Curriculum Vitae

Name : SHELLY VADHERA

Date of Birth : 1.09.1972

Highest Qualifications : Ph.D.

Academic Performance :

Qualifications	Board/University	Year of passing
X (10^{th})	Nagpur (M.S.)	1988
XII (10+2)	Nagpur (M.S.)	1990
B.E. (Electrical)	T.I.E.T., Patiala (Deemed University)	1994
M. Tech. (Power Systems)	R.E.C.K. Kurukshetra University	1998
Ph. D.	N. I.T. Kurukshetra	2013

Sr. No.	Name of Institution	Position	From	To	Total Years	Pay & Pay Scale (Band) with AGP/GP Separately
i	**Chandrapur Engineering College**	**Lecturer**	**19.11.97**	**20. 8.1998**	**10 months**	**2200-75-2800-100-4000**
ii	**N.I.T. Kurukshetra**	**Lecturer**	**24.8.1998**	**23.08.2003**	**05 Yrs**	**2200-75-2800-100-4000**
iii	**N.I.T. Kurukshetra**	**Lecturer (Senior Scale)**	**24.08.2003**	**30.06.2009**	**05 Yrs 10 months**	**10,000-325-15,200**
iv	**N.I.T. Kurukshetra**	**Assistant Professor**	**01.07.2009**	**21.08.2013**	**04 Yrs 01 month**	**8000/- (AGP)**
v	**N.I.T. Kurukshetra**	**Associate Professor**	**22.08.2013**	**03.06.2018**	**04 Yrs 09 months**	**37,400-67,000, PB-4 9000/- (AGP)**
vi	**N.I.T. Kurukshetra**	**Associate Professor**	**04.06.2018**	**Till date**		**37,400-67,000, PB-4 9500/- (AGP)**

Ph. D. Guided:

Sr. No.	Name of the Candidate	Reg. No.	Thesis Title
1	Mahiraj Singh Rawat	2K14/NITK/PhD/6140075	Voltage Stability Analysis of Transmission and Distribution Systems with Renewable Energy Resources
2	Sandeep Sharma	2K13/NITK/PhD/6130079	Generalized Unified Power Flow Controller: Modelling, Optimisation and Applications in Power Systems
3	Preet Lata	2K14/NITK/PhD/6140067	Reliability Analysis, Evaluation and Enhancement of Power System Networks Integrated with Renewable Energy Sources
4	Bahadur Singh Pali	2K15/NITK/PhD/6150032	Uninterrupted Power Generation at Constant Voltage using Sustainable Sources of Energy
5	Sanjay Devangan	2K17/NITK/PhD/6170067	Vector control of standalone self excited induction generator based wind energy system
6	Anuja Shaktawat	2K15/NITK/Ph	Sustainability Assessment of Large Hydropower and

		D/6150019	Renewable Energy Technologies in Indian Scenario using MCDM Methods
7	Govind Rai Goyal	2K18/NITK/PhD/6180025	Integrated Demand Side Management with Real Time Pricing for Residential Consumers in Context of Smart Grid using Artificial Intelligence

Ph. D. Pursuing: 04

M. Tech. Dissertation Guided:

Sr. No.	Title of M. Tech. Dissertation	Name of the Student	Roll No.	Year	M. Tech.
1.	Analysis of EHV line with compensation techniques	Alok Kumar Singh	22K754	2002	Power Systems
2.	Bearing fault diagnosis of induction motor	Sandeep Kumar	201760	2005	Power Systems
3.	Transmission line distance protection using wavelets and wavelet transform	Ramakrishna Polapala	760/03	2005	Power Systems
4.	Power system stability enhancement by using fuzzy logic power system stabilizer	Randhir Singh	765/03	2005	Power Systems
5.	Loss of power supply probability of a hybrid renewable system	Mallikarjun Reddy M.V.	758/04	2006	Power Systems
6.	Power quality improvement using DVR and DSTATCOM	Abishek Kumar	765/04	2006	Power Systems
7.	Developing of power trading model for Indian scenario	Brijesh Kumar	2K2758	2007	Power Systems
8.	Automatic generation control in regulated and deregulated power systems	Inderjit Singh	765/05	2007	Power Systems
9.	Steady state analysis of self excited induction generator using different optimization techniques	Harish Kumar	2240/06	2008	Power Systems
10.	Design of three phase induction motor by using Matlab	Vasanth Reddy Jekha	207283	2009	Power Electronics and Drives
11.	Optimal power flow calculation by using genetic algorithm and enhanced genetic algorithm	S. Srinivasulu	207207	2009	Power Systems
12.	Optimal location and sizing of distributed generation in distribution network	Rajesh G.	208224	2010	Power Systems
13.	Multicarrier sinusoidal PWM optimum multilevel inverter	Ganesh Sankar S.	208244	2010	Power Electronics and Drives
14.	Modelling and speed control of slip ring induction motor by Simulink	P. Samrat	208260	2010	Power Electronics and Drives
15.	Design of induction generator using artificial intelligence	Harendra Kumar	209235	2011	Power Systems
16.	Harmonic compensation of single-phase and three phase systems using filters	Veeresh M.	209273	2011	Power Electronics and Drives
17.	Determination of excitation capacitance of SEIG using	Vineet P. Chandran	209245	2011	Power Systems

	different methods				
18.	Mitigation of subsynchronous resonance and improvement in the performance of wind farm using FACTS devices	Ramesh Gosu	210139	2012	Power Systems
19.	Particle swarm optimization for economic load dispatch for different bus systems	Manoj Mahajan	210140	2012	Power Systems
20.	Analysis of UPQC for different voltage sag and swell conditions • Co-supervisor with Dr. J.S. Lather	Raja Pedapudi	210144	2012	Power Systems
21.	Short term load forecasting using various methods	Rajat Singh	211113	2013	Power Systems
22.	Matlab based transmission line fault location without using line parameters	Sumit	211135	2013	Power Systems
23.	Performance analysis of doubly fed induction generator with variable frequency transformer and controllers	Anand Kumar	211138	2013	Power Systems
24.	Application of hybrid multilevel inverters in wind –photovoltaic generation systems	M. Dileep Krishna	211175	2013	Power Electronics and Drives
25.	Power flow control in micro grid with renewable energy resources	Saurabh Kumar Singh	3121510	2014	Power Systems
26.	Voltage sag mitigation using distributed power flow controller	Santosh Kumar Gupta	3121604	2014	Power Systems
27.	Study of energy storage and FACTS devices with wind power generation system	Parag Swarup	3121022	2014	Power Systems
28.	Integration of multilevel inverters with renewable sources of energy	Gourav Semwal	3121703	2014	Power Electronics and Drives`
29.	Performance investigations of wind turbine under different operating modes	Navjot Singh Sandhu	3127004	2014	Renewable Energy Systems
30.	Damping of sub synchronous resonance using flexible a.c. transmission system devices and artificial intelligence based controllers	Chinnari Eswar Prasad	3131506	2015	Power Systems
31.	Improved SMES and its application in power systems	Hoshiyar Singh	3131514	2015	Power Systems
32.	Analytical study of induction generator under fault conditions using facts devices	Gaurav Sharma	3131615	2015	Power Systems
33.	Performance evaluation of solar modules under different partial shading conditions	Jitendra Kumar	3137505	2015	Renewable Energy Systems
34.	Analysis of solar tracking system	Sumant Malav	3137521	2015	Renewable Energy Systems
	Incomplete	D. Avinash	3141604	2016	Power Systems
35.	Optimal allocation and sizing of distributed generation using load flow, particle swarm optimization and human	Shreya Mahajan	3141616	2016	Power Systems

