

Dr. Sunil Kumar Pandey

Associate Professor



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<http://scholar.google.co.in/citations?user=im8i7DwAAAAJ>

Educational Qualification

- Ph.D. Electrical Engineering Department, I.I.T. Delhi. March 2022
- M.E. (Control & Instrumentation), Electrical Engineering Department, Delhi College of Engineering, Delhi University, 2007.
- B. Tech. (EE), Electrical Engineering Department, Delhi College of Engineering, Delhi University, 2004.
- Diploma in Electrical Engineering, Govt. Poly. Kanpur, U.P, 1998.
- Intermediate with PCM from H.R. Inter college, Khalilabad, Sant Kabir Nagar, U.P., 1994
- High school from H.R. Inter College, Khalilabad, Sant Kabir Nagar, U.P., 1992.

Technical Skills

- **Simulation:** MATLAB
- **Real Time Controller:** DSPS, dSPACE
- **Analog/digital Circuit design:** Signal conditioning board, Gate driver circuits
- **PCB Design:** Design Spark PCB Design

Area of Interest/Specializations

- Power Electronics, Electrical Machines, Electrical Drives, Control Engineering, Power Quality, and Renewable Energy Systems.

Laboratory Development Activity

- Design and developed following laboratory as per the curriculum of BLS University & GGSIP University.
 - Electrical Science laboratory

- Circuit theory laboratory
- Analog Electronics-I laboratory
- Electric Vehicle Powertrain and Motor Design Lab
- EV Infrastructure Lab
- EV Charging Infrastructure laboratory

Work Experience

Teaching

- Associate Professor at at **Maharaja Agrasen Institute of Technology**, Rohini, Delhi, Since Dec1, 2022.
- Assistant Professor at **Maharaja Agrasen Institute of Technology**, Rohini, Delhi, Since July1, 2017.
- Senior Lecturer at **Maharaja Agrasen Institute of Technology**, Rohini, Delhi, Since January1, 2010 to June, 30, 2017.
- Lecturer at **Maharaja Agrasen Institute of Technology**, Rohini, Delhi, Since August1, 2006 to December31, 2016.
- Lecturer at **BLS Institute of Technology Management (EX B.L.S.University)** established under the act of Chhattisgarh State government), Bahadurgrah, Since February15, 2005 to August31, 2005.
- Lecturer at **BLS University**, Bahadurgrah, Since January 4, 2005 to February 14, 2005. Additionally, I was Looking academic portion as Deputy Registrar.
- Lecturer at **College of Engineering & Rural Technology**, Meerut, Since August 9, 2004 to January 3, 2005.
- Teaching Assistant at **HMR Institute of Technology**, Delhi, Since, January, 2004 to August 3, 2004.

Industrial

- R&D Engineer **M/S Contimeters & Electricals**, 31 SSI Industrial Area, G.T. Karnal Road, Delhi-110033, Since June 10, 1999 to December 31, 2003.
- Graduate Apprentice at **Hindustan Liver Limited A-1**, UPSIDC Industrial Area, Bharua, Sumerpur, Distt. Hamirpur-210502, U.P., Since May 25, 1998 to May24, 1999.

Awards and Appreciation

- **Best Paper Award** on paper titled “**Linear Quadratic Estimation Control for Single Stage PV System Integrated to Single Phase Utility**” IEEMA Engineer Infinite Conference, held during March 13th to 14th, 2018 at India Expo Mart, Gautam Budh Nagar, Greater Noida, Uttar Pradesh. India.
- **Appreciation Certificate** for publishing research paper in session 2017-18.
- **Appreciation Certificate** for publishing research paper in session 2018-19.
- **Appreciation Certificate** for publishing research paper in session 2019-20.
- **Long Service Award** on the occasions of Teachers Day for fifteen Years of commendable services at Maharaja Agrasen Institute of Technology, on September 06, 2021.
- **Certificate of Recognition** for outstanding contribution and unwavering dedication for phenomenal efforts in NBA Accreditation for the B.Tech (EEE) and B.Tech (IT) programs in November 2024.

- **Appreciation Certificate** for publishing research papers in session 2025-26.

Faculty Coordinator

- Coordinator Lab Development Committee of EEE Labs.
- Batch Coordinator Industrial Training and Internship
- Project Coordinator
- ISO: AMR (Lab)
- Core member of NBA Coordination Committee in EEE department.
- Teacher In-charge Electrical Technology Laboratory
- Departmental Representative Library Committee since 2007-2018.
- Member Academic Council
- Batch Coordinator and Counselor
- Teacher In-charge Electric Vehicle Powertrain and Motor Design Laboratory
- Teacher In-charge EV Infrastructure Laboratory.
- Teacher In-charge Electrical Science Laboratory

