Curriculum Vitae

Dr. Surender Singh

Assistant Professor, Department of Electrical Engineering, UIET, MDU, Rohtak, Haryana.
E-mail: surender.b1985@gmail.com, surender.uiet@mdurohtak.ac.in
Mobile No.-8295088199



The main objective is to teach human values and character development to engineering students that assist in learning more effectively by employing creative teaching strategies given to the students by engaging them in such a way to face the challenging task and rewarding them for the learning experience. It will help them to develop the confidence to be creative and imaginative, ultimately rendering them better competitors in the future.

Academic Qualification:

S.No	Course	Branch/Specialization	Institute	University	Year of passing	%age/ CGPA/& Division
1	Ph.D.	Power System Optimization	University Institute of Engineering & Technology	Maharshi Dayanand University, Rohtak	2020	76.33% 1ST Div.
2	M.Tech	Power System & Electric Drive	Thapar Institute of Engineering and Technology	Thapar University, Patiala	2010	8.92/10 1ST Div.
3	B.Tech	Electrical Engineering	JMIT, Radaur	Kurukshetra University, Kurukshetra	2008	75.30% 1ST Div.

Dissertation:

S. No.	Course	Area of research / Thesis	Duration	Thesis Supervisors
1.	Ph.D	Intelligent algorithm for optimal and reliable operation of power distribution system	2014-2020	Prof. V.R Singh & Prof. R. Ranjan
2.	M.Tech	Short-range fixed head hydro-thermal scheduling using PSO	2008–2010	Dr. Nitin Narang

Area of Interest/Research:

Power Quality, Isolated Microgrid, Distributed Power Generation, Electric Vehicles and Renewable Energy Integration.

Research Publications:

Paper published in International Journals:

1. **Surender Singh**, V.R Singh, and R. Ranjan, "Modified Load Flow Analysis in Unbalanced Radial Distribution System," International Journal of Computer Sciences and Engineering International Journal of Computer Sciences and Engineering, Vol (6), Issue (7), pp. 480-483, 2018, https://doi.org/10.26438/ijcse/v6i7.480483 .
2. **Surender Singh**, "Review of Charging Station for E-Vehicle Using Renewable based Smart Grid," International Journal of New Innovations in Engineering and Technology, Vol (7), Issue (4), pp.34-36, 2017.

