

## IEEE India Council PES Chapter

### National Workshop on Emerging Technologies in Electrical Power Engineering



PES chapter of India Council IEEE conducted a three days' National Workshop on Emerging Technologies in Electrical Power Engineering (NWET-2017) during 16-18, Feb 2017 at Silicon Institute of Technology, Bhubaneswar with a focus on "Present Research trends in Power System Operation and Control".

Dr Sivaji Chakravarty, Director, NIT, Calicut and chair, IEEE India Council PES chapter was the guest of honor.

Eminent speakers in the field of Power Systems like Prof P.K. Dash, Prof A.K.Tripathy, Prof Subhransu Samantaray, Prof Sukumar Mishra, Prof P.K.Hota,

Prof Ramaprasad Panda, Prof Abhijit Mahapatra talked on the occasion.

Practicing Engineers K.C Mahapatra, Mr Manoranjan Mahanty and Mr P.K.Patnaik talked on how Power system was managed in Odisha.

Prof Chinmoy Panigrahi and Mr Routh from neighboring KIITs University talked on challenges with grid integration of Renewable Energy.

Participants were from OPTCL, PRDCL, CPRI, OHPC, GRIDCO, IIT and Silicon Institute of Technology, the hosting Institution.

### Workshop on "Emerging Trends and Real Time Simulation of Electrical Networks for Smart Grid"



To handle the growing demands of the power systems, various novel technologies have been incorporated in power grid/electrical network system towards achieving the smart grid. To address some of these issues, a one day workshop was organized by Power Systems Division of Central Power Research Institute (CPRI) on 21<sup>st</sup> Oct 2016 at CPRI Campus at Bengaluru, India.

The theme of this workshop was "Emerging Trends and Real Time Simulation of Electrical Networks for Smart Grid". Dr. Amit Jain, Joint Director and Mr. R. James Ranjith Kumar, Engineering Officer

from Power Systems Division of CPRI were coordinators of this workshop.

This workshop was technically co-sponsored by Power & Energy Society (PES) chapter of IEEE India Council. Dr. Sarasij Das from Indian Institute of Science, Bengaluru and Dr. Ilamparithi from OPAL-RT Technologies India Pvt. Ltd. delivered the lectures during this one day workshop.

This workshop focused on Smart Grid, Phasor Measurement Unit (PMU) and Wide Area Measurement Systems (WAMS), Recent Trends in EMS/SCADA systems and Real Time Simulation for Electrical Networks.

About 35 participants from power utilities, academic and research institutes, and industries actively participated in this workshop.

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**Leonardo Da Vinci combined art and science and aesthetics and engineering, that kind of unity is needed once again. -- Ben Shneiderman**

## National Conference on “Challenges and Issues in Operation of Competitive Electricity Markets”



Restructuring or Deregulation involves unbundling and represents disaggregation of power systems into the basic parts of generation, transmission and distribution from vertical integrated structure. Power Systems Division of Central Power Research Institute organised a two day National conference on “Challenges and Issues in Operation of Competitive Electricity Markets” during 8-9 Dec 2016 at CPRI, Bengaluru. Dr. Amit Jain, Joint Director, Shri P Chandrasekhar, Joint Director, and Shri S. Prabhakar Karthikeyan, from Power Systems Division from Central Power Research Institute were co-ordinators of this National conference

This two day National Conference was technically co-sponsored by Power & Energy Society (PES) chapter of IEEE India Council section.. Thirty five research papers were presented along with

two Keynote addresses. Shri Pankaj Batra, Member (Planning), Central Electricity Authority, New Delhi inaugurated the conference on 8<sup>th</sup> Dec and delivered the Inaugural keynote address on “Evolution of Power/Electricity markets in India”. On the second day, another keynote address on “Open access-A key to power market development in India” was delivered. On the last day, a visit to various laboratories of CPRI was also arranged for the benefit of participants.

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## IEEE India Council PES Chapter

### At Silicon Institute of Technology, Bhubaneswar-751024, Odisha

Since 2015 April , the PES chapter of India council IEEE is operational at the Silicon Institute of Technology, Bhubaneswar, Odisha. The past Chairman was Dr R. Nagaraja, M.D, PRDC, Bangalore and was operating from Bangalore. The events report for the year 2015 submitted to region 10 is available at <http://pes.org.in/>

### Events for the year 2016



#### Meetings of the executive body in 2016:

The chapter held three meetings of its executive body in the current year. The meetings were held on 18.05.2016, 22.07.2016 and 8.10 2016. PES members from the institute and neighboring colleges attended the meeting.

