

Department of Electrical Engineering

Two Day National Conference on

“Emerging Technologies in Operation & Control of Future Power Systems”

April 8-9, 2016

SUMMARY

The national conference on “Emerging technologies in operations and control of future power system” was hosted by Electrical engineering department. The conference was successfully held during 8-9 April, 2016 at SKIT, Jaipur.

The conference highlighted the themes for development and operations in power systems, power quality issues, electricity market designs and smart grids.

The event was successful in gathering renowned speakers from various reputed organizations and their paramount talks enlightened the gathering. The pragmatic meeting organized by electrical department has marked a great presence of young researchers and talented student communities, driving this event into path of success with thought provoking and plenary presentations.

150 research papers from various engineering colleges were received, out of which 73 papers were selected for presentation. Approx. 50 papers were presented in conference during all sessions and 15 posters were selected for poster presentation.

The first day started with registration for the participants followed by inaugural ceremony. The ceremony was chaired by chief guest prof. K.V.V. Murthy, IIT Gandhinagar with contributions of guest of honor Prof. Dinesh Birla, RTU Kota, Prof. K.R.Niazi , MNIT Jaipur, Chairmen Shri Surjaram Meel , SKIT, Director Shri Jaipal Meel , SKIT, Director academics Prof. S.L Surana, SKIT, Director(D&W) prof. S.K. Calla, SKIT, Principal and head, EE dept., Prof. Ramesh Kumar Pachar.

Floral welcome was given to the dignitaries by college.

Welcome speech was given by Shri Surjaram Meel. He briefed about the very purpose of organizing the national conference and welcomed all the dignitaries. He focused on Emerging technologies and emphasized to reduce power leakage in India.

Further his speech was followed by Shri Jaipal Meel whose warm welcome and pleasant speech has given a spark to the conference. He discussed about the challenges such as power consumption and power theft.

Prof. Ramesh Kumar Pachar emphasized on the theme of conference for sustainable growth of renewable energy sources. But renewable energy resources put some challenges to power system. He thus focuses on the idea to come up with updated solution which provides high stability and sustainability.

Dr. S.L.Surana elaborated the concept of transformation from conventional grid to smart grid. He briefly discussed about the preferences given to AC over DC, installation of national grid, HVDC power systems and need of smart meters to increase reliability. His speech motivated the students, faculties and researches to think innovatively in the field of emerging technologies in power systems.

Prof Dinesh Birla in his inaugural speech addressed to the gathering, appreciated the SKIT institute for installing 400 KW solar powerplant all around the campus. He stated that it is a matter of pride and privilege for students to have enrolled in such an institute which has a substantial insight.

Prof.K.R.Niazi emphasized on creating awareness in society about upcoming technologies. He appreciated the growth and efforts at SKIT by organizing such events and also praised for future endeavors

Chief Guest Prof K.V.V Murthy concluded the session by giving his inspirational guidance to young minds which can change the society. He focused o the sources of power system leakage, challenges faced by engineers to use solar energy efficiently and mitigation of power theft the congratulated the entire team of SKIT for taking such initiative in the direction of progress and wished the success at the conference

The dignitaries were then presented shawl and mementos as a memory of the conference.

The vote of the thanks for the inaugural function was proposed by Dr S.K.Calla (Director D&W). He stated the installation of 400kW solar plant along with net metering has made a great name of SKIT College even outside Rajasthan.

After a short break, the conference continued with the beginning of the Technical session 1st.

Prof K.R Niazi, MNIT Jaipur presided over the session with a keynote address on “Flexible AC Transmission system”. In this speech, he mainly focused on increment in technical & commercial efficiency and full use of power resource.

Then Prof Dinesh Birla, RTU KOTA followed the session with key note address on “Power Network Relay Coordination”. He is the 1st person to identify some constraints for power system protection and mainly emphasized on these constraints in his speech. With the accomplishment of his key note.

The technical session 1st ended after lunch break, Technical session 2nd commenced. This session was initiated with a key note address of Prof K.V.V Murthy. His topic was “Artificial Neural Network”. He elaborated the concept of ANN learning for power system, gesture learning and pattern reorganization.

With his keynote, technical session 2nd was concluded.

