



NARULA INSTITUTE OF TECHNOLOGY  
81, Nilgunj Road, Agarpara, Kolkata- 700109

**REPORT ON**  
**SEMINAR/ CONFERENCE / WORKSHOP**

1. Name of the Participant : ARKENDU MITRA

(in block letter)

2. Department : Electrical Engineering    3. Designation : Assistant Professor

4. Category :  Faculty     TA     Other Staff

5. Sponsorship :  NIT (TEQIP)     Self

6. Title of the Seminar : Role of Power Electronics in Modern Electrical System

7. Seminar Organized by : Malaviya National Institute of Technology (MNIT), Jaipur

8. Duration : 23-12-2013 to 27-12-2013

9. Total Participant : 67

10. Topic Discussed

1. Application of Power Electronics in the management of Power Factor and VAR.
2. Selection and Design of Passive Components for Power Electronics.
3. Variable Electrical Drive and Generators.
4. Energy-optimal control of Industrial motor drives.
5. Power Electronics in Hydro-electric energy systems.
6. Voltage control in Power System using CMLI based STATCOM.
7. Harmonic in Power System – A challenge and an opportunity.
8. Line losses in Power System – Power Quality Considerations.
9. Matrix Converters.
10. Converters for renewable energy integration.
11. Grid coupling of Distribution energy sources.
12. ASIC & FPGA based digital pulse width modulation for DC-DC converter: A review.
13. FPGA based controller design for DC-DC converter: A case study.
14. Power factor correction (PFC) controller topologies for permanent magnet brushless DC motor drives.
15. Application of search algorithms for PFC controller for Electrical drives.
16. Stand-alone and Grid connected Photo-voltaic system: Design Aspects.
17. Active Power Filter and Automatic Code Generation for DSP Processors.

11. Name of the speakers(with Contact Nos., if possible)

1. Prof. S. K. Biswas.
2. Prof. S. P. Singh.
3. Dr. Thanga Raj.
4. Dr. Jagdish Kumar.
5. Dr. Subhash K Joshi.
6. Prof. R. A. Gupta.
7. Prof. Vishal Verma.
8. Dr. Subhash Dubey.
9. Dr. Sanjeev S. Chauhan.
10. Dr. A. R. Garg.
11. Dr. Nitin Gupta.

12. Name of the Other Participating Institutes :

1. Shri Ramswaroop Memorial Group of Professional Colleges, Lucknow.
2. Madhav Institute of Technology and Science, Gwalior.
3. Y. C. College of Engineering, Nagpur.
4. BSA College, Mathura.
5. Poornima College of Engineering (PCE), Jaipur.
6. Sreenidhi Institute of Science and Technology (SNIST), Hyderabad.
7. Shivaji University, Kolhapur.
8. Govind Ballabh Pant Engineering College, Pauri Garhwal, Uttarakhand.
9. Dev Bhoomi Institute of Technology and Engineering, Dehradun, Uttarakhand
10. University Institute of Technology (UIT), Burdwan University, West Bengal
11. Bhartiya Institute of Engineering and Technology, Sikar, Rajasthan
12. Rajarambapu Institute of Technology, Rajaramnagar, Ismaelpur
13. Fr. C. Rodrigues Institute of Technology (FCRIT), New Mumbai
14. Govt. Engineering College, Aurangabad.
15. Malnad College of Engineering, Hassan, Karnataka.
16. Delhi Technical University, Delhi
17. P. E. S. Institute of Technology and Management, Shimoga, Karnataka
18. Dr. Babasaheb Ambedkar College of Engineering & Research, Nagpur
19. Vignan Lara Institute of Technology & Science (VLITS), Guntur, AP
20. University College of Engineering, Osmania University, Hyderabad, AP
21. Datta Meghe Institute of Engineering, Technology and Research, Wardha
22. College of Engineering, Pune
23. P. E. C. University of Technology, Chandigarh
24. Bankura Unnayani institute of Engineering, Bankura, West Bengal
25. Nirma University, Ahmedabad, Gujrat
26. Govt. Polytechnic, Nashik, Maharastra
27. Guru Tegh Bahadur Institute of Technology, New Delhi
28. Marwadi Education Foundation Group of Institutions, Rajkot
29. Malaviya National Institute of Technology (MNIT), Jaipur
30. Marudhar Engineering College, Bikaner
31. JECRC University, Jaipur

13. Brief report on the deliberation of the Seminar (to be attached as Annexure-II) :

14. Presentation given at NIT on \_\_\_\_\_

15. Presentation Attended by :  Faculty  Students

Date :

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Signature of the Participant

Comments By HOD (with special emphasis on how NIT has been benefited) :

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Signature of HOD

.....  
Signature of Principal

.....  
Signature of Director

## Annexure - II

A five-day workshop on “Role of Power Electronics in Modern Electrical System” held from 23-12-2013 to 27-12-2013 at Malaviya National Institute of Technology (MNIT), Jaipur, was scheduled from 09:30AM to 05:15PM and the different topics covered by the various eminent professors from different institutions all over the India are as follows :

Sl. No.	Topic	Covered by
1.	a) Application of Power Electronics in the management of Power Factor and Var b) Selection and Design of Passive Components for Power Electronics	Prof. S. K. Biswas, Jadavpur University, Kolkata
2.	Variable Electrical Drive and Generators	Prof. S. P. Singh, IIT Roorkee
3.	a) Energy-optimal control of Industrial motor drives b) Power Electronics in Hydro-electric energy systems	Dr. Thanga Raj, IIT Roorkee
4.	Voltage control in Power System using CMLI based STATCOM	Dr. Jagdish Kumar, PEC Chandigarh
5.	a) Harmonic in Power System – A challenge and an opportunity b) Line losses in Power System – Power Quality Considerations	Dr. Subhash K. Joshi, Rt. Suptt. Engg., MPEB
6.	Matrix Converters	Prof. R. A. Gupta, MNIT Jaipur
7.	a) Converters for renewable energy integration b) Grid coupling of Distribution energy sources	Prof. Vishal Verma, DTU Delhi
8.	a) ASIC & FPGA based digital pulse width modulation for DC-DC converter: A review b) FPGA based controller design for DC-DC converter: A case study	Dr. Subhash Dubey, GEC Jammu
9.	a) Power factor correction (PFC) controller topologies for permanent magnet brushless DC motor drives b) Application of search algorithms for PFC controller for Electrical drives	Dr. Sanjeev S. Chauhan, SLIET Longowal
10.	Stand-alone and Grid connected Photo-voltaic system: Design Aspects	Dr. A. R. Garg, MBM Jodhpur
11.	Active Power Filter and Automatic Code Generation for DSP Processors	Dr. Nitin Gupta, MNIT Jaipur

The workshop was very helpful to enhance the knowledge regarding different project as well as research areas. Also some latest topics on power electronics work was discussed which will be very helpful to guide UG students and undergoing PG students for their projects and research purpose.