	opinion dynamics techniques				
36.	Cost effective d.c. distribution using hybrid energy for remote area	Manish Kumar	3147507	2016	Renewable Energy Systems
37.	Steady state analysis of doubly fed induction generator using Matlab	Rajdeep Surya	3147513	2016	Renewable Energy Systems
38.	Optimal placement of distributed generators using various optimization techniques	Jatin Jangra	31504105	2017	Power Systems
39.	Economic load dispatch using evolutionary algorithms	Apratim Sharma	31504201	2017	Power Systems
40.	Optimization of solar cell arrangement for stand alone systems	Sunil Kumar Saini	31510111	2017	Renewable Energy Systems
41.	Comparison of different energy storage devices in electric vehicle charging station	Antriksha Verma	31604201	2018	Power Systems
42.	Applications of virtual synchronous generator on integration of renewable energy sources	Amit Kumar	31604215	2018	Power Systems
43.	Cost analysis & comparison of hybrid energy sources and their environmental impact	Mamina Patel	31610115	2018	Renewable Energy Systems
44.	Various converter topologies for HVDC system to connect offshore wind farms	Abhishek Gunwant	31610119	2018	Renewable Energy Systems
45.	Dynamic state stability of the power system with different FACTS devices using PSAT	Akshay Kumar Dwivedi	31704215	2019	Power Systems
46.	Integration and impact of small sized renewable based distributed generation on radial distribution system	Nivedita Naik	31710101	2019	Renewable Energy Systems
47.	Adaptive control of maximum power point tracking for wind energy conversion systems • Co-Supervised by Atma Ram Gupta	Biaklian Tonsing	31710102	2019	Renewable Energy Systems
48.	Design and analysis of photovoltaic system using ngSPICE, gEDA and Octave	Ritesh Kumar	31710115	2019	Renewable Energy Systems
49.	Unified power flow controller: applications, optimal location and placement in Power systems	Jaswant Singh Bhati	31804203	2020	Power Systems
50.	Modeling and control of Vienna rectifier and synchronous buck topology for electric vehicle charging	Anand Yadav	31804313	2020	Power Electronics and Drives
51.	Residential load scheduling by demand side manage with the help of hybrid BOSO-GSA technique	Sahil Munjal	31904213	2021	Power Systems
52.	Application of artificial neural network controller in electric vehicle charger and P.F. correction	Dhirendra Kumar Gupta	31904311	2021	Power Electronics and Drives

53.	Optimization cost of smart grid using HOMER software	Neeraj Verma	31910124	2021	Renewable Energy Systems
54.	Hybrid microsystem: design of power supply in rural India and environmental effects	Alok Kumar	31910125	2021	Renewable Energy Systems
55.	Optimal placement of electric vehicle charging station using meta-heuristic optimization technique	Udit Kumar	32014323	2022	Power Systems
56.	Load forecasting using AI and machine learning algorithms	Utkarsh Singh	32014324	2022	Power Systems
57.	Short-term wind speed forecasting using machine learning	Kunal Agarwal	32019113	2022	Renewable Energy Systems
58.	Design of battery swapping stations for charging electric vehicles using solar and wind energy • Supervised by Prof. K. S. Sandhu	Lalit Solanki	32019114	2022	Renewable Energy Systems
59.	Design of grid connected solar PV System with different maximum power point tracking techniques	Tanuj Mona	32114304	2023	Power Systems
60.	Design of optimal hybrid renewable energy system (HRES)	Chandan Singh	32114314	2023	Power Systems
61.	Hybrid particle swarm optimization and binary particle swarm optimization with gravitational search algorithm for optimal scheduling of vehicle-to-grid power exchange	Vikas Kumar Badhan	32114323	2023	Power Systems
62.	Techno economic analysis of PV battery systems for EV. • Supervised by Prof. Ratna Dahiya	Sumit Kumar	32119102	2023	Renewable Energy Systems
63.	Comparative analysis of different types of cell balancing techniques in battery management system	Aman Sharma	32214214	2024	Power Electronics and Drives
64.	Construction process automation of solar photovoltaic power plants • Supervised by Prof. Mahesh Pal	Albin Sebastin	32218102	2024	Renewable Energy Systems

M. Tech. Projects Guided: 7
UG Projects Guided: 21

Patents:
Published:

Estimation of lost electricity price signal using bandit optimization in context of smart grid
Application No. 202411052232
Publication date: 26/07/2024
Inventors Govind Rai Goyal and Shelly Vadhera

Projects:

Mentor:
Title: Waste management in North Indian villages by developing reliability based microgrid with solar and biomass energy
Sanction order no: DST/WOS-B/ER-4/2021(G) dated 29-9-2021
Budget: Rs. 23, 90,061
Commencement/Joining date: 7-10-2021

Principal Investigator of Project:
Title: Study of Safety and Performance parameters of Electrical timer relays for industrial purposes - Pneumatic, Motorised and Electronic
Sanction order no: BIS/SCMD/R&D/ ETD 0059
Budget approved: Rs. 6,15,000
Commencement/Joining date: 25-06-2024

External Dissertation Guided:

1. Co-supervisor of Shilpa Bansal, M.Tech Student of Om Institute of Technology & Management, Juglan, Hisar, with Neha Gupta as Supervisor. (2017-2019)

External Summer Internship Guided:

1. Co-supervisor of Vaishali Girdhar, Roll No.16EEBEE059, B.Tech. Student of Govt. Engg. College, Bikaner, Rajasthan, with Monika Mittal as Supervisor for summer internship.
2. Supervisor of Komal Singh Solanki and Loveleen Gaur, 2nd year B.Tech. Students of Govt. Engg. College, Bikaner, Rajasthan, with Dr. Atma Ram as Co-Supervisor for summer internship from 01.06.2019-30.06.2019.

Thesis Evaluation:

1. Title: Switch faults diagnosis and mitigation in neutral point clamped multilevel inverter feeding induction motor drive
   University: Jawaharlal Nehru Technological University, Anantapur
   Department: Electrical Engineering
   University registration number:12PH0209
   Name: Y. Krishnapriya
   Year: 2020
2. Title: Investigation On Semantic Segmentation Of Aerial Images Using Deep Learning And Metaheuristic Techniques
   University: VIT, Vellore
   Department: School of Electronics Engineering
   Name: Anilkumar P
   Year: 2024

Books:

1. S. S. Vadhera, Shelly Vadhera and Abhishek Sharma, “Power Systems and Protection”, *Bharat Publications* 2007. (ASIN : B08C4SWJZX)
2. S. S. Vadhera and Shelly Vadhera, “A Textbook of Electrical Technology”, *Bharat Publications* (ASIN : B08B1WYPWB)
3. Vikas Mittal, Lillie Dewan, Monika Mittal, Shelly Vadhera and Rajendra Kumar “Reference Handbook On Power, Control & Communication Systems: Recent Headways” Elixir Publications (ISBN 978-81-933897-2-0), 2018.
4. Shelly Vadhera, Bhimrao S. Umre and Akhtar Kalam “Latest Trends in Renewable Energy Technologies” Springer Nature Singapore Pte Ltd., eBook ISBN 978-981-16-1186-5; Hardcover ISBN 978-981-16-1185-8; Series ISSN 1876-1100, 2021.
5. Shelly Vadhera, Rajesh Kumar and Anupam Dewan “Advances in Green Energy Technologies” Proceedings of ICGEST 2023, Volume 2, LNEE, volume 1314, Springer Nature, eBook ISBN 978-981-96-0861-4; Hardcover ISBN 978-981-96-0860-7; Series ISSN 1876-1100, https://doi.org/10.1007/978-981-96-0861-4, March 2025.