3. **Surender Singh**, VR Singh, R Ranjan, and S Swapnil, "Advanced load flow analysis for unbalanced radial distribution system incorporating weather conditions," Journal of The Institution of Engineers (India): Series B, Vol (100), pp. 551-560, 2019, https://doi.org/10.1007/s40031-019-00420-0
4. **Surender Singh**, "Impact of digital technologies on performance of power distribution system," International Journal of Latest Trends in Engineering and Technology, Vol (9), Issue (4), pp. 284-289, 2018.
5. **Dr. Surender Singh** and Dr. Meena Kumari, "An extensive review on the optimal reconfiguration of power distribution system with voltage stability index," International Journal of Latest Trends in Engineering and Technology, Vol (20), Issue (4), pp. 21-26, 2022.
6. Dr. Meena Kumari and **Dr. Surender Singh**, "Optimal location of a substation in the radial distribution system: factors, techniques and solutions," International Journal of Latest Trends in Engineering and Technology, Vol (21), Issue (2), 2023.
7. Dr. Meena Kumari and **Dr. Surender Singh**, "Investigating the challenges and solutions of optimal conductor selection in RDS, International Journal of Latest Trends in Engineering and Technology, Vol (21), Issue (4), 2023.
8. Pinkey, **Surender Singh** and Meena Kumari, "Planning of Radial Distribution System with Distributed Generation-A Review," Journal of Engineering Science and Technology Review, Vol (17), Issue (4), pp. 145-163, 2024, https://doi.org/10.25103/jestr.174.17
9. Devvrat Raghuvanshi, Kamaldeep Joshi, Rainu Nandal, Harkesh Sehrawat, **Surender Singh** and Srishti Singh," Improved security with novel M-Log chaos steganography algorithm for Huffman compressed English text," Multimedia Tools and Applications, pp. 1-24, 2024, https://doi.org/10.1007/s11042-024-18889-3 .
10. **Surender Singh** and Saurabh, "Advancements and Challenges in Integrating Renewable Energy Sources Into Distribution Grid Systems: A Comprehensive Review," Journal of Energy Resources Technology, Vol (146), Issue (9), pp. 1-37, 2024, https://doi.org/10.1115/1.4065503
11. Sombir Kundu, Ashutosh Giri, Sunil Kadiyan and **Surender Singh**, "Power management and adaptive control method for a standalone distributed generation system under fault, DC-offset, and dynamic environments," International Journal of Ambient Energy, Vol (46), Issue (1), 2025, https://doi.org/10.1080/01430750.2025.2452245 .
12. Nikhil Malik, **Surender Singh**, Gurdiyal Singh, and Sombir Kundu (2026), Optimized Hybrid Energy Design for Load Management in Solar-Based Electric Vehicle Charging Stations in Rural Area. IJEER 14(3), 738-744.DOI: 10.37391/IJEER.140308.
13. Surender Singh and Pinkey, "Integration of Electric Vehicle Charging Station Using Conventional Approach on System", International Journal of All Research Education and Scientific Methods (IJARESM), Volume 14, Issue 4, April-2026, https://doi.org/10.56025/IJARESM.2026.140426131
14. Sombir Kundu, **Surender Singh**, Hitanshu Saluja, Ankit Bhatt & Anu Sharma, "Energy Management Through IoT-Based System: A Case Study", J. Inst. Eng. India Ser. B 107, 565–577 (2026). https://doi.org/10.1007/s40031-026-01288-7
15. Sombir Kundu, Ashutosh K. Giri, Sunil Kadiyan, **Surender Singh**, Sudhanshu Mittal, "Renewable-Based Hybrid Charging Infrastructure for Isolated Microgrids: Enhancing Power Quality and Supporting EV Integration", Renewable Energy Focus, Volume 56, 2026, https://doi.org/10.1016/j.ref.2025.100783
16. Devvrat Raghuvanshi, Kamaldeep Joshi, Rainu Nandal, **Surender Singh** & Deepika Kumari, "Advancing image steganography: PRISMA-ScR based analysis of spatial domain techniques", Multimed Tools Appl 84, 48475–48509 (2025). https://doi.org/10.1007/s11042-025-21040-5
17. Krishan Kant Kumar, Surender Singh and Sombir Kundu, "Modeling and Simulation of Grid-Connected Hybrid Renewable Energy Systems Using HOMER Pro Software", International Journal of Renewable Energy, Jun 2, 2025, https://doi.org/10.36676/energy.v2.i2.22

Paper published in International/National Conference:

1. **Surender Singh**, V.R Singh and R. Ranjan, "Optimal Reconfiguration with Reliability in Unbalanced Radial Distribution System Using Particle Swarm Optimization," 5th International Conference on Next Generation Computing Technologies (NGCT-2019), 2020.

