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Publications

BOOK CHAPTERS

[B1] P. S. Savita, S. Das, **A. K. Singh**, and S. N. Singh, "Impact of Electric Vehicles Charging/Dispatching on Power Distribution System," in Lecture Notes in Networks and Systems, Springer Nature Singapore, 2025, pp. 371–392.

[B2] A. Yadav, S. Ghosh, **A. K. Singh**, N. K. Singh, R. Negi, and S. N. Singh, "PSO-Based Higher Order Sliding Mode Controller for PMSG-Based Tidal Turbine," *Lecture Notes in Electrical Engineering*, Springer Nature Singapore, pp. 205–214, 2024. doi: 10.1007/978-981-97-5951-4_18.

[B3] Kumari, N., Ghosh, S., **Singh, A.K**., Singh, N.K., Singh, S.N., "Power Management Strategy for Battery-Supercapacitor-Based HESS in a Residential Grid-Connected PV System," In: Kumar, A., Singh, S.N., Kumar, P. Decarbonisation and Digitization of the Energy System. SGESC 2023, Lecture Notes in Electrical Engineering, vol 1099, Springer, Singapore, 2024, doi: 10.1007/978-981-99-7630-0_20.

[B4] Sourabh Ghosh, **Asheesh K Singh**, Rakesh Maurya, Sri Niwas Singh, Vassilios G Agelidis (2021), "Charging Stations and Standards", in the book titled "*Cable Based and Wireless Charging Systems for EV: Technology and Control, Management and Grid Integration",* ISBN: 9781839531781, IET U.K., doi: 10.1049/PBTR032E_ch1.

[B5] P. Vipin Das, Navneet K. Singh, Rakesh Maurya, **Asheesh K. Singh**, Sri Niwas Singh (2021), "Advances in Hybrid Solar System," in the book titled "*Fundamentals and Innovations in Solar Energy*", ISBN: 9789813364554, Springer, Singapore, doi: 10.1007/978-981-33-6456-1_11.

[B6] Chandra Sekar S., **Asheesh K Singh**, Sri Niwas Singh, Vassilios G. Agelidis (2021), "Front-End Power Converter Topologies for Plug-in Electric Vehicles," in the book titled "*Emerging Power Converters for Renewable Energy and Electric Vehicles Modeling, Design, and Control*,", ISBN: 9780367528034, CRC Press (Taylor and Francis), doi: 10.1201/9781003058472.

[B7] P. V. Das, P. Karuppanan, V.Karthikeyan, S. Rajasekar, **A. K. Singh** (2017), "Energy Grid Management, Optimization and Economic Analysis of Microgrid" in the book titled

"*Smart Energy Grid Design for Island Countries"*, ISBN: 978-3-319-50197-0, Springer, doi: 10.1007/978-3-319-50197-0_10.

[B8] R. Singh, **A.K. Singh,** (2017), "Critical Performance Evaluation of a Few Intelligent Controllers for Effective Power Control in Variable Speed Wind Generators" in the book titled "*Sustainable Development in Energy Systems*", ISBN: 978-3-319-54808-1, Springer, doi: 10.1007/978-3-319-54808-1_7.

[B9] P. Kumar, **A. K. Singh**. "Load Flow Analysis with Wind Farms" in *Handbook of Distributed Generation*, pp. 149-170, 2017, ISBN: 978-3-319-51343-0, Springer, doi: 10.1007/978-3-319-51343-0_4.

[B10] A. Awasthi, V. Karthikeyan, P. V. Das, S. Rajasekar, **A. K. Singh**, "Energy Storage Systems in Solar-Wind Hybrid Renewable Systems" in *Smart Energy Grid Design for Island Countries*, pp. 189-222. 2017, ISBN: 978-3-319-50197-0, Springer, doi: 10.1007/978-3-319-50197-0_7.

[B11] V. Karthikeyan, S. Rajasekar, P. V. Das, P. Karuppanan, **A. K. Singh**, "Grid-Connected and Off-Grid Solar Photovoltaic System", in *Smart Energy Grid Design for Island Countries*, pp. 189-222. 2017, ISBN: 978-3-319-50197-0, Springer, doi: 10.1007/978-3-319-50197-0_5.

[B12] R. Singh, **A. K. Singh**, P. Thakur. "Wind Turbine Standards and Certification: Indian Perspective" in *Handbook of Distributed Generation*, pp. 149-170, 2017. ISBN: 978-3-319-51343-0, Springer, doi: 10.1007/978-3-319-51343-0_6.

[B13] P. Kumar, **A. K. Singh**. "Soft computing techniques for optimal capacitor placement" in *Complex System Modelling and Control Through Intelligent Soft Computations*, pp. 597-625, 2015, ISBN: 9783319128832, Springer, doi: 10.1007/978-3-319-12883-2_21.

[B14] **A. K. Singh**, R. Singh, R. K. Arya. "Approximation of Optimized Fuzzy Logic Controller for Shunt Active Power Filter" in *Complex System Modelling and Control Through Intelligent Soft Computations*, pp. 597-625, 2015, ISBN: 9783319128832, Springer, doi: 10.1007/978-3-319-12883-2_20.

[B15] **A. K. Singh**, Rambir Singh, "Power Quality Improvement using Improved Approximated Fuzzy Logic Controller for Shunt Active Power Filter", in *Systems and Software Development, Modeling, and Analysis: New Perspectives and Methodologies*, 2014, ISBN: 9781466660984, IGI Global, doi: 10.4018/978-1-4666-6098-4.ch011.

[B16] P. Kumar, **A.K. Singh**, "Grid Codes: Goals and Challenges", in *Renewable Energy Integration. Green Energy and Technology*, 2014, ISBN: 978-981-4585-27-9, Springer, doi: 10.1007/978-981-4585-27-9_2.

[B17] R. Singh, **A. K Singh**, R. K Arya, "Approximated Simplest Fuzzy Logic Controlled Shunt Active Power Filter for Current Harmonic Mitigation" in *Contemporary Theory and Pragmatic Approaches in Fuzzy Computing Utilization*, 2013, ISBN: 9781466618701, IGI Global, doi: 10.4018/978-1-4666-1870-1.ch011.

[B18] **A. K. Singh**, "Power System Harmonics: Analysis and Control", LAP LAMBERT Academic Publishing, AV-Akademiker verlag GmbH & Co. KG, Saarbrücken, Germany, 2011, ISBN: 978-3-8454-2867-3.

JOURNAL PUBLICATIONS

[J1] N. Boda, P. K. Tiwari, and **A. K. Singh**, "An efficient allocation of electric vehicle charging stations with optimized bi-level energy trading for enhanced system economic sustainability," *Electrical Engineering*, vol. 108, no. 1, p. 17, 2025, doi: 10.1007/s00202-025-03405-z.

[J2] C. S. Sivanadipatham, **A. K. Singh**, P. Kumar and S. Niwas Singh, "A Comprehensive Decentralized Control Framework for Balanced and Reliable Residential EV Charging," in *IEEE Transactions on Transportation Electrification*, vol. 11, no. 6, pp. 13014-13028, Dec. 2025, doi: 10.1109/TTE.2025.3595261.

[J3] P. S. Savita, S. Das, P. Thakur, and **A. K. Singh**, "Efficient scheduling of electric vehicle resources in wind-integrated distribution networks," Sustainable Energy Technologies and Assessments, p. 104385, Aug. 2025, doi: 10.1016/j.seta.2025.104385.

[J4] S. S. Negi, N. Kishor, and **A. K. Singh**, "Residual dynamic mode decomposition based prediction of sustained low frequency oscillations in power grid," Sustainable Energy, Grids and Networks, p. 101753, Sep. 2025, doi: 10.1016/j.segan.2025.101753.

[J5] S. Ghosh, **A. K. Singh**, and M. K. Barwar, "Biased-fuzzy logic power management scheme for multi-battery energy storage systems in grid-tied DC microgrids," Journal of Energy Storage, p. 115689, Apr. 2025, doi: 10.1016/j.est.2025.115689.

[J6] S. Ghosh, E. Hassan, **A. K. Singh**, and S. N. Singh, "Deep Learning-Based Multi-Switch Open-Circuit Fault Diagnosis for Active Front-End Rectifiers Using Multi-Sensor Signals," *IEEE Sensors Letters*, vol. 9, no. 2, pp. 1–4, doi: 10.1109/lsens.2024.3524033.

[J7] I. P. Bharti, N. K. Singh, O. H. Gupta, and **A. K. Singh**, "A comparative review of various islanding detection algorithms for converter and synchronous generator-based microgrids," *International Journal of Green Energy*, vol. 22, no. 1., Informa UK Limited, pp. 183–201, Oct. 16, 2024. doi: 10.1080/15435075.2024.2409943.

[J8] S. S. Negi, N. Kishor, and **A. K. Singh**, "PMUs data-based detection of oscillatory events and identification of their associated variable: Estimation of information measures approach," *Sustainable Energy, Grids and Networks*, vol. 39, p. 101457, Sep. 2024. doi: 10.1016/j.segan.2024.101457.

[J9] I. P. Bharti, N. K. Singh, O. H. Gupta, **A. K. Singh**, and V. K. Sood, "Superimposed Positive Sequence Impedance for Detecting Unintentional Islanding in Microgrid," *Distributed Generation & Alternative Energy Journal*, River Publishers, pp. 559–592, Jul. 16, 2024. doi: 10.13052/dgaej2156-3306.3938.

[J10] V. M. R. Tatabhatla, V. Agarwal, A. Agarwal, and **A. K. Singh**, "Reduced partial shading effect and enhancement of performance metrics using a Fibonacci based algorithm," *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, vol. 37, no. 3. Wiley, Apr. 28, 2024. doi: 10.1002/jnm.3242.

[J11] Nitesh Kumar Singh, Anshul Agarwal, **Asheesh Kumar Singh**, Sri Niwas Singh, "Design and performance evaluation of eco-friendly FASnI3/CsSn0.5Ge0.5I3 based perovskite

solar cell with distinct charge transport layer: A computational modeling," *Solar Energy*, vol. 268, 2024, 112256, ISSN 0038-092X, doi: 10.1016/j.solener.2023.112256.

[J12] I. P. Bharti, N. K. Singh, O. H. Gupta, and **A. K. Singh**, "New Passive Loss of Mains Detection Scheme Using Characteristics of Differential Impedance of Series Inductor," IETE Journal of Research, pp. 1–15, Oct. 2023, doi: 10.1080/03772063.2023.2265884.

[J13] I. P. Bharti, N. K. Singh, O. H. Gupta, and **A. K. Singh**, "A Novel Passive Technique Based on Superimposed Negative Sequence Impedance to Detect Islanding in AC Microgrids," Electric Power Components and Systems, pp. 1–18, Nov. 2023, doi: 10.1080/15325008.2023.2286343.

[J14] I. P. Bharti, N. K. Singh, O. H. Gupta, and **A. K. Singh**, "Unplanned islanding detection of renewable energy sources using sequence impedance with zero NDZ," *Electrical Engineering*, vol. 106, no. 4., pp. 3933–3945, Jan. 11, 2024. doi: 10.1007/s00202-023-02176-9.

[J15] N. Rawat, P. Thakur, **A. K. Singh**, A. Bhatt, V. Sangwan, and A. Manivannan, "A new grey wolf optimization-based parameter estimation technique of solar photovoltaic," *Sustainable Energy Technologies and Assessments*, vol. 57. Elsevier BV, p. 103240, Jun. 2023. doi: 10.1016/j.seta.2023.103240.

[J16] N. Rawat, P. Thakur, **A. K. Singh**, and R. C. Bansal, "Performance analysis of solar PV parameter estimation techniques," *Optik*, vol. 279. Elsevier BV, p. 170785, May 2023. doi: 10.1016/j.ijleo.2023.170785.

[J17] P. Kumar, V. Das, **A. K. Singh**, and P. Karuppanan, "Levelized Cost of Energy-Based Economic Analysis of Microgrid Equipped with Multi Energy Storage System," *Distributed Generation & Alternative Energy Journal*, River Publishers, May 18, 2023. doi: 10.13052/dgaej2156-3306.38411.

[J18] P. Ahmad, N. K. Choudhary, N. Singh, and **A. K. Singh**, "Primary frequency control by fuzzy-based participation controller for plug-in electric vehicles," *Smart Science*, no. 3, pp. 447–459, Mar. 2023, doi: 10.1080/23080477.2023.2191498.

[J19] P. P. Singh, S. Das, F. Wen, I. Palu, **A. K. Singh**, and P. Thakur, "Multi-objective planning of electric vehicles charging in distribution system considering priority-based vehicle-to-grid scheduling," *Swarm and Evolutionary Computation*, p. 101234, Mar. 2023, doi: 10.1016/j.swevo.2023.101234.

[J20] R. Singh, P. Kumar, **A. K. Singh**, and A. N. Tiwari, "Performance Improvement of Shunt Active Power Filter using Modified Hysteresis Current Controller," *International Journal of Computing and Digital Systems*, Jan. 2023, doi: http://dx.doi.org/10.12785/ijcds/130105.

[J21] S. Ghosh, **A. K. Singh**, R. Singh, R. Maurya, S. N. Singh, and G. Yang, "Intelligent control of integrated on-board charger with improved power quality and reduced charging transients," *ISA Transactions*, Oct. 2022, doi: 10.1016/j.isatra.2022.10.005.

[J22] M. Upadhya, **A. K. Singh**, P. Thakur, E. A. Nagata, and D. D. Ferreira, "Mother wavelet selection method for voltage sag characterization and detection," *Electric Power Systems Research*, p. 108246, Oct. 2022, doi: 10.1016/j.epsr.2022.108246.

[J23] S. Das, P. Thakur, **A. K. Singh**, and S. N. Singh, "Optimal management of vehicle-to-grid and grid-to-vehicle strategies for load profile improvement in distribution system," *Journal of Energy Storage*, p. 104068, May 2022, doi: 10.1016/j.est.2022.104068.

[J24] D. K. Singh, S. Sarangi, **A. K. Singh**, and S. R. Mohanty, "Coordination of Dual-Setting Overcurrent and Distance Relays for Meshed Distribution Networks with Distributed Generations and Dynamic Voltage Restorer," *Smart Science*, pp. 1–19, Mar. 2022, doi: 10.1080/23080477.2022.2046943.

[J25] N. Rawat, P. Thakur, and **A. K. Singh**, "A novel hybrid parameter estimation technique of solar PV," *International Journal of Energy Research*, no. 4, pp. 4919–4934, Nov. 2021, doi: 10.1002/er.7485.

[J26] A. Raj, U. Gupta, P. Tiwari and **A. K. Singh**, "Market power analysis of the Indian power market", *International Journal of Engineering, Science and Technology*, vol. 13, no. 1, pp. 39-47, 2021. doi: 10.4314/ijest.v13i1.6s.

[J27] V. Das, P. Karuppanan, **A. K. Singh,** and P. Thakur, "Optimal Sizing and Control of Solar PV-PEMFC Hybrid Power Systems", *International Journal of Mathematical, Engineering and Management Sciences*, vol. 6, no. 4, pp. 1137-1156, 2021. doi: 10.33889/ijmems.2021.6.4.068.

[J28] V. Das, **A. K. Singh**, P. Karuppanan, P. Kumar, S. N. Singh, and V. G. Agelidis, "Energy management and economic analysis of multiple energy storage systems in solar PV/PEMFC hybrid power systems," *Energy Conversion and Economics*, no. 2, pp. 124–140, Nov. 2020, doi: 10.1049/enc2.12011.

[J29] N. K. Paliwal, **A. K. Singh**, N. K. Singh, "Energy scheduling optimisation of an islanded microgrid via artificial bee colony guided by global best, personal best and asynchronous scaling factors", *International Journal of Sustainable Energy*, vol. 39, no. 6, 539-555, 2020. doi: 10.1080/14786451.2020.1735387.

[J30] N. K. Paliwal, **A. K. Singh**, N. K. Singh, "A day-ahead optimal energy scheduling in a remote microgrid along with battery storage system via global best guided ABC algorithm," *Journal of Energy Storage*, vol. 25, 2019, doi: 10.1016/j.est.2019.100877.

[J31] P. Kumar, **A. K. Singh,** "Optimal mechanical sag estimator for leveled span overhead transmission line conductor", *Measurement*, vol. 137, pp. 691-699, 2019. doi: doi.org/10.1016/j.measurement.2019.01.067.

[J32] P. Vipin Das, P. Karuppanan, Asheesh Kumar Singh, B. Chitti Babu, "Modelling, simulation and analysis of high step-up DC-DC converter using coupled inductor and voltage multiplier cell using PSCAD", *International Journal of Modelling and Simulation*, vol. 40, no. 1, pp. 29-36, 2020. doi: 10.1080/02286203.2018.1517494.

[J33] N. K. Paliwal, **A. K. Singh**, N. K. Singh. "Short-term optimal energy management in stand-alone microgrid with battery energy storage," *Archives of Electrical Engineering*, vol. 67, pp. 499-513, 2018, doi: 10.24425/123659.

[J34] N. K. Paliwal, **A. K. Singh**, N. K. Singh, and P. Kumar, "Optimal sizing and operation of battery storage for economic operation of hybrid power system using artificial bee colony algorithm," *International Transactions on Electrical Energy Systems*, no. 1, p. e2685, Aug. 2018, doi: 10.1002/etep.2685.

[J35] A. Awasthi, K. Venkitusamy, S. Padmanaban, R. Selvamuthukumaran, F. Blaabjerg, and **A. K. Singh**, "Optimal planning of electric vehicle charging station at the distribution system using hybrid optimization algorithm," *Energy*, vol. 133, pp. 70–78, 2017. doi: 10.1016/j.energy.2017.05.094.

[J36] P. Thakur and **A. K. Singh**, "Modified symmetrical component method for characterization of unbalanced voltage sags," *International Transactions on Electrical Energy Systems*., vol. 26, no. 8, pp. 1725–1736, 2016. doi:10.1002/etep.2174.

[J37] P. Thakur and **A. K. Singh**, "A novel method for joint characterization of unbalanced voltage sags and swells," *International Transactions on Electrical Energy Systems*, vol. 27, no. 9, p. e2370, 2017. doi: 10.1002/etep.2370.

[J38] A. Singh, R. Singh and **A. K. Singh**, "Power Quality Issues of Electric Arc Furnace and their Mitigations - A Review", *International Journal of Advanced Engineering Research and Science*, vol. 4, no. 4, pp. 22-41, 2017. doi: 10.22161/ijaers.4.4.

[J39] R. P. Payasi, **A. K. Singh**, D. Singh, and N. K. Singh, "Multi-objective optimization of distributed generation with voltage step constraint," *International Journal of Engineering, Science and Technology*, no. 3, pp. 33–41, Nov. 2016, doi: 10.4314/ijest.v7i3.5s.

[J40] P. Kumar, **A. K. Singh**, and A. K. Srivastava, "A novel optimal capacitor placement algorithm using Nelder-Mead PSO," *Int. J. Bio-Inspired Comput*., vol. 6, no. 4, pp. 290–302, 2014. doi: 10.1504/IJBIC.2014.065012.

[J41] P. Thakur, **A. K. Singh**, and R. C. Bansal, "Novel way for classification and type detection of voltage sag," *IET Generation Transmission Distribution*, vol. 7, no. 4, pp. 398–404, 2013. doi: 10.1049/iet-gtd.2012.0435.

[J42] Singh, Rajiv, **Singh, Asheesh Kumar**, "Design and comparison of a PI and PID controller for effective active and reactive power control in a grid connected two level VSC," *International Review of Automatic Control*, Volume 6, pp. 759-766, 2013.

[J43] S. B. Singh and **A. K. Singh**, "Steady-state performance assessment of induction motor under unbalanced voltage condition," *Electric Power Components System*, vol. 41, no. 13, pp. 1248–1263, 2013. doi: 10.1080/15325008.2013.817492.

[J44] P. Thakur and **A. K. Singh**, "Unbalance voltage sag fault-type characterization algorithm for recorded waveform," *IEEE Transactions on Power Delivery*, vol. 28, no. 2, pp. 1007–1014, 2013. doi: 10.1109/TPWRD.2012.2229396.

[J45] P. Thakur and **A. K. Singh**, "A novel way to quantify the magnitude of voltage sag," *Electrical Engineering*, vol. 95, no. 4, pp. 331–340, 2013. doi: 10.1007/s00202-012-0268-0.

[J46] R. Singh, **A. K. Singh**, and R. K. Arya, "Approximated fuzzy logic controlled shunt active power filter for improved power quality," *Expert Systems*, vol. 30, no. 2, pp. 152–161, 2013. DOI: 10.1111/j.1468-0394.2012.00626.x.

[J47] R. Singh, **A. K. Singh**, and A. K. Singh, "Transient Stability Improvement of a FSIG Based Grid Connected wind Farm with the help of a SVC and aSTATCOM: A Comparison," *International Journal of Computer and Electrical Engineering*, pp. 55–59, 2012, doi: 10.7763/ijcee.2012.v4.451.

[J48] S. B. Singh and **A. K. Singh**, "Precise Assessment of Performance of Induction Motor under Supply Imbalance Through Impedance Unbalance Factor," *Journal of Electrical Engineering*, no. 1, pp. 31–37, Jan. 2013, doi: 10.2478/jee-2013-0004.

[J49] P. Thakur, **A. K. Singh**, and R. C. Bansal, "A novel way to distinguish single phase dips through potential gradient method," *Electric Power Components System*, vol. 40, no. 3, pp. 336–347, 2012. doi: 10.1080/15325008.2011.631082.

[J50] R. Singh and **A. K. Singh**, "Comments on the 'PI and fuzzy logic controllers for shunt active power filter—A report' [ISA Trans. 51 (2012) 163–169]," *ISA Transactions*, no. 5, pp. 665–666, Sep. 2012, doi: 10.1016/j.isatra.2012.04.008.

[J51] R. Singh, **A. K. Singh**, and R. K. Arya, "Approximated Simplest Fuzzy Logic Controlled Shunt Active Power Filter for Current Harmonic Mitigation," *International Journal of Fuzzy System Applications*, no. 4, pp. 18–36, Oct. 2011, doi: 10.4018/ijfsa.2011100102.

[J52] K. Babu, M. Tripathy, and A. Singh, "Recent techniques used in transmission line protection: A review," *International Journal of Engineering, Science and Technology*, no. 3, Jul. 2011, doi: 10.4314/ijest.v3i3.68416.

[J53] N. K. Singh, **A. K. Singh**, and M. Tripathy, "Selection of hidden layer neurons and best training method for FFNN in application of long term load forecasting," *Journal of Electrical Engineering*, vol. 63, no. 3, pp. 153–161, 2012. doi: 10.2478/v10187-012-0023-9.

[J54] R. Payasi, A. Singh, and D. Singh, "Review of distributed generation planning: objectives, constraints, and algorithms," *International Journal of Engineering, Science and Technology*, no. 3, Jul. 2011, doi: 10.4314/ijest.v3i3.68430.

[J55] G. K. Singh, **A. K. Singh**, and R. Mitra, "A Simple Fuzzy Logic Based Robust Active Power Filter for Harmonics Minimization under Random Load Variation" *Electric Power*

Systems Research, Vol. 77, No. 8, pp. 1101-1111, June 2007. doi:10.1016/j.epsr.2006.09.006.

INTERNATIONAL CONFERENCE PUBLICATIONS

[C1] A. Gupta, S. Sarangi and **A. K. Singh**, "A Local Fault Detection Technique for DC Microgrid Using DC Components," 2025 IEEE 5th International Conference on Sustainable Energy and Future Electric Transportation (SEFET), Jaipur, India, 2025, pp. 1-6, doi: 10.1109/SEFET65155.2025.11255146.

[C2] A. Singh, A. Gupta, S. Sarangi and **A. K. Singh**, "Intelligent Fault Detection in Hybrid Microgrids: A Fuzzy Logic and Discrete Wavelet Transform Approach," 2025 IEEE 5th International Conference on Sustainable Energy and Future Electric Transportation (SEFET), Jaipur, India, 2025, pp. 1-6, doi: 10.1109/SEFET65155.2025.11255562.

[C3] S. K. Singh, S. Ghosh, **A. K. Singh** and S. N. Singh, "Power Quality Enhancement using Dual-SOGI PLL with Pre-filter based Control Algorithm for DVR in Distorted Grid Conditions," *2025 IEEE International Conference on Computer, Electronics, Electrical Engineering & their Applications (IC2E3)*, Srinagar Garhwal, India, 2025, pp. 1-6, doi: 10.1109/IC2E365635.2025.11167429.

[C4] V. Yadav, S. Ghosh, **A. K. Singh** and S. N. Singh, "Adaptive Coefficient-based Power Sharing Scheme for Balanced State of Charge in DC Microgrids," 2025 IEEE International Conference on Computer, Electronics, Electrical Engineering & their Applications (IC2E3), Srinagar Garhwal, India, 2025, pp. 1-6, doi: 10.1109/IC2E365635.2025.11166830.

[C5] A. Singh, I. Chandra, N. K. Singh, N. K. Choudhary, N. Singh and **A. K. Singh**, "Intelligent Load Frequency Control in Two-Area System Using EV-Powered Hydrogen Storage," 2025 International Conference on Smart & Sustainable Technology (INCSST), Chikodi, India, 2025, pp. 1-7, doi: 10.1109/INCSST64791.2025.11210394.

[C6] D. Rajput, R. K. Kumar, I. Chandra, N. K. Singh, P. Samuel and **A. K. Singh**, "Efficient Control of a Solar PV-Fed DC Microgrid with PEM Electrolyzer and Fuel Cell," 2025 International Conference on Smart & Sustainable Technology (INCSST), Chikodi, India, 2025, pp. 1-6, doi: 10.1109/INCSST64791.2025.11210315.

[C7] A. Singh, I. Chandra, N. K. Singh and **A. K. Singh**, "Load Frequency Control in Hybrid Power Systems Using ANFIS-PSO with EV Support," *2025 7th International Conference on Energy, Power and Environment (ICEPE)*, Sohra (Cherrapunjee), India, 2025, pp. 1-6, doi: 10.1109/ICEPE65965.2025.11139767.

[C8] S. Ghosh, **A. K. Singh** and S. Niwas Singh, "Modified Super Twisting Sliding Mode Control of Grid Synchronized Smart PV Inverter," *2025 IEEE Industry Applications Society Annual Meeting (IAS)*, Taipei, Taiwan, 2025, pp. 1-7, doi: 10.1109/IAS62731.2025.11061488.

[C9] A. Singh, S. Yadav, S. Sarangi, S. De, **A. K. Singh** and R. K. Singh, "Optimizing BLDC Motor Performance: A Study of PID, Artificial Neural Network and Fuzzy Logic Controllers," 2025 International Conference on Innovation in Computing and Engineering (ICE), Greater Noida, India, 2025, pp. 1-6, doi: 10.1109/ICE63309.2025.10984074.

[C10] S. Ghosh, V. Singh, **A. K. Singh**, E. Hassan and S. N. Singh, "Data-Driven Diagnosis of Multi-Class Open-Circuit Switch Faults in Three-Phase Front-End Converters," *2024 International Conference on Computer, Electronics, Electrical Engineering & their Applications (IC2E3)*, Srinagar Garhwal, Uttarakhand, India, 2024, pp. 1-6, doi: 10.1109/IC2E362166.2024.10827711.

[C11] A. Singh, A. Gupta, S. Sarangi and **A. K. Singh**, "Detection of HRF in Battery Energy Storage System," 2024 23rd National Power Systems Conference (NPSC), Indore, India, 2024, pp. 1-6, doi: 10.1109/NPSC61626.2024.10986994.

[C12] M. S. Zaidi, S. S. Negi, K. Chauhan, and **A. K. Singh**, "Advancements in Wide-Area Monitoring System for Emerging Distribution Grids," *2024 IEEE 4th International Conference on Sustainable Energy and Future Electric Transportation (SEFET)*, pp. 1–7, Jul. 31, 2024. doi: 10.1109/sefet61574.2024.10718062.

[C13] A. K. Vishwakarma, S. Ghosh, **A. K. Singh**, and N. K. Singh, "Sustainable Cold-Ironing at Seaport Microgrids for Power Management with Fuzzy-Based Droop Control Approach," *2024 IEEE Students Conference on Engineering and Systems (SCES)*, pp. 1–6, Jun. 21, 2024. doi: 10.1109/sces61914.2024.10652280.

[C14] S. Dwivedi, P. K. Tiwari, **A. K. Singh**, and N. Boda, "An Effective Approach for Evaluating the Revenue Generation of Electric Vehicle Aggregators in Uncertain Smart Electricity Market," *2024 IEEE Students Conference on Engineering and Systems (SCES)*, pp. 1–6, Jun. 21, 2024. doi: 10.1109/sces61914.2024.10652486.

[C15] A. Singh, S. Sarangi, and **A. K. Singh**, "A Novel Unit Protection Scheme for Grid Connected BESS Using Wavelet Transform," *2024 IEEE Students Conference on Engineering and Systems (SCES)*, pp. 1–6, Jun. 21, 2024. doi: 10.1109/sces61914.2024.10652304.

[C16] I. Chandra, A. Singh, N. K. Singh, P. Samuel, O. H. Gupta, and **A. K. Singh**, "Hybrid PSO-based Optimal Location of Electric Vehicle Charging Station in Distribution Networks," *2024 IEEE Students Conference on Engineering and Systems (SCES)*, pp. 1–6, Jun. 21, 2024. doi: 10.1109/sces61914.2024.10652265.

[C17] I. P. Bharti, N. K. Singh, O. H. Gupta, and **A. K. Singh**, "Sequence Angle-Based Passive Algorithm for Islanding Detection of the Distribution System," *Lecture Notes in Electrical Engineering*, Springer Nature Singapore, pp. 103–118, 2024. doi: 10.1007/978-981-97-7018-2_8.

[C18] P. Singh, N. K. Singh, N. Singh, and **A. K. Singh**, "Solar Photovoltaic Output Power Prediction with a Wavelet Transform-Based Long Short-Term Memory Network,"

Lecture Notes in Electrical Engineering, Springer Nature Singapore, pp. 183–194, 2024. doi: 10.1007/978-981-97-5951-4_16.

[C19] I. P. Bharti, D. Verma, N. K. Singh, O. H. Gupta, and **A. K. Singh**, "Detection of Islanding in Distributed Network in the Presence of DG Using Superimposed Positive Sequence Angle," *2023 10th IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON)*, pp. 1049–1054, Dec. 01, 2023. doi: 10.1109/upcon59197.2023.10434609.

[C20] A. Singh, A. Gupta, S. Sarangi, and **A. K. Singh**, "A Novel Fault Detection Technique in DC Micro Grid Using Discrete Wavelet Transform," *2023 10th IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON)*, pp. 1345–1350, Dec. 01, 2023. doi: 10.1109/upcon59197.2023.10434624.

[C21] V. Singh, S. Ghosh, **A. K. Singh**, and S. N. Singh, "LMS-Based Control of Grid-Tied Bidirectional Converter for Electric Vehicle Applications," *2023 10th IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON)*, pp. 1368–1372, Dec. 01, 2023. doi: 10.1109/upcon59197.2023.10434771.

[C22] A. Gupta, S. Sarangi, and **A. K. Singh**, "Teager Energy Based Novel Relaying Scheme for DC Distribution Network," *2023 IEEE 3rd International Conference on Sustainable Energy and Future Electric Transportation (SEFET)*, pp. 1–6, Aug. 09, 2023. doi: 10.1109/sefet57834.2023.10244905.

[C23] I. P. Bharti, N. K. Singh, O. H. Gupta, and **A. K. Singh**, "A Passive Islanding Detection Technique for Alternator by Analyzing the Deviation in the Rate of Change of Frequency," *Advances in Sustainability Science and Technology*, Springer Nature Singapore, pp. 549–564, 2023. doi: 10.1007/978-981-99-4175-9_44.

[C24] A. Gupta, S. Sarangi, and **A. K. Singh**, "Wavelet Based Enhanced Fault Detection Scheme for a Distribution System Embedded with Electrical Vehicle Charging Station," *2023 5th IEEE International Conference on Power, Control & Embedded Systems (ICPCES)*, Jan. 2023, doi: 10.1109/ICPCES57104.2023.10075986.

[C25] S. Ghosh, **A. K. Singh**, R. Negi, and S. N. Singh, "Battery Degradation Aware Power Exchange in Grid-Integrated PV-Battery Assisted EV Charging Station," *2022 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES)*, Dec. 2022, doi: 10.1109/PEDES56012.2022.10080164.

[C26] I. P. Bharti, P. Kumar, N. K. Singh, O. H. Gupta, N. K. Choudhary, and **A. K. Singh**, "A Passive Technique for Detecting Islanding Using Voltage Sequence Component," *2022 IEEE 9th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON)*, Dec. 2022, doi: 10.1109/upcon56432.2022.9986462.

[C27] S. Ghosh, S. Das, **A. K. Singh**, and S. N. Singh, "Optimal Scheduling of Electric Vehicles in a Solar Rooftop Parking Lot with V2V Power Transfer," *2022 IEEE 9th Uttar Pradesh*

Section International Conference on Electrical, Electronics and Computer Engineering (UPCON), Dec. 2022, doi: 10.1109/upcon56432.2022.9986474.

[C28] P. Rani, Shikhar, S. Murugesan, and **A. K. Singh**, "Modeling and Implementation of Grid Following and Grid Forming Inverters," *2022 IEEE 9th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON)*, Dec. 2022, doi: 10.1109/upcon56432.2022.9986412.

[C29] P. Singh, N. K. Singh, and **A. K. Singh**, "Solar Photovoltaic Energy Forecasting Using Machine Learning and Deep Learning Technique," *2022 IEEE 9th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON)*, Dec. 2022, doi: 10.1109/upcon56432.2022.9986446.

[C30] A. Kumar, S. Ghosh, S. Das, **A. K. Singh**, and N. K. Singh, "ANFIS-Based Control for Low-Voltage Ride-Through Enhancement of PMSG Tidal Turbine," *2022 IEEE Students Conference on Engineering and Systems (SCES)*, Jul. 2022, doi: 10.1109/sces55490.2022.9887770.

[C31] S. Ghosh, A. Kumar, **A. K. Singh**, R. Negi, and N. Singh, "Design and Implementation of Super Twisting Sliding Mode Control for PV Grid-connected Water Pumping System," *2022 IEEE IAS Global Conference on Emerging Technologies (GlobConET)*, May 2022, doi: 10.1109/globconet53749.2022.9872383.

[C32] S. Ghosh, **A. K. Singh**, A. K. Paul, and S. N. Singh, "Disturbance Observer-based Sliding Mode Control of PV-Battery Assisted EV Charging Station," *2021 IEEE 8th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON)*, Nov. 2021, doi: 10.1109/upcon52273.2021.9667608.

[C33] I. P. Bharti, N. K. Singh, O. H. Gupta, and **A. K. Singh**, "Developments in Islanding Detection and Its Comparison: A Comprehensive Review," *2021 IEEE 8th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON)*, Nov. 2021, doi: 10.1109/upcon52273.2021.9667656.

[C34] S. Kumar, K. Srivastava, B. Singh, S. Arya and **A. K. Singh**, "Solar Energy Conversion System Integrated to Utility Grid Using Modified LLMS Technique", *2020 IEEE 7th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON)*, 2020. Available: 10.1109/upcon50219.2020.9376538.

[C35] N K Singh, **A. K Singh**, D. K Singh, K. Anand, K. Ask "Design and Simulation of Smart Prepaid-Postpaid Energy Meter with Alarm and Theft Control", IEEE UP section International Conference on Electrical, Electronics and Computer Engineering 20187 (UPCON 2018).

[C36] C. Lal, S. Sarangi, S. Mohanty and A. Singh, "ANN Based Adaptive Mho Distance Protection in Distribution Network with Distributed Generations", *2020 IEEE 7th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON)*, 2020. Available: 10.1109/upcon50219.2020.9376461.

[C37] M. Upadhya, A. Singh and P. Thakur, "Wavelet Based Voltage Sag Characterization and Detection Method", *2019 International Conference on Electrical, Electronics and Computer Engineering (UPCON)*, 2019. Available: 10.1109/upcon47278.2019.8980039.

[C38] K. Anand, N K Singh, **A. K Singh**, D. K Singh, "Standalone Hybrid Power Generation Using Photovoltaic, Battery and Bio-gas", IEEE UP section International Conference on Electrical, Electronics and Computer Engineering 20187 (UPCON 2018).

[C39] D. K Singh, **A. K Singh**, S R Mohanty, N K Singh, , "Novel Combined Coordination of Distance and Overcurrent Relay for a Radial Distribution System", IEEE UP section International Conference on Electrical, Electronics and Computer Engineering 20187 (UPCON 2018).

[C40] D. K. Singh, **A. K. Singh**, S. R. Mohanty, "An adaptive transmission line protection and modelling of numerical distance relay with analog antialiasing filter," *2017 IEEE International Conference on Industrial Technology (ICIT)*, Toronto, ON, 2017, pp. 388-393. doi: 10.1109/ICIT.2017.7913262.

[C41] N. K. Paliwal, R. Mohanani, N. K. Singh, **A. K. Singh**, "Demand side energy management in hybrid microgrid system using heuristic techniques," *2016 IEEE International Conference on Industrial Technology (ICIT)*, Taipei, 2016, pp. 1910-1915. doi: 10.1109/ICIT.2016.7475058.

[C42] M. Naresh, N. K. Singh, **A. K. Singh**, "Superconducting fault current limiter for grid connected power system protection," *2016 IEEE International Conference on Industrial Technology (ICIT)*, Taipei, 2016, pp. 576-581. doi: 10.1109/ICIT.2016.7474813.

[C43] M. Baghel, A. Ghosh, N. K. Singh, **A. K. Singh**, "Short - term electric load forecasting using SVR implementing LibSVM package and Python code," *2016 IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics Engineering (UPCON)*, Varanasi, 2016, pp. 485-489. doi: 10.1109/UPCON.2016.7894702.

[C44] K. M. Kumar, M. Naresh, N. K. Singh, **A. K. Singh**, "A passive islanding detection approach for distributed generation using rate of change of negative sequence voltage and current," *2016 IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics Engineering (UPCON)*, Varanasi, 2016, pp. 356-360. doi: 10.1109/UPCON.2016.7894679.

[C45] D. K. Singh, **A. K. Singh**, S. R. Mohanty and N. K. Singh, "Wind power generation by PMSG and fault protection using over-current and differential frequency relay," *2016 IEEE Region 10 Humanitarian Technology Conference (R10-HTC)*, Agra, 2016, pp. 1-6. doi: 10.1109/R10-HTC.2016.7906835.

[C46] A. Awasthi, D. Chandra, S. Rajasekar, **A. K. Singh**, A. Raj and K. M. Perumal, "Optimal infrastructure planning of electric vehicle charging stations using hybrid optimization algorithm," *2016 National Power Systems Conference (NPSC)*, Bhubaneswar, 2016, pp. 1-6. doi: 10.1109/NPSC.2016.7858941.

[C47] N. K. Paliwal, **A. K. Singh** and N. K. Singh, "Economic energy scheduling of grid connected microgrid with diesel engine and reserve constraint," *2016 IEEE Region 10 Humanitarian Technology Conference (R10-HTC)*, Agra, 2016, pp. 1-6. doi: 10.1109/R10-HTC.2016.7906838.

[C48] N. K. Paliwal, **A. K. Singh** and N. K. Singh, "Optimal battery sizing for energy scheduling in hybrid power system using heuristic technique," *2016 IEEE Region 10 Humanitarian Technology Conference (R10-HTC)*, Agra, 2016, pp. 1-6. doi: 10.1109/R10-HTC.2016.7906836.

[C49] N. K. Singh, **A. K. Singh** and N. Paliwal, "Neural Network based short-term electricity demand forecast for Australian states," *2016 IEEE 1st International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES)*, Delhi, 2016, pp. 1-4. doi: 10.1109/ICPEICES.2016.7853603.

[C50] N. K. Paliwal, N. K. Singh and **A. K. Singh**, "Optimal power flow in grid connected microgrid using Artificial Bee Colony Algorithm," *2016 IEEE Region 10 Conference (TENCON)*, Singapore, 2016, pp. 671-675. doi: 10.1109/TENCON.2016.7848087.

[C51] N. K. Paliwal, N. K. Singh and **A. K. Singh**, "Energy scheduling of Wind-Battery-Hydro based hybrid microgrid system using heuristic techniques," *2016 IEEE Annual India Conference (INDICON)*, Bangalore, 2016, pp. 1-6. doi: 10.1109/INDICON.2016.7839004.

[C52] A. Awasthi, D. Chandra, Rajasekar S, **A. K. Singh**, P. Karuppanan and A. Raj, "An Improved PSO approach for optimal tuning of PI controller for shunt active power filter using FPGA with hardware co-simulation," *2016 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES)*, Trivandrum, 2016, pp. 1-6. doi: 10.1109/PEDES.2016.7914499.

[C53] A. Yadav, A. Awasthi, V. Karthikeyan, **A. K. Singh**, V. Das and P. Karuppanan, "Small signal modeling and stability analysis of N-phase interleaved boost converter," *2016 IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics Engineering (UPCON)*, Varanasi, 2016, pp. 585-590. doi: 10.1109/UPCON.2016.7894720.

[C54] A. Awasthi, A. Sinha, **A. K. Singh** and R. Veeraganesan, "Solar PV fed grid integration with energy storage system for electric traction application," *2016 10th International Conference on Intelligent Systems and Control (ISCO)*, Coimbatore, 2016, pp. 1-5. doi: 10.1109/ISCO.2016.7727127.

[C55] A. T. Tharakan, **A. K. Singh** and P. Kumar, "Dynamic programming energy management algorithm for SNC battery based hybrid renewable source," *2016 IEEE International Conference on Industrial Technology (ICIT)*, Taipei, 2016, pp. 400-405. doi: 10.1109/ICIT.2016.7474786.

[C56] N. K. Singh, **A. K. Singh** and M. Tripathy, "Short-term load/price forecasting in deregulated electric environment using ELMAN neural network," *2015 International Conference on Energy Economics and Environment (ICEEE)*, Noida, 2015, pp. 1-6. doi: 10.1109/EnergyEconomics.2015.7235086.

[C57] R. Singh, **A. K. Singh** and P. Kumar, "Self-tuned approximated simplest fuzzy logic controller based shunt active power filter," *2015 International Conference on Energy Economics and Environment (ICEEE)*, Noida, 2015, pp. 1-6. doi: 10.1109/EnergyEconomics.2015.7235073.

[C58] P. Kumar, **A. K. Singh** and R. Singh, "Aging leader and challenger based PSO for harmonic mitigation using SAPF," *2015 International Conference on Energy Economics and Environment (ICEEE)*, Noida, 2015, pp. 1-6. doi: 10.1109/EnergyEconomics.2015.7235072.

[C59] P. Thakur and **A. K. Singh**, "Signal processing and AI based diagnosis of power quality disturbances: A review," *2015 International Conference on Energy Economics and Environment (ICEEE)*, Noida, 2015, pp. 1-6. doi: 10.1109/EnergyEconomics.2015.7235071.

[C60] N. Singh, **A. Singh** and M. Tripathy, "Short-term load/price forecasting in deregulated electric environment using ELMAN neural network", *2015 International Conference on Energy Economics and Environment (ICEEE)*, 2015. Available: 10.1109/energyeconomics.2015.7235086 [Accessed 5 October 2021].

[C61] S. Gupta, P. Thakur and **A. K. Singh**, "Effects of voltage unbalance on normalized performance parameters," *2015 IEEE Students Conference on Engineering and Systems (SCES)*, Allahabad, 2015, pp. 1-6. doi: 10.1109/SCES.2015.7506452.

[C62] P. Kumar and **A. K. Singh**, "Transmission line power flow visualization using 3-dimensional circle diagrams," *2015 Annual IEEE India Conference (INDICON)*, New Delhi, 2015, pp. 1-6. doi: 10.1109/INDICON.2015.7443375.

[C63] P. Thakur, **A. K. Singh** and S. B. Singh, "Shortfalls of existing methods for characterization of voltage sags from recorded waveform," *2014 16th International Conference on Harmonics and Quality of Power (ICHQP)*, Bucharest, 2014, pp. 885-889. doi: 10.1109/ICHQP.2014.6842798.

[C64] S. B. Singh, **A. K. Singh** and P. Thakur, "Accurate steady-state performance assessment of three-phase induction motor using NEMA definition," *2014 16th International Conference on Harmonics and Quality of Power (ICHQP)*, Bucharest, 2014, pp. 880-884. doi: 10.1109/ICHQP.2014.6842803.

[C65] S. B. Singh, **A. K. Singh** and P. Thakur, "Accurate performance assessment of IM with approximate current unbalance factor for NEMA definition," *2014 16th International Conference on Harmonics and Quality of Power (ICHQP)*, Bucharest, 2014, pp. 674-678. doi: 10.1109/ICHQP.2014.6842805.

[C66] P. Kumar, **A. K. Singh** and N. K. Kummari, "p-q theory based modified control algorithm for load compensating using DSTATCOM," *2014 16th International Conference on Harmonics and Quality of Power (ICHQP)*, Bucharest, 2014, pp. 591-595. doi: 10.1109/ICHQP.2014.6842810.

[C67] P. Kumar and **A. K. Singh**, "Single measurement based mechanical state estimation for overhead transmission lines with level spans," *2014 IEEE International Energy Conference (ENERGYCON)*, Cavtat, 2014, pp. 633-637. doi: 10.1109/ENERGYCON.2014.6850493.

[C68] M. Suman and **A. K. Singh**, "B2B converter-based power sharing between utility grid and AC microgrid," *2014 International Conference on Green Computing Communication and Electrical Engineering (ICGCCEE)*, Coimbatore, 2014, pp. 1-7. doi: 10.1109/ICGCCEE.2014.6922452.

[C69] N. K. Singh, **A. K. Singh** and P. Kumar, "PSO optimized radial basis function neural network based electric load forecasting model," *2014 Australasian Universities Power Engineering Conference (AUPEC)*, Perth, WA, 2014, pp. 1-6. doi: 10.1109/AUPEC.2014.6966631.

[C70] P. Kumar and **A. K. Singh**, "Investigations on transmission system performance analysis with voltage variation," *2014 Australasian Universities Power Engineering Conference (AUPEC)*, Perth, WA, 2014, pp. 1-6. doi: 10.1109/AUPEC.2014.6966603.

[C71] N. K. Singh, **A. K. Singh** and M. Tripathy, "Short Term Load Forecasting using genetically optimized Radial Basis Function Neural Network," *2014 Australasian Universities Power Engineering Conference (AUPEC)*, Perth, WA, 2014, pp. 1-5. doi: 10.1109/AUPEC.2014.6966627.

[C72] R. P. Payasi, **A. K. Singh** and D. Singh, "Effect of voltage step constraint and load models in optimal location and size of distributed generation," *2013 International Conference on Power, Energy and Control (ICPEC)*, Sri Rangalatchum Dindigul, 2013, pp. 710-716. doi: 10.1109/ICPEC.2013.6527748.

[C73] S. B. Singh and **A. K. Singh**, "Precise assessment of induction motor performance based on NEMA definition," *2013 International Conference on Power, Energy and Control (ICPEC)*, Sri Rangalatchum Dindigul, 2013, pp. 495-500. doi: 10.1109/ICPEC.2013.6527707.

[C74] Payasi R.P., Singh A.K., Singh D, “Optimal Location and Size of Different Type of Distributed Generation with Voltage Step Constraint and Mixed Load Models”, *Quality, Reliability, Security and Robustness in Heterogeneous Networks*, Springer, Berlin, Heidelberg. 2013.

[C75] S. B. Singh, **A. K. Singh** and P. Thakur, "Assessment of induction motor performance under voltage unbalance condition," *2012 IEEE 15th International Conference on*

Harmonics and Quality of Power, Hong Kong, 2012, pp. 256-261. doi: 10.1109/ICHQP.2012.6381280.

[C76] N. K. Kummari, **A. K. Singh** and P. Kumar, "Comparative evaluation of DSTATCOM control algorithms for load compensation," *2012 IEEE 15th International Conference on Harmonics and Quality of Power*, Hong Kong, 2012, pp. 299-306. doi: 10.1109/ICHQP.2012.6381270.

[C77] P. Kumar, A**. K. Singh** and N. Singh, "Fuzzy expert system-based power quality meter placement," *2012 IEEE 15th International Conference on Harmonics and Quality of Power*, Hong Kong, 2012, pp. 523-528. doi: 10.1109/ICHQP.2012.6381283.

[C78] P. Thakur, **A. K. Singh** and S. B. Singh, "Type detection of voltage sags through voltage unbalance factor," *2012 IEEE 15th International Conference on Harmonics and Quality of Power*, Hong Kong, 2012, pp. 892-896. doi: 10.1109/ICHQP.2012.6381289.

[C79] N. K. Singh, M. Tripathy and **A. K Singh**, "Application of RBFNN for Short Term Load and Price Forecasting", *National Conference on Emerging Trend in Electrical and Electronics Engineering*, KNIT Sultanpur, Nov. 2011, pp 26-27.

[C80] N. K. Singh, **A. K. Singh**, and M. Tripathy, "A Radial Basis Function Neural Network Approach for Multi-Hour Short Term Load-Price Forecasting with an Addition Input", *6th International Conference on Industrial and Information Systems (ICIIS 2011)*, University of Peradeniya, Sri Lanka, Aug. 2011, pp 16-19. DOI: 10.1109/ICIINFS.2011.6038087.

[C81] R. Singh, **A. K. Singh** and P. Kumar, "Comparison of three evolutionary algorithms for harmonic mitigation using SAPF," *2011 6th International Conference on Industrial and* Informat*ion Systems*, Kandy, 2011, pp. 392-397. doi: 10.1109/ICIINFS.2011.6038100

[C82] P. Kumar, **A. K. Singh** and N. Singh, "Sensitivity based capacitor placement: A comparative study," *2011 6th International Conference on Industrial and Information Systems*, Kandy, 2011, pp. 381-385. doi: 10.1109/ICIINFS.2011.6038098

[C83] P. Kumar, and **A. K. Singh**, "A Nelder-Mead PSO Based Approach to Optimal Capacitor Placement in Radial Distribution System", In Proc. Swarm, Evolutionary, and Memetic Computing (SEMMCO 2011) LNCS, pp.143-150, Vol. 7076/2011, Springer-Verlag.

[C84] R. P. Payasi, **A. K. Singh**, D. Singh, "Review of Distributed Generation Planning: Objectives, Constraints and Algorithms", National Conference on Recent Advances in Electrical Power and Energy System Management (RAEPESM-2011), March 25-26, 2011, MMM Engineering College, Gorakhpur (India)

[C85] K. V. Babu, **A. K Singh**, M. Tripathy, "Recent Techniques used in Transmission Line Protection: A Review", Presented in National Conference on Recent Advances in Electrical Power and Energy System Management (RAEPESM-2011), March 25-26, 2011, M.M.M. Engineering College, Gorakhpur (India).

[C86] K. V. Babu, **A. K Singh**, M. Tripathy, “PMU Based Fault Location Techniques for Power Transmission Line–A Review”, Presented in All India Seminar on Recent Technological Developments in Energy, Energy Efficiency and Energy Conservation, 25th-26th Feb 2011, The Institution of Engineers (India), Tamilnadu State Centre, Chennai (India).

[C87] N. K Singh, **A. K Singh**, M. Tripathy R. K. Arya, “Medium and Long Term Load Forecasting Using Optimized ANN Architecture With Modified Input Selection Method”, International Conference on Electrical power and energy systems, MANIT, Bhopal, 26-28 Aug. 2010.

[C88] S. Ala, M. Tripathy and **A. K. Singh**, "Identification of internal faults in power transformer using symmetrical components and Park's plots," *2009 International Conference on Power Systems*, Kharagpur, 2009, pp. 1-6. doi: 10.1109/ICPWS.2009.5442690

[C89] A. Srivastava, A. Siddharth, **A. K. Singh** and A. K. Singh, "Some observations on selection of most suitable mother wavelet for measurement of power system harmