

BIO-DATA

1. Name : **Dr. ARVIND MITTAL**
2. Designation : Professor
3. Department : Energy Engineering
4. Date of Birth : 17th June 1970
5. Qualifications :



Degree	Award	University	Institution
B.E. (Electrical)	June, 1991	Barkatullah University, Bhopal	MACT, Bhopal
M.E. (PAED)	August, 1993	University of Roorkee, Roorkee	UOR, Roorkee
Ph.D.(Automation of Electric Utility Distribution System)	July, 2002	Barkatullah University, Bhopal	MANIT, Bhopal

6. Experience :

Designation	Duration	From	To	Scale of pay	Employer
Lecturer	6 years	1.7. 92	30.6. 98	8000-275-13500	MACT, Bhopal
Sr. Lecturer	5 years	1.7. 98	30.06.03	10000-325-15200	MANIT, Bhopal
Assistant Professor	3 years	1.07.03	30.06.06	12000-420-18300	MANIT, Bhopal
Associate Professor	12 years 6 Months	1.07.06	27.12.18	37400-67000 GP 9000	MANIT, Bhopal
Professor	5 Years 6 Months	28.12.18	To till date		

7. Learning Material Developed:

- **Author of the following books -**

(a) Performance & Design of Electrical Machines (Standard Publishers)

Jan.1996

(b) Experimentation & viva-voce in Electrical Machines (Standard Publishers)

Aug.1994

(c) Basic Electrical Engineering (TMH, New Delhi) Dec.2005

(d) Basic Electrical and Electronics Engineering (TMH, New Delhi) 2008

(e) Electrical Engineering for MSBTE(TMH, New Delhi) 2008

(f) Basic Electrical Engineering for RGTU (TMH, New Delhi) Aug.2008

(g) Basic Electrical Engineering for RGTU, 2e (TMH, New Delhi) Aug.2009

(h) Basic Electrical and Electronics Engineering for RGTU (TMH, New Delhi)
2011

- Developed the experimental manuals for power Electronics Laboratory, Microprocessor Laboratory.
- Member of review committee for the self-learning Modules Developed by TTTI, Bhopal for the Teachers of REC's.
- Reviewer of the new edition of the book on "Power Electronics" by Singh and khanchandani published by TMH, New Delhi.
- Author of two Technical Reports on "Energy Audit of MANIT Campus" submitted to MANIT, Bhopal.

8. Institute Administrative Work

- Registrar (I/c) of the Institute from Sept.08 to Jan09.
- Controller of Examination for more than a year
- Joint Controller of Examination for three years
- Deputy Controller of Examination for one year
- Assistant Superintendent of Examination (UG) for 02 years (May2000-Sep02)
- Prof I/C (Electrical Maintenance)
- Convener, UG Admission Committee
- Convener and member of AIEEE counseling team for last three years
- Proctor at Institute level
- Programme Officer – NSS Unit, MANIT for four years
- Co-Staff Advisor for Students' Council for 04 years (1995-96, 1996-97, 1998-99, 2000-01)
- Chairman, Students' Co-operative store since Feb.2007
- Treasurer, Students' Co-operative store
- Member of PG Admission Committee for 03 years (1995-1997)
- Deputed for PET counseling work at Government Polytechnic, Bhopal from 8.07.97 to 17.07.97.
- Member of core group in Education Technology from Feb.98 to till date.
- Member of core group in Community Service Cell under TEQIP from Nov.2003 for four years.
- Faculty & Staff Development Incharge (TEQIP) since 2005
- Member of Anti ragging Committee.
- TG for UG and PG Students.
- SRPC expert for Ph.D candidates of other departments
- Act as external expert to evaluate M.Tech Thesis in other Department.
- Professor (I/c) Electrical maintenance since 2017/18.

- Chairman (Admission)
- As a member in Students Grievance Committee in Energy Department
- Chairman for the inspection of raw material for the newly constructed Lecture Hall complex.
- As a committee member for the purchase of Furniture and Fixtures for newly constructed classroom complex.
- As a committee member of Institute Project Management and Monitoring Committee
- As a member of the Institute Energy Conservation Practices Committee (IECPC)
- As an Expert outside the Department for ad-hoc selection committee.

9. **Departmental Administrative Work**

- Timetable In-charge of the Department from July 1995 to July 2002.
- Lab In-charge of Power Electronics Lab from 1992 to 2007.
- Lab In-charge of Microprocessor Lab from 2001 to 2007.
- Lab In-charge of Computer Centre of the Department for 3 years.
- Involved in Development of Power Electronics Lab, senior M/C lab, Microprocessors Lab, Drives Lab and Software Lab.
- Overall project and seminar In-charge for final year during the sessions 1996-97, 1999-2000, 2000-2001, 2001-2002, 2004-05, 2005-06.
- Involved in testing of various equipments and meters through ICSC.
- **Brought an educational aid to the Department from OMRAN ASIA PACIFIC Ltd in form of 10 PLC kits worth US\$5000/- and a cash reward of US\$400/- for the best project of the year.**
- DPRC coordinator of Energy Department for four years.
- Member Write-off committee of the Department
- Member of Board of Studies
- Exam Coordinator
- Successfully organized and conducted PhD admission interviews, ensuring a smooth and transparent selection process.
- Played a pivotal role in introducing new courses at both B.Tech and M.Sc. levels, aimed at enhancing the curriculum and aligning it with current industry and research trends.
- Lab In Charge of Power Controllers lab and Cable Technology lab.