2. Meena Kumari, **Surender Singh**, Pinkey, Sumit Tiwari, and Ravinder Kumar Sahdev, "To Study the Effect of Changing Load Pattern on Voltage Profile in RDS," International Conference on Computational Modelling, Simulation, and Optimization (ICCMSO), Vol (9), Issue (8), 285-290, 2022, https://doi.org/10.1109/ICCMSO58359.2022.00063
3. **Surender Singh** and Ravi, "Hybrid Algorithm to Upgrade Voltage Stability Index and Real Power Loss Reduction Using Reconfiguration in Radial Distribution System," IEEE International Conference on Computational Intelligence and Computing Applications (ICCICA), Vol (1), pp. 263-268, 2024, https://doi.org/10.1109/ICCICA60014.2024.10584951
4. Shubham Sharma, Sombir Kundu, Sukhbir Singh, Jitender Singh, and **Surender Singh**, "Harmonics mitigation and control of grid-connected PV system under intermittent conditions," International Conference on Green Energy, Environmental Engineering and Sustainable Technologies (ICGEST 2023), Volume-1, pp. 405-416, 2025, https://doi.org/10.1007/978-981-96-1012-9_26
5. Kirshan K. Kumar, **Surender Singh**, S. Kundu, A. Bhatt and V. S. Bisht, "Optimization of Renewable Energy Integration into Grid-Connected Systems: A Techno-Economic and Environmental Comparison," 2026 International Conference on Electric Power and Renewable Energy (EPREC), Durg, India, 2026, pp. 1-6, https://doi.org/10.1109/EPREC66546.2026.11412263
6. Krishan K. Kumar, **Surender Singh** and S. Kundu, "Artificial Intelligence for Smart Grid Management: Enhancing Efficiency and Sustainability," 2025 IEEE Madhya Pradesh Section Conference (MPCON), Jabalpur, India, 2025, pp. 1105-1109, https://doi.org/10.1109/MPCON66082.2025.11256632
7. Krishan K. Kumar, **Surender Singh**, S. Kundu, S. Saraswat, Manita and Rakesh, "Optimizing Green Energy Technologies and Energy Storage Solutions using HOMER Pro software," 2025 IEEE Madhya Pradesh Section Conference (MPCON), Jabalpur, India, 2025, pp. 1133-1138, doi: https://doi.org/10.1109/MPCON66082.2025.11256757
8. Sombir Kundu, N. Sundriyal, A. Dixit, **Surender Singh**, S. Kadiyan and R. Kundu, "Improving Power Quality in Grid-Connected Photovoltaic Systems with FLL-Based Control for Nonlinear Demands," 2025 IEEE International Conference on Computer, Electronics, Electrical Engineering & their Applications (IC2E3), Srinagar Garhwal, India, 2025, pp. 1-6, https://doi.org/10.1109/IC2E365635.2025.11166983

Book chapter published:

1. **Surender Singh**, "Renewable-Energy-Based EV Charging Infrastructures", Electric Vehicle Charging Infrastructures and its Challenges, Springer Nature, Singapore Pte Ltd., ISBN:978-981-96-0360-2, 2025, https://doi.org/10.1007/978-981-96-0361-9_4
2. Kritika, Meena Kumari, **Surender Singh**, Vipin Kumar, Gurdiyal Singh and Ravinder Kumar Sahdev, "Wastes are in spotlight: Using Biofibers to cool PVT", Advances in Green Energy Technologies: Proceedings of ICGEST 2023, Volume 2, 2025, https://doi.org/10.1007/978-981-96-0861-4_14
3. Kritika, Meena Kumari, Ravinder Kumar Sahdev, **Surender Singh**, Vipin Kumar, Naveen Kumar & Pooja , "A Comparative Study on Cooling of PVT. In: Suhag, S., Thakur, T., Mishra, S. (eds) Future Power Network and Smart Energy Systems, Volume 1. FPNSES 2023. Lecture Notes in Electrical Engineering, vol 1463. Springer, Singapore, 2025. https://doi.org/10.1007/978-981-95-0473-2_15
4. **Surender Singh**, "Energy Efficient Hybrid Algorithm for Reconfiguration in Radial Distribution System, High-Performance Automation Methods for Computational Intelligent Systems: Design, and Enabling Technologies, CRC Press (Taylor & Francis Group), 2025, https://doi.org/10.1201/9781003643609-4
5. **Surender Singh**, "Case Study for Integration of Renewable Sources to Loharu Micro Grid to Reduce the Expenses and Emissions Using HOMER Pro. In: Kundu, S., Giri, A.K., Mishra, D.K. (eds) Hybrid Renewable Power Infrastructure for Sustainable Electric Vehicle Development. Studies in Infrastructure and Control. Springer, Singapore, 2025. https://doi.org/10.1007/978-981-95-1323-9_11
6. Sombir Kundu., Sundriyal, N., Singh, N., Kadiyan, S., **Surender Singh**, & Ramirez, J. M, "Control Strategy for a Single-Phase Grid-Connected PV System With Bidirectional EV Charging Support", In G. Fotis, S. Gupta, T. Varshney, S. Dhar, & M. Gulzar (Eds.), Modern Computing Technologies for EV Efficiency and Sustainable Energy Integration (pp. 179-198), 2025, IGI Global Scientific Publishing. https://doi.org/10.4018/979-8-3373-2382-4.ch007

