

**Department of Electrical Engineering,
IE Student Chapter of SKIT &**

Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur
Organized

AICTE SPONSORED

Two Day National Conference

on

**“Power System Operation & Energy Management : Vision
2020”**

24th – 25th January, 2014

In Association with

The Institute of Engineers (India)

Rajasthan State Centre, Gandhi Nagar, Tonk Road, Jaipur - 302015

Venue :

**Swami Keshvanand Institute of Technology, Management & Gramothan,
Ramnagar, Jaipur**

SUMMARISED REPORT

The Phase-II of two day national conference on **“Power System Operation & Energy Management : Vision 2020”** was organized on 24th – 25th January, 2014

INAUGURAL SESSION (24th January, 2014)

**Venue: Seminar Hall, Mechanical Block, Swami Keshvanand Institute of
Technology, Management & Gramothan, Ramnagar, Jaipur**

Chief Guest : Dr. M.L. Kothari, Emeritus Professor, IIT Delhi

**Guest of Honour 1 : Dr. K. R. Niazi, Prof., Department of Electrical Engineering, MNIT,
Jaipur**

Dignitaries on the Dais:-

Chief Guest : **Dr. M.L. Kothari**, Emeritus Professor, IIT Delhi

Guest of Honour : **Dr. K. R. Niazi, Prof., Department of Electrical Engineering, MNIT, Jaipur**

Sh. Surjaram Meel : Chairman, SKIT M&G, Jaipur

Dr. S. L. Surana : Director (Academics), SKIT, Jaipur

The programme was jointly organized by Swami Keshvanand Institute of Technology, Management & Gramothan and Institute of Engineers (India).

The programme started with lamp lighting followed by the floral welcome of the Chief Guest and Guest of Honour.

Prof. N.K.Banthiya, Head, Mechanical Dept., SKIT welcomed the Chief Guest, **Dr. M.L. Kothari** and **Dr.Ramesh Kumar Pachar**, Vice-Principal and Head, Electrical Dept., SKIT welcomed Guest of Honour **Dr. K. R. Niazi**.

The welcome note was delivered by the Chairman of the Institute **Sh. Surjaram Meel**. He stated that to contribute to the electrical power sector development and generation of electrical power, every individual needs to pay his bill, by saving electricity and stop it's wasteful utilization. He also stressed on the importance of moral education among the youth.

After that **Dr. S.L. Surana** addressed the audience about the objective of the conference. He told a brief history of electrical power infrastructure development over the world. It included every important development starting from the discovery of concept of GSS (Grid Sub Station) by T.A. Edison to the present scenario of the Indian electrical power sector. He also told about Smart Grid and its implementation in Northern India and told about the ongoing discussions in the world, on the Installation of HVDC networks.

A motivational talk was given by the Chief Guest **Dr. M.L. Kothari**, Emeritus Professor, IIT Delhi and then by the Guest of Honour **Dr. K. R. Niazi**, Prof., Department of Electrical Engineering, MNIT, Jaipur. Both of them talked about the various facets of electricity generation, the problems plaguing the supply system and the need for innovation in it.

To express our gratitude to our learned guests, we honoured them with a token of remembrance. **Dr.S.L.Surana**, Director (Academics) SKIT presented a shawl and memento to **Dr. K. R. Niazi** and **Shri Surjaram Meel**, Chairman, SKIT gave the shawl and memento to **Dr.M.L.Kothari**.

The **Vote of Thanks** for the Inaugural Session was delivered by **Mrs. Smriti Jain**

The Inaugural session concluded at 11:00am. The function was very well attended by around 250 persons.

Friday, 24th January, 2014

TECHNICAL SESSION – I (11:30 am – 2:00pm)

Keynote Address : (11:30 am – 12:30 pm.)

Two Keynote Addresses were delivered after the inaugural session, as follows:-

11:30 am - **Prof. Ramesh Bansal**, Department of Electrical, Electronic & Computer Engineering, University of Pretoria, South Africa.

12:00 noon - **Prof. K.R. Niazi**, Prof., MNIT, Jaipur

The following papers were presented in the Technical Session I.