Book Chapters:

1. Mahiraj Singh Rawat and Shelly Vadhera "Voltage stability assessment techniques for modern power systems" (Chapter 6), *Novel Advancements in Electrical Power Planning and Performance*, pp. 128-176, IGI Global, 2020. 1-388. Web. 31 Aug. 2019. doi:10.4018/978-1-5225-8551-0
2. Mahiraj Singh Rawat and Shelly Vadhera "Evolution of islanding detection methods for microgrid systems*" (Chapter 10), Optimizing and Measuring Smart Grid Operation and Control*, pp. 221-258, IGI Global, 2021. doi: 10.4018/978-1-7998-4027-5.ch010
3. Anuja Shaktawat and Shelly Vadhera, "Assessment of Renewable Energy Technologies Based on Sustainability Indicators for Indian Scenario" (Chapter 2) Renewable Energy for Sustainable Growth Assessment, pp. 25-47, John Wiley and Sons, 2022. https://doi.org/10.1002/9781119785460.ch2
4. Govind Rai Goyal and Shelly Vadhera, "Bi-objective optimal scheduling of smart homes appliances using artificial intelligence" (Chapter 10) In: Manshahia, M.S., Kharchenko, V., Weber, GW., Vasant, P. (eds) Advances in Artificial Intelligence for Renewable Energy Systems and Energy Autonomy, EAI/Springer Innovations in Communication and Computing. Springer, Cham, pp. 199-220, 2023. https://doi.org/10.1007/978-3-031-26496-2_10
5. Govind Rai Goyal and Shelly Vadhera, "New scheme of cost-load optimization by appliance scheduling in smart homes," (Chapter 5) Sustainable Energy Solutions with Artificial Intelligence, Blockchain Technology, and Internet of Things, CRC Press, Taylor & Francis, 2023. eBook ISBN9781003356639
6. B. S. Pali and S. Vadhera, "Modelling of an Isolated Microgrid Supplying Continuous Power at Stable Voltage Using Novel Pumped Storage with Solar Energy"(Chapter 10) in "Modelling and Control Dynamics in Microgrid with Renewable Energy Resources" R.C. Bansal, Jackson J. Justo and Francis A. Mwasilu, Eds.USA, Elsevier, pp.243-274 January2024. https://www.sciencedirect.com/science/article/abs/pii/B9780323909891000026
7. Goyal, Govind and Vadhera, Shelly. "Optimal Power Flow and Peak Demand Management by Integrating Real-Time Price Based Demand Response Using Artificial Intelligence" in Energy management in renewable Sources integrated system, pp.41-55, March 2025. DOI:10.1007/978-981-96-1012-9_3
8. B. S. Pali B. S. Pali and S. Vadhera, "Optimizing Renewable Energy Microgrids: The Role of Electrical Energy Storage and Pumped Hydropower Advancements"(Chapter 17) in "Modelling Microgrid Handbook Planning to Practices" Abhishek Kumar, Deng Yan, Ramesh Bansal, Praveen Kumar, CRC Press 2025. ISBN 9781032113371

Conference Book Chapters:

9. Nivedita Naik and Shelly Vadhera, "Power loss minimization and voltage improvement with small size distributed generations in radial distribution system using TOPSIS", *Advances in Electric Power and Energy Infrastructure*, Mehta A., Rawat A., Chauhan P. (eds), Lecture Notes in Electrical Engineering, vol. 608., pp.103-113, Springer, Singapore. 2020 doi.org/10.1007/978-981-15-0206-4_9
10. Akshay Kumar Dwivedi and Shelly Vadhera, "Voltage stability and performance analysis of the multi machine system using UPFC", *Advances in Renewable Energy and Sustainable Environment*, L. Dewan et al. (eds.), Lecture Notes in Electrical Engineering, vol. 667, pp. 1-10, Springer, Singapore, 2021. https://doi.org/10.1007/978-981-15-5313-4_1
11. Jaswant Singh Bhati and Shelly Vadhera, "Voltage and transient stability enhancement in power system using unified power flow controller", *Advances in Renewable Energy and Sustainable Environment*, L. Dewan et al. (eds.), Lecture Notes in Electrical Engineering, vol. 667, pp. 19-28, Springer, Singapore, 2021. https://doi.org/10.1007/978-981-15-5313-4_1
12. Sanjay Dewangan and Shelly Vadhera, "Performance improvement of wind turbine induction generator using neural network controller", *Advances in Renewable Energy and Sustainable Environment*, L. Dewan et al. (eds.), Lecture Notes in Electrical Engineering, vol. 667, pp. 165-172, Springer, Singapore, 2021. https://doi.org/10.1007/978-981-15-5313-4_1

13. Biaklian Tonsing, Shelly Vadhera, and Atma Ram Gupta, "Implementation of hill climb search algorithm based maximum power point tracking in wind energy conversion systems", *Advances in Renewable Energy and Sustainable Environment*, L. Dewan et al. (eds.), Lecture Notes in Electrical Engineering, vol. 667, pp. 191-200, Springer, Singapore, 2021, https://doi.org/10.1007/978-981-15-5313-4_1
14. Ritesh Kumar and Shelly Vadhera, "Analysis of series-connected PV cells using gEDA and ngSPICE", *Advances in Renewable Energy and Sustainable Environment*, L. Dewan et al. (eds.), Lecture Notes in Electrical Engineering, vol. 667, pp. 221-232, Springer, Singapore, 2021, https://doi.org/10.1007/978-981-15-5313-4_1
15. Anand Yadav and Shelly Vadhera, "Comprehensive Updates on Various Fast Charging Technology for Electric Vehicles" *Latest Trends in Renewable Energy Technologies*, Vadhera, S., Umre, B.S., Kalam, A. (eds) Lecture Notes in Electrical Engineering, vol 760, pp. 199-210, Springer, Singapore, 2021, https://doi.org/10.1007/978-981-16-1186-5_16
16. Anthony Minj, Harsh Tank, Shipra Gautam, Yuvraj Singh Kahlon and Shelly Vadhera, "Inexpensive techniques to design an automated home using NodeMCU" *Latest Trends in Renewable Energy Technologies*, Vadhera, S., Umre, B. S., Kalam, A. (eds) Lecture Notes in Electrical Engineering, vol 760, Springer, Singapore, 2021, https://doi.org/10.1007/978-981-16-1186-5_16
17. Neeraj Verma and Shelly Vadhera, "Optimization of cost of smart grid: A case study of Kutch, Gujarat using HOMER software," *Soft Computing for Security Applications*, Ranganathan, G., Fernando, X., Shi, F., El Allioui, Y. (eds), Advances in Intelligent Systems and Computing (AISC), vol. 1397, pp. 529-537, Springer, Singapore, 2022, https://doi.org/ 10.1007/978-981-16-5301-8_39
18. Alok Kumar and Shelly Vadhera "Design and Simulation of Hybrid Microsystem and Its Effect on the Environment Using Homer Software" *Intelligent Manufacturing and Energy Sustainability*, Reddy, A.N.R., Marla, D., Favorskaya, M.N., Satapathy, S.C. (eds) Smart Innovation, Systems and Technologies (SIST), vol 265, pp. 257–265, Springer, Singapore. https://doi.org/10.1007/978-981-16-6482-3_26

Publications:

International Conferences:

1. Shelly Vadhera and K. S. Sandhu, "Performance evaluation of conventional induction motors working as generators", *Computer Applications in Electrical Engineering: Recent Advances (CERA-2005),* IIT Roorkee, Sept. 28-Oct. 1 2005.
2. Shelly Vadhera and K. S. Sandhu, "A new approach to study the steady state analysis of grid connected induction generator", *6th International R & D Conference on Sustainable Development of Water and Energy Resources-Needs and Challenges*, Lucknow, Feb. 13-16, 2007.
3. K. S. Sandhu and Shelly Vadhera, "Reactive power requirements of GCIG in a weak grid", *2007 WSEAS International Conference on Circuits, Systems, Electronics, Control & Signal Processing (CSECS'07),* Cairo, Egypt, Dec. 29-31, 2007.
4. Shelly Vadhera and K. S. Sandhu, "Performance characteristics of self excited induction generator using different optimization techniques", *2nd WSEAS/IASME International Conference on Renewable Energy Sources (RES'08),* Corfu, Greece, Oct. 26-28, 2008.
5. Shelly Vadhera and K. S. Sandhu, "Applications of Matlab toolboxes in self excited induction generators", *American Conference for Academic Disciplines organized by International Journal of Arts & Sciences (IJAS-Orlando 2009),* Florida, USA, Feb. 16-19, 2009.
6. Shelly Vadhera, P. Samrat, and H. M. Rai "Speed control of wound rotor induction motor by using Matlab/Simulink", *International Conference on Mathematics and Soft Computing (Applications in Engineering) ICMSCAE'10,* NCCE, Israna, Panipat, India, Nov. 10, 2010.
7. Shelly Vadhera and S. Ganesh Sankar, "Simulink based optimization of SPWM multilevel inverter with phase shift and dual carrier at each level", *India International Conference on Power Electronics (IICPE-2010)* ***IEEE*** *Conference*, Netaji Subhas Institute of Technology, New Delhi, India, Jan. 28-30, 2011.
8. Vineet P. Chandran and Shelly Vadhera, "Capacitance requirements of self excited induction generator for different operating conditions", *International Conference on Energy, Automation and Signal (ICEAS-2011)* ***IEEE*** *Conference*, Bhubaneswar, Orissa, India, Dec. 28-30, 2011.