Publications

Journals

- S. K. Pandey, S. Kumar and B. Singh, "LCO-FLL Control for Single Phase Utility Integrated Single-Stage Solar PV System," *IET Renewable Power Generation*, vol.12, issue.16, pp. 1941-1948, December 2018, Electronic ISSN:1752-1424, Print ISSN:1752-1416
- S. K. Pandey, B. Singh and Gaurav Modi, "Frequency Adaptive Complex-Coefficient Filter- Based Control for Grid-Integrated PV System," *IET Generation Transmission Distribution*, vol.14, issue.19, pp.4141-4151, October 2020.Electronic ISSN:1751-8695, Print ISSN:1751-8687
- S. K. Pandey, S. Kumar and B. Singh, " Robust Frequency Cascaded Adaptive Complex Filter Control for Grid Interactive System," *IEEE Transactions on Industry Applications* vol. 57, no. 1, pp. 130-138, Jan.-Feb. 2021. Electronic ISSN: 1939-9367, Print ISSN: 0093-9994
- S. K. Pandey and Bhim Singh, "PV-BES Microgrid System with LQR-Tuned CC-CVF Based Control Algorithm," *Journal of The Institution of Engineers (India): Series B*, vol. 102, no.3, pp.585-593, January 2021. Electronic ISSN: 2250-2114, Print ISSN: 2250-2106.
- Chandrakesh Shukla and Sunil Kumar Pandey, "A Multifunctional VSC for Grid Synchronized SPV System with Mode Transfer Capability" *Journal of Electrical Systems*, vol.20, no. 11s, pp. 4735-4746, December 2024.
- Chandrakesh Shukla and Sunil Kumar Pandey, "Revolution on Wheels: The Past, Present, and Future of Electric Vehicles" *IJASRET*, vol.9, no.5, pp. 66-72, ISSN: 2456-0774.
- Sarwesh Darshan and Sunil Kumar Pandey, "Performance Enhancement of Electric Vehicle with Super Capacitor", *MAIT Journal of Science and Technology*, vol.2, 2024.

- Sarwesh Darshan and Sunil Kumar Pandey, “Supercapacitor-Powered Urban Train: A Cost-Effective Alternative”, *MAIT Journal of Science and Technology*, 2025.

Conferences

- S. K. Pandey, S. Kumar and B. Singh, “Linear quadratic estimation control for single Stage PV system integrated to single phase utility,” *IEEMA Engineer Infinite Conference (eTechNxT)*, New Delhi, 2018, pp. 1-7.
- S. K. Pandey, S. Kumar and B. Singh, “Discrete Linear Phase Based MAF Control for Grid Tied Solar PV System,” *IEEE Power India International Conference (PIICON)*, Kurukshetra, India, 2018, pp. 1-6.
- S. K. Pandey, S.Kumar and B. Singh, “Nonadaptive CDSC Based Control of a Single Phase PV System Tied to Distribution Grid,” *IEEE India International Conference on Power Electronics (IICPE)*, JAIPUR, India, 2018, pp. 1-6.
- S. K. Pandey, S. Kumar and B. Singh, “Robust Frequency Cascaded Adaptive Complex Filter Control for Grid Interactive PV System,” *International Conference on Electrical, Electronics and Computer Engineering (UPCON)*, ALIGARH, India, 2019, pp. 1-6.
- S. K. Pandey and B. Singh, “Hybrid DSC with Compensation Capability Based Control for Grid Integrate SPV System,” *IEEE Power India International Conference (PIICON)*, SONEPAT, India, 2020, pp. 1-6.
- S. K. Pandey and B. Singh, “Battery Supported Grid Tied PV System with CFDBPF Based Control Algorithm,” *IEEE International Conference on Computing, Power and Communication Technologies (GUCON)*, Greater Noida, India, 2020, pp. 587-593.
- S. K. Pandey and B. Singh, “Grid Tied PV-BES System with Multitasking Voltage Source Converter,” *IEEE International Conference on Computing Communication and Automation (ICCCA)*, Greater Noida, India, 2020, pp. 12-17.
- S. K. Pandey and B. Singh, “Single Phase PV-BES-Small Hydro System for Critical Loads with Synchronization Capability,” *IEEE International Conference on Computing Communication and Automation (ICCCA)*, Greater Noida, India, 2021, pp. 902-907.
- S. K. Pandey, B. Singh, and A. Verma, “Three Phase BES Supported Grid Interfaced PV-VSC with Synchronization Capability,” *IEEE IAS Global Conference on Emerging Technologies (GlobConET)*, 2022, PP. 58-63.

Book Chapter

- Chandrakesh Shukla and Sunil Kumar Pandey, “Three Phase Single Stage Grid Synchronized PV Generator with Seamless Mode Transfer” *Advances in Sustainable Energy Technologies*, Springer Nature Singapore Pvt. Ltd, under publication.