On the II Day of Conference, III technical session commenced with a keynote address of Dr. RohitBhakar, MNIT Jaipur on “Operational Challenges in Restructured Power Markets”. In his keynote, he emphasized on topics like:-

- Traditional regulated Power System
- Characteristics of traditional power system
- Motivation to change
- New market design requirements
- Evolving market design
- Indian electricity act 2013
- Electricity act 2014
- Indian power sector structure
- Classical Power System
- Restructured power systems
- Electricity Markets
- Uncertainty impacts on restructured power markets

The participants from various institutions have presented their research papers. The first presentation was given by GauravKumawat on “Fuzzy State Feedback Controller for Non-linear System”. It was followed by the presentation of Umesh Kumar on “New century substation for India”. He focused on the substation design, dry transformers, FACTS and fiber optic cables. The next paper presentation was given by Piyush Chandra Prakash on “Distributed Generation System using Micro Smart Grid”. He discussed about distribution generation and micro smart grid”. The next paper presentation was given by Ashok Suthar on “To Make a Better World: Switch to Solar Energy”. He emphasized on solar energy and its conversion into electricity. With this presentation III technical session was concluded.

After a brief tea break, IV technical session began with the keynote address of Dr. JayshreeVajpai, MBM Jodhpur on “Forecasting Energy Demand”. She mainly focused on the topics such as:-

- Time series forecasting
- Monte Carlo Model
- Neural Network
- Evolving Fuzzy Neural Network Model

In her keynote, evolving fuzzy neural network model was compared with time series forecasting and monte carlo model and it was concluded that evolving fuzzy neural network predicts the energy demand better than other methods.

After the keynote address, the paper presentation was continued by Deepak Saini on “Electricity price forecasting using Interbreed approach of linear regression and SVM”. He presented straight forward approach for establishing different regression modeling between historical data sets to the predicted data sets. The next paper was presented by NehaSoni on “Automatic protection of power transformer using PLC”. She stated that by using PLC in power transformation protection the overall maintenance cost is reduced and life is increased. Further the paper presentation was given by Abhishek Jangid on “Reduction of losses in radial distribution system using genetic algorithm”. He emphasized on the merits of capacitive placements and genetic algorithm. The next paper was presented by NavneetMaru on” Estimation of optimum tilt angle and orientation of photo voltaic panels in BAP-RAJASTHAN”. A memento was given to Dr. JayshreeVajpai by Prof. Ramesh Kumar Pachar. Further the next presentation was followed by Purva Sharma on “Fault detection & classification in power system using supervised learning methods”. The next presentation was given by Nidhi Vijay on “Operational allocation of the shunt capacitor in radial distribution system”. She briefed about the challenges in distribution system. The final paper presentation was given by Preeti Kumawat on “Distribution automation system in India”.

SKIT PROFILE



Swami Keshvanand Institute of Technology, Management & Gramothan (SKIT), Jaipur was established in the year 2000, by a team of committed professionals and academicians. SKIT is among the best Institutions not only in Rajasthan but also in North India. The institute is affiliated to the Rajasthan Technical University, Kota and approved by All India Council for Technical Education (AICTE), New Delhi. The institute offers 4 year B.Tech. & 2 year M.Tech. & M.B.A. Degree courses. UG courses of the institute are accredited by National Board of Accreditation (NBA) and IE (I).

ABOUT DEPARTMENT

The Department of the Electrical Engineering was established in the year 2000. The department has grown significantly and currently offers UG (B.Tech.) course in Electrical Engineering, M.Tech course in Power Systems and is an approved research centre for PhD program. The Department of Electrical Engineering has been accredited by NBA, New Delhi and IE (I). The organization of Workshops, Seminars, Expert Lectures related to advancement in Electrical Technology is a regular feature of the department. The Department has well qualified team of faculty members. Other than regular academics, most of them are involved in continuing education programmes and research activities in areas of Power Systems, Power Electronics & Electrical Machines.