Paper presented in National/Internation Conferences:

1. **Surender Singh**, "Investigate the Solar Charging Station and its Scope in Electric Vehicle, National Conference on Emerging Trends in Engineering, Science and Management-2022.
2. **Surender Singh**, "Load Frequency Control in Power System," 2nd International Conference on Latest Trends in Engineering and Technology 2023 (ICLTET 2023).
3. **Surender Singh**, "Impact of Artificial Intelligence in Pharmaceutical Research", International Conference on Innovations and Technology Transforming Pharmaceutical Education and Research, April 25-26, 2023.
7. **Surender Singh**, "Load Frequency Control: An Introduction," International Conference on Advanced Emerging Trends in Engineering & Pharmaceutical Science (AETEPS-2023).
8. **Surender Singh**, "Investigate the Integration of Electric Vehicle Charging Station on Radial Distribution System," UIET, in collaboration with Centre for Research and Innovation India and ABRSM, MDU, Rohtak (Unit) on 04th -05th May 2024.
9. **Surender Singh**, "Hybrid Energy Optimization for Sustainable Operations and Electric Ambulance Charging at Shri Ram Janki Medical College and Hospital, Samastipur by using HOMER Pro Software, 3rd International Conference on Innovations in Clean energy technologies, 21st -22nd Feb 2025, Energy center, Maulana Azad National Institute of Technology, Bhopal, India.
10. **Surender Singh**, "Artificial Intelligence for Smart Grid Management: Enhancing Efficiency and Sustainability," National Conference on Recent Advancement in Engineering and Technology (NCRAET-2025) at REC Sonbhadra, 22nd March 2025.

Expert/Invited Lecture /Practical session:

1. Expert Lecture on Logical Reasoning, Mathematical aptitude, and General Intelligence and Quantitative aptitude to qualify for the NET/JRF and SSC CGL (Tier-I & II) examination organized by the University Centre for Competitive Examinations (UCCE) MDU, Rohtak delivered lectures in seven batches.
2. Expert Lecture on Power Systems organized by GITAM, Kabalana Jhajjar, 21st March, 2023.
3. An invited lecture on 'Mathematics and Computers in Science and Engineering (MACISE 2024), 5th International Conference, Ierapetra, Crete Island, Greece, June 6-8, 2024, Sponsored by Hellenic Naval Academy, Greece. Technical University of Sofia, Bulgaria. Polytechnic University of Bari, Italy. University Politehnica of Bucharest, Romania. Hellenic Mediterranean University, Crete, Greece, WSEAS www.wseas.com.
4. Expert talk delivered on "Particle Swarm Optimization in Power System" " organized by Department of Electrical Engineering, UIET, MDU, AICTE ATAL sponsored FDP on Artificial Intelligence and Robotics from 27th November to 2nd December 2023.
5. Expert lecture on "Algorithm for Optimal and Reliable Operation Using PSO Application in Power Distribution System," FDP on 'Soft Computing Techniques Using MATLAB' organized by NITTTR, Chandigarh, from 16th to 20th October 2023.
6. Practical session conducted on "Optimization Techniques in MATLAB," Organized by the Department of Electrical Engineering, UIET, MDU, AICTE ATAL sponsored FDP on Artificial Intelligence and Robotics from 27th November to 2nd December 2023.

Awards / Recognition:

Best paper titled "Hybrid Algorithm to Upgrade Voltage Stability Index and Real Power Loss Reduction Using Reconfiguration in Radial Distribution System," a certificate in International Conference on 'Computational Intelligence and Computing Applications (ICCICA-2024) organized by the Department of Computer Science & Engineering, technically co-sponsored by IEEE Delhi Section (IEEE Conference record No. #60014) during 23rd -24th May 2024 at PIET, Samalkha, Panipat, Haryana, India.