10. List of Publications

REFERRED JOURNALS

1. **Arvind Mittal**, D.M.Deshpande, Ganga Agnihotri, Archana Soni, "Protection Scheme for High Inertia Induction Motor Drives" in MACT Journal, 1999, pp.173-181.
2. Archana Soni, Gayatri Agnihotri, Arvind Mittal, "Protection of Motors Against High Voltage Switching Surges" in MACT Journal, 1999, pp.163-171.
3. Manish Khemariya, **A.Mittal**," Modeling & Simulation of different components of a stand-alone Photovoltaic and PEM Fuel Cell Hybrid System", in International Journal on Emerging Technologies(ISSN NO. 0975-8364), June2011
4. Meena Agrawal, **A. Mittal**," MICRO GRID TECHNOLOGICAL ACTIVITIES ACROSS THE GLOBE", in International Journal of Research and Reviews in Applied Sciences (ISSN: 2076-734X, EISSN: 2076-7366), 2011
5. Manish Khemariya, **A. Mittal**," Optimal Design of a Solar Photovoltaic and PEM Fuel Cell Integrated Energy System for Rural Area" in International Journal of Electrical and Electronics Engineering Research (IJEER), TRANS STELLAR (ISSN 2250-155X) Vol. 2, Issue 4, Dec – 2012, pp73-79
6. Manish Khemariya, **Arvind Mittal** "MATLAB Based Modeling & Simulation of Different Components of Stand – alone Solar PV and Fuel Cell Based Integrated Energy System" National Journal of Engineering & Science and Management (NJESM), Bhopal, ISSN No. 2249-0264, Vol 1 No1 , pp-49-56 , July 2011.
7. Manish Khemariya, **Arvind Mittal**, "Dynamic Modeling of a Solar Photovoltaic and PEM Fuel Cell Integrated Energy System" National Journal of Engineering & Science and Management (NJESM), Bhopal, ISSN No. 2249-0264, Vol 2, No1, pp-70-76, July 2012.
8. Arisutha. S, **Arvind Mittal**, D.M. Deshpande "A Double Input DC to DC Boost Converter for Low Voltage Solar Photovoltaic Systems". International Journal of ChemTech Research, March 2013, Vol.5, No.2, pp 1016-1023.
9. Arisutha.S, **Arvind Mittal**, D.M.Deshpande "Cascaded Multilevel Inverter Topologies for Photovoltaic Power Generation Systems" International Journal of Chemtech Research, March 2013, Vol.5, No.2, pp 1094-1100.
10. Ojha Amit, Chaturvedi P.K., **Mittal Arvind**, Jain S., "Back to Back Connected Multilevel Converters: A Review," IOSR Journal of Electrical and Electronics Engineering, Vol.5, No.5, pp. 57-67, May 2013
11. Ojha Amit, Chaturvedi P.K., **Mittal Arvind**, Jain S., " Performance of 3-Phase Neutral point clamped active front end Multilevel Converter," International Journal of Scientific Engineering and Technology, Vol.2, No.7, pp. 619-625, July 2013
12. P. Sravan Kumar, **Arvind Mittal**, Meena Agrawal, "Bi- Directional Grid-Connected Inverter for Micro-Grid Applications" International Journal of Electrical and Electronics Engineering Research (IJEER) TRANS STELLAR, ISSN(P): 2250-155X; ISSN(E): 2278-943X, Vol . 4, Issue 2, pp 337-346, Apr 2014(IF:5.96)
13. Meena Agrawal, **Arvind Mittal**, "Overview of Multi-Agent Approach for Micro-Grid Energy Management" *IOSR Journal of Electrical and Electronics Engineering (IOSR-JEEE)* e-ISSN: 2278-1676,p-ISSN: 2320-3331, Volume 9, Issue 2 Ver. III (Mar – Apr. 2014), pp 12-16
14. Abid Husain Saifee, **Arvind Mittal**, "Design of Novel Axial Flux Permanent Magnet Generator (AFPMG) for Wind Energy Application" International Journal of Electrical and Electronics Engineering Research (IJEER) TRANS STELLAR, ISSN(P): 2250-155X; ISSN(E): 2278-943X, Vol . 4, Issue 3, pp 35-42, Jun 2014(IF:5.96)
15. Meena Agrawal, **Arvind Mittal**, "An Appraisal of Microgrid Project Implementations in the East & South-East Asia" International Journal of emerging trends in engineering and development (IJETED)
16. Meena Agrawal, **Arvind Mittal**, "Deployment of Microgrids in the Developed Countries: An Appraisal" International Journal of Electrical and Electronics Engineering Research (IJEER) TRANS STELLAR, ISSN(P): 2250-155X; ISSN(E): 2278-943X, Vol . 4, Issue 3, pp 23-34, Jun 2014(IF:5.96)
17. Kavali Janardhan, **Arvind Mittal**, "Comparative Study of Various Cascaded H-Bridge Multilevel Inverter Topologies" International Journal of Electrical and Electronics Engineering Research (IJEER) TRANS STELLAR, ISSN(P): 2250-155X; ISSN(E): 2278-943X, Vol . 4, Issue 3, pp 51-62, Jun 2014(IF:5.96)

18. Arpita De, **Arvind Mittal**, "Stability and Optimization of Distributed Generation: A Review" *International Journal of Electrical and Electronics Engineering Research (IJEER) TRANS STELLAR*, ISSN(P): 2250-155X; ISSN(E): 2278-943X, Vol . 4, Issue 4, pp 1-10, August 2014(IF:5.96)
19. PayalSuhane, SarojRangnekar, **Arvind Mittal**, "Optimal Sizing of Hybrid Energy System using Ant Colony Optimization" *INTERNATIONAL JOURNAL of RENEWABLE ENERGY RESEARCH (ISSN E: 1309-0127)*, vol.4, No.3, pp. 683-688, 2014
20. Kirti Kassi, **Arvind Mittal**, "Modified Single Phase H-Bridge Multi-Level Inverter Topology With SPWM Technique For Solar-Pv Application" *International Journal of Electrical and Electronics Engineering (IJEER)* ISSN(P): 2278-9944; ISSN(E): 2278-9952, Vol- 3, pp. 59-68, Issue 3, May 2014.
21. Aditi Bajpai, **Arvind Mittal** "Solar Powered DC-DC Buck Boost Converter With MPPT Control" *International Journal of Electronics, Electrical and Computational System* ISSN 2348-117X, Volume3, Issue 5, pp. 20-26, July 2014.
22. Meena Agrawal, **Arvind Mittal**, "Renewable Energy Integration & Topological Overview of Micro Grids", *Journal of Basic and Applied Engineering Research*, vol.01, no.09, pp.51-54, 2014.
23. Archana Soni, **Arvind Mittal**, "Energy Analysis Of Indian Manufacturing Sector", *International Journal of General Engineering and Technology*, vol.04, no.03, pp.15-22, 2015.
24. Nd Varma, **A Mittal**, "Dynamic Modeling and Simulation of a Series Motor Driven Battery Electric Vehicle Integrated With an Ultra Capacitor", *Journal of Electrical and Electronics Engineering*, vol.10, no.03, pp.79-83, 2015.
25. P Goyal, P Baredar, **A Mittal**, "Performance Analysis and Parametric Variation of a Solar Adsorption Chiller", *International Journal for Innovative Research in Science & Technology*, vol.02, no. 02, pp.30-35, 2015.
26. Meena Agrawal, **Arvind Mittal**, "Virtual Instrument for Remote Monitoring & Control of Prototype Hybrid Renewable Energy System", *International Journal of Advancements in Electronics and Electrical Engineering*, vol.04, no. 01, pp.15-19, 2015.
27. **Arvind Mittal**, "Optimal Configuration of Wind/Solar/Diesel/Battery Hybrid Energy System for Electrification of Rural Area", *IOSR Journal of Electrical and Electronics Engineering*, vol.10, no.03,2015.
28. P Goyal, P Baredar, **A Mittal**, AR Siddiqui, "Adsorption refrigeration technology- An overview of theory and its solar energy applications", *Renewable and sustainable energy reviews*, vol.53, no.xx, pp. 1389 - 1410, 2016.
29. P. Suhane and S. Rangnekar and **A. Mittal** and A. Khare, "Sizing and performance analysis of standalone wind-photovoltaic based hybrid energy system using ant colony optimization", *IET Renewable Power Generation*, vol.10, no.7, pp.964-972, 2016.
30. Janardhan Kavali, **Arvind Mittal**, "Analysis of various control schemes for minimal Total Harmonic Distortion in cascaded H-bridge multilevel inverter", *Journal of Electrical Systems and Information Technology*, vol.3, no.3, pp. 428 - 441, 2016.
31. A Ojha, P Chaturvedi, **A Mittal**, S Jain, "Carrier Based Common Mode Voltage Reduction Techniques in Neutral Point Clamped Inverter Based AC-DC-AC Drive System", *Journal of Power Electronics*, vol.16, no.01, pp.142-152, 2016.
32. D k Bathri, **A Mittal**, "Pre-Feasibility Analysis of Solar Wind Hybrid Energy System for Domestic Purpose", *International Research Journal of Engineering and Technology*, vol.03, no.07, pp.157-161, 2016.
33. Archana Soni, **Arvind Mittal**, Manmohan Kapshe, "Energy intensity analysis of Indian manufacturing industries", *Resource-Efficient Technologies*, vol.xx, no.xx, pp.xxx-xxx, 2017.
34. A Saifee, **A Mittal**, SS Laxminarayan, M Singh, "Design, modeling and simulation of variable speed Axial Flux Permanent Magnet Wind Generator", *Sustainable Energy Technologies and Assessments*, vol.19, pp.114-124, 2017.
35. Khemariya, Manish; **Mittal, Arvind**; Baredar, Prashant; Singh, Anand (2017). *Cost and size optimization of solar photovoltaic and fuel cell based integrated energy system for un-electrified village. Journal of Energy Storage*, 14(), 62–70. doi:10.1016/j.est.2017.09.011
36. Abid H. Saifee, **Arvind Mittal**, Sriram S. Laxminarayan, Manik Singh, "Design of a novel field controlled constant voltage axial flux permanent magnet generator for enhanced wind power extraction", *IET Renewable Power Generation*, 2017.
37. Manish Khemariya, **Arvind Mittal**, "Review Analysis of solar-Fuel cell of Integrated Energy System" *International Journal of Electrical & Electronics Engineers*, Vol. 09, no.01, 2017.

