydroxide (TEAH), tetra propyl ammonium hydroxide (TPAH) and tetra butyl ammonium hydroxide (TBAH)	Tatva Chintan Pharma Chem Pvt Ltd., Ankleswar	6,74,160
3.	Studies on coatings for heat exchangers and condensers	DRDL, Hyderabad	202248
4.	To study the atmospheric condition and suggest the suitable protective coating system for steel and concrete structures on sea coast and equipments in the plant area	NTPC, Simhadri	5,00,000/-
5.	Electrochemical quartz crystal microbalance sensor for the study of electrochemical interfaces	DST, New Delhi	14,69,760
6.	Development of cobalt based alloys for giant magneto resistance (GMR) applications	DRDO, New Delhi	12,46,000
7.	Development of high performing electrode materials for lithium ion batteries to be used in information and communication equipment	Joint collaborative project between DST, New Delhi and JST, Japan	33,88,400



MRSI Medal for CECRI Scientist



We are happy to announce that our colleague Dr T. Prem Kumar, Scientist Gr IV(4) has been awarded "MRSI Medal" for the year 2009 by the Materials Research Society of India. He has brought one more laurel to CECRI.

Retirements on superannuation

On 30.09.08

Shri. S. Srinivasan,
Bearer (ACP)



On 31.10.08

Mrs. B. Renuga,
Gr.D (NT)