Research Project:

Research project on 'Baseline Survey of Knowledge, Attitude, Practice (KAP) of Citizens for General Election of Lok Sabha-2024' sponsored by Chief Electoral officer, Haryana, amount-Rs.13,85,367 (Thirteen lacks eighty-five thousand three hundred sixty-seven) conducted by Chaudhry Ranbir Singh Institute of Social and Economic Change as the role of constitution assembly coordinator in completing the project.

Reviewer assignment:

1. Contributed as "Reviewer" in the International Conference on Small Satellites (ICSS-2022) held on April 29-30, 2022, organized by the Centre for Space Research, Division of Research and Development, LP University, Punjab.
2. Member of the "Reviewer" Committee in AICTE Sponsored National Conference on "Emerging Trends in Engineering, Science and Management -2022" on 26th- 27th Nov.2022, organized by Department of Electrical Engineering UIET, MD University, Rohtak.

Research Contribution:

1. PG -Dissertation complete-10
2. Actively involved in guiding Ph.D registration under supervisor:
    i. Nikhil Malik S/o Sh. Suresh Malik, Registration No.-13-UIETR-0195
    ii. Pinkey D/o Sh. Raghubir Singh, Registration No.-05-BREB-0197
    iii. Sumit Mor S/o Sh. Wazir Singh Mor, Registration No.-2118381651

Responsibility/Membership:

1. Qualified for the Prestigious National level GATE EXAM in 2008.
2. Department Coordinator from 8th January 2020 to 8th January 2022.
3. Administrative assignment as Warden, Boys Hostel No-6 (, Himgiri) from 28/07/23 to 20/11/2025.
4. Administrative assignment on 06/10/2026 as Deputy Director, University Centre for Competitive Examination (UCCE), MDU, Rohtak

Refresher Course/Faculty Development Programme:

1. Faculty Development Program entitled "E-Learning Technologies" from 18-07-2019 to 24-07-2019 (One week) organized by Faculty Development Centre, MDU Rohtak, under the PM National Mission on Teachers and Teaching, MHRD, Govt. of India scheme.
2. Faculty Development Program entitled "Soft Skill and Creative Academic Writing" from 29-07-2018 to 04-08-2018 (One week) organized by Faculty Development Centre, MDU Rohtak, under the PM National Mission on Teachers and Teaching, MHRD, Govt. of India scheme.
3. Refresher Course of 21-Day Interdisciplinary Refresher Course (January 07-27, 2021) organized by Faculty Development Centre, MDU Rohtak, under the scheme of PM National Mission on Teachers and Teaching, MHRD, Govt. of India.
4. One-Week Online AICTE Recognized Faculty Development Programme on "MATLAB and Simulink for Beginners" Conducted by the Electrical Engineering Department from 19/09/2022 to 23/09/2022 at UIET, Maharishi Dayanand University, Rohtak, organized by NITTTR, Chandigarh under Ministry of Education, Government of India.
5. One-Week Online National Faculty Development Program on "e-Content Development" from 10th October to 16th October 2023 organized by UGC-MMTTC/GAD-MMTTC, SGTB Khalsa College, University of Delhi, Ministry of Education, Govt. of India.
6. One-Week Online National Faculty Development Program on "AI Tools for e-Content Development and Teaching-Learning" from 15th April to 26th April 2024, organized by UGC-MMTTC/GAD-MMTTC, SGTB Khalsa College, University of Delhi, Ministry of Education, Govt. of India.

Skill:

1. Good Communication Skills, Hardworking and Adaptive, Ability to work in a team, and Organizational

Skills.

2. Languages: English, Hindi (Mother Tongue).

Personal details:

Date of Birth	:	08/07/1985
Marital Status	:	Married
Gender	:	Male
Hobbies	:	Reading, Listening to Music, Playing Football

Declaration:

I declare that the information provided above is accurate to the best of my knowledge.

Place: UIET, EE, MDU, Rohtak (Surender Singh)
Date: 19/10/2026