Dr. SANDEEP BHONGADE

1. Personal Information

(i)	Name	Dr. SANDEEP BHONGADE
(ii)	Qualification	PhD. , M.E. , B.E.
(iii)	Designation	ASSOCIATE PROFESSOR
(iv)	Email-id	bhongadesandeep@gmail.com sandeepbhongade@rediffmail.com
(v)	Employee No.	9183
(Vi)	Department	ELECTRICAL ENGINEERING
(vii)	Experience	18 YEARS

2. Educational Qualification

S. No.	Degree	Specialization	Year	University/Board
1	Ph.D.	POWER SYSTEM	2012	Indian Institute of Technology Roorkee
2	ME	Control System	2003	Veermata Jijabai Technological Institute (V.J.T.I.), University of Mumbai
3	BE	Electrical Engg	1997	Government Engg. College, UJJAIN (M.P), Vikram University

3. Research Interests

- Power System Restructuring
- Power System Operations and Control
- Energy management system
- Distributed Generation
- Renewable Energy Sources

Teaching and Research Experience

1. Served as Lecturer from 23.12.2003 to 18.09.2011 in the Department of Electrical

Engineering, S.G.S. Institute of Technology & Science, Indore (M.P), INDIA

2. Serving as Assistant Professor since 19.09.2011 in the Department of Electrical

Engineering, S.G.S. Institute of Technology & Science, Indore (M.P), INDIA

3. Serving as Associate Professor since 23.12.2016 in the Department of Electrical

Engineering, S.G.S. Institute of Technology & Science, Indore (M.P), INDIA

4. Served as Research Scholar from 02.08.2008 to 22.11.2012 in the Department of

Electrical Engineering, Indian Institute of Technology Roorkee, Roorkee, INDIA.

Awards Received

1. Selected for receiving travelling grant from UGC, New Delhi, for presenting research paper in international conference at Singapore

PROFESSIONAL RECOGNITIONS

Paper presentation

- Oral paper presentation in National Power Engineering Conference (NPEC-2005), Thiagarajar College of Engineering, Madurai (T.N), 16-17 Dec.2005.

- Presented research paper on "Artificial Neural Network based Automatic Generation Control Scheme", at the 9th International Power and Energy Conference (IPEC 2010), SINGAPORE, during 27-29 Oct.2010.

- Oral paper presentation in National Conference EPTMITA-2006, M.M.M Engineering College, Gorakhpur (U.P), 17-18 Feb.2006.Oral paper presentation in National Conference on recent advances in Electrical Power and Energy System Management (RAEPESM-2011), M.M.M Engineering College, Gorakhpur (U.P),25-26 March,2011.

Recognized as supervisor/co-supervisor for PhD program

- Recognized as supervisor/co-supervisor for PhD program in the subject Electrical Engineering in the faculty of Electrical and Electronics recommended by the research degree committee by Rajiv Gandhi Proudyogiki Vishwavidyalaya, M.P (University of Technology of Madhya Pradesh)

- Acted as Ph.D Viva Voce Examination subject expert appointed by Rajasthan Technical University, Kota.

- Acted as Ph.D Viva Voce Examination subject expert appointed by Amity University Madhya Pradesh, Gwalior.

- Acted as Ph.D Viva Voce Examination subject expert appointed by Shri Jagdish Prasad Jhabarmal Tibrewala University, Conducted by Shri Rajasthani Seva Sangh (Mumbai) (Established U/S(f) of UGC Act. 1956 vide Act No. F2(5) Vidhi/2/2009 of 5-5-2009 of Govt. of Raj) Vidya Nagari, Jhunjhunu-Churu Road, Chudela, Dist. Jhunjhunu – 333001, Rajasthan.

Member of Professional Bodies

- Senior Member IEEE

- IEEE Membership No. 910737446

- **ORCID ID**: https://orcid.org/0000-0003-0575-509

- Web of Science Researcher ID: K-7440-2015

4.	**Research Paper Publications**

(I)	**International/National Journal Publications**

1. Neeti Dugaya, Sandeep Bhongade, Krishna Teerth Chaturvedi, "DG Power Loss Reduction Using Soft Computing Techniques Considering Optimal Sizing & Location", International Journal of Creative Research Thoughts (IJCRT) www.ijcrt.org, Volume 9, Issue 4 April 2021 | ISSN: 2320-2882.

