

**Department of
Energy Science and Engineering
Indian Institute of Technology Bombay**

Presents

ENERGY DAY 2009

ON 21ST - MARCH - 2009

Department of Energy Science And Engineering, IIT Bombay

VISION: The Department of Energy Science and Engineering (DESE) has a vision to develop sustainable energy systems and solutions for the future. DESE aims to achieve this through a two pronged strategy:

- New innovative academic programmes meeting the future needs for capacity building in the energy sector.
- Establishing strong research groups and state of the art research infrastructure in energy.

In addition to the existing M.Tech and Ph.D programmes in Energy Systems Engineering, the new department has started an integrated M.Sc - Ph.D programme in Energy from 2007 and a Dual Degree (B.Tech. – M.Tech.) programme in Energy Systems Engineering from 2008.

Department of Energy Science and Engineering is thus setting new standards in the field of energy with its expertise in renewable energy, power systems and energy conservation and providing the nation with much needed pool of talent to make our country energy self-sufficient in coming years.

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Sustainable development is the benchmark of growth of a nation. This could be only achieved through an intermingling of the ideas from industry and academic world. Energy Day is an action that aims to involve the wider public in a wide range of activities related to the production or use of renewable energy sources and energy efficiency. Hence, with this objective in mind Energy Day will be celebrated on 21st March 2009.

It is aimed to disseminate the postgraduate student research in energy industry and to strengthen industry – academic relationship. The program involves presentations by the students showcasing the research work, poster presentations and a panel discussion. The purpose of presentations of the students is to bridge the gap between the industry and the academic world in terms of technology transfer. This also helps the people from IIT to understand what further research work is to be carried out to support the industries.

This year the topics covered are,...

Renewable Energy Systems

- Design, Fabrication and Performance Evaluation of Updraft Wood Gasifier for Thermal Application
- Design of Receiver for Solar Stirling Engine
- Optimization of Solar Industrial Process Heat System
- Development of Testing Procedure for Solar Concentrators
- Measurement of Current Density Distribution in Fuel Cells
- Silicon Quantum Dots in SiN_3 for Solar Cell Applications
- Low Concentrated Silicon Solar Cell
- Design and Development of Stirling Engine
- Fault Detection and Identification in Wind Turbines

Improvement in Conventional Energy Systems

- ✎ • Refinery Hydrogen Management
- ✎ • Development of Building Advisor for Energy Efficiency
- ✎ • Impact of Demand Side Management on Power Planning
- ✎ • Energy Efficiency in Stenter Operation
- ✎ • Experimentation and Modelling of Passive Decay Heat Removal Systems in Nuclear Reactors
- ✎ • Development of Bipolar Plate System for PEFC with Reduced Weight and Volume

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Applied Power Electronics and Electrical Machines to Energy Systems

- ✎ • Paralleling of One Cycle Controlled Bi-directional Converters
- ✎ • Design, Development and Evaluation of Solar PV-LED Lighting Systems
- ✎ • Design of Motor and Speed Controller for Electric Vehicle
- ✎ • Remote Monitoring and Diagnostics of Transformers
- ✎ • Control of Stand-alone Photovoltaic Power Systems





Power System and Distributed Generation

- ✎ • Multi-Objective Optimization of Electrical Power Dispatch
- ✎ • Renewable Energy Scenarios for the Indian Power Sector
- ✎ • Wide Area Measurement in Power System
- ✎ • Design of Isolated Power Systems for Village Electrification
- ✎ • Wide Area Synchronized Measurement of Frequency
- ✎ • Optimal Design of Wind Based Isolated Power System for Remote Applications




Sponsorship Details

With the goal of affiliating more industries with our department, we are offering sponsorship opportunity.

Event Sponsor : Rs. 1,00,000/-

-  Unlimited advertising space in auditoriums
-  Name appears in Event Title
-  Advertising space on Energy Day Website
-  Advertising space on back cover page of PAPYRUS (book of papers released on Energy Day)

Session Sponsor : Rs. 25,000/-

-  2 banners in the sponsored session
-  1 page advertising space in PAPYRUS
-  Space for company logo on Energy Day Website

We are open to any other sponsorship schemes proposed by organizations.

Participation Details

Registration for participating in Energy Day 2009 is free.

Contact Us

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