



**2012 IEEE Fifth  
India International Conference  
on  
Power Electronics  
(IICPE 2012)**

**December 6<sup>th</sup> -8<sup>th</sup>, 2012**

**Organized at  
Delhi Technological University,  
Delhi, India**

# REPORT

**2012 IEEE Fifth India International Conference on Power Electronics (IICPE2012)** was held at Delhi Technological University, Bawana Road, Delhi, India from 6<sup>th</sup> -8<sup>th</sup> Dec. 2012. The conference is technically sponsored by IEEE-PELS society and IEEE-PES society and co-sponsored by IEEE PELS-IES Delhi chapter and IEEE-PES-IAS Delhi chapter. The main financial supporter of the conference is Delhi Technological University besides several other Government organizations, consulting firms and professional Institutes.

The conference is quite a success in the sense that we had received a record number of 321 papers from 10 different countries across the globe. The reviewers for the papers are academicians and professionals from India and abroad. Keeping in view the theme of conference, 207 papers are selected for oral presentation in the conference. Ultimately 159 papers are submitted for uploading to IEEE Xplore, as qualified in terms of requirement of registration, presentation, and Xplore compliance.

The conference has total 24 paper presentation sessions (6 technical sessions and each technical session have 4 parallel sessions), 2 parallel tutorial sessions, a panel discussion on ‘Innovations and application of Power Electronics for Sustainability’, keynote address and 3 plenary sessions. The Conference Digest and CD of the Proceedings contains all the selected and registered papers and the tutorial notes.

The tutorials were delivered by

1. Prof. Bhim Singh, FIEEE, IIT, Delhi

**“Recent trends in Renewable Energy Systems”**

2. Prof. Ajit Chattopadhyay, Life Fellow IEEE

**“Advances in High Power Industrial AC Drives and Their Control”**

Panel Discussion on **“Innovations and Application of Power Electronics for Sustainability”** Presided by **Prof. Dushan Boroyevich**, FIEEE, President IEEE PELS.

The keynote address was delivered by Prof. K. Gopakumar, FIEEE, IISc Bangalore **“Cascaded multilevel inverter fed drives- A recent trend”**

Plenary Talks were delivered by

1. Prof. Sudip Mazumdar, Univ. of Illinois, Chicago USA,  
**“Hybrid Modulation Scheme for Dc-Link-Capacitor-Less High-Frequency-Link Inverters”**
2. Mr. Meenu Singhal, Rockwell Automation  
**"Variable frequency Drives for Energy savings"**
3. Mr. Somendra Kumar, Alstom India  
**“SCADA Systems”**

The photographs of the conference are available on the following links

6th Dec

lab, <https://picasaweb.google.com/112571879842592118393/IICPE20126Dec2012?authuser=0&authkey=Gv1sRgCPLLpKS0mNat1gE&feat=directlink>

7th Dec

Lab, <https://picasaweb.google.com/112571879842592118393/IICPE20127Dec2012?authuser=0&authkey=Gv1sRgCI-p48nFiPONJw&feat=directlink>

8th Dec

Lab, [https://picasaweb.google.com/112571879842592118393/December26201202?authuser=0&authkey=Gv1sRgCNadsJCd7a\\_a9QE&feat=directlink](https://picasaweb.google.com/112571879842592118393/December26201202?authuser=0&authkey=Gv1sRgCNadsJCd7a_a9QE&feat=directlink)

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## **SCOPE OF THE CONFERENCE**

### **Semiconductor Devices**

- Switching Techniques, Concepts for low loss switching
- Switch-mode power supplies
- Novel converter topologies
- EMC and power quality

### **Application of Power Electronics in Power Systems**

- Synchronous machines and special generators
- HVDC, Smart grids, FACTS, and Micro-grids
- Power quality and protection (including power factor correction / active power filters)
- Energy efficiency and demand side control
- Distributed generation

### **Renewable energy systems**

- Wind power (on-shore and off-shore)
- Solar PV (including MPP schemes)
- Tidal, wave, Sea, river and hydro power systems
- Energy storage, Fuel cells, batteries, super capacitors and other storage devices

### **Power Electronics and Machine Control**

- Induction, permanent-magnet and reluctance machines, Special machines
- Motion control system
- Design, modelling and Condition monitoring

### **Application of Power Electronics to Transportation**

- Railway electric Systems, Marine propulsion, Aerospace
- Starter / generator systems

- Electric/ fuel cell/ hybrid vehicles

### **Industrial applications**

- Application case studies
- Energy efficiency and Integrated drives

### **Technical Sponsors and Co-sponsors**

- IEEE Power Electronics Society
- IEEE Power & Energy Society
- IEEE PELS-IES Delhi Chapter
- IEEE PES-IAS Delhi Chapter

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- Delhi Technological University

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