38. Kavali Janardhan, **Arvind Mittal**, Amit Ojha, "A Symmetrical Multilevel Inverter Topology with Minimal Switch Count and Total Harmonic Distortion," *Journal of Circuits, Systems, and Computers*, vol. 29, no. 11, 2020.
39. Kavali Janardhan, **Arvind Mittal**, Amit Ojha, Performance investigation of stand-alone solar photovoltaic system with single phase micro multilevel inverter, *Energy Reports*, Volume6, 2020, Pages 2044-2055, ISSN2352-4847, <https://doi.org/10.1016/j.egyr.2020.07.006>.
40. **Mittal A.**, Shyam R., Janardhan K. (2021) Sizing and Performance Investigation of Grid-Connected Solar Photovoltaic System: A Case Study of MANIT Bhopal. *Advances in Clean Energy Technologies*. Springer Proceedings in Energy. Springer, Singapore. https://doi.org/10.1007/978-981-16-0235-1_60
41. **Mittal A.**, Shyam R., Janardhan K. (2021) Performance Analysis of 250 kW_p Roof Top Grid-Connected Solar PV System Installed at MANIT Bhopal. *Advances in Clean Energy Technologies*. Springer Proceedings in Energy. Springer, Singapore. https://doi.org/10.1007/978-981-16-0235-1_81
42. Pamujula M., Ohja A., Swarnkar P., Kulkarni R.D., **Mittal A.** (2021) A Novel Cascaded 'H' Bridge-Based Multilevel Inverter with Reduced Losses and Minimum THD. *Advances in Clean Energy Technologies*. Springer Proceedings in Energy. Springer, Singapore. https://doi.org/10.1007/978-981-16-0235-1_48
43. Karneddi H., Janardhan K., Sirsa A., Ojha A., Singh S., **Mittal A.** (2021) SPWM Control Scheme for CHB-MLI with Minimal Voltage THD. *Advances in Clean Energy Technologies*. Springer Proceedings in Energy. Springer, Singapore. https://doi.org/10.1007/978-981-16-0235-1_34.
44. DulichandJaraniya, Urvashi Gupta, Shailendra Kumar and **Arvind Mittal** (2021) "Multifunctional Bidirectional Charging System for EVs and the Grid with Improved Power Quality Using Sparse Proportionate-NLMF Based Method". DOI: 10.17775/CSEEJPES.2021.04020, CSEE Journal of Power and Energy Systems.
45. Kumar, **A.**, **Mittal**, A. & Pradhan, A.K. Magnitude and determinants of energy intensity: evidence from Indian firms. *Environ Sci Pollut Res* (2022). <https://doi.org/10.1007/s11356-022-22346-9>
46. Malle, Lingamaiah & Mittal, Arvind & Kumar, Shailendra. (2024). OSG-PLL-based method of a solar PV grid-interfaced transformer-less cascaded H-bridge multilevel inverter for power quality enhancement. *Electrical Engineering*. 1-16. [10.1007/s00202-024-02460-2](https://doi.org/10.1007/s00202-024-02460-2).
47. Sirsa, A., **Mittal**, A. & Ojha, A. A New Symmetrical Five Level Multilevel Inverter Topology for Standalone Solar PV Based System. *Iran J Sci Technol Trans Electr Eng* **48**, 1085–1098 (2024). <https://doi.org/10.1007/s40998-024-00732-y>
48. Sirsa, A., **Mittal**, A. & Ojha, A. A Single-Phase Multilevel Inverter Topology with Fault Tolerant Capability for Single and Multiple Switch Failures. *Arab J Sci Eng* (2024). <https://doi.org/10.1007/s13369-024-09475-8>
49. Sirsa Aditya, **Arvind Mittal** & Amit Ojha. A novel reconfigurable reduced switch multilevel inverter for renewable applications. *Electrical Engineering* (2024). <https://doi.org/10.1007/s00202-024-02866-y> (SCIE-Q2-IF. 1.6)
50. L. Malle, A. Mittal, and S. Kumar, "Control and Implementation of a Solar-Powered Off-Board EV Charging System Using a Bidirectional Multilevel Converter for Power Quality Enhancement," *International Journal of Circuit Theory and Applications* (2025): 1–17, <https://doi.org/10.1002/cta.70129>.
51. Lingamaiah, Malle, Arvind Mittal, and Shailendra Kumar. "A vehicle-to-grid enabled bidirectional multilevel converter for renewable energy-integrated electric vehicle charging system." *Sustainable Energy Technologies and Assessments* 83 (2025): 104634.