**Bhubaneswar subsection:** Recently Bhubaneswar has become a regular subsection of IEEE under the Kolkata section, and the PES chapter has been recognized. (ref: Approval incident 160823000365). In an executive body meeting of the IEEE Bhubaneswar

subsection on 8.10.16 it was decided that the PES chapter of the subsection shall extend full support to the PES chapter of India council.

**Technical Sponsorship of events:** The Following two events have been granted technical sponsorship:-

1. National conference on challenges and issues in operation of competitive electric market Dec 8-9 -2016 organized by CPRI. Dr. Amit Jain vice chair PES India council is the coordinator.
2. Emerging trends and real time simulation on October 21<sup>st</sup> 2016 at CPRI. (already held)

Technical co-sponsorship was extended to one day seminar and tutorial held by Dr. Anurag Srivastava from Washington State University at Bangalore. He talked on ‘Advances on Power System Operation and Control using PMU’. India Council PES vice chair Dr Amit Jain coordinated the event.



On 8<sup>th</sup> Oct 2016, PES India Council sponsored a technical talk at Silicon Institute of Technology.

The topic was “*Cryogenics , an uncommon subject for the common man*”. The talk was given by Dr Sunil Sarangi, former director of NIT Rourke.

The talk was attended by over 75 participants

**Chapter Chair Meet:** Prof Ram Prasad Panda, Secretary, PES India Council attended the PES Chapter Chair’s Meet at Melbourne during 28-29 Nov 2016. In 2015, Prof A.K.Tripathy Chair India Council PES attended the meeting at Bangkok and the ISGT opening session during 3-4<sup>th</sup> Nov 2015.

**A DLP program** by Dr.Arindam Ghosh was initiated by PES Chapter Pune and supported by PES Hyderabad and PES India Council was held in February 2017.

**National level workshop** in Feb 2017: IEEE PES and Dept .of Electrical and Electronics SIT had organised a National workshop during 16 – 18, Feb 2017 on ‘Present research trends in Power System Operation and Control’

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## AISYWC – 2016

### (All India Student Young Professional and Women in Engineering Congress)



AISYWC -- All India Student – Young Professionals – Women in Engineering Congress is the annual hallmark event of the IEEE India Council. Founded in 2000, the AISYWC has grown over the years to become the biggest event on the calendar for IEEE members in India.

It is a conglomeration of inventors, professionals, entrepreneurs, visionaries and some of the greatest minds in the country. By bringing together amazing people from all walks of life, the AISYWC empowers its participants to be inspired, collaborate together and innovate for tomorrow.

In 2016, AISYWC was hosted by IEEE Delhi Section along with IEEE Rajasthan Subsection at The LNM Institute of Information Technology (LNMIIT), Jaipur, Rajasthan from 7th to 9<sup>th</sup> October, 2016 on the

theme “Innovate to Create revolved around the central idea of the power of ideation and execution”

AISYWC-2016 was planned and executed successfully keeping in mind every requirement of student and Young Professional delegates and was a blend of informative sessions about both, career options and IEEE, technical presentations and discussions. For a detailed report on AIYSWC-2016, pl. visit <http://sites.ieee.org/indiacouncil/files/2017/02/AISYWC16-Final-Report.pdf>

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**Single typo turned some of biggest websites down on Feb 28:** Amazon Web Services (AWS) outage that put some of the world’s biggest websites like Quora, AOL, and ESPN down on February 28, was caused by a single typing error in code by an employee. The typing error took down a larger set of servers than intended. Amazon systems weren’t designed to deal with an error of this magnitude.

**Residential house 3D printed within a day at ₹6.76 lakh:** Russian startup Apis Cor has 3D printed a residential house within a day at ₹6.76 lakh, making it the first time a house was printed wholly on site, rather than assembled from pre-printed panels. The single-floor house was built using a special concrete mixture, that was used as printing ink. The house-building printer can operate even in temperatures below -35°C. <https://youtu.be/xktwDfasPGQ>