9. Harinder Kumar Yadav and Shelly Vadhera, "Design optimization of induction generator using genetic algorithm toolbox", *International Conference on Energy Security, Global Warming and Sustainable Climate (SOLARIS-2012),* Varanasi, India, Feb. 7-9, 2012.
10. Vinay Kr. Sahu, Shubham Pandey, Rahul Kesarwani, Vivek Kumar, Vineet P. Chandran and Shelly Vadhera, "Steady state analysis of standalone SEIG for different operating conditions with interactive MATLAB graphical user interface," *International Conference on Emerging trends in Electrical Engineering and Energy Management (ICETEEEM-2012*), **IEEE** Conference, pp. 210-215, *D*ec. 13-15, 2012.
11. Manoj Mahajan and Shelly Vadhera, "Economic load dispatch of different bus system using particle swarm optimization" *2012 **IEEE** 5th Power India Conference,* Deenbandhu Chhotu Ram University of Science & Technology, Murthal, Delhi, India, Dec. 19-22, 2012.
12. Navjot Singh Sandhu, Shelly Vadhera, and K. S. Sandhu, "Controlled output of wind turbine with wind speed variations", *International Conference on Power Systems, Energy, Environment,* Interlaken, Switzerland, pp. 232-235, Feb. 22-24, 2014.
13. Santosh Kumar Gupta and Shelly Vadhera, "Performance of distributed power flow controller (DPFC) under fault condition" *International Conference On Emerging Trends in Mechanical and Electrical Engineering (ICETMEE),* Rustamji Institute of Technology, Border Security Force Academy, Tekanpur, Gwalior, M.P., India, pp. 76-81, March 13-14, 2014.
14. Parag Swarup and Shelly Vadhera, "Implementation of energy storage and FACT device with renewable power generation system" *International Conference on Industrial Engineering Science and Applications* (*IESA-2014),* National Institute of Technology, Durgapur, pp. 378-381, April 2-4, 2014.
15. Santosh Kumar Gupta and Shelly Vadhera, "Power quality improvement using DPFC under fault conditions" *International Conference on Industrial Engineering Science and Applications* (*IESA-2014),* National Institute of Technology, Durgapur, pp. 397-401, April 2-4, 2014.
16. Saurabh Kumar Singh and Shelly Vadhera, "Power flow control in smart micro grid using fuzzy controllers" *IESA-2014, International Conference on Industrial Engineering Science and Applications* (*IESA-2014),* National Institute of Technology, Durgapur, pp. 406-409, April 2-4, 2014.
17. Navjot Singh Sandhu, Shelly Vadhera, and K.S. Sandhu, "Identification of major control parameters of wind turbine", 2014 Students Conference on Engineering and Systems (SCES-2014), MNIT Allahabad, May 28-30, 2014.
18. Santosh Kumar Gupta and Shelly Vadhera, "Performance of distributed power flow controller on system behavior under unbalance fault condition", 2014 Students Conference on Engineering and Systems (SCES-2014), MNIT Allahabad, May 28-30, 2014.
19. Sandeep Sharma and Shelly Vadhera, "Enhancement of power transfer capability of interconnectd power system using unified power flow controller" 4th *International Conference on Power and Energy Systems (ICPES-2014),* Singapore, Nov. 21-23, 2014.
20. Kunal Hasija, Shelly Vadhera, Abhishek Kumar, and Anurag Kishore, "Detection and location of faults in underground cable using Matlab/Simulink/ANN and OrCad" *6Th**IEEE** Power India International Conference (PIICON 2014),* Delhi Technological University, Delhi, Dec. 5-7, 2014.
21. Eswar Chinnari and Shelly Vadhera, "Mitigation of sub synchronous resonance using STATCOM controlled by PID and FL controllers" *6Th **IEEE** India International Conference on Power Electronics (IICPE-2014),* National Institute of Technology, Kurukshetra, Dec. 8-10, 2014.
22. Jitendra Kumar and Shelly Vadhera, "Maximum Power of PV plant for SP and TCT topologies under different shading conditions" *6Th **IEEE** India International Conference on Power Electronics (IICPE-2014),* National Institute of Technology, Kurukshetra, Dec. 8-10, 2014.
23. Hoshiyar Singh and Shelly Vadhera, "Comparative analysis of load frequency control with fuzzy gain scheduled super magnet energy storage unit" *International Conference on Emerging Paradigms and Practices in Global Technology, Management & Business Issues (2014 NIT-MTMI),* National Institute of Technology, Hamirpur, pp. 88-92, Dec. 22-24, 2014.

24. Sandeep Sharma and Shelly Vadhera, "Technological developments in modeling, control, analysis and applications of unified power flow controller" *International Conference on Emerging Paradigms and Practices in Global Technology, Management & Business Issues (2014 NIT-MTMI),* National Institute of Technology, Hamirpur, pp. 307-312, Dec. 22-24, 2014.
25. Hoshiyar Singh and Shelly Vadhera, "State of art analysis of issues and recent developments in superconducting magnetic energy storage technology" *International Conference on Emerging Paradigms and Practices in Global Technology, Management & Business Issues (2014 NIT-MTMI),* National Institute of Technology, Hamirpur, pp. 413-419, Dec. 22-24, 2014.
26. Eswar Chinnari and Shelly Vadhera, "Damping of sub synchronous resonance using fuzzy based PI controlled UPFC" ***IEEE*** *International Conference on Signal Processing, Informatics, Communication and Energy Systems (IEEE SPICES),* N.I.T. Calicut, Kozhikode, Feb. 19-21, 2015.
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58. Govind Rai Goyal and Shelly Vadhera, "Solution to supply side energy management by integrating enhanced demand response strategy," Journal of Operation and Automation in Power Engineering, vol. 12, no. 4, pp. 269-279, Dec. 2024. (**Scopus**)
59. Govind Rai Goyal and Shelly Vadhera, "Solution to uncertainty of renewable energy systems and peak hour demand in smart grid system," Measurement: Sensors., vol. 33, pp. 1-9, June 2024. (**Scopus**)

Conference Attended:

1. International Conference on Computer Applications in Electrical Engineering: Recent Advances (CERA-2005), IIT Roorkee, Sept. 28 - Oct.1 2005.
2. National Power Systems Conference (NPSC 2006), IIT. Roorkee, Dec. 27-29, 2006.
3. National Conference on Advances in Process Control and Instrumentation Engineering (RAPCIE 2006), Department of USIC, Kurukshetra University, Kurukshetra, Feb.23-25, 2006.
4. International Conference on Circuits, Systems, Electronics, Control & Signal Processing (CSECS '07), Cairo, Egypt, Dec.29-31, 2007.
5. American Conference for Academic Disciplines organized by International Journal of Arts & Sciences, (IJAS-Orlando 2009) Florida, USA, Feb.16-19, 2009.
6. India International Conference on Power Electronics (IICPE-2010), Netaji Subhas Institute of Technology, New Delhi, India, Jan. 28-30, 2011.
7. International Conference on Power and Energy Systems (ICPES-2014), Singapore, Nov. 21-23, 2014.
8. IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (IEEE SPICES), N.I.T. Calicut, Kozhikode, Feb. 19-21, 2015.
9. 2017 International Conference on Industrial Design Engineering, Dubai, UAE, Dec. 29-31, 2017. (Scopus Indexed)
10. 10th International Conference on Automation, Robotics and Applications (ICARA 2024), Athens, Greece, Feb. 22-24, 2024.