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1. Ganga Agnihotri, **Arvind Mittal**, Anil Agrawal, Gayatri Agnihotri, "Loss Minimization in Distribution System" presented in National conference on Recent Advances in Power System And Drives held at Anantpur on 22-23rd March 1996.
2. Gayatri Agnihotri, **Arvind Mittal**, Anil Agrawal, Ganga Agnihotri, "Wind Energy Generation Systems, Grid Status – A case study of wind farm in M.P." Presented in National Conference on Recent Advances in Power System and Drives held at Anantpur on 22-23rd March 1996.
3. Geeta Agnihotri, Ganga Agnihotri, **Arvind Mittal**, S.K.Bhardwaj, "Role of work culture and academic environment in TQM of Technical Education" on 21-22 Dec.1996 at MACT.
4. **Arvind Mittal**, Anil Agrawal, Ganga Agnihotri, M.S.Hora, "Role of Technical Institution in Present Industrial Environment" National Conference on TQM in Technical Education on 21-22 Dec 96 at MACT, Bhopal.
5. **Arvind Mittal**, Anil Agrawal, Gayatri Agnihotri, Ganga Agnihotri, "Micro-computer based DC drive controller" National Conference on Electric Drives & Control for Transport Systems (EDCOTS'97) on 16-18 Jan 97 at SATI, Vidisha, pp.297-304.
6. Gayatri Agnihotri, Purva Phadnis, **Arvind Mittal**, Geeta Agnihotri, "Design Aspects of Traction Motor for AC Locomotives" National Conference of Electric Drives & Control for Transport Systems (EDCOTS'97) on 16-18 Jan1997 at SATI, Vidisha, pp.601-608.
7. **Arvind Mittal**, Pramod Agarwal, D.M.Deshpande, "Microcomputer Controlled Pulse Width Modulated AC to DC Converter" International Conference on Computer Applications in Electrical Engineering Recent Advances (CERA-97) at U.O.R. Roorkee from 8 -11 September 1997, pp.720-724.
8. Anil Agrawal, Ganga Agnihotri, **Arvind Mittal**, "Creating Computer Aided Superclass in Technical Institutions – A Challenge" International Conference on Computer Applications in Electrical Engineering Recent Advances (CERA-97) at U.O.R., Roorkee from 8-11 Sep.1997, pp.328-330.
9. Gayatri Agnihotri, **Arvind Mittal**, Anil Agrawal, Vinay Thapar, "Operation and control aspects of wind farm –A case study" First International conference on Green Power – The need for the 21st Century at New Delhi from 12-14 Feb97, pp.112-119.
10. M.S.Hora, Sanjay Soni, **Arvind Mittal**, "Some Thoughts on Academic Autonomy of Technical Institutions" International Conference on Technical Education in 21st Century challenges and strategies in Global Perspective at MACT, Bhopal from 8-10 Jan.98.
11. Archana Soni, Gayatri Agnihotri, **Arvind Mittal**, "Surge Monitoring and Analysis of Large AC Rotating Machines" 5th International conference on Electrical Rotating Machines ELROMA – 99 organized by IEEMA at Mumbai on 25-26 Jan99, pp.III-21-26.
12. Archana Soni, **Arvind Mittal**, P.K.Jain, "Impact of load Management on Distribution System Design" National Conference on Thermal Power Plant operation & Maintenance Strategies at MACT, Bhopal on 24-25 Feb.2001, pp.44-50.
13. P.K.Jain, **Arvind Mittal**, "Utilization of flyash in civil Engineering works" National conference on Thermal power plant operation & Maintenance strategies MACT Bhopal from 24 – 25thFeb.2001, pp.197-200.
14. **Arvind Mittal**, Priyanka Paliwal, "Distributed power generation for Rural Electrification" National Seminar on Rural Technologies, Vijanan Bharti, 4-5th March 2006.
15. Amit Ojha, **Arvind Mittal**, Ganga Agnihotri, "Optimal Voltage Regulation and Loss Minimization using Shunt Compensation in Distribution Network" All India Seminar on Power Distribution: Issues and Challenges organized by Institution of Engineers (India), November 26-27,2005 at Bhopal, pp63-68
16. Manish Khemariya, **Arvind Mittal** "Small Wind Solar Hybrid Energy System" National Conference on 'Integration Of Energy From Conventional and Non-Conventional Sources' LNCT, Bhopal, Oct 7-9, 2006
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20. Manish Khemariya, **Arvind Mittal** "Introduction to fuel cell technology its type and application" National conference on "New Horizons in Energy Conservation" LNCT, Bhopal, Oct 27-28 2007
21. Manish Khemariya, **Arvind Mittal** "Fuel Cell Technology" National Conference on "Recent Trends in Power Electronics and Industrial Drives" JNCT, Bhopal, Aug 22-23, 2008.
22. Ms. Meena Agrawal, **A.Mittal**, Dr.S.Rangnekar, "Hybrid Renewable Energy Systems: An Ideal Option for Indian Rural Electrification" International Conference on Energy Engineering and Eco-balance (ICEEE-2009) at MITR, Pune, Feb2009
23. Manish Khemariya, **Arvind Mittal** "Hydrogen Sensors for Hydrogen Fuel Cell Applications" National Conference on "Advances in Fuel Cell Technology" LNCT, Bhopal, July 24-25, 2009.
24. Manish Khemaria, **Arvind Mittal**, "Performance Analysis of Fuel Cell using MATLAB", National Conference on Recent Trends in Electrical & Electronics Engineering, LNCT Bhopal, March 26-27, 2010, pp.81-85.
25. Manish Khemaria, **Arvind Mittal**, "Performance Analysis of Power Conditioning Unit in a Fuel Cell System", National Conference on Recent Trends in Electrical & Electronics Engineering, LNCT Bhopal, March 26-27, 2010, pp.57-62.
26. Meena Agrawal, **Arvind Mittal**, "Localized Aggregation of Renewable Diverse Energy Resources for Remote Villages of India using Microgrids", National Conference on Recent Trends in Electrical & Electronics Engineering, LNCT Bhopal, March 26-27, 2010, pp.10-15.
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28. Manish Khemariya, **Arvind Mittal** "Modeling & Simulation of Solar PV Fuel Cell Based Integrated Energy System" National Conference on Recent Developments in Wind and Solar Power. Pp 212-222, July 1, 2 2011, JNCT, Bhopal
29. Vipul Kumar, **Arvind Mittal**, Archana Soni, "Energy Policy in India: A Review" International Conference on Electronics and Communication Engineering (ECE-2012) 3rd June, 2012, Guwahati, pp.169-174.
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39. L. Malle, **A. Mittal** and S. Kumar, "A Single Phase Grid-Integrated PV System Using Cascaded PI and PR Controller for Power Quality Improvement," IEEE 10th Power India International Conference (PIICON), pp. 1-6, 2022.
40. A. Sirsa, M. Lingamaiah, P. Gawhade, **A. Mittal** and A. Ojha, "Reduced Switch Asymmetrical Multilevel Inverter with Switched DC Sources," IEEE Renewable Energy and Sustainable E-Mobility Conference (RESEM) Bhopal, India, 2023, pp. 1-5, doi: 10.1109/RESEM57584.2023.10236131.
41. L. Malle, **A. Mittal**, S. Kumar, A Sirsa, "Optimal Battery Control and Performance Enhancement with Fuzzy Logic Maximum Power Point Tracking in Solar-PV system", 9th International Conference on Advances in Energy Research (ICAER-2024-IIT Bombay), 2024.
42. Sirsa Aditya, **Arvind Mittal**, Amit Ojha, Malle Lingamaiah, "A Novel Reduced Switch Multilevel Inverter with Optimal Control Values Selection Using Artificial Neural Network", *Application of Advance Techniques in Power and Energy Systems. CISTEE 2023, Lecture Notes in Electrical Engineering*, vol 1305, Springer, Singapore, https://doi.org/10.1007/978-981-96-0476-0_6.
43. A. Sirsa, Y. Subramanyam, **A. Mittal** and A. Ojha, "A Reduced Switch Multilevel Inverter with Grid Connected Solar PV System," 2024 IEEE 4th International Conference on Sustainable Energy and Future Electric Transportation (SEFET), Hyderabad, India, 2024, pp. 1-5, doi: 10.1109/SEFET61574.2024.10718090.
44. Suryaprasanna K, A. Sirsa and **A. Mittal**, "Reactive Power Management in Grid-connected PV Systems," 2024 IEEE 4th International Conference on Sustainable Energy and Future Electric Transportation (SEFET), Hyderabad, India, 2024, pp. 1-5, doi: 10.1109/SEFET61574.2024.10718119.
45. Harshita Raj, Raj Suman, Archana Soni, **Arvind Mittal**, "Performance Evaluation Of Various Bifacial Photovoltaic Technologies: HIT, TOPCon, PERC In Bhopal Using PVsyst Simulator," IEEE IATMSI 2025.
46. Lingamaiah, Malle & **Mittal, Arvind** & Kumar, Shailendra. (2025). A Grid-Connected 30 kW 5-Level Bidirectional Multilevel Converter for Electric Vehicle Charging. 1-5. 10.1109/SCEECS64059.2025.10940661.
47. M. Lingamaiah, **A. Mittal** and S. Kumar, "Reliable Power Flow Management and Control in Solar PV Based Electric Vehicle Charging System with G2V and V2G Integration," 2024 IEEE Silchar Subsection Conference (SILCON 2024), Agartala, India, 2024, pp. 1-6, doi: 10.1109/SILCON63976.2024.10910855.