For Detailed Information Please Contact :

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Organizing Secretary:

**Sarfaraz Nawaz
(9351403141)**

**Ankush Tandon
(7737279925)**

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INFORMATION BROCHURE

Department of Electrical Engineering

&

IE Student Chapter of SKIT



Swami Keshvanand Institute of Technology,
Management & Gramothan, Jaipur

Organize

Two Day National Conference on

“Emerging Technologies in Operation &
Control of Future Power Systems”

8-9 April, 2016



in Association with



The Institution of Engineers (India)
Rajasthan State Centre, Gandhi Nagar, Tonk Road, Jaipur

Venue

Swami Keshvanand Institute of
Technology, Management & Gramothan
Jagatpura, Jaipur-17 Phone: 0141-5160400

Web: www.skita.ac.in

ABOUT CONFERENCE

In spite of so many advancements in the power and energy sector over the last two decades, its survival to cater quality power with due consideration for planning, coordination, marketing, safety, stability, optimality and reliability is still believed to remain critical. Though it appears simple from outside, yet the internal structure of large scale power systems is so complex that event management and decision making require a formidable preliminary preparation, which gets still worsened in the presence of uncertainties and contingencies. These aspects have attracted several researchers to carryout research in this field and their valued contributions have been significantly helping the newcomers in understanding the evolutionary growth in this sector. This conference aims at bringing together academicians, researchers, engineers and professionals who are working in this area on a common platform to share their thoughts.

SUB THEMES

- Developments in power system planning
- Power system operation and real-time control
- Power systems modeling, simulation, and analysis
- Network protection and distribution automation
- Smart grids
- Integration of renewable energy sources
- Energy storage technologies
- Power quality issues and mitigation techniques
- New energy conversion and (hybrid AC/DC) distribution technologies
- Electromagnetic compatibility and transient behavior of new grid architectures
- Smart energy systems in the built environment
- Electricity markets design and regulatory issues

EMINENT SPEAKERS

Eminent speakers from IITs, NITs and PSUs will be available to grace the conference & to deliver the key note addresses.

ABOUT JAIPUR

Jaipur, also popularly known as the Pink City, is the capital of the state of Rajasthan. Founded on 18 November 1727, by Maharaja Sawai Jai Singh II, the then ruler of Amber, the city today has a population of more than 3.5 million. Jaipur is the first planned city of India. The city which once had been the capital of the royalty now is the capital city of Rajasthan and at present, Jaipur is a major business & educational center with all requisites of a metropolitan city.

INVITATION

SKIT Jaipur and Electrical Engineering Division board of Institution of Engineers (India) extend a cordial invitation to engineers, academicians, chief executives, manufacturing industry professionals, R&D scientists and all concerned with engineering industry to participate in this National Conference. This is a unique opportunity for all stake holders and professionals concerned to deliberate in an integrated and inter-related manner on the latest developments & challenges of the industry.

ABOUT THE IE(I)

The Institution of Engineers (India), (IEI), was established in 1920 as the first professional body of engineers in India. Incorporated by royal charter in 1935, to promote & advance the art, science, practice of engineering & technology amongst the members with the persons attached to the institution. It is a multi-disciplinary professional body.

CALL FOR PAPERS

Papers for presentation in the technical sessions of the conference are invited from Engineers, Academicians, Research Scholars, Students and Consultants. Selected papers will be published in "SKIT Research Journal-An International Journal of Engineering, Science, Humanities & Management (ISSN 2278-2508)". All the papers should be in IEEE format and a soft copy of the same must be mailed at eeskit2016@gmail.com

IMPORTANT DATES

Submission of Abstract	20/3/2016
Paper Acceptance Notification	23/03/2016
Submission of Full Length Paper	30/3/2016

REGISTRATION FEES

UG & PG students/research scholars	Rs. 300.00
Delegates from academic institutions	Rs. 500.00
Delegates from industries	Rs. 500.00

REGISTRATION FORM

Two Day National Conference on
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Control of Future Power Systems”
(8-9, April, 2016)

Name:

Designation:

Organization:

IE membership No.:

Email:

Mobile No.:

Presenting paper: Yes/ No

If Yes, Title of Paper:

Accommodation Required: Yes/ No

If Yes, No. of persons:

I enclose herewith AT PAR cheque/DD no.

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for Rs. in favor of "Swami

Keshvanand Institute of Technology, Management &

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