Seminars: 06

Workshop/STC/STTP Attended:

Sr. No.	Title	Venue	Date	Period
1	Energy Environment Dynamics and Control Technology	MREC Jaipur	Dec. 20-31,1999	2 weeks
2	Induction Training Programme	RECK Kurukshetra	May 22-June 9, 2000	3 weeks
3	Modern Trends for Efficient Operation of Electrical Machines	CRSCE Murthal	July 17-23,2000	1 week
4	Internet, Web, E- Commerce	TIET Patiala	June 18-29,2001	2 weeks
5	Condition Monitoring of Sub – Station Equipments	PSTI Banglore	May 17-21,2004	1 week
6	Power System -SCADA	PSTI Banglore	May 24-28,2004	1 week
7	Power Quality Problems and	IIT Roorkee	May 23-27,2004	1 week

	Solutions: Recent Advances			
8	Concepts of Renewable Energy Sources	IIT Delhi	June 13-27,2005	2 weeks
9	Recent Trends in Sensors and Their Applications	TIET Patiala	May 22-June 2, 2006	2 weeks
10	Power System Operation and Control in New Environment	NIT Kurukshetra	Nov.26-30,2007	1week
11	Robust Control and Applications	NIT Kurukshetra	Dec.17-21,2007	1week
12	Instructional Planning and Delivery	NIT Kurukshetra	Sep.22-26,2008	1week
13	Dynamic Web Designing	NITTTR Chandigarh	May 6-10,2013	1 week
14	Power Electronics	NITTTR Chandigarh	May13-17,2013	1 week
15	Analog Electronics	Electronic Sci. Deptt. K.U.K.	June 4-14,2013	2 weeks
16	Professional Development of Teachers	NIT Kurukshetra	March 15-20, 2017	1 week
17	Advanced Engineering Optimization through Intelligent Techniques	SVNIT, Surat	March 27-31, 2017	1 week
18	ISTE STTP for Coordinators on Electric Power System	IIT Kharagpur	May1-5, 2017	1 week
19	Recent Developments and Challenges in Internet of Things Security	NIT Kurukshetra	July 3-8, 2017	1 week
20	Workshop on The Process of Patent Filing	NIT Kurukshetra	Äug 19, 2017	1 day
21	International Workshop on Sustainable Energy, Power & Propulsion	NIT Kurukshetra & TBRL Chandigarh	March 18-22, 2018	1 week
22	International Workshop on Energy, Power & Environment	NIT Kurukshetra	March 17-19, 2019	3 days
23	Productivity Enhancement Program (PEP) under TEQIP-III by Vyakti Vikas Kendra, India	NIT Kurukshetra	July 15-20, 2019	1 week
24	Mind , Meditation and Human Values-A Scientific Perspective	IIT Delhi	October 21-25, 2019	1 week
25	Design and Development of Massive Open Online Courses(MOOCs)	NIT Kurukshetra	January 2-6, 2020	1 week
26	International Webinar held on World Environment Day-Science and Engineering for Nature Conservation	J. C. Bose University of Science and Technology YMCA, Faridabad in association with Unnat Bharat Abhiyan	5 June 2020	1day
27	Energy Conservation and Renewable Energy	School of Engg. & Tech. IGNOU, New Delhi	8-12 June 2020	1week
28	Gender Equality and Women's Rights	NIT Kurukshetra	16 July 2020	1day
29	Gender Stereotyping: Issues and Challenges	NIT Kurukshetra	9 August 2020	1day
30	Designing Pedagogies for Online Teaching & Learning	NIT Kurukshetra	10-14 August 2020	1 week
31	Role of National Institutes of Technologies in the Implementation of National	NIT Kurukshetra in association with Shiksha Sanskriti	17 September 2020	1day

	Education Policy 2020: Challenges and Solutions	Utthan Nyas, New Delhi		
32	Webinar on Woman, Educator, Scientist, Entrepreneur: Future is Yours	Vigyan Prasar	29 September 2020	1day
33	Professional Development Training Programme under TEQIP III	IIM Trichy	26-28 October 2020	3 days
34	Risk Management and Business Continuity	National Institute of Disaster Management, Ministry of Home Affairs, GoI in collaboration with FICCI	4-6 May 2021	3 days
35	Matlab and Simulink Basics for Hardware Projects	NITTTR,Chandigarh	1-5 August 2022	One Week
36	Webinar on Grid Integration of Renewable Energy	National Institute of Wind Energy(NIWE), Chennai with support of MNRE, GoI	12 April 2023	1 day
37	Webinar on Forecasting of Renewable Energy Production	National Institute of Wind Energy(NIWE), Chennai with support of MNRE, GoI	23 June 2023	1 day

Conferences Organized:

1. Convener of the National Conference on 'Recent Trends in Electrical Engineering' (RTEE-2013) organized by Electrical Engg. Dept., NIT Kurukshetra, March 15-16, 2013.
2. Secretary of National Conference on Advances in Power, Control & Communication Systems organized by Electronics and Communication Engineering Department, NIT Kurukshetra, April 21-22, 2018.
3. Chairperson of National Conference on Renewable Energy & Sustainable Environment (NCRESE-2019) organized by SREE, NIT Kurukshetra in association with BEE, GoI, Ministry of Power/ NRED, Govt. of Haryana/ HAREDA, 30-31 August 2019.
4. Finance Chairperson in 1st IEEE International Conference on Measurement, Instrumentation, Control and Automation (ICMICA 2020) organized by NIT Kurukshetra, 24-26 June, 2020.
5. Chairperson of National Conference on Renewable Energy & Sustainable Environment (NCRESE-2020) organized by SREE, NIT Kurukshetra in association with BEE, GoI, Ministry of Power/ NRED, Govt. of Haryana/ HAREDA, 28-29 August 2020.
6. General Chair of International Conference on Green Energy & Sustainable Technologies (ICGEST-2023) organized by SREE, NIT Kurukshetra in association with HAREDA, 5-7 January 2024.
7. Secretary of National Conference on Metacognition, Creativity & Divergent Thinking (NC-MCDT-2024) organized by Students' Club, NIT Kurukshetra, March 16-17, 2024.

Workshops/STC Organized:

1. Coordinator of Short Term Course on Renewable Energy: Technologies & Transitions organized by School of Renewable Energy & Efficiency, NIT Kurukshetra, Sponsored by TEQIP-II, March 22-23, 2017.
2. Workshop Coordinator of Two weeks ISTE STTP on Electric Power System organized by IIT Kharagpur under National Mission on Education through ICT (MHRD) from 12th June to 15th July, 2017.
3. Coordinator of Short Term Course on Signal Processing in Power System Protection and Control (S3PC-2017) jointly organized by Electrical Engineering Department & Electronics and Communication Engineering Department, NIT Kurukshetra, July 17-22, 2017.
4. Co-Coordinator of one day Capacity Building Programme on Energy Conservation Code (ECBC) at NIT Kurukshetra with Haryana Renewable Energy Development

Agency (HAREDA) , Govt. of Haryana with support from BEE on 12th September 2017.