Chairperson : Prof. K.R. Niazi, Professor, Electrical Engineering Department, MNIT

Technical Presentations (9 papers)

S.N.	Author	Title Of Paper
1	Abhishek Gupta, Jyoti Mishra S.N Joshi, Mukesh Kumar Baliwal	Simulation Model of Photovoltaic Module Using MATLAB
2	Suman Sharma	Optimal Location of SVCs in Power System
3	Deepak Pareta, Avadhesh Sharma, Bharti Krishna, Harshita Sharma	Distributed Generation Using Renewable Resources: Potential & Future Aspects in India
4	Avadhesh Sharma , Akash Sharma , Deepak Pareta	Power Quality: Current Status and Challenges
5	Suman Sharma	Understanding Power System Stability
6	Divya Jain , Ayushi Gupta	Short-Term Hydrothermal Generation Scheduling Model Using A Genetic Algorithm
7	Avdhesh Agarwal, Akash Talwariya, Rohan Sharma, Hemendra Singh	A Multi-Agent Approach to the Deregulation and Restructuring of Power Industry
8	Smriti Jain, S.L. Surana	Fault Analysis of Unbalanced Multiphase Distribution Systems With Mutually Coupled Lines, Using Symmetrical Components
9	Ankush Tandon	Minimization of Losses in Radial Distribution System Using Optimal Capacitor Placement

The Technical Session-I was followed by lunch, before the starting of the Technical Session-II.

TECHNICAL SESSION – II (2:00 – 6:00 pm)

Keynote Address : (2:30 pm – 4:30 pm.)

There were two more keynote addresses presented as follows.

2:30 pm - Dr. M.L. Kothari, Emeritus Prof., IIT Delhi.

3:30 pm - Dr. Jayashree Vajpai, Assoc. Prof., EE Dept., JNVU Jodhpur

The following papers were presented in this session.

Chairperson : Dr. Jayashree Vajpai, Assoc. Prof., Electrical Engineering Department, JNVU, Jodhpur

Technical Presentations (10 papers)

1	Rammurti Meena , Bablu Kumar Sharma , Diwakar Chaturvedi	A Single Phase to Three Phase Cycloinverter with Space Vector PWM Controller
2	Shobhit Ahuja, Bhavishya Sharma	Alternative Sources of Energy— An Introduction to Fuel Cells
3	Neha Jain, Parvind Agarwal Shivani Sharma	Analysis Of Power Quality Improvement in Voltage Sag and Load Sensitivity Using Fuzzy Logic
4	Deepti Arela, Hemant Sharma, Shubham Kumar Bhardwaj, Reshu Mittal	Architecture of Converter Technology Used in Renewable Energy Systems
5	Rida Qureshi , Shobhit Ahuja, Ajay Singh	Power System Stability Enhancement Using Unified Power Flow Controller (UPFC)
6	Ashish Mittal, Manoj Jain, Rashmi Sharma, Ashutosh Pareek	Smart Grid Technology, Security, Privacy : Opportunities and Challenges
7	Niharika Goherwal, Kavita Jain, Abhilash Kothari, Anumay Saini	A Review on Three Phase Dual Buck Inverter with Unified Pulse Width Modulation
8	Shantanu Kumar Lakhanwal	Fuzzy Logic Technique Based Speed Control of A Permanent Magnet Brushless DC Motor Drive
9	Swati Harsh, Dr. M. P. Sharma , Sarfaraz Nawaz	Coordination Between Controllers of SVC And Transformer OLTC for Reserving Dynamic Compensation
10	Md. Asif Iqbal, Shivraj Sharma	Comparison of Various Control Strategy of Hybrid Power Generation:-A Review

Saturday, 25th January, 2014

We welcomed our **Guest of Honour Dr. Ravindra Arora**(Prof.,Ing.), Visiting Prof IIT, Jodhpur amidst us.

TECHNICAL SESSION – III (09:00– 11:15 am.)

Keynote Address : (9:00 am – 10:00 am.)

09:00am - **Dr. Ravindra Arora** (Prof., Dr.-Ing.), Visiting Prof., IIT Jodhpur

09:30am - **Dr. Akhil Ranjan Garg**, Assoc. Prof., EE Dept., JNVU Jodhpur

The following papers were presented in this session.