11. List of Ph.D Scholars Guided

S.No.	Name of Candidate	Title of Thesis	Date of Award
1.	Amit Ojha	Investigations on Back-to-Back Connected Multilevel Converter fed Induction Motor Drive	19 th Feb 2014
2.	A.H.Saiffee	Design and Development of a novel constant voltage axial flux permanent magnet generator for wind energy system	27 th July 2015
3.	Manish Khemariya	Modeling simulation optimization of standalone solar PV and fuel cell based integrated energy system	Awarded
4.	Meena Agrawal	Multi-agent system for optimal operation and control of micro grids	Awarded
5.	Archana Soni	Energy intensity analysis of manufacturing industries	29 th June 2015
6.	Payal Suhane	Modeling and simulation of hybrid energy system	Awarded
7.	Arpita De	Voltage stability issues of integrated energy systems	Awarded

8.	Kavali Janardhan	Performance investigation of grid connected Micro multilevel inverter based solar PV system	Awarded
9.	Aditya Sirsa	Performance investigation of standalone solar PV system with fault tolerant multilevel inverter	Thesis Submitted
10.	Malle Lingamaiah	Design and Control of Solar PV High-Power Grid Interfaced Electric Vehicle Charging System.	ongoing
11.	Mayank Singh	Lithium-Ion Battery Optimization for EV Applications	Ongoing
12.	Palak Tiwari	Course work completed	Ongoing
13.	Surya Prasanna	Course work Started	Ongoing

List of M. Tech Thesis Guided:

S.No.	Title of the Thesis	Name of the Candidate	Awarded in
1.	Design, Development And Performance Evaluation Of Two Quadrant Chopper Fed DC Drive	Sandeep Tiwari	June 1994
2.	Design Considerations Of Large AC Motors For Adjustable Speed Drives	A.K.Varshney	Oct.1997
3.	Wind Energy Scenario In India – A Case Study Of Dewas Windfarm	Manisha Dubey	Aug.1997
4.	Design, Development & Performance Evaluation Of Hybrid Sinusoidal PWM 1- ϕ Inverter.	K.M. Khare	March 1998
5.	Protection Of High Inertia Drive Squirrel Cage Induction Motor	N.K. Garg	March 1998
6.	Simulation Of Different Pulse Width Modulation Techniques Of Inverter For Industrial AC Drives	A. Dhakaria	May 1998
7.	Load Management Study – A Case Study Of Bhilai Steel Plant.	Sangita Garg	Nov.1998
8.	Analysis Of State Estimation In Power Systems	H.K. Baghel	Dec.1998
9.	Performance Analysis Of 3- ϕ Traction Drive By Computer Simulation	S.K. Gupta	March1999
10.	Performance Evaluation Of Self Excited Induction Generator	Pankaj Pandey	May 2000
11.	Protection Of High Inertia Induction Motor	Sunil Gupta	July 2000
12.	Impact Of Steep Fronted Surges On High Voltage Rotating Machines	Archana soni	Oct. 2000
13.	On Line Distribution Automation	Pallavi Singh	March 2001
14.	Design And Analysis Of VVVF Fed Squirrel Cage Induction Motor.	Nisheet Khare	April 2002
15.	Distribution Loss Minimization	Amit Ojha	May 2002
16.	Simulation Of Chopper Circuits Using	Manish Khemaria	Feb.2003

	MATLAB		
17.	Power Quality Analysis – A Case Study For Domestic Load	Meenu Singh	Sep.2003
18.	Simulation And Analysis Of Slip Power Recovery Induction Motor Drive	Sanjeev Gupta	May 2004
19.	Recent Developments In UPFC Of Transmission Line	Shivendra Singh Thakur	June 2004
20.	Control And Design Of Switched Reluctance Motor	Vishwas S. Vyavahare	July 2004
21.	Energy Conservation Through Adjustable Speed Drive System	Sanjay M. Thakre	July 2004
22.	Design And Testing Of Distribution Transformer To Validate Short Circuit Strength	Sarita Dongre	Oct 2004
23.	Voltage Regulation And Loss Minimization In Automated Distribution System	Priyanka Palliwal	June 2005
24.	Microcomputer Controlled Closed Loop DC Drive	Manish Agrawal	Oct 2005
25.	Steady State Analysis Of Three Phase Induction Motor In Modern Locomotive	Amita Mahor	July 2006
26.	Simulation Of Modified Direct Torque Control Of Three Phase Induction Motor Drive	Hari Sreekanth Upadrasta	July 2006
27.	Simulation Of High Power Factor AC To DC Converter	Sanjay Gupta	July 2006
28.	Recent Trends In Uplink System-A Case Study Of Radio And Television	Prafulla Chandra Narware	Sept 2006
29.	Design & Testing Of Diesel Generator For Nuclear Power Plant	Nishant Dhimole	June 2007
30.	Study & Simulation Of Direct Driven Permanent Magnet Generator For Variable Speed Wind Turbine	Kshipra Shingwekar	July 2007
31.	Energy Conservation Opportunity In Natural Gas Compressor Station-A Case Study Of Gail,Vijaipur	Shaista Anwar Mirza	Dec 2007
32.	Design And Development Of A Microcontroller Based Data Logger For Solar PV Panels	Priyanka Banerjee	June 2008
33.	Modeling And Simulation Of Generators For Wind Turbine Using Matlab	Aakansha Steele	June2008
34.	Simulation Of Intelligent Building Using Artificial Neural Network	Ashutosh Mallick	July 2008
35.	Microcontroller Based Maximum Power Tracking For Solar Energy System	Jitendra Pratap Singh Mathur	July 2008
36.	Modelling & Simulation Of Stand Alone Permanent Magnet Synchronous Generator Wind Generation System	Ajeet Kumar Dubey	Oct 2009
37.	Performance Analysis Of Distribution Companies Using Data Envelopment Analysis	Jayesh Kant Pathak	Oct 2009
38.	Modelling Of Microgrid Subsystem Using	Sravan Kumar	July 2010

	MATLAB	Pandi	
39.	Simulation And Performance Analysis Of Hybrid Energy System	Priyesh Jain	June 2011
40.	Design And Development Of Automated Meter Reading System	Deepak Shukla	June 2011
41.	Modified H-Bridge Multilevel Inverter For Standalone PV System	Vipul Kumar	June 2013
42.	Solar Powered DC-DC Buck Boost Converter	Aditi Bajpai	June 2014
43.	SPWM Control Schemes For CHB-MLI With Less Number Of Switches For Minimal THD	Kavali Janardhan	June 2014
44.	Modified Cascaded H-Bridge Multilevel Inverter With SPWM Technique For Solar Photo Voltaic Application	Kirti Kassi	June 2014
45.	High Voltage Gain Interleaved Boost Converter With Voltage Multiplier Cell	Pidikiti Venkata Suresh	June 2015
46.	Energy Consumption And Carbon Dioxide Emission In The Indian Mobile Telecom Industry And Its Reduction Techniques	Ashutosh Mishra	June 2015
47.	Dynamic Modelling And Simulation Of A Series Motor Driven Plug-In Fuel Cell Vehicle	N.E.V.R. Dheeraj Varma	June 2015
48.	Transient Performance And Stability Analysis Of A Grid Connected Wind Energy System	Rajeshwar Vaishnava	June 2015
49.	Development And Performance Analysis Of A Novel Hybrid Two Stage Solar Adsorption Water Cooler And Heater	Parash Goyal	June 2015
50.	Design Optimization Of Axial Flux Permanent Magnet Generator For Wind Applications	Manik Singh	June 2016
51.	Modeling And Simulation Of Axial Flux Permanent Magnet Generator Based Wind Energy Conversion System	Sriram S L	June 2016
52.	Energy Management In Distribution Sector Through Loss Minimization Techniques	Noopur Sharma	June 2016
53.	Modeling, Simulation and Optimization of Solar and Biomass Integrated Energy System: A Case Study for Girl's Hostel MANIT Bhopal.	Purva Sahu	June 2017
54.	Optimization and Performance Analysis of Solar PV, Wind and Micro Hydro Integrated Energy System	Pankaj Kumar Yadav	June 2017
55.	A Comparative Study of Performance Analysis of a PEM fuel cell-Ultracapacitor Hybrid System for Vehicular Applications	Areena Mahilong	June 2017
56.	Power Quality Analysis of Wind generation system in Distributed network	Subodh Kumar	June 2018
57.	Energy management and audit of MANIT campus: A case study	Vikas Panchal	June 2018

