### Jitendra Kumar Dwivedi

### **Contact Information**

Associate Professor & Head, Electrical Engineering Department, Harcourt Butler Technical University, Nawabganj, Kanpur-208002, INDIA

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## **Employment**

Associate Professor, Electrical Engineering Department, Harcourt Butler Technical University, Kanpur, India

### **Education**

M.E., Electrical Engineering with specialization in Power Systems, from Malaviya Regional Engineering College, Jaipur, Rajasthan, India

B.Sc.(Engineering), Electrical, from D.E.I.(Deemed University), Agra, India.

## **Research Interest**

Power Electronics, Industrial Electric Drives, Power System Security, Power Quality, FACTS, Non-Conventional Energy Resources.

## **Teaching Interest**

At Undergraduate Level:, Power System Operation and Control, Power Electronics, Electric Drives, EHV AC/DC Transmission, Element of power system, Basic Electrical Engineering, Network Analysis & Synthesis.

At Postgraduate Level: Computer Methods in Power Systems, Advanced Power Electronics, Power Semiconductor Controlled Electric Drives, Power Converters, Advanced Power Converters.

## **Research Publication in Journals**

1. Jitendra Kumar Dwivedi & Ashish Nigam, "Performance analysis of D-STATCOM and DVR for power quality improvement in distribution system," in *VSRD international Journal of Electrical, Electronics & Communication Engineering*, Vol 3 Issue, 5 May 2013.



- 2. Jitendra Kumar Dwivedi and Manish Pathak, "Implementation of STATCOM considering its losses" in *VSRD international Journal of Electrical, Electronics & Communication Engineering*, Vol 3, Issue 10, October 2013.
- 3. <u>Jitendra Dwivedi, M. Shukla, K. S. Verma</u> and <u>R. K. Singh,</u> "A Novel Technique for Indication of Power Frequency Deviations in Electrical Systems", in Proc. of International Conference on Power Electronics & Instrumentation Engineering "PEIE-2010", pp. 80-82, Sept.7-9,2010, Kochchi, Kerala, India (SPRINGERLINK) DOI:10.1007/978-3-642-15739-4\_14 <a href="https://www.springerlink.com/index/V68VU70P1086783K.pdf">www.springerlink.com/index/V68VU70P1086783K.pdf</a>.
- 4. Tripathi, Shweta; Dwivedi, J.K.; Shukla, M., "Power Line Communication with Tree Based Interleaver in Iterative IDMA Systems", in Proc. of International Conference on Computational Intelligence and Communication Networks "CICN 2013" pp. 286 290, GLA University, Mathura, Indi, 27-29 Sept. 2013. DOI: 10.1109/CICN.2013.145
  <a href="http://ieeexplore.ieee.org/xpl/login.jsp?tp=&arnumber=6658001&url=http%3A%2F%2Fieeexplore.ieee.org%2Fxpls%2Fabs\_all.jsp%3Farnumber%3D6658001">http://ieeexplore.ieee.org%2Fxpls%2Fabs\_all.jsp%3Farnumber%3D6658001</a>
- M. Shukla, J.K. Dwivedi, "Hydrogen and Fuel Cells in India- Present Status and Future strategy for Speedy Development", in Proc. of National Seminar Non Conventional Energy Resources & Its Utilization, Feb. 27-28 2009, pp. 103-117, Feb. 27-28/2009, K.N.I.T., Sultanpur, India. <a href="http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1955888">http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1955888</a>
- M. Shukla, Nutan Sharma, J.K. Dwivedi and Surendra Kr. Sriwas, "Power Line Communication: A Survey", in Proc. of International Conference On Recent Trends in Engineering, Technology & Management, pp. 498-502, Feb 26-27 2011, B.I.E.T., Jhansi, India <a href="http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1956311">http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1956311</a>

### International/National conferences

- 1. Jitendra Kumar Dwivedi, "Advances in Engineering & Technology Research," in *IEEE international Conference, at Virendra Swarup Memorial Trust Group of Institutions on 01-02 August 2014.*
- 2. Jitendra Kumar Dwivedi, "Recent Advancement in Communication & Electronic (RACE'10), in Laxmi Devi Institute of Technology, Alwar, 12-13 November 2010.
- 3. Jitendra Kumar Dwivedi, "Operation Strategy in Indian Industry: An Overview", April 10-12, 2004, National Conference on Information Technology, Operation Research and Computing, Dau Dayal Institute of Vocational Education, Dr. B.R.Ambedkar University, Agra.
- 4. Jitendra Kumar Dwivedi, "Strategy for Reducing Failure Rate of Distribution Transformer", March01-02,, 2002, National Seminar on Emerging Convergent Technologies & Systems(SECTAS-2002), Faculty of Engineering, D.E.I.(Deemed University), Dayalbagh, Agra, U.P.
- 5. Jitendra Kumar Dwivedi, "Study of Losses and their Remedies of a Distribution System", March01-02,, 2002, National Seminar on Emerging Convergent Technologies & Systems(SECTAS-2002), Faculty of Engineering, D.E.I.(Deemed University), Dayalbagh, Agra, U.P.

### **Review Service**

Circuit & Networks book McGraw-Hill Education (India) Pvt. Ltd; on 15 June 2009.

# Departmental and Institutional Service Present:

Present:
Head, Electrical Engineering Department, H.B.T.U., Kanpur

Head, Electrical Engineering Department, R.E.C., Kannauj

Head, Electrical Engineering Department, R.E.C., Mainpuri

Chairman, BOS, EED, H.B.T.U., Kanpur

Member, Construction Committee, C.S.J.M.University, Kanpur

Faculty Incharge: Power System Lab.

Power Electronic Lab Electric Drive Lab.

Member Secretary of faculty Recruitment:

Electrical Engineering Department, H.B.T.U., Kanpur Electrical Engineering Department, R.E.C., Kannauj Electrical Engineering Department, R.E.C., Mainpuri

### **Previous:**

Head, Electrical Engineering Department, H.B.T.I., Kanpur Head, Electrical Engineering Department, Dr. B.R.A.C.E.I.T., Bijnore Centre Superintendent of Examination, U.P.T.U., Lucknow Officer Incharge, Security, H.B.T.I., Kanpur Officer Incharge, Electrical Maintenance, H.B.T.I., Kanpur Assistant Superintendent of Examination, H.B.T.I., Kanpur Member of EED M. Tech. Admission Committee Member of BOS of EED Member of Selection Committee of Guest Faculty for Bijnor Member of Anti Ragging Committee Member of SEE Counseling Committee Representative of EED in Institute Time-Table Committee Convener of AEE Faculty In-charge Industrial Training, EED

### **List of M.Tech. Dissertations Supervised:**

- **1.** Sensor less vector control of induction motor by using MRAS observer (Kuldeep Bharwaj 913/12) 2016.
- **2.** Improvement of voltage profile using static VAR compensation (Swaruop Narain Shukla 912/11) 2014.
- **3.** Sensor less vector control of permanent magnet synchronous motor (PMSY) by using back EMF observer (Lovi Kaushal Agarwal 805/07 ) 2014.
- 4. Aspects of power quality & methods of its improvement (Ravi Dixit 813/08) 2013.
- 5. Control of UPQC using current de composition techniques (Anand Tiwari 811/08) 2013.
- **6.** Power quality monitoring system on power line with interleave- division multiple-access technique (Rohit Tripathi 814/08) 2013.
- **7.** Performance study of unified power quality conditioner using matlab simulink (Kuldeep Kumar Singh 807/09) 2013.
- **8.** Load flow analysis of transmission system using STATCOM as a voltage stabilizing device (Manish Pathak 813/06) 2013.
- **9.** Power system security by using unified power quality conditioner (kamlesh Shukla 809/08) 2013.
- **10.** Design & comparative study of 24 pulse & 30 pulse multi pulse convertor for varying loads (Pradeep Sing Yadav 810/09) 2013.
- 11. PMU based state estimator for electric power system (Vijay Kumar Dixit 810/08) 2013.
- **12.** Power factor correction & harmonic reduction technique in AC-DC convertors (Arun L. Bhavsar 5404520003) 2011.
- **13.** Simulation of wind turbine driven doubly fade induction generator using DC link (Arpit Agarwal 5404520002) 2011.
- **14.** A simulation based analysis of a unified power flow controller (UPFC) using mat lab simulink (Sharad Gupta 5404520008) 2011.
- **15.** Performance analysis of D-Statcom & DVR for power quality improvement in distribution system (Ashish Nigam 805/09)
- **16.** Power Line communication through IDMA scheme (Rohit Tripathi 814/08).
- **17.** Three Phase Liner state estimation with phasor measurement units (Vijay Kumar Dixit 810/08).
- 18. Multi-Chanel GSM AMR codec design (Vikas Kumar Rai 02MW10) 2004.
- **19.** Liquid cooling of microwave pulsed power klystrons collector (Madhu Deo Upadhayay 02MW06) 2004.

**20.** Thermal & structural analysis of ku band space TWT electron gun using ANSYS software (Harish Kumar 324 ) 2004.

## List of B.Tech. Projects Guided:

- 1. Efficiency and power factor improvement of single phase induction motor (Abhinav Srivastava 141/12, Anshuman Pranami 148/12, Anil Kumar Patel 534/13), 2016.
- 2. Compensation of a distribution system using static VAR compensator (Ankit Kumar Gupta 146/12, Ravi Ranjan 166/12, Rahul Sharma 1010/12), 2016.
- 3. Speed control of brushless D.C. Motor using SPWM technique (Sanhita Bhartiya 167/12, Deepa Singh 535/13, Priyanka Singh 537/13), 2016.
- 4. Modeling and analysis of harmonics resonance (Amit Kumar Kapil 144/12, Gyanendra Singh 151/12, Prateek Sachan 162/12), 2016.
- 5. Closed Loop Speed Control of Permanent magnet brushless D.C. Motor using MOSFET (Shivam Gupta 1045/10, Upendra Singh 244/10, Krishna Kumar Umar Vaishya 149/10), 2014.
- 6. Three phase improoved power quality buck-boost A.C.- D.C. converter (Dharmendra Yadav 149/09, Dhirendra Pratap Singh Chauhan 150/09, Divya Kumar 151/09), 2013.
- 7. Modeling control and performance investigation of UPQC for harmonics and reactive power compensation (Akansha Shukla 147/09, Toyaj Bhushan Mishra 178/09, Vartika Tewari 179/09), 2013.
- 8. Hardware implementation of single phase induction motor using PWM technique (Neha Gangwar 378/08, Pankhuri Garg 558/08, Ruchi Verma 154/08), 2012.
- 9. Wireless monitoring of power theft (Saurabh Verma 161/08, Bhuvanesh Varshney 1016/08, Narottam kumar 149/08), 2012.
- 10. Modelling and simulation using DSTATCOM (Pankaj Kumar 516/07, Pradip Kumar Gaund 159/05), 2011.
- 11. Improvement of power system stability using facts controller (Ekanki 169/07, Mamta Gupta 149/07, Prachi Arora 153/07) 2011.
- 12. PID Controller for controlling brushless D.C. Motor speed using MATLAB application (Snehil Chandra 163/07, Preeti 518/08, Momita Rana 151/07), 2011.
- 13. An expert system for transmission line using neural network (Ashish Kumar Seth 143/07, Sumit Dhameja 164/07, Dayanidhi Kinkar 172/07), 2011.
- 14. Domestic purpose induction heater (Dinesh Kumar 146/06, Rishi Kumar 166/06, Yogesh Chandra Mishra 172/06), 2010.
- 15. Bidirectional speed control of D.C. motor (Amit Kumar Srivastava 147/05, Vipin Kumar 154/05, Abhishek Agarwal 149/05, Saurabh Singh 158/05), 2009.
- 16. Failure of mechanism of porcelain insulator on HVDC (Avinash Rai, Rahul Shukla, Ritesh Kumar Singh, Vivek Tripathi, Vineet Kumar), 2008.
- 17. MATLAB simulation of brushless D.C. Motor (Naman Pandey, Sanjeev Kumar Gupta, Ujjawal Garg, Shashank Garg), 2008.
- 18. Speed control of D.C. series Motor using thyristor in closed loop (Shri kant Verma 167/03, Santosh Kumar Yadav 172/03), 2007.

- 19. Voice & data transmission using Optical Fiber Cable (Meenu Singh 00EC63; Preeti Bala Pushkar 00EC 37; Vijay Kumar Pushkar 00EC54; Vinod Singh 00EC57) 2004.
- 20. Development of Robotic ARM (Pradeep Kumar; Naveen Singhal; Sonika Dheer; Neelam Singh; Shail Bala)
- 21. Design & Implementation of Digital Inductance meter (Shishupal Singh; Ram Prakash)

## **Short-term Courses/ Workshop/ Conference/Seminar Attended:**

- 1. Workshop on "Occupational Health & Safety Management Practices", H.B.T.U. Kanpur, 03/10/2016-05/10/2016.
- 2. National conference on "Trends in Signal Processing & Computing", at H.B.T.I., Kanpur, 19-20 September 2015.

3.

- 4. Seminar on "State level Faculty Interaction", H.B.T.I., Kanpur, 08/06/2015 09/06/2015.
- 5. Workshop on "Industry and Higher Education: Indian Cntext", April 5, 2015, Department of Electrical Engineering, H.B.T.I. Kanpur
- 6. Workshop on "Matlab programming and its application" Department of Electrical Engineering, H.B.T.I. Kanpur, 25/02/2015-26/02/2015.
- 7. *IEEE international Conference on* "Advances in Engineering & Technology Research", *at Virendra Swarup Memorial Trust Group of Institutions on 01-02 August 2014*.

8.

- 9. Workshop on "Matlab Programming", Department of Electrical Engg., H.B.T.I. Kanpur, TEQIP-II, 05/04/2014-06/04/2014.
- 10. Seminar on "Advances in Power Electronics & Control", Department of Electrical Engineering, H.B.T.I., Kanpur, 16/08/2013.
- 11. Workshop on "Simulation on Circuit design & signal Processing", Department of Electronics Engg. H.B.T.I. Kanpur, TEQIP-II, 14/10/2013-15/10/2013.
- 12. Short term Course(FDP) on "Recent Advances in Electrical Engineering", June 03-08, 2013, Department of Electrical Engineering", H.B.T.I., Kanpur.
- 13. *IEEE International Conference on Advances on Power Electronics & Instrumentation Engineering*), 2010, PEIE 7-8, September 2010 at PEIE, Kochi, Kerala, India.

14.

- 15. Workshop on "Recent trends in microwave integrated circuits", Sachdeva Institute of Technology, Mathura, 18/09/2010-19/09/2010.
- 16. Workshop on "Mission 10X", Kanpur Institute of Technology Kanpur, 28/06/2010-02/07/2010.
- 17. Workshop on "Laboratory teaching in electrical engineering-LTEE`08", Department of Electrical engineering", 28-29/02/2008, Kamla Nehru Institute of Technology, Sultanpur, (UP).
- 18. Workshop on "Application of Mathematics in engineering and technology", Department of Mathematics, H.B.T.I. Kanpur, 08/09/2007.

- 19. Short term Course on "Signal Processing & Filter Designing" Department of Electronics Engineering", H.B.T.I., Kanpur, 09-11 May 2007.
- 20. Short Term Programme on "Emerging Trends in Engineering & Technology", May 22-26, 2006, Jointly organized by NITTR, Chandigarh and JNIT, Jaipur at JNIT, Jaipur.
- 21. National Seminar on "Advanced Manufacturing Technologies", Dec. 30, 2005, JNIT, Jaipur.
- 22. IEEE workshop on "Recent Advances in Direct Torque Control and Vector Control of AC Motor Drives", Dec. 26-27, 2005, Jointly organized by IEEE PES-IAS Delhi Chapter and EED, IIT, Delhi.
- 23. National Seminar on "Recent Trends in Engineering Sector", Feb. 27, 2005, JNIT, Jaipur.

24.

- 25. AICTE-ISTE Short Term Training Programme on "Modern Trends in Power Electronics ans Industrial Drives", June 18-30, 2001, M.R.E.C., Jaipur
- 26. AICTE-ISTE Short Term Training Programme on "Recent Advances in Power Electronics and its Applications", June 12-24, 2000, M.R.E.C., Jaipur
- 27. A course on "dBASE-III Plus (Computer)", May 22-June 10, 1989, D.E.I.(Deemed University), Dayalbagh, Agra, U.P.

## **Faculty Development Program (FDP):**

- 1. FDP on Management Capacity enhancement program for administrators, IIM, Lucknow, 09-13 June 2014.
- 2. FDP on Digital Signal Processing using Matlab, Department of Electronics Engineering, H.B.T.I., Kanpur, 06-10 January 2014.
- 3. Jitendra Kumar Dwivedi, "Advances in Engineering & Technology Research," in *IEEE international Conference, at Virendra Swarup Memorial Trust Group of Institutions on 01-02 August 2014.*

## **Short-term Courses/Workshop Organized:**

- 1. Workshop on "Matlab programming and its application" Department of Electrical Engineering, H.B.T.I. Kanpur, 25/02/2015-26/02/2015.
- 2. Seminar on "Advances in Power Electronics & Control", Department of Electrical Engineering, H.B.T.I., Kanpur, 16/08/2013.
- 3. Seminar on "State level Faculty Interaction", H.B.T.I., Kanpur, 08/06/2015 09/06/2015.
- 4. **Convener**, Two days workshop on "Robotics", 2014, EED H.B.T.I. Kanpur.
- 5. **Convener,** Annual technical fest "Resonance-14", 2014, EED H.B.T.I. Kanpur.
- 6. Convener, Two days workshop on "Robotics", 2015, EED H.B.T.I. Kanpur.
- 7. **Convener,** Annual technical fest "Resonance-15", April 05-06, 2015, EED H.B.T.I. Kanpur.

## **Certificate of Appreciation:**

- 1. Short term Course (FDP) on "Recent Advances in Electrical Engineering", June 03-08, 2013, Department of Electrical Engineering", H.B.T.I., Kanpur.
- 2. Seminar on "Advances in Power Electronics & Control", Department of Electrical Engineering, H.B.T.I., Kanpur, 16/08/2013.
- 3. Workshop on "Matlab Programming", Department of Electrical Engg., H.B.T.I. Kanpur, TEQIP-II, 05/04/2014-06/04/2014.
- 4. Workshop on "Matlab programming and its application" Department of Electrical Engineering, H.B.T.I. Kanpur, 25/02/2015-26/02/2015.
- 5. Seminar on "State level Faculty Interaction", H.B.T.I., Kanpur, 08/06/2015 09/06/2015.