Chairperson : Dr. Akhil Ranjan Garg, Assoc. Prof., EE Dept., JNVU Jodhpur

Technical Presentations (11 papers)

S.N.	Author	Title of Paper
1	Mrinal K.Ghose	Bio-Diesel as A Source of Renewable Energy and Biotechnological Approach to Increase the Yield from Oil Seeds
2	Bharat Modi , Paras Arora	Volt-Hertz Control of Induction Motor Drive Using Multilevel Inverter
3	Ajay Bhardwaj , Amit Khandelwal , Gaurav Sharma	Optimal Efficiency Control Strategy in Wind Energy Conversion System With Induction Generator
4	Deepti Arela , Anurag Kaushik	Electricity Generation by Fruits
5	Jitendra Sharma, Shivam Chawla	Wind Energy : Present Scenario & Future Scope
6	Bharti Krishna	Solar Energy Development and Govt. Initiatives
7	Ashish Nayyar, Chandan Kumar	Performance, Evaluation And Emission Characteristic Of C.I. Engine Using Alternative Fuel: - A Review
8	Neeraj Sharma , Pooja Jain	Experimental Investigation On Small Horizontal Axis Wind Turbine Rotor Using Winglets : A Review
9	Dr. N.K. Banthiya	Exergy Analysis for Improving Performance of Systems – Application to Steam Power Plants
10	Nitin Goel	Impact of Distributed Generation on Distribution System
11	Sonali Singh, Sarfaraz Nawaz	Cloud Computing for Smart Grid: Applications & Opportunities

The Technical Session-I was followed by High Tea, before the starting of the Technical Session-IV.

TECHNICAL SESSION – IV (11.45am – 1:15pm and 2:15pm- 4:00pm)

Keynote Address : (11:45 am – 12:15 pm.)

11:45am - **Dr. M.P. Sharma**, Asst. Engineer, RRVPN Ltd., Jaipur

The following papers were presented in this session.

Chairperson : Dr. M.P. Sharma, Asst. Engineer, RRVPN Ltd., Jaipur

Technical Presentations (4 papers)

1	Aparajita Pandey, Alok Pandey	Securing the Smart-Grid
2	Poonam Madan	Energy Option for India: Future Challenges and Perspectives
3	Vandana Sachdeva	Stand-in Option for Energy Efficiency and Challenges in Energy Management & Policy Planning in India
4	Tarun Naruka , Subhranshu Padhee , Niharika Gotherwal	Condition Monitoring and Fault Detection using Multi Sensor Data Fusion Based Expert System: An Induction Motor Case Study

There was a lunch break from 1:15 pm to 2:15 pm after which the technical session IV was resumed.

Technical Presentations (7 papers)

5	Sarfaraz Nawaz , Ankush Tandon, Akanksha	Optimal Shunt Capacitor Placement in Radial Distribution System By Using GA
6	Ashish Saini, Tarun Cheepa, Pankaj Mishra, Himanshi Sharma	Decarbonizing Methods and Its Impact on Power Generation
7	Jitendra Singh , Jinendra Rahul, Baibhav Bishal, Lovneet Singh Hada	Minimum Required Excitation Capacitance for Three Phase Self – Excited Induction Generator
8	Deepak Pareta, Manish Kumar Navlakha, Narendra Singh Jat	Power Quality Improvement By Reduction of Harmonics In Distribution Transformer
9	Kuldeep Vaishnav	Combined Heat and Power Systems
10	Piyush Javeria, Rida Qureshi	Clean Coal Technologies for Future
11	Ramesh Kumar Pachar, H.P. Tiwari , R.C. Bansal	A Decisive Evaluation of Parks Transformation Based Commonly Used Voltage Detection Method

VALEDICTORY SESSION (4:00pm – 5:15pm)

Brief report of seminar (4:00-4:30pm): Brief report of the Two Days National Conference was presented by four repertoires, Mrs. Smriti Jain, Mrs. Suman Sharma, Mr. Jinendra Rahul & Mrs. Deepti Arela who summarized the events of each of the technical sessions.

Vote of Thanks :

The vote of thanks was presented by Dr. Ramesh Pachar. He expressed gratitude to Chief Guest, Guests of Honour and various dignitaries for taking out their precious time. He thanked Dr. S.L. Surana for his presence and guidance. He thanked the Convener Mr. Sarfaraz Nawaz and the entire organizing committee for making arrangements for the conference. He also thanked all faculty members, student coordinators, electrician and all the concerned people associated with it. Lastly he thanked the audience for patiently listening and learning from the conference.

Distribution of Certificates:

The Certificates were distributed by the Chairperson of the Technical Session IV, **Dr. M.P. Sharma** and **Dr. S.L. Surana** to all participants who had presented technical papers in the Conference.