Nanomaterials for Sustainable Energy

EU-INDIA Workshop (*1-2 November 2010)* & EICOON School (*3-4 November 2010)*
India Habitat Centre, New Delhi

Programme

EU-India Workshop, Monday, 1st November, 2010, MANGOLIA HALL (IHC)

0800 - 0900 REGISTRATION

SESSION W1 : **INAUGURAL SESSION**

0900 - 0930 WELCOME : Prof. B. R. MEHTA, IIT Delhi, New Delhi
ABOUT EICOON : Prof. G. TSOTRIDIS, JRC Institute for Energy, Petten, The Netherlands
ABOUT WORKSHOP : Prof. D. H. A. BLANK, University of Twente, Enschede, The Netherlands

0930 - 1015 **INAUGURAL ADDRESS**: Dr. T. RAMASAMI, Secretary, Department of Science Technology, India
Profiling India's Policy Perspective in Nanoscience

1015 - 1100 **THEME LECTURE:** Dr. DE TAXIS DU POËT , First Counselor and Head of Science & Technology of the Delegation of the European Union to India
EU-India cooperation in science and technology

1100 - 1130 TEA

SESSION W2

1130 –1210 Dr. ANDREAS HERBERT VOLZ, Forschungszentrum Jülich, Germany
The European landscape of nanomaterials and sustainable energy technologies

1210 - 1250 Dr. G. SUNDERRAJAN, Director, International Advanced Research Centre for Powder Metallurgy and New Materials, Hyderabad
An overview of nanomaterials research at ARCI

1250- 1350 LUNCH

SESSION W3

1350 - 1430 Dr. PRAVEER ASTHANA, Department of Science and Technology, Delhi
Activities of the Nano Mission

1430 - 1510 Dr. G. V. RAMARAJU, Department of Information Technology
Nanotechnology initiatives by Department Of Information Technology, Government Of India

1510 - 1550 Dr. B. BANDOPADHYAY, Ministry of Natural & Renewable Energy Sources, New Delhi
Solar energy: Thermal

1550 - 1620 TEA

SESSION W4

1620 - 1700 Prof. D. C. NIJMEIJER, University of Twente, Netherlands
Nanomaterials for CO_2 capture in a European context

1700–1740 Dr. S. BASU, Indian Institute of Technology Delhi, New Delhi
Nano structured electrocatalysts for direct hydrocarbon fuel cell

1930 Dinner

Eu-India Workshop, Tuesday, 2nd November, 2010, MANGOLIA HALL (IHC)

SESSION W5

0900 - 0940	Dr. VIJAYAMOHANAN K. PILLAI, National Chemical Laboratory, Pune **Applications of nanomaterials for electrochemical energy generation and storage**
0940 - 1020	Dr. A. K. NEMA, Indian Institute of Technology Delhi, New Delhi **Evaluation of the carbon-sequestration potential through mineral carbonation in alkaline industrial wastes**
1020 - 1050	TEA

SESSION W6

1050 - 1130	Prof. M. ZEMAN, TU Delft, Netherlands **Nanomaterials for solar energy: Photovoltaics**
1130 - 1210	Prof. B. BHARGAVA, Ministry of Natural & Renewable Energy Sources, New Delhi **Solar energy: Photovoltaics**
1210 - 1250	Prof. VIKRAM KUMAR, Indian Institute of Technology Delhi, New Delhi **Nanomaterials in solar cells**
1250 - 1350	LUNCH

SESSION W7

1350- 1430	Dr. MOHAN BHAN, Vice President, Thin Film Operations, Moser Baer Solar Limited **Role of technology in achieving photovoltaic (PV) economies**
1430- 1510	Dr. VINAY VAIDYA, KPIT Cummins, Pune **Nanomaterials and its usage in automotive industry - an Overview**
1510 - 1540	TEA