5. Coordinator of Short Term Course on Trends and Challenges in Industry Academia Collaboration (TCIAC-2018) organized by Electronics and Communication Engineering Department, NIT Kurukshetra, January 8-12, 2018.
6. Coordinator of Workshop on Industrial Applications of Advanced Technologies organized by Electronics and Communication Engineering Department, NIT Kurukshetra, February 24-28, 2018.
7. Convener of Debate Competition (Zonal & State Level) organized by SREE, NIT Kurukshetra in association with BEE, GoI, Ministry of Power/ NRED, Govt. of Haryana/ HAREDA, 23 Feb. & 2 March 2018.
8. Coordinator of Workshop on Research Methodology: An Applied Orientation organized by Electronics and Communication Engineering Department, NIT Kurukshetra, March 12-16, 2018.
9. Convener of Workshop on Applications of SCADA and Augmented Reality (TEQIP-III) organized by Electrical Engineering Department, NIT Kurukshetra, Sept, 29-30, 2018.
10. Coordinator of Workshop on Autocad, Android & Matlab organized by Electrical Engineering Department, NIT Kurukshetra, Oct., 2-4, 2018.
11. Convener of Quiz Competition on Energy Conservation and Renewable Energy (ECRE-18) organized by SREE, NIT Kurukshetra in association with BEE, GoI, Ministry of Power/ NRED, Govt. of Haryana/ HAREDA, 3 Nov. 2018.
12. Convener of Workshop on Ladder of Research organized by ELECTRORECK Society, Electrical Engineering Department, NIT Kurukshetra, 27 – 28 February, 2019.
13. Convener of STC on Research and Professional Skills (RPS-2019) organized by SREE, NIT Kurukshetra, 27-31 May 2019.
14. Convener of STC on Energy Conservation & Renewable Energy (ECRE-2019) organized by SREE, NIT Kurukshetra in association with BEE, GoI, Ministry of Power/ NRED, Govt. of Haryana/ HAREDA, 8-12 July 2019.
15. Coordinator of STC on Waste Management & Sustainable Environment (WMSE2020) organized by SREE, NIT Kurukshetra and sponsored by TEQIP-III, 26 Feb.-3 March 2019.
16. Coordinator of Online STTP on Green Energy Technologies for Sustainable Development, organized jointly by NIT Kurukshetra and Engineering College, Bikaner sponsored by TEQIP-III, 11-20 June 2020.
17. Convener of Workshop on “Energy Conservation, Efficiency & Sustainability (ECES21)” organized by SREE, NIT Kurukshetra in association with BEE, GoI, Ministry of Power/ NRED, Govt. of Haryana/ HAREDA, 13–17 Dec. 2021.
18. Coordinator of Cultural Exchange program between Telangana & Haryana under Ek Bharat Shreshtha Bharat Scheme, 10-15 Sept. 2022.
19. Convener of Workshop on “Waste Management: A key to Sustainable Earth” organized by SREE, NIT Kurukshetra, 11–15 Jan. 2023.
20. Convener of Workshop on “Renewable Energy & Energy Conservation” organized by SREE, NIT Kurukshetra in association with HAREDA, 19 Jan. 2023.
21. Convener of Workshop on “Stress Management through Music & Meditation” organized by Yogdhara, NIT Kurukshetra, 1Feb. 2023.
22. Convener of Workshop on “Professional Skill Development” organized by NIT Kurukshetra, 8-12 Feb. 2023.
23. Convener of Workshop on “Professional Skill Proficiency” organized by NIT Kurukshetra, 4-8 May 2023.
24. Convener of Workshop on “Green Energy and Environment” organized by NIT Kurukshetra, Sponsored by HAREDA, 5 June, 2023.
25. Convener of STC on “Effective Communication Skills and Leadership Qualities” (ECSLQ 2023) organized by NIT Kurukshetra, 26-30 June 2023.
26. Convener of Workshop on “Creative Exploration and Empowerment” organized by NIT Kurukshetra, 13-19 Sept. 2023.
27. Convener of STC on “Nurturing and Testing of Employability & Entrepreneurship Skills” (NTEES 2023) organized by NIT Kurukshetra, 3-7 Oct. 2023.
28. Convener of Workshop on “National Education Day: Innovative learning for a sustainable future” organized by IIC, NIT Kurukshetra, 11 Nov. 2023.

29. Convener of Workshop on “Energy Conservation & Sustainable Development” (ECSD-2023) organized by SREE, NIT Kurukshetra in association with BEE, GoI, Ministry of Power/ NRED, Govt. of Haryana/ HAREDA, 18-22 Dec. 2023.
30. Convener of Workshop on “Virasat -2024” organized by SPICMACY in association with Students’ Club, NIT Kurukshetra, 15-21 Jan. 2024.
31. Convener of Workshop on “Creative Thinking: Techniques, Tools and Training” organized by NIT Kurukshetra, 23-27 Feb. 2024.
32. Convener of STC on “Attitude, Behaviour and Career Skills for Entrepreneurship and Professional Development (ABCS-2024)” organized by T&P cell, NIT Kurukshetra, 4-8 March 2024.
33. Convener of STC on “Attitude, Behaviour and Career Skills for Entrepreneurship and Professional Development (ABCS-2024)” organized by T&P cell, NIT Kurukshetra, 4-8 March 2024.
34. Convener of STC on “Enhancement & Empowerment of Employability Skills (E3S-2024)” organized by T&P cell, NIT Kurukshetra, 23-27 July 2024.
35. Convener of Workshop on “Innovation and Start-up Ecosystem Enablers” organized by IIC, NIT Kurukshetra, 22 August 2024.
36. Convener of Workshop on “Energy Conservation Day” organized by IIC, NIT Kurukshetra, 14 Dec. 2024.
37. Convener of Workshop on “Effective Sales and Marketing Strategies for Entrepreneurs/Start-Ups” organized by IIC, NIT Kurukshetra, 15-19 Jan. 2025.

Expert Lectures Delivered:

1. “Introduction to-27 July Genetic Algorithm and Fuzzy Logic Toolboxes of Matlab” in AICTE sponsored, National Seminar on ‘ Soft Computing: Its Applications & MATLAB’ organized by Department of Allied Sciences & Humanities, Technological Institute of Textile and Sciences, Bhiwani, Haryana, 27 Aug. 2011.
2. “Design of induction Generator Using Artificial Intelligence” Short term course on ‘Wind Energy Conversion Systems’ organized by School of Renewable Energy & Efficiency, National Institute of Technology, Kurukshetra, 7-9 Sept. 2012.
3. “Reliability Assessment in RES” Short Term Course on Renewable Energy: Technologies & Transitions organized by School of Renewable Energy & Efficiency, NIT Kurukshetra, Sponsored by TEQIP-II, March 22-23, 2017.
4. “Steady State Analysis of Power Systems using Power World Simulator & PSCAD” Short Term Course on Signal Processing in Power System Protection and Control (S3PC-2017) jointly organized by Electrical Engineering Department & Electronics and Communication Engineering Department, NIT Kurukshetra, July 17-22, 2017.
5. “Elementary Electrical Engineering (EEL101)” at National Institute of Technology, Uttarakhand from 6 Nov. 2017 to 7 Nov. 2017. (**2 Days**)
6. “Resilience & Reliability of Power Grid using Renewables” Short term course on ‘Trends and Challenges in Industry Academia Collaboration’ (TCIAC-2018) organized by Electronics and Communication Engineering Department, NIT Kurukshetra, January 8-12, 2018**.**
7. “Research methodology: Case Studies” Workshop on ‘Research Methodology: An Applied Orientation’ organized by Electronics and Communication Engineering Department, NIT Kurukshetra, March 12-16, 2018.
8. “High Voltage Transmission Systems: Corona Effects and Its Measurements” in STC on ‘High Voltage Engineering: Generation, Measurement and its Applications’ (HVEGMA-2018) organized by Electrical Engineering Department, NIT Kurukshetra, 16-20 July, 2018**.**
9. “Research issues in Solar Photovoltaic System” in the DST-SERB and TEQIP-III sponsored National Workshop on ‘Clean Energy Conversion Technologies and Materials for Energy Storage Applications’ organized by School of Mechanical Engineering, Shri Mata Vaishno Devi University Katra. 24-25 January 2019.
10. “Advances in renewable Energy” in Centre of Excellence for Energy And Environmental Studies, DCRUST, Murthal, 9 May 2019.
11. “Software Tools in Research” in STC on ‘Research and Professional Skills’ (RPS-2019) organized by School of Renewable Energy & Efficiency, National Institute of Technology, Kurukshetra, 27-31 May 2019.