58.	Design and Assessment of Solar Power Plant at Bhopal Railway station	Chandra Kumar Prakash	June 2018
59	Stability Analysis of Grid connected Solar PV Plant	Yash Gaurh	June 2018
60	Sizing and Performance Investigation of grid Connected Solar Photovoltaic System: A case Study Of MANIT,Bhopal	Radhey Shyam	June 2019
61	Energy Management and Analysis of Distribution System of Manit, Bhopal	Abhishek Kumar	June 2019
62	Analysis of Distribution System of MANIT, Bhopal	Pradeep Pathak	June 2020
63	Modelling And Simulation Of A Modified Multilevel Inverter Fed Induction	Vasala Shravan Kumar	June 2021
64	Grid Tied Multifunctional Charging System With Improved Power Quality For The Evs Using Sparse Constrained Proporti	Urvashi Gupta	June 2021
65	Design And Development Of Islanding Detection Techniques For Grid Interactive Roof Top Solar Pv Sysytem Under Adverse Grid Conditions	H Sunil Kumar	June 2021
66	Building Automation For Energy Saving And Reduction Of Spread Of Airborne Disease Using Internet Of Things (Iot)	Sagar Kaushik	June 2021
67	Energy intensity analysis: Evidence from Indian manufacturing and power sector.	Aman Kumar	June 2022
68	Analysis Of Shadow Effect And Shading Loss Prediction In Solar Pv Tree.	Aniruddha Mitra	June 2022
69	Design, Simulation and Performance Evaluation of Solar PV array Based Charger for Electric Vehicles.	Ashish Kumar Pandey	June 2022
70	Power Quality Improvement of PV integrated system Using Unified Power Quality Conditioner.	Mahima Srivastava	June 2022
71	Comparative Analysis of Solar PV-Rooftop System:A Case Study of MANIT Bhopal.	Tarun Kumar Jha	June 2022
72	A Bidirectional Charger for Power Transfer between EV and Grid Using RZA-ASE Algorithm	Nikhil Thakur	June 2023
73	Design And Performance Evaluation Of Grid Connected Solar Pv System With Reduced Count Multilevel Inverter Topology	C. Yamini	June 2023
74	Design and Implementation of Torque Validation in Electric Vehicles	Anup Prasad	June 2023
75	Bidirectinal Converter for EV application	Riya Rawat	June 2024
76	Solar E-beam Cable Manufacturing	Urmila Shah	June 2024
77	Statcom application of Multilevel Inverter for Solar Farm	Surya Prasanna	June 2024
78	Building Integrated Solar PV panels	Raviteja	June 2024
79	Simulation And Performance Analysis Of Distinct Rooftop Photovoltaic Systems	Harshita Raj	June 2025

	Under Composite Climatic Conditions Using Pvsyst		
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12. Research and Consultancy Projects:

Research Project:

S.No.	Project Title	Consultancy amount in INR	Sponsoring agency	Duration	Role
1.	Performance Investigation of Grid Connected Micro Multilevel Inverter Based Solar Photovoltaic System	46,75,000/-	SERB, DST India	Aug. 2018-Aug. 2021	PI

Patents				
Title	Year	Agency	Co-Investigator(if any)	Published/Granted
A Micro Multilevel Inverter	2021	Australian Government	Dr. Amit Ojha Kavali Janardhan	GRANTED
A PV Array based EVCS with Grid-tied BDMC for Seamless Power Transfer & Control	2025	Govt. of India	Dr. Shailendra Kumar Malle Lingamaiah	PUBLISHED

Consultancy Projects:

S.No.	Project Title	Consultancy amount in INR	Sponsoring agency	Role
1.	Third Party Quality Assurance Inspection of the work of construction of Lecture Hall complex under IIT Indore, Project Division-II	32,14,750/-	CPWD Indore	PI
2.	Third Party Quality Assurance Inspection of various works under IIT Indore, Project Division-II	57,84,207/-	CPWD Indore	Co-PI
3.	Evaluation of Structural Stability and Quantity survey of the Buildings at NITTR Bhopal Campus	21,24,000/-	NITTR Bhopal	Co-PI
4.	Third Party Quality Assurance Inspection of the work of construction of Faculty Housing FH (04) under IIT Indore	9,39,298/-	CPWD Indore	Co-PI
5.	Construction of Phase-B and Phase-B balance work at Jawahar Navodaya Vidyalaya Banswara –II, Rajasthan	5,15,559/-.	Jawahar Navodaya Vidyalaya	Co-PI
6.	Third Party Inspection Report for Construction of Phase B work at jawahar Navodaya Vidyalaya, Pratapgarh, Rajasthan	5,50,247	Telecommunications Consultants India Limited	Co-PI
7.	Providing service of third-party quality assurance for the work (for composite work, Civil & Electrical)	1,050,000	CPWD, Bilaspur	Co-PI
8.	TPQA Work for construction of various buildings at Sagar	7,50,000	CPWD, Arera Hills, Bhopal	Co-PI
9.	TPQA Work for 100 bedded Hospital Building & 32 no. of quarters at Bhilai, Raipur	19,00,000	CPWD, Raipur	Co-PI
10.	Proof checking of process and design for water supply/ sewage work along with electrical work of hospital building Govt Medical college Odissa	2,36,000	PWD, Odissa	Co-PI

- Protection of squirrel cage Induction Motor during starting and locked rotor condition (BAM97001 BP) for BHEL, Bhopal of Rs.1.80Lacs.
- Energy Audit of MANIT Campus for MANIT, Bhopal.
- Determination of the rating of Welding Transformer for Pioneer Dilligence, Govindpura, Bhopal of Rs.5000/-.

- Testing of UPS for Directorate of Treasuries, M.P., Bhopal for Rs.10,000/-.
- Testing of UPS for Directorate of Treasuries, M.P., Bhopal for Rs.8,000/-.
- Testing of UPS for Directorate of Treasuries, M.P., Bhopal for Rs.6,000/-.
- Electrical Safety Measures for Block Drying Chambers for Insulators & Electricals Company, Mandideep for Rs.20,000/-.
- Investment Grade Energy Audit of Rajgarh Collectorate Building for MPUVN, Bhopal for Rs.25,000/-
- Testing of Technical Assessment of Deviation/variation of Electrical Work at AIIMS Bhopal for 3,50,000.

13. Laboratory Development

- “Modern High Performance Drive”, under Thrust Area sponsored by MHRD worth Rs.7.0 Lacs.
- “Modernization of soil dynamics Laboratory”, under MODROB sponsored by MHRD worth Rs. 7.0 Lacs.
- “Smart AFPM with Field Control Wind Generator” under Grant in Aid, MANIT, Bhopal worth Rs. 2.5 Lakhs

14. Creative & Innovative Projects

- PLC based Distribution System for MANIT Campus.
- Energy Conservation in Water Pumping System for Bhawans of MANIT.
- Development of Electric Wheel Chair

15. Courses Organized

- Coordinator of the ISTE summer school on "16-bit Microprocessor and its Applications" held at MACT, Bhopal from 5.6.95 to 17 .6.95.
- Coordinator of the short-term course on "Fabrication, Erection, Testing and Design of Transformers" for Engineers of Crompton Greaves held at MACT, Bhopal from 21.8.95 to 27.8.95.
- Joint Organizing Secretary of the workshop on "Power System Operation under Distress Conditions" on 27-28th Dec.1995 organized by CBIP, New Delhi and MACT, Bhopal.
- Joint Organizing Secretary of the workshop on "Energy System Planning and Management" on 4-5th July 1996 organized by CBIP New Delhi and MACT, Bhopal.
- Co-coordinator of the workshop on" Quality System Standards - ISO 9001 " held at MACT, Bhopal on 18th Dec.1998.
- Coordinator of the short-term course on "Recent Advances in Power Electronics and Electrical Drives " under TEQIP held at MANIT, Bhopal from 07/12/03 to11/12/03.