SESSION W8

1540- 1620	Prof. P. LUND, Aalto University, Finland **Nanomaterials in sustainable energies: Energy conversion**
1620 - 1700	Dr. A. K. SHUKLA, Indian Institute of Science, Bangalore **Nanomaterials for energy conversion: Fuel cells, hydrogen**
1700 - 1740	Prof. K. L. CHOPRA, Indian Institute of Technology Delhi and Kharagpur **Summary of the assessment workshop**
1930	Dinner

EICOON School, Wednesday, 3rd November, 2010, GULMOHAR HALL (IHC)

SESSION S1

0830 - 0910	Dr. R. C. BUDHANI, Director, National Physical Laboratory, New Delhi **Nanomaterials: Important issues and challenges**
0910- 0950	Dr. I. MANNA, Director, Central Glass and Ceramic Research Institute, Kolkata **Synthesis and characterization of nanomaterials for functional applications**
0950 - 1030	Dr. M. HUIJBEN, University of Twente, Enschede, The Netherlands **High mobility interface electron gas by defect engineering in a modulation doped oxide heterostructure**
1030 - 1100	TEA

SESSION S2

1100 - 1140	Dr. R. K. KHANDAL, Director, Shriram Institute for Industrial Research, Delhi
1140- 1220	Prof. P. LUND, Aalto University, Finland **Nanotechnology enabling novel electrochemical energy conversion devices**
1220- 1300	Prof. D. C. NIJMEIJER, University of Twente, Netherlands **Design strategies for block co-polymer membranes for CO_2 capture**
1300 - 1400	LUNCH

SESSION S3

1400- 1440	Dr. S. SAMPATH, Indian Institute of Sciences, Bangalore **Materials for electrochemistry and electrochemistry for materials**
1440 - 1520	Dr. A. K. GANGULI, Indian Institute of Technology Delhi, New Delhi **Nanostructured materials for hydrogen generation**
1520 - 1550	TEA

SESSION S4

1550 - 1630	Prof. M. ZEMAN, TU Delft, Netherlands **Silicon based PV research at Delft University of Technology**
1630 - 1710	Dr. K. S. NARAYAN, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore **Fundamentals of polymer photovoltaics and some recent strategies**
1710 - 1750	Dr. HARISH BARSHILIA, National Aerospace Laboratory, Bangalore **Sputter deposited high temperature absorber coatings for solar thermal power generation applications**
1930	Dinner

EICOON School, Thursday, 4th November, 2010, GULMOHAR HALL (IHC)

SESSION S5

0830 - 0910	Dr. R. SCHMECHEL, University of Duisberg-Essen, Duisburg, Germany **Thermoelectric: an old hat with new perspectives**
0910- 0950	Dr. M. SANYAL, Director, Saha Institute of Nuclear Physics, Kolkata **Electronic transport properties of polymer nanowires**
0950 - 1030	Dr. DARIO DELLA SALLA, ENEA Cassacia Research Centre, Roma, Italy **Energy nanomaterials at ENEA**
1030 - 1100	TEA

SESSION S6

1100 – 1140	Dr. SUNIL KUMAR, University of South Australia, Mawson Lakes, Adelaide, Australia **Plasma-based methods for preparing robust two-dimensional nanomaterials for enabling sustainable energy technologies**
1140 – 1220	Dr. S. RAY, Indian Institute of Technology Kharagpur, Kharagpur **II-VI semiconductor hybrid nanocomposites for photovoltaic applications**
1220 – 1300	Dr. S. RAMAPRABHU, Indian Institute of Technology Madras, Madras **Carbon based nanomaterials: Processing and applications**
1300– 1400	LUNCH

SESSION S7

1400 – 1440	Dr. S. M. SHIVAPRASAD, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore **Heteroepitaxial interface formation: Surface phases and nanostructures**
1440 – 1520	Dr. GOUTAM DE, Central Glass and Ceramic research Institute, Kolkata **Functional nanocomposite coatings of technological importance**
1520 – 1600	Prof. B. R. MEHTA, Indian Institute of Technology Delhi, New Delhi **Nanostructured solar cells**
1600 - 1630	TEA
1630	Concluding Discussion