12. “Introduction to Optimization Tools” in STC on ‘Power System Operation, Control & Planning with Renewable Energy Sources’ (PSORE-2019), National Institute of Technology, Kurukshetra, 3-7 July 2019.
13. “Key Challenges in Growth of Solar PV Technology” in TEQIP-III sponsored One week STC on ‘Renewable and Sustainable Development of Electrical Energy Systems’, National Institute of Technology, Uttarakhand, 25-29 Novenber 2019.
14. “Key Challenges in Growth of Solar Power Systems” in TEQIP-III, DST-SERB,GOI sponsored National Workshop on ‘Thermoelectric Energy Conversion Devices & Its Applications’ , Shri Mata Vaishno Devi University Katra. 28-29 November 2019.
15. “Key Challenges in Growth of Solar PV Technology + Balance of Systems in Solar PV Systems” in TEQIP-III sponsored Two week FDP on ‘Advances in Renewable Energy Systems’, Government Engineering College, Bikaner, Rajasthan, (9-20 December 2019) (13&16 December 2019-**2 Days)**
16. “Spectrum of Intensive Research Areas in Solar Energy Technology” in Online STTP on Green Energy Technologies for Sustainable Development, organized jointly by NIT Kurukshetra and Engineering College, Bikaner sponsored by TEQIP-III, 11-20 June 2020.
17. “Solar Energy Technologies: Strengths and Challenges” in Webinar organized by Rajiv Gandhi College of Engineering and Technology, Chandrapur, Maharashtra, 7 July 2020.
18. “Strengths and Bottlenecks of Solar PV Technology” in Webinar organized by Bhagwan Parshuram Institute of Technology, New Delhi (Sponsored by IEEE Delhi Section & IIC MHRD), 8 August 2020.
19. “Solar PV System I + Solar PV System II” Atal AICTE Online Faculty Development Programme (FDP) on Advances In Clean Energy Conversion Technologies & Materials For Energy Storage Applications, Shri Mata Vaishno Devi University Katra. 21-25 September 2020. (21&23 September 2020-**2 Days)**
20. “Shaping the Future with Solar Photovoltaic” in TEQIP-III sponsored online mode, National Institute of Technology, Uttarakhand, 20 Feb. 2021.
21. “Challenges and Solutions in Solar PV Systems” in online mode STC, “Stability Issues, Challenges and Solutions in Renewable Integrated Power Systems” organized by EED, National Institute of Technology, Uttarakhand, from February 28th-March 4th, 2022.
22. “Environmental Sustainability with Green Energy Generation” in Workshop on, “Creative Exploration and Empowerment” organized at National Institute of Technology, Kurukshetra, from February 13-19 September, 2023.
23. “The Trends, Opportunities and Challenges of Environmental Sustainability” in Workshop on, “Creative Thinking: Techniques, Tools and Training” organized by NIT Kurukshetra, 23-27 Feb. 2024.
24. “Applications of Artificial Intelligence in Electric Power System” in Workshop on, “Opportunities and Applications of Artificial Intelligence in Electrical Engineering” organized by NIT Hamirpur, 6-10 May 2024.
25. “Research and Burgeoning areas of Solar PV systems” in STC on, “Power Quality Issuesin EV ChargingNetworks” organized by NIT Uttarakhand, 9-13 Sept. 2024.
26. “Solar PV Systems as the game changer for sustainable society” in AICTE sponsored ATAL FDP organized by PPG Institute of Technology. 5 Dec. 2024.
27. “Challenges, Innovations and Opportunities for the Grid tied Renewable Energy Systems” organized by EED, Chitkara University, 21 March 2025.

Extra Curricular Activities:

1. Teacher in-charge of publicity committee Powerfest 2001.
2. Teacher in-charge of reception committee Powerfest 2002.
3. Committee member for installation of E-tap software for Power Systems in 2004.
4. Observer for CEET at Kurukshetra, Yamunanagar.
5. Teacher in-Charge of Electrical Engg. Students for High Voltage experiments in T.I.E.T. Patiala on 21.4.2005.
6. Teacher in-Charge of Educational Tour for Electrical Engg. Students to BBMB sub-station on 6.10.2005.
7. Have been committee member for Workshop-Virtual Instrumentation and Digital System Design, Dec. 2005.
8. Teacher in-Charge of Educational Tour for Electrical Engg. Students to mini-Hydro plant and Paper Mill (BILT) on 21.3.2006.
9. Performed Anti ragging duties in Girls hostel.

10. Life member of ISTE.
11. Teacher in-Charge of Educational Tour for Electrical Engg. Students to Mini-Hydel plant, Tajewala and ISGAC, Yamunanagar on 14.3.2007.
12. Teacher in-Charge of Educational Tour for Electrical Engg. Students to NTPC, Dadri on 19. 4.2007.
13. Reviewer of paper in national conference on *Control and Instrumentation*, (NCCI 2007), Department of Electrical Engineering, National Institute of Technology, Kurukshetra, Dec. 29-30, 2007.
14. Member of Purchase Committee for purchase of Electric Motor, Cable along with accessories of Tubewell No.6 in July, 2008.
15. Teacher in-Charge of Educational Tour for 8th Sem Electrical Engg. Students to Kotla-Ganguwal and Bhakra on 30.3.2009.
16. Member of Sports Committee and overall incharge of girls sports activities for 2008-2009, 2009-2010, 2012-2013.
17. Been judge to the various events organized by students at different platforms.
18. Chaired the session on 16.2.2009 in 4 days conference of American Conference for Academic Disciplines organized by, (IJAS-Orlando 2009) Florida, USA, Feb.16-19, 2009.
19. Reviewer of papers in IEEE conference, India International Conference on Power Electronics (IICPE-2010).
20. Member of Reception and Discipline Committee in 8th Convocation held on 31 March 2011.
21. Faculty Member in Organizing Committee of ALTIUS 2012 (5-8October 2012) (i.e. Teacher in-charge of student curricular activities (ELECTRORECK) of Electrical Engg. Dept. 2012-2013.)
22. Faculty Convenor in Techspardha'13 (31st Jan. - 3rd Feb.)
23. Member of Reception Committee in 10th Convocation held on 9 April 2013.
24. Member of Sports Committee and overall incharge of girls sports activities for 2008-2009, 2009-2010, 2012-2013, 2013-2014, 2014-2015, 2015-2016,2016-17.
25. Been judge to the various events organized by students at different platforms.
26. Treasurer of 6th IEEE India International Conference on Power Electronics (IICPE-2014), at National Institute of Technology, Kurukshetra, Dec.8-10 2014.
27. Reviewer of papers in 6Th IEEE India International Conference on Power Electronics (IICPE-2014).
28. Reviewer of papers in IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (IEEE SPICES).
29. Member of Discipline Committee in 14th Convocation held on 3rd March 2017.
30. Convener, Stage Co-ordination, Compering & VIP Messages Collection Committee in 15th, 16th and 17th Convocation held on 16th February 2018 , 16th Nov. 2018 and 20th Feb 2020 respectively.
31. Convener/ Session Chair in seminar of International Women's Day, NIT Kurukshetra, 8 March 2018.
32. Faculty Incharge, Photography Club, 2017-18.
33. Contact Person from NIT Kurukshetra to attend First Pan –India Research Network Meet on Industry-Academia R&D Requirements, National Institute of Wind Energy (NIWE), MNRE, GoI, Chennai, 14 June 2018.
34. Faculty Incharge, Student Activities/ Societies, Electoreck, Student Advisory Committee (SAC) 2018-19 Techspardha'18 Prime
35. Reviewer of paper in International Conference on Computational Intelligence & Internet of Things (ICCIIoT 2018), NIT Agartala, 14-15 Dec. 2018.
36. Faculty Honour Code Certificate for hands on training on Solar Study Lamp Assembly an online learning initiative of Indian Institute of Technology Bombay conducted from 01 May 2019 to 31 Dec 2019.
37. Reviewer of papers in International Conference on Paradigms of Computing, Communication and data Sciences (PCCDS 2020) NIT Kurukshetra, 1-3 May 2020.
38. Reviewer of paper in online International Conference on Challenges and Applications in Clean Energy (ICCACE 2020) NIT Kurukshetra & GEC Bikaner, 25-26 Dec. 2020.
39. Practical Exam in subject EEM510C Mini Project of M.Tech. EEM 2nd Sem. Students of Center of Excellence for Energy and Environmental Studies (CEEES) at DCRUST, Murthal, 9 May 2019.