- Co-coordinator of the one-day workshop on "Community Service " held at MANIT, Bhopal on 24th Jan.2004.
- Coordinator of STTP on “Faculty Development Program” held at MPSTEP, MANIT, Bhopal from 3rd to 9th Oct.2005.
- Coordinated technical lecture series on “Power Transformer and Drives” jointly organized by Crompton Greaves Transformer Division, Mandideep and Electrical Engineering Department, MANIT, Bhopal from 09/03/07 to 16/03/07.
- Co-coordinator of the one-day workshop on "Renewable Energy trends and potential" held at MANIT, Bhopal on 31st August 2007.
- Coordinator of the two day in house workshop on” Right to Information Act 2005” on 3rd and 4th Jan. 2009.
- Organized an “Industrial Visit to LAPP India Private Ltd. Pilukedi on 12th September 2019.
- Coordinator for the program of “Life Skills, Health and Wellren” held at MANIT, Bhopal organized in the year 2019-20.
- Coordinator of STTP on “Awareness program on Energy Conservation” sponsored by TEQUIP-III held at MANIT, Bhopal in the year of 2019-20.
- Coordinator for the program of “Skill Enhancement & Personal Development” sponsored by TEQUIP-III held at MANIT, Bhopal in the 2019-20.
- Coordinator for the program “National Workshop on Green Revolution” sponsored by TEQUIP-III held at MANIT, Bhopal in the 2019-20.
- Co-coordinator of the workshop on " Application Software for Smart Energy System” sponsored by TEQUIP-III held at MANIT, Bhopal in the 2019-20.
- Coordinator of STTP on “IP Protection and Commercialization” sponsored by TEQUIP-III held at MANIT, Bhopal in the 2019-20.
- Coordinator of STTP on “Statistical and Machine Learning Techniques for Researchers” held at MANIT, Bhopal from 3rd Aug to 14th Aug 2020.
- Coordinator of the workshop on" Statistical and Machine Learning Techniques for Researchers” sponsored by TEQUIP-III, held at MANIT from 2nd Jan to 6th Jan 2021.
- Coordinator of FDP on “Sustainable Transport Source for Future mobility application” held at MANIT from 22nd Nov to 26th Nov 2021.

16. List of Expert Lectures Delivered

- “Computer Aided Design of Electrical Machines”, in ISTE Summer School on

Energy Modelling & Management at MACT Bhopal from 15.7.92 to 27.7.92.

- “Instruction set of Intel 8086 Microprocessor”, in ISTE Summer School on 16 Bit Microprocessor and Its Applications held at MACT Bhopal from 5.6.95 to 17.6.95.
- “Programmable Interval Timer 8253”, in ISTE Summer School on 16 Bit Microprocessor and Its Applications held at MACT Bhopal from 5.6.95 to 17.6.95.
- “Introduction to Micro-controllers”, in ISTE Summer School on 16 Bit Microprocessor And Its Applications held at MACT Bhopal from 5.6.95 to 17.6.95.
- “Microprocessor controlled Electric Drives”, in ISTE Summer School on 16 Bit Microprocessor And Its Applications held at MACT Bhopal from 5.6.95 to 17.6.95.
- “Micro-controller based PWM Converter fed DC Drive”, in ISTE Summer School on 16 Bit Microprocessor And Its Applications held at MACT Bhopal from 5.6.95 to 17.6.95.
- “Winding Design of Transformers”, in the Short Term Course on Fabrication, Erection, Testing and Design of Transformers for Engineers of Crompton Greaves held at MACT Bhopal from 21.8.95 to 27.8.95.
- “Cooling System Design of Transformers”, in the Short Term Course on Fabrication, Erection, Testing and Design of Transformers for Engineers of Crompton Greaves held at MACT Bhopal from 21.8.95 to 27.8.95.
- “Introduction to Three Winding Transformers”, in the Short Term Course on Fabrication, Erection, Testing and Design of Transformers for Engineers of Crompton Greaves held at MACT Bhopal from 21.8.95 to 27.8.95.
- “Instruction set of 8051 Microcontroller”, in the Short Term Course on Microprocessors & Microcontrollers at TTTI Bhopal from 12.1.98 to 16.1.98.
- “Programming of 8051 Microcontroller”, in the Short Term Course on Microprocessors & Microcontrollers at TTTI Bhopal from 12.1.98 to 16.1.98.
- “Evaluation Process”, in the Induction Training Programme at MACT Bhopal on 20.01.99.
- “Introduction to PWM Converters” in AICTE-ISTE Short Term Training Programme on Recent Advances in Power Conversion and Intelligent Motion at MREC Jaipur from 10/6/02 to 22/6/02.
- “Design of Micro-computer controlled PWM Converter” in AICTE-ISTE Short Term Training Programme on Recent Advances in Power Conversion and Intelligent Motion at MREC Jaipur from 10/6/02 to 22/6/02.

- “Analysis of PWM Converter fed DC Motor” in AICTE-ISTE Short Term Training Programme on Recent Advances in Power Conversion and Intelligent Motion at MREC Jaipur from 10/6/02 to 22/6/02.
- “Introduction to Inverters” in the Short Term Course on Power Electronics at TTTI Bhopal in May 2002.
- “Three Phase Bridge Inverters” in the Short Term Course on Power Electronics at TTTI Bhopal in May 2002.
- “Introduction to PWM Inverters” in the Short Term Course on Power Electronics at TTTI Bhopal in May 2002.
- “Energy Conservation” in the Short Term Course on Recent Advances in Machines & Power System at NIIST, Bhopal in Feb. 2004.
- “Save Energy for better tomorrow” in the National meet of Jain Engineers’ Society on 23rd & 24th Dec-2007
- “Recent Advances in Field of Energy” at SGSITS, Indore 17th Oct. 2012
- “Integrated Energy Systems” at Regional Science centre, Bhopal on 12th March 2014.
- “Power Controller Applications” at TIT Bhopal February 2018.

List of Workshop/Training program/Summer/Winter School attended

Sl. No.	Name of the Course	Organizing Institute	Duration of Course		Sponsored by
1.	Self Learning Modules of Educational Technology	MACT, Bhopal	8/6/98 17/5/99	22/6/98 30/6/99	MACT, Bhopal
2.	Computer Applications in Power Electronics, Electrical Machines and Drives	IIT Delhi	13/12/99	17/12/99	MANIT, Bhopal
3.	Usage of EMTP in Power System Applications	Indian EMTP User Group	21/09/2000	22/09/2000	MANIT, Bhopal
4.	Recent Trends in Electric Drives	Jamia Millia Islamia, New Delhi	23/04/2001	28/04/2001	MANIT, Bhopal
5.	Application of MATLAB and SIMULINK software for modeling and simulation of Systems	AICTE- ISTE	9/12/2002	20/12/2002	MANIT, Bhopal
6.	Recent Trends in Mobile Communication	IETE, Bhopal Local Centre	5/09/2003	6/09/2003	MANIT, Bhopal
7.	Recent Advances in Power Electronics & Sensorless	IIT, Delhi	26/09/2003	27/09/2003	MANIT, Bhopal