F.D.P. Attended

- Staff development programme on” **Power Station Operation Control**” Sponsored by AICTE from 20th to 31st July 2009, organized by Dept. of EEE, MAIT.
- Faculty development programme on” **Environment and Energy Management**” from 7th - 17th June, 2011, organized by Department of Applied Science, MAIT.
- TEQIP-II sponsored Faculty development programme on” **Recent Trend in Switchgear & Protection**” from 21-25 July, 2014, organised by Department of Electrical Engineering, DTU.

- Faculty development programme on “**Green Energy-Clean Energy** from 23rd July, 2018 to 28th July, 2018, organised by Dept. of EEE, MAIT.
- One-week AICTE sponsored QIP Short Term Course from 9th August, 2021 to 14th August, 2021 on “**Distributed Generation and Microgrid**” organised by Dept. of EE, NITTTR, Chandigarh.
- One-week Faculty Development Programme on “**Latest Technology and their applications in Electrical Engineering and Future Energy**” organized by Dept. of EEE, MAIT, from August 16-20, 2021(online Mode)
- Participated in AICTE-ISTE approved Orientation/ Refresher Programme on " **Electrical Vehicle and Smart Grid: A Path Towards Sustainable Energy**" held during 17/12/2021 to 23/12/2021 organized by "Kalinga Institute of Industrial Technology(KIIT) Deemed University, Bhubaneswar, Odisha.
- One Week AICTE Recognized FDP on “**Scilab Programming for Scientific Applications**” Conducted by Information Management and Emerging Engineering Department, NITTTR Chandigarh from 11/03/2024 to 15/03/2024 at Maharaja Agrasen Institute of technology, Rohini, Delhi-86.
- One Week AICTE Recognized FDP on “**Clean and Green Technologies for Environment Sustainability**” Conducted by Electrical Engineering Department, NITTTR Chandigarh from 27/05/2024 to 31/05/2024.
- One Week FDP on “**Generative AI**” organized by Computer Science and Engineering Department, MAIT, Delhi in Collaboration with Azure Developer Community and Reskill held during 08/07/2024 to 12/07/2024.

Workshop Attended

- Two weeks workshop on “**Soft Computing Techniques** “sponsored by AICTE-GGSIPU University from 11th to 21st December 2007 held at MAIT, Delhi.
- One-day workshop on “**Virtual Labs**” held at IIT Delhi on 6th Feb 2010.
- One-day workshop on “**Information security Systems, Software & Ethical Hacking**” on May 5, 2012 conducted jointly by MAIT and M/S VMDD Technologies, Delhi.
- Two-week ISTE workshop on” **Control Systems**” from 2nd to 12th December, 2014 conducted by IIT Kharagpur.
- One-day “IEEE workshop on **Power Quality**” organized by IEEE PES-IAS Delhi Chapter, at Electrical Engineering Department IIT Delhi on 25th November 2015.
- Two-week ISTEESTTP on “**Electrical Power System**” from 12th June, 2017 to 15th July, 2017 (Online activity equivalent to one week from 12th June, 2017 to 15th July, 2017 and physical participation at remote centre from 10th July to 15th, 2017).
- Five-day workshop on “**Sustainable Development: Intersection of Green Energy and eMobility**” (**IGEEM-2024**) organized by Department of Electrical Engineering, NIT Rourkela and sponsored by Science and Engineering Research Board (SERB) from 16th Oct. to 20th Oct 2024. At National Institute of Technology Rourkela, Odisha.
- One-day workshop on **Sustainable Development Goal (SDG)** held on 25th September 2025 at Maharaja Agrasen Institute of Technology, Delhi.
- One-day workshop on **National Education Policy (N.E.P.)** held on 25th September 2025 at Maharaja Agrasen Institute of Technology, Delhi.

Seminar Attended

- National Seminar on “ **Soft Computing Techniques**” sponsored by AICTE-GGSIPU University on December 21st 2007 organised by Dept. of EEE, MAIT.
- National Seminar on “ **Recent Trends in Electrical Power Systems**” on 1st March,2013 organised by Dept. of EEE, MAIT.
- National Seminar on “**Advancements in Power, Energy and Control**” on 2nd, May, 2016.
- One day Seminar on “**Green Energy-Clean Energy**” on 26th, July, 2018, conducted by National Power Training Institute, Faridabad.

Panel Discussion

- Panel discussion on “**Solar PV and Its Future Challenges**” organized by Department of Electrical Engineering, Jamia Millia Islamia, New Delhi, on June 20, 2021.

Faculty-Industry Interaction

- Exploring Emerging Technologies with TP-DDL and ABB, held from 17-19 December 2025.

Editor, Reviewer and Session Chair Role

- Editor, MAIT Journal of Science and Technology
- Reviewer Measurement Journal, ELSEVIER.
- Reviewer Journal of The Institution of Engineers (India): series (B).
- Session Chaired 3rd International conference, Springer Nature held on 28th -29th March, 2024, MAIT,Delhi-86.