40. M.Tech. Dissertation viva-voce of Electrical students of NIT Uttarakhand, 24 May 2019.
41. Examiner of online Minor Project (ETEE-459) B.Tech. Electrical students of Bharati Vidyapeeth College of Engineering, New Delhi under IP University on 5 Dec. 2019, 13 Jan 2021 and 17 Jan. 2022.
42. Chaired the Technical session in 1st International Online Conference on Sustainable Development in Civil and Electrical Engineering (SDCEE-2021) during December 17-19, 2021organized by the Civil and Electrical Engineering Department, National Institute of Technology Kurukshetra, INDIA.
43. Session Chair in National Conference on Metacognition, Creativity & Divergent Thinking (NC-MCDT-2024) organized by Students' Club, NIT Kurukshetra, March 16-17, 2024.
44. Evaluation of project proposals as domain expert in Department of Scientific and Industrial Research (DSIR) under Ministry of Science and Technology, GoI
45. Session Chair in 3rd International Conference on Smart grid Energy Systems and Control (SGESC-2025) organized by EED, NIT Kurukshetra, Feb. 21-23, 2025.

Administrative Duties:

@ Institute Level:

1. Co-Officer in-charge of tender quotation opening committee 2001-2002, 2002-2003, 2003-2004
2. Officer in-charge for Annual Stock Verification for Humanities and Physics Department 2004-2005
3. Member of Admission Committee of the Institute. 2006-2007, 2007-2008
4. Deputy Supdt. in the exams held in Nov./Dec. 2009.
5. Member of DPC of CCN. 2009-2010, 2010-2011.
6. Member of supporting staff for the NME-ICT sponsored course on Effective teaching/ learning of Computer Programming from 28 June to 10 July 2010.
7. Officer in-charge for Annual Stock Verification for Girls Hostel (Old &New) for year 2010-2011.
8. Member of teaching faculty for ISTE workshop on Database Management Systems during 13-23 Dec. 2010.
9. Member of DPC of Institute Telephone Exchange. 2011-2012, 2012-2013.
10. Member of Institutional M. Tech. Admission Committee (CCMT). 2013, (9-11) June 2014, 2018, 2019.
11. Professor-in Charge Results from 1.10.2015-7.12.2016.
12. Convenor, Inspection Committee formed by KU to R.P. Educational Trust Group of Institutions, Bastara, Karnal, Feb.2016.
13. Centre Supdt. in the exams held in Nov./Dec. 2017.
14. Co-cordinator, School of Renewable Energy & Efficiency, 2017-18, 2018-19 (23.01.2017-19)
15. Faculty Incharge (Technical Societies) 2019-20, 2020-21, 2021-22
16. Member Library Committee 14.7.2022 –2023
17. Faculty Incharge, Students' Club (Cultural) 1.7.2022-15.10.2024
18. Faculty Incharge, SCSA Club, 2022-present
19. Faculty Incharge Alumni Cell 15.10.2024- present
20. Joint Secretary, Endowment Fund Management Committee, March 2025- present
21. Associate Dean (Industry & International Relations), 2022- present
22. Adjoint Faculty member in School of Renewable Energy (SREE) 2017-present
23. Social Media Coordinator of Institution Innovation Cell (IIC), 2022-2024
24. Internship Coordinator of Institution Innovation Cell (IIC) 2024-present
25. Internship Faculty Coordinator, 2023-24
26. Chairman of DPC Students club. 2024-2025

@ Department/School Level:

27. Teacher in-charge of student curricular activities (ELECTRORECK) of Electrical Engg. Dept. 1999-2000, 2000-2001, 2009-2010, 2012-2013.
28. Co-Officer in-charge of Machines and Drives Lab. 2001-2002 and Officer in-charge in 2009-2010.

29. Co-Officer in-charge of Electrical Measurements and Power System Lab. (including High Voltage Lab.) 2002-2003
30. Co-Officer in-charge of High Voltage Lab. 2003-2004
31. Officer in-charge of Power System Lab. 2004-2005,2011-2012,2012-13,
32. Officer in-charge of Departmental Meetings 2004-2005, 2005-2006
33. Officer in-charge of Departmental Purchase Committee 2005-2006
34. Departmental in-charge for Registration of B. Tech. 2005-2006, 2006-2007
35. Officer in-charge of Departmental Information Management /Web. 2006-2007, 2007-2008, 2008-2009.
36. Officer in-charge of Departmental Academic, Exam. & Result work 2007-2008, 2008-2009, 2009-2010.
37. Co-Officer in-charge of Measurement & Basic Lab. 2007-2008, 2008-2009.
38. Member of Obsolescence committee of departmental furniture 2007-2008
39. Member of Anti-ragging committee/ragging monitoring cell of department 2008
40. Teacher in Charge of Practical Training of B. Tech. 2nd Year 2011-12.
41. Member of Departmental M. Tech. Admission Committee. 2012
43. Member of Departmental Research Committee (DRC) from 4.9.2013 onwards.
44. Member of Board of Studies from 1.9.2011-31.8.2014, 2017-2019, 2024-2027
45. Member of Departmental Affairs Committee 2013-16, 2021-24
46. Officer in-charge of Departmental Subjects and Co-ordinator assignment, Time Table 2013-2014, 2014-2015,2015-16,2016-2017.
47. Officer in-charge of Power Systems & Measurement Lab. 2013-17
48. Professor-in Charge Power Systems Lab. 2017-present
49. Professor-in Charge Education tours/visits. 2017-18
50. Faculty Incharge (Conference hall, Seminar Room, Audio Visual room and Photocopier) 2019-20, 2020-21
51. Faculty-Incharge, Departmental Student Activities/ Society, 2019-20, 2021-22
52. Faculty Incharge (PG academic and related, Coordinator Accreditation-PS), 2021-22
53. Convener, Departmental: UG 6th semester Internship/Industrial Training/Project Work arrangements
54. Member of Departmental UG Committee (DUGC), 2024-present
55. Member BOS, SRC, SAC, SPC of SREE 2017-present
56. Convenor, School Purchase Committee; PG/Ph.D. Affairs Committee, SREE 2017-18, 2018-19, 2019-20, 2020-21.
57. Co-cordinator of Exams, SREE, Nov. 2024
58. Faculty Incharge of Ph.D. Affairs (Ph.D. admissions & related, Ph.D. Scholarship claim. Email Ids database) in SREE 2021-22, 2022-23,2023-24,2024-25,
59. Convener of Ph.D. Affairs (Ph.D. admissions & related, Ph.D. Scholarship claim. Email Ids database) in SREE 2023-24,2024-25,
60. Convener of Students Activity: Socities in SREE, 2023-24,2024-25

Awards/Distinctions

1. Best conference paper award in American Conference for Academic Disciplines organized by, (IJAS-Orlando 2009) Florida, USA, Feb.16-19, 2009.
2. Placement Percentage during Academic year 2022-23: 75.22
3. Placement Percentage during Academic year 2023-24: 75.16

Article Publication:

Magazine: PV magazine
Title: Standalone PV with pumped storage could deliver LCOE of $0.053/kWh
Reporter: EMILIANO BELLINI
Date : November 10, 2020