	control of Drives				
8.	PLC Programming & Application	CRISP, Bhopal	16/02/2004	20/02/2004	MANIT, Bhopal
9.	Application of Power Electronics to Electric Utilities and Motor Control	IIT, Delhi	29/03/2005	30/03/2005	MANIT, Bhopal
10.	National Workshop on Power Electronics	IIT, Kanpur	30/10/2006	01/10/2006	MANIT, Bhopal
11.	Energy, Environment and Importance of Power Electronics	IIT Delhi	02/01/2008	03/01/2008	MANIT, Bhopal
12.	Administrative Law for Senior Level Educational Managers	ASCI, Hyderabad	01/05/2008	03/05/2008	MANIT, Bhopal
13.	Mathematical Modelling & Simulation	MHRD-AICTE	16/06/2008	27/06/2008	MANIT, Bhopal
14.	Sustainable Strategies for Green Architecture	MHRD-AICTE	01/09/2008	12/09/2008	MANIT, Bhopal
15.	Human Resource & Personnel Development	CT &SR, New Delhi	22/10/2008	24/10/2008	MANIT, Bhopal
16.	Green Technologies towards Low Carbon Society	MANIT, Bhopal		30/03/2011	MANIT, Bhopal
17.	Energy, Environment and Sustainability	MANIT, Bhopal	1/03/2012	2/03/2012	MANIT, Bhopal
18.	Clean Energy Options and Nuclear Safety	MANIT, Bhopal		26/03/12	MANIT, Bhopal
19.	PLR & Spiritual Science	Life Research Academy, Hyderabad	5/11/2012	6/12/2012	TEQIP, MANIT, Bhopal
20.	Energy Conservation Awareness	MANIT, Bhopal		14 Dec 12	MANIT, Bhopal
21.	Applications of SPSS in Multidisciplinary Research	MANIT, Bhopal	06/01/2016	10/01/16	TEQIP-II
22.	Professional Ethics and Human Values	MANIT, Bhopal	02/03/2016		OXFORD University Press
23.	NBA accreditation and SAR Filling	MANIT, Bhopal	17/10/2016		TEQIP-II
24.	Renewable Energy Systems for RETs	MANIT, Bhopal	07/02/2013		MANIT, Bhopal
25.	IPR Issues: Patent Drafting & Processing of Patent Applications	MANIT, Bhopal	14/03/2015	18/03/2015	TEQIP-II
26.	Energy Efficient Building	IIT Delhi &	06/09/2014		IIT Delhi &

	and Cost Effective Solutions	IVS Noble solutions			IVS Noble solutions
27.	2 nd International Conference on Emerging Trends in Engineering, Technology, Science and Management	LNCT, Bhopal	20/05/2017		LNCT, Bhopal
28.	As a session Chair in International Water Conference for Sustainable Development Goals(IWCSDG)	MANIT Bhopal	22 nd March 2024	23 rd March 2024	MANIT Bhopal

14. List of Workshop/Training program/Summer/Winter School organized

Sl. No.	Name of the Course	Organizing Institute	Duration of Course	Sponsored By
1.	16 - bit Microprocessor and its Applications	MACT, Bhopal	Two weeks	ISTE
2.	Fabrication, Erection, Testing and Design of Transformers	MACT, Bhopal	One week	Crompton Greaves, Bhopal
3.	"Power System Operation under Distress Conditions	MACT, Bhopal	Two days	CBIP, New Delhi & MACT, Bhopal.
4.	"Energy System Planning and Management	MACT, Bhopal	Two days	CBIP, New Delhi and MACT, Bhopal.
5.	Quality System Standards - ISO 9001	MACT, Bhopal	One day	MACT, Bhopal
6.	Recent Advances in Power Electronics and Electrical Drives	MANIT, Bhopal	One week	TEQIP
7.	Community Service	MANIT, Bhopal	One day	TEQIP
8.	Faculty Development Program	MANIT, Bhopal	One week	MPSTEP, Bhopal
9.	Power Transformer and Drives	MANIT, Bhopal	One week	Crompton Greaves, Bhopal
10.	"Renewable Energy trends and potential	MANIT, Bhopal	One day	MANIT, Bhopal
11.	Right to Information Act 2005	MANIT, Bhopal	Two day	MANIT, Bhopal
12.	Awareness Program on Databases of CMIE for Research Applications	MANIT, Bhopal	One day	MANIT, Bhopal
13.	Power Electronics Applications in Renewable Sources (PARES 2014)	MANIT, Bhopal	Five day	MANIT, Bhopal
14.	SRAJAN 15, Student Project Contest 2015, IEEE MANIT	MANIT, Bhopal	Two day	MANIT, Bhopal

	Student Br. Bhopal			
15.	Clean Energy Options & Nuclear Safety (Slogan Writing)	MANIT, Bhopal	One day	MANIT, Bhopal
16	Skill Enhancement and Personnel Development	MANIT, Bhopal	Five day	MANIT, Bhopal

17. Details of Honour and awards obtained-

- Recipient of Silver Medal for securing First position in pre-Final year BE (Electrical) B.U. Bhopal.
- Recipient of Gold Medal for securing First position in Final year BE (Electrical) B.U. Bhopal.
- A cash award of Rs. 5000/- as an incentive for being Good Teacher by Chairman BOG, MANIT, Bhopal in 2011
- Certificate of Appreciation by Director, MANIT, Bhopal for Quality of teaching with very high Grading (5).
- Guest of Honour at the Inaugural ceremony of compounding Shop floor, LAPP along with Chairman, CTO and MD of LAPP from different countries.

Details of Editor/ member of editorial board/ review of journal

- Member of the Editorial Board of National Journal of Engineering & Science and Management (NJESM), ISSN No. 2249-0264
- Member of Advisory Board of National Conference on “Advances & Research in Electrical System Technology” at AIET, Jaipur, 23rd & 24th April 2011
- Reviewer for the International Conference ICGSEE 2013, to be held at MANIT, Bhopal in March 2013.
- Reviewer of the new edition of the book on “Power Electronics” by Singh and khanchandani published by TMH, New Delhi.
- Member of review committee for the self-learning Modules Developed by TTTI, Bhopal for the Teachers of REC’s.
- Member of review committee for the International Journal of Science and Technology, SCIENTIA IRANICA.
- Member of review committee for the International Journal of Electronics, Taylor & Francis.
- Member of review committee for the International Journal of Electrical Power and Energy Systems, Elsevier.
- Member of review committee for the 4th IEEE International conference on Smart Energy Grid Engineering (SEGE2016)-2016.
- Member of the Editorial Board of National Journal of Engineering Science and Management.
- Reviewer for the International Transactions on Electrical Energy Systems.
- Reviewer for the IET Renewable Power Generation.

Any other information

- Convener for recruitment process of diploma trainees for MPMKVVCL, Bhopal.
- Developed the experimental manuals for power Electronics Laboratory, Microprocessor Laboratory.
- Member of review committee for the self-learning Modules Developed by TTTI, Bhopal for the Teachers of REC's.
- Reviewer of the new edition of the book on "Power Electronics" by Singh and khanchandani published by TMH, New Delhi.
- Author of two Technical Reports on "Energy Audit of MANIT Campus" submitted to MANIT, Bhopal.
- Donated 350ml of Blood on 21/09/02 at Voluntary Blood Donation Camp held at MANIT Campus organized by NSS unit.
- Had been to various places within & outside MP as an Observer appointed by VYAPAM/CBSE to conduct PET/PMT/Pre MCA/AIEEE etc.
- Had been subject expert for Testing Assistant Interview held from 25th – 28th August-2012, in MANIT.
- MOU signed between MANIT Bhopal and Power Purchase Agreement with Fourth Partner Energy Pvt. Ltd. (250 kW solar plant) as a co-ordinator.
- MOU signed between MANIT Bhopal and Energy Performance Agreement with Energy Efficiency Services Limited.as a co-ordinator.
- BOS Member VIT Bhopal campus.

Membership of society/position held in society

- Life Member ISTE LM20561
- Associate Member IE(India) F-1269573
- IEEE Membership 97655028

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