2. T. Reghu, Sonu K Singh, Mahendra Laad, Sandeep Bhongade and P. Shrivastava, "Design and development of a rapid, high voltage capacitor charging power supply based on third order resonant converter topology," Review of Scientific Instruments **92**, 114710 (2021); https://doi.org/10.1063/5.0064900

3. Bhongade S, Sharma J. "Home Energy Management System for the residential load model under dynamic pricing mechanism", *Indian Journal of Engineering*, 2021, 18(50), 330-344. (Peer-Review Journal)

4. Bhongade, S., Tomar, A. Optimal Reactive Power Dispatch Optimization Using STATCOM. *J. Inst. Eng. India Ser. B* (2021). https://doi.org/10.1007/s40031-021-00537-1

5. Potfode, A., Bhongade, S. (2021). Economic Load Dispatch of Renewable Energy Integrated System Using Jaya .Algorithm*Journal of Operation and Automation in Power Engineering*, (), -. doi: 10.22098/joape.2022.7562.1538.

6. Bhongade, Sandeep, Dawar R S, Sisodiya S L. Demand-Side Management in an Indian Village. *J. Inst. Eng. India Ser. B* (2021). DOI:10.1007/s40031-021-00639-w.

7. S. R. Goigowal, M. M. Rege, Sandeep Bhongade, R. S. Khonde,(2020) "Investigating optimal location of DSSC to minimize reactive power generation", Helix International Journal, Vol 9 Issue No 6, pp.5863-5867,PISSN – 2277-3495|| EISSN – 2319-5592.DOI: 10.29042/2019-5863-5867.

8. S. Bhongade, Vishnu P Parmar, "Jaya Algorithm based Optimized Automatic Generation Control Scheme for interconnected Solar-Thermal power system", The IUP Journal of Electrical and Electronics Engineering, Vol. VIII, No.1, pp.20-29, ISSN: 0974-1704, January 2020.

9. Muley Kishor C. and Bhongade Sandeep (2019). Load Management Techniques and Pricing Model for Demand Side Management – A Review. *International Journal on Emerging Technologies,* 10(1):42-46. ISSN No. (Print): 0975-8364, ISSN No. (Online) :pp. 2249-3255.

10. S.Bhongade, Supriya Golhani, "Detection and Error analysis of High Impedance Fault using wavelet transform, travelling wave and Support Vector Machine", The IUP Journal of Electrical and Electronics Engineering, Vol. XI, No.2, pp.7-23, ISSN: 0974-1704, April 2018.

11. BHONGADE, sandeep. Automatic Generation Control of two-area ST- Thermal Power System using Jaya Algorithm. International Journal of Smart Grids, ijSmartGrid, [S.l.], Vol. 2, No. 2, pp. 99-110, June 2018. ISSN 2602-439X. Available at:

<http://ijsmartgrid.com/index.php/ijSmartGrid/article/view/37>

12. Sandeep Bhongade, Badal Kumar, "Load disturbance rejection based PID controller for frequency regulation of a microgrid", Indonesian Journal of Electrical Engineering and Computer Science, Vol 7, No 3: September 2017, pp.625-642, p-ISSN: 2502-4752, e-ISSN: 2502-4760. (Scopus Journal)

13. Ajit Kumar, S.Bhongade, "A Novel Approach for Placement of Phasor Measurement Unit & Counting their Optimal Number", Electrical and Electronics Engineering: An International Journal (ELELIJ), Wireilla Scientific Publications, New South Wales, Australia, ISSN: 2200-5846, Vol. 5, No.1, pp.-29-37, Feb 2016.

14. S. Bhongade, Sachin Arya, "Optimal Capacitors in Radial Distribution System for Loss Reduction and Voltage Enhancement", Indonesian International Journal of Electrical Engineering, TELKOMNIKA, p-ISSN: 2502-4752, e-ISSN: 2502-4760, Vol.2, No.3, pp.-, June 2016. (Scopus Journal)

15. S. Bhongade, B. Tyagi, "Dynamic Participation of Gencos in SMES Based Competitive Electricity Market", International Journal of Power Systems, ISSN: 2367-8976, Volume 1, pp.7-19, 2016.

16. Ajit Kumar, S.Bhongade, "Optimal Placement of Phasor Measurement Units for Madhya Pradesh Power Grid", The IUP Journal of Electrical and Electronics Engineering, Vol. IX, No.3, pp.32-39, ISSN: 0974-1704, July 2016.

17. S.Bhongade, Lokesh Verma, "Optimal Placement and location of Phasor Measurement Unit considering bus voltage using genetic algorithm", *Journal of Power Electronics and Power System,* Volume 6, Issue 2 , pp.74-84, May-August 2016, Pages , ISSN: 2249 – 863X, STM Journals, Division of Consortium eLearning Network Pvt. Ltd.-INDIA.

18. Sandeep Bhongade, Sourabh Agarwal, "Artificial Bee Colony Algorithm for an Optimal Solution for Combined Economic and Emission Dispatch Problem", *International Journal of Applied Power Engineering, Vol. 5, No.3, Dec 2016, pp.111-119, ISSN*: 2252-8792, Institute of Advanced Engineering and Science (IAES).

19. S. Bhongade, Prachi Rusia, "Digital Implementation of PID Controller using FPGA for Temperature Control", Majlesi Journal of Mechatronic Systems, ISSN: 2322-1089, Vol 4 No 1, pp. 33-37, March 2015.

20. Gaurav Pandey, Sandeep Bhongade, "Participation of DFIG Based Wind Turbine Generator in Load Frequency Control with Linear Quadratic Regulator and SMES", Majlesi Journal of Energy Management, ISSN: ISSN: 2322-3073, Vol 4 No 3, pp. 09-15, September 2015.

21. S. Bhongade, B. Tyagi, H.O. Gupta, "Multi-Area Automatic Generation Control scheme including renewable energy sources", Indonesian International Journal of Electrical Engineering, TELKOMNIKA, ISSN: 2302-4046, e-ISSN: 2087-278X, Vol.12, No.7, pp.-5052-5070, July2014. (Scopus Journal).

22. Sandeep Bhongade, Barjeev Tyagi, "Application of superconducting magnetic energy storage system to automatic generation control scheme suitable in a Restructured Power System" *Journal of Engineering and Technology | Jul-Dec 2013 | Vol 3 | Issue 2*, pp. 82-88, ISSN: Print -0976-8580, Online - 2231-4997,Wolter Kluwer, Medknow Publications.

23. Sandeep Bhongade, Barjeev Tyagi, "Participation of renewable energy sources in Restructured Power System" *International Journal of Applied Power Engineering, Vol. 2, No. 1, April 2013, pp.1-14, ISSN*: 2252-8792, Institute of Advanced Engineering and Science (IAES).Available*: http://iaesjournal.com/online/index.php/IJAPE/article/view/1625.*

24. Sakshi Rajpoot, S.Bhongade, "Performance Analysis of GA and PSO over Economic Load Dispatch Problem", International Journal of Digital Application & Contemporary research (IJDACR), ISSN: 2319-4863, Volume 1, Issue 7, February 2013. Available: http://www.ijdacr.com/sites/default/files/feb13/sr.pdf

25. Geoffrey Eappen, S. Bhongade, "Optimized Automatic Generation Control Scheme including SMES in an interconnected Power System", Electrical and Electronics Engineering: An International Journal (ELELIJ), Wireilla Scientific Publications, New South Wales, Australia, ISSN: 2200-5846, Vol. 1, No.1, pp.-29-37, August 2013. Available: http://wireilla.com/engg/eeeij/papers/2313elelij03.pdf

26. L. S Titare, L.D. Arya, S.Bhongade, "Voltage security evaluation using Eigenvalue sensitivities and Compensation injection", *Institute of Engineers (IE), Vol.87*, ISSN: 2250-2149 (Print), 2250-2157 (Online). Sept.2006.

27. Sandeep Bhongade, H.O. Gupta, Barjeev Tyagi "Effect of SMES unit in multi-area Automatic generation control scheme suitable in restructured power system" *International Journal of Distributed Energy Resources,* vol. 7, no. 2, April-June 2011, pp. 149-165, ISSN: 1614-7138, Technology and Science Publishers, Germany.

28. Sandeep Bhongade, Barjeev Tyagi, H.O. Gupta, "Genetic Algorithm Based PID Controller Design for Multi-area AGC Scheme Suitable in Restructured Power System," *International Journal of Engineering, Science and Technology, Vol. 3, No. 1, 2011, pp. 220-236,* ISSN 2141-2839 (Online); ISSN 2141-2820 (Print), Multi-craft Ltd, African Journals Online (AJOL).

29. Sandeep Bhongade, H.O. Gupta, Barjeev Tyagi "Genetic Algorithm based PID controller for Frequency Regulation Ancillary services" *International Journal of Engineering, Science and Technology,* vol. 2, no. 12, 2011, pp. 6881-6887, ISSN: 0975–5462 (online version); ISSN: 2278–9510 (Print version)**,** Engineering Journals Publications, Singapore.

30. Sandeep Bhongade, H.O. Gupta, Barjeev Tyagi "Performance of SMES unit on Artificial Neural Network based Multi-are AGC scheme" *Journal of Power Electronics and Power System,* Volume 1, Issue 2, March, 2011, Pages 1-12 , ISSN: 2249 – 863X, STM Journals, Division of Consortium eLearning Network Pvt. Ltd.-INDIA.

31. Sandeep Bhongade, Barjeev Tyagi, H.O. Gupta, "Effect of SMES unit in Load Following Contract in a Restructured Power System" *International Journal of Engineering, Science and Technology, Vol. 3, No. 1, 2011, pp. 255-264,* ISSN 2141-2839 (Online); ISSN 2141-2820 (Print), Multi-craft Ltd, African Journals Online (AJOL).

32. Sandeep Bhongade, H.O. Gupta, Barjeev Tyagi "Performance of Artificial Neural Network based Multi-are AGC scheme" *Volume 7, Issue 2, 2011, Pages 179-192, Journal of Electrical Systems,* ISSN 1112-5209, Engineering and Scientific Research Groups (ESRGroups). Available:*www.esrgroups.org/journal/jes/papers/jes7_2_4.pdf.* (Scopus Journal)

(II)   International/National Conference Publications

1. Neeti Duguaya, Sandeep Bhongade, K.T. Chaturvedi, "Power Loss Minimization in DG allocation using Artificial Intelligent Computing Techniques", in 7th International Conference for Convergence in Technology (I2CT) organized by IEEE Bombay Section, during 7th to 9th April 2022.PaperID:392.

2. Sandeep Bhongade, Jigyasa Sharma, "Peak Time Energy Management System For Household Load Devices Under Real Time Pricing", in the proceedings of International Conference on Smart Energy and Advancement in Power Technologies (ICSEAPT 2021) will be published by Springer in "Lectures Notes in Electrical Engineering"6th-8th September 2021, Organized by Department of Electrical Engineering National Institute of Technology, Jamshedpur, India, 06-08 Sept 2021.PaperID:243.

3. Sandeep Bhongade, Kishore Muley, "Scheduling of Demand-Side Resources for a Residential Air Conditioning Load", in the proceedings of International Conference on Smart Energy and Advancement in Power Technologies (ICSEAPT 2021) will be published by Springer in "Lectures Notes in Electrical Engineering"6th-8th September 2021, Organized by Department of Electrical Engineering National Institute of Technology, Jamshedpur, India, 06-08 Sept 2021.PaperID:125.

4. Abhimanyu Patel, Sandeep Bhongade, " Designing of Load Frequency Controller for Two-Area Interconnected Power System using Grey Wolf Optimization", in the proceedings of International Conference On Computing, Power And Communication Technologies (GUCON 2019) (IEEE Conference Record No 47222) , September 27-29, 2019 at Galgotias University (GCET Campus), Greater Noida, NCR New Delhi, India. Paper ID: 229.

5. S. Bhongade and Sanjay Kanoj, "Application of SMES Unit to Regulate System Frequency In an Inter Connected Power System", in the proceedings of International Conference on Power and Energy Systems (PESTSE-2018), Amrita Vishwa Vidyapeetham Bengaluru Campus, Amrita School of Engineering, Bengaluru, India, 18-20 January 2018.PaperID:134.

6. S. Bhongade and Abhishek Potfode, "Economic Load Dispatch of Thermal-Wind Integrated System Using Jaya Algorithm", in the proceedings of 2018 IEEE 3rd International Conference For Convergence in Technology, Pune, India, 7-8 April 2018.PaperID:17.

7. Sandeep Bhongade, Ritu Verma, "Grey Wolf Optimized PI controller for Hybrid Power System using SMES", in the proceedings of INTERNATIONAL CONFERENCE ON Intelligent Computing Techniques for Smart Energy Systems-2018 (ICTSES-2018), Manipal University, Jaipur (Rajasthan) India, 22-23 Dec 2018.PaperID:153.

8. Badal Kumar, S.Bhongade, "Load Disturbance Rejection Based PID Controller for Frequency Regulation of a Microgrid, ", in the proceedings of International Conference on Power and Energy Systems (PESTSE-2016), Amrita Vishwa Vidyapeetham Bengaluru Campus, Amrita School of Engineering, Bengaluru, India, 21-23 January 2016.

9. Sourabh Agarwal, and S. Bhongade, "An Optimal Solution for Combined Economic and Emission Dispatch problem using Artificial Bee Colony Algorithm", in the proceedings of International Conference on Power and Energy Systems (PESTSE-2016), Amrita Vishwa Vidyapeetham Bengaluru Campus, Amrita School of Engineering, Bengaluru, India, 21-23 January 2016.

10. Nidhi Mate, S. Bhongade, "Automatic Generation Control of two-area ST- Thermal power plant Optimized with Grey Wolf Optimization", in the proceedings of IEEE Seventh POWER INDIA International Conference 2016, Govt Engineering College Bikaner during November 25-27, 2016. paper ID 511.

11. Supriya Golhani, S. Bhongade, "High Impedance Fault Detection Using Wavelet Trasform, Travelling Wave and SVM", in the proceedings of IEEE International Conference on "Electrical Power and Energy Systems" (ICEPES 2016), Maulana Azad National Institute of Technology (MANIT) Bhopal (MP), India, during 14-16 Dec 2016.paper ID 67.

12. Prachi Rusia, Sandeep Bhongade, "Design and Implementation of Digital PID Controller using FPGA for Precision Temperature Control", in the proceedings of 6th IEEE POWER INDIA International Conference 2014, 5-7 December 2014, Le-Meridian, Connaught Place,

New Delhi, India, Delhi Technological University, Delhi, India (Formerly Delhi College of Engineering). Paper ID: 1569995847.

13. Dr. S. Bhongade, Geoffrey. E, H.O. Gupta, "Coordinate control scheme with SSSC and TCPS for Automatic Generation Control with Redox Flow Battery," IEEE sponsored International Conference on Renewable Energy and Sustainable Energy(ICRESE-13), 5-6 Dec.2013, Karunya University, Department of EEE, School of Electrical Science, Coimbatore (T.N)-INDIA, Page no.145-150, Paper ID-EE-PS008. DOI: 10.1109/ICRESE.2013.6927804

14. Deepak Kourav, S.Bhongade, Rajesh Rai, "Review on Image Denoising based on Contourlet Domain using Adaptive Window Algorithm", IEEE International Conference on Machine Intelligence and Research Advancement, ICMIRA-2013, 21 Dec - 23 Dec 2013, Shri Mata Vaishno devi University, Katra, JK, India. Page no.412-415. DOI: 10.1109/ICMIRA.2013.87

15. Sakshi Rajpoot, S. Bhongade, "Comparative study of an evolutionary technique for solving economic load dispatch problem of Power Systems," National Conference on Electrical System and Electrical Technologies (ESET-2013) 2013 under TEQIP-II, National Institute of Technology,Hamirpur (H.P), 28-29 June 2013.

16. Geoffrey M. , S. Bhongade, "Optimized AGC Scheme with SMES unit by PSO technique," National Conference on Electrical System and Electrical Technologies (ESET-2013) 2013 under TEQIP-II, National Institute of Technology,Hamirpur (H.P), 28-29 June 2013. (PaperID:ESET_2013_022_T2_08)

17. Nayan Kumar Gunele, Sandeep Bhongade, D.V. Ghodke, V.K. Senecha, R.M. Vadjikar,S.C. Joshi, "Modeling and Simulation of 2 MHz External RF Antenna Driven H⁻ Ion Source", in proceedings of IEEE APPLIED ELECTROMAGNETICS CONFERENCE 2013, KIIT University, Paper ID: ATT-8-366 | 18 – 20 Dec 2013 | Bhubaneswar, India.

18. S. Bhongade, B.Tyagi, H.O. Gupta, "Automatic Generation Control including Photo-voltaic Generating System for Interconnected Power System," 17th National Power System Conference (NPSC-2012) 2012, Indian Institute of Technology, Banaras Hindu University (IIT-BHU), Varanasi, 12-14 Dec 2012.

19. Sandeep Bhongade, H.O. Gupta, Barjeev Tyagi, "Effect of SMES unit in Load Following Contract in a Restructured Power System," National Conference on recent advances in Electrical Power and Energy System Management (RAEPESM-2011), M.M.M Engineering College, Gorakhpur (U.P),25-26 March,2011.

20. S. Bhongade, B.Tyagi, H.O. Gupta, , "Automatic generation control scheme based wind power generating system," Annual IEEE India Conference (INDICON), 2011, BITS-Pilani Campus, Hyderabad,16-18 Dec,2011. Page no. 1-6, DOI: 10.1109/INDCON.2011.6139514

21. Sandeep Bhongade, H.O. Gupta, Barjeev Tyagi "Artificial Neural Network based Automatic Generation Control scheme for Deregulated Electricity Market," The 9th International Power and Energy Conference IPEC2010, Page(s): 1158 – 1163, 27 – 29 October 2010, SINGAPORE. DOI: 10.1109/IPECON.2010.5696997

22. Sandeep Bhongade, H.O. Gupta, Barjeev Tyagi, "SMES Base Multi-area AGC for Restructured Power System," CERA 09, International Conference on Computer Applications in Electrical Engineering Recent Advances, IIT Roorkee, pp.382-385, Feb 19-21 2010.

23. L.D. Arya, S.C. Chaube, S.Bhongade, "Voltage security evaluation using Eigenvalue sensitivities and Compensation injection", National Conference EPTMITA-2006, M.M.M Engineering College, Gorakhpur (U.P), 17-18 Feb.2006.
24. L.D. Arya, S.C. Chaube, S.Bhongade, "A Technique for voltage security evaluation from static voltage stability viewpoint", National Power Engineering Conference (NPEC-2005), Thiagarajar College of Engineering, Madurai (T.N), 16-17 Dec.2005.

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5. Book/Book Chapter

1. Sandeep Bhongade, Gaurav Pandey "DFIG Based Wind Turbine in Frequency Regulation Services", Lambert Academic Publishing Ltd., Germany, ISBN- 978-3-659- 93438-4.

2. Sandeep Bhongade and Ritu Verma, "Optimized Hybrid Power System Using Superconducting Magnetic Energy Storage System: Hybrid Power System Using SMES", Chapter 2 in a book titled "*Novel Advancements in Electrical Power Planning and Performance,*", IGI International: Publisher of Peer-Reviewed, Timely, and Innovative Research, 701 E. Chocolate Avenue, Hershey, Pennsylvania 17033-1240, USA. DOI: 10.4018/978-1-5225-8551-0.ch002

3. Bhongade S., Verma R. (2020) Grey Wolf Optimized PI Controller for Hybrid Power System Using SMES. In: Kalam A., Niazi K., Soni A., Siddiqui S., Mundra A. (eds) Intelligent Computing Techniques for Smart Energy Systems. Lecture Notes in Electrical Engineering, vol 607. Springer, Singapore

4. Varun, S., Bhongade, S. (2022). Solar Power Charging of Electric Vehicle Along with the Implementation of Vehicle-To-Grid (V2G) Technology. In: Bohre, A.K., Chaturvedi, P., Kolhe, M.L., Singh, S.N. (eds) Planning of Hybrid Renewable Energy Systems, Electric Vehicles and Microgrid. Energy Systems in Electrical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-19-0979-5_30.

6. List of P.G Thesis Guided

S. No.	Topic	Name of Student	Year	Co-Supervisor
1.	BER analysis of OFDM with different modulation technique	Aashish Parikh	2008	
2.	Comparative Study of an Evolutionary Techniques for Solving Economic Load Dispatch Problems in Power System	Sakshi Rajput	2013	
3	Automatic Generation Control	Geoffrey	2013	

	Scheme Using PSO	Eappen		
4.	Design of PID Controller in AVR system using PSO	Vivek K Bhatt	2013	
5.	Improvement in Magnetic Field Strength by Modelling and Simulation of 2 MHz External Antenna	Nayan K Gunele	2013	Dr.V.D.Ghodke, RRCAT,Indore
6.	Optimal Placement of PMU Units in M.P State Power Grid	Ajit Kumar	2014	
7.	Participation of DFIG based Wind turbine generator and SMES unit in interconnected power system	Gaurav Pandey	2014	
8.	Economic Load Dispatch Problem Optimization	Priya Patidar	2014	
9.	Design and Implementation of Digital PID Controller using FPGA for precision temperature control	Prachi Rusia	2014	Mr. Sanjeev Mehta, ISRO, Ahemdabad
10.	Performance Comparison for Speed Control of Brushless DC Motor using PI and Fuzzy Logic Controller	Rahul Ganvir	2014	
11.	Optimal Placement of Capacitor to Enhancement Voltage Profile of Distribution System	Sachin Arya	2015	
12.	Automatic Generation Conrol of multi-area power system with diverse sources of power generation	Ananad Khandagle	2015	
13.	Optimal placement of phasor measurement unit to monitor the system and operating using bus voltage	Lokesh Verma	2015	

14.	Combined Economic and Emission Power Dispatch Problem Using Artificial Bee Colony Algorithm	Sourabh Agrawal	2016	
15.	Load Disturbance Rejection Based PID Controller for Frequency Regulation of a Microgrid	Badal Kumar	2016	
16.	High Impedance Fault detection using wavelet transform and support vector machine	Supriya Golhani	2016	
17.	Automatic Generation Control of a Solar Thermal power system using Grey Wolf optimizer	Nidhi Mate	2016	
18.	Economic Load Dispatch of Renewable Energy integrated system using Jaya Algorithm	Abhishek Potfode	2017	
19.	Application of SMES unit to regulate system frequency in an interconnected power system	Sanjay Kanoj	2017	
20.	Detection and categorization of fault in series compensated line using wavelet transform and support vector machine	Rohit Salitra	2017	
21.	Efficient medical image compression using IWT and JPEG Algorithm	Sulochna Burhane	2017	
22.	Optimized Automatic Generation Control Scheme for multi-area ST Thermal power system using Jaya Algorithm	Vishnu Prasad Parmar	2017	
23.	Optimized PI controller for microgird incorporated hybrid	Ritu Verma	2018	

	power system using SMES			
24.	Efficient Technique to mittigate voltage sag and swell using fuzzy logic with wavelet	Pooja Verma	2018	
25.	Small signal stability analysis for two area interconnected power system using Grey wolf optimization	Abhimanyu Patel	2018	
26.	Power Quality improvement by mitigating voltage sag using dynamic voltage restorer	Satyam Patel	2018	Prof M.P.S. Chawla
27.	Optimization of PID controller for hybrid power system using PSO	Bhumika Sahu	2018	Prof M.P.S. Chawla
28.	Optimal Reactive Power Dispatch using STATCOM	Akash Tomar	2019	
29.	Scheduling of the residential load models under dynamic pricing mechanism	Jigyasa Sharma	2019	Prof M.P.S. Chawla
30.	Design and development of a rapid, high voltage capacitor charging power supply based on LLC resonant converter topology	Sonu K Singh	2020	Mr.T.Raghu, RRCAT,Indore
31..	Integration of Solar to Vehicle (S2V) and Vehicle to Grid (V2G) energy transfer technologies	Shreashtha Varun	2021	

7. Invited Lectures/Expert Talks/Chairmanships at Conferences
1. Participated as a keynote speaker in the 3rd National Conference on "Recent Trends and smart technologies in Electrical Engineering", organised by Department of Electrical Engineering, held from 28 June to 29 June 2021 at JECRC, Jaipur, India
2. Participated as a keynote speaker in the national webinar on "Frequency Regulation Services in restructured power system" in the Department of Electrical Engineering organized by Shri Vaishanav Vidyapeeth Vishwavidhyala, Indore (M.P), India, on

08/06/2021.

3. Delivered an online expert lecture on "Power system deregulation" in the Department of Electrical Engineering organized by SATI, Vidisha (M.P), India, on 26/02/2021.

4. Delivered an invited talk in the department of Electrical and Electronics Engineering organized by Mandsaur institute of Technology, Mandsaur (M.P), India, Sept 2015.

5. Delivered an invited talk in the department of Electrical and Electronics Engineering organized by NRI group of Institutes, Bhopal (M.P), India, February, 2014.

International /National Academic Responsibilities

1. Reviewer of IEEE International Conference on Power and Energy Systems: Towards Sustainable Energy (PESTSE 2014).
   Available: http://www.eventm.net/pestse2014/TECHNICAL%20COMMITTEE [Online]

2. Journal Telkomnica, Malasiya.

3. Journal of Control and Systems Engineering (JCSE), Bowen Publishing Company

4. Electric Power Components and Systems, Taylor and Francis.

5. Reviewer of 14th IEEE INDIA COUNCIL INTERNATIONAL CONFERENCE 2017, DEC 15-17, IIT ROORKEE.

6. Member of Technical committee of International Conference on " Emerging Technology in Electrical & Electronics Engineering" February 06-07, 2020 | Jaipur, India
   https://iceteee.net/technical-committee.php [online]

7. Reviewer of Energy-Journal (Elsevier), International Journal of Systems Assurance Engineering and Management (IJSA)-Springer, Journal of Electrical Engineering & Technology-Springer

8. Technical Committee Member of 2nd International Conference on Technological Innovations in Engineering and Management (ICTIEM-20).

9. Reviewer in IEEE Conference ID #45521,International Conference on Convergence to Digital World- Quo Vadis (ICCDW- 2020), 18th-20th February 2020,Technically co-sponsored by IEEE Bombay Section

10. Member of program committee of ICSI'2020 (The Eleventh International Conference on Swarm Intelligence).

11. Member of program committee of 8th International Conference on Control, Modelling, Computing and Applications (CMCA 2019) ,August 24-25, 2019, Viena , Austria https://necom2019.org/cmca/committee.html [online]

12. Reviewer committee member of IEEE International Conference on Computer Communication and Control, at Medi-Caps group of institutes, Indore (M.P), during Sept 10-12, 2015.

13. Program Committee Member of **"International Conference on Data Science and Machine Learning (DSML 2020)"**.

    Please check the below link: **https://csen2020.org/dsml/committee.html**

14. Journal Review Editor on the Editorial Board of Frontiers in Smart Grids (specialty section of Frontiers in Energy Research)

Administrative Duties

- Member in the constitution of Board of Studies in Electrical Engineering Department, S.G.S.I.T.S. Indore

- Worked as an Asstt. OSD for the scrutiny work for Nov-Dec.2012 Examination.

- Worked as an Asstt. Cordinator for P.G. Admission programs for session 2013-14.

- Appointed as checker for verification/checking of CW/SW/Practical/ Theory marks of May-June 2012 Examination.

- Member of the committee constituted for verification of Question booklets and preparation of key for question paper of Electrical Engineering as part of recruitment process of class-iii employees in 2013.

- Member of the committee constituted for Annual Physical Verification (stock verifications) for the financial year 2012-13.

- Performed as an invigilator duty for GATE EXAMINATION 2013.

- Appointed as an Observer for PEPT EXAMINATION 2013 for Indore city.

- Member of the committee constituted in the department for accreditation work for B.E. Electrical.

- Worked as an Asstt. Exam Superintendent for April-May 2022 Examination.

Details of Short Term Courses attended:

S.No.	Title of the course	Duration	Conducting Organization
1.	Multimedia based Learning material development in Technical Education	16-28 May 2005	S.G.S.I.T.S., Indore & Indian Society For Technical Education
2.	Development of Basic Teaching Competencies	07-02-2005 to 11-02-2005	National Institute of Technical Teacher's Training and Research (NITTTR), Bhopal
3.	Application of MATLAB in Engineering	16/05/2006 to 31/05/2006	QIP Centre, Indian Institute of Technology (IIT), Kanpur
4.	Power System Operation and Control in new environment	Nov 26-30,2007	National Institute of Technology, Kurukshetra, Sponsored by TEQIP
5.	Bio-medical Signal Processing	26/06/2009 to 03/07/2009	QIP Centre, Indian Institute of Technology (IIT), Roorkee
6.	Digital Design Techniques: Applications to Control System	30/05/2011 to 03/06/2011	QIP Centre, Indian Institute of Technology (IIT), Roorkee
7.	Two Week Main Workshop on Control Systems	2nd Dec to 12th Dec 2014.	National Mission on Education through Information and Communication Technology, IIT Kharagpur
8.	Two Week Main Workshop on Introduction to design of Algorithm	27th April 2015 to 3rd May 2015	National Mission on Education through Information and Communication Technology, IIT Kharagpur
9.	Training program on advanced	30th August 2016 to	M.P council of science

	instrumentation methods	3rd Sept 2016	& technology, Bhopal
10.	Two Week ISTE STTP on "Electric Power System"	12-06-2017 to 23-06-2017	National Mission on Education through Information and Communication Technology, IIT Kharagpur
11.	One week Summer Training programme on active Learning	04-06-2018 to 08-06-2018	IIT Madras under TEQIP Phase-III
12.	One week Short Term Course on Significance, Securing and Sustainability (S3) of Externally Funded Research Projects in Higher Education Institutes	16-12-2019 to 21-12-2019	IIT Indore under TEQIP Phase-III

Externally Funded Research Project (Principal Investigator)

Title	From To	Sponsoring Organization	Amount
Development of Smart Grid prototype/ Testbed for Demand Side Management and demonstration, verification of capabilities of the future Smart Grid	Communicated on 04/03/2020	Science and Engineering Research Board Core Research Grant (Individual Centric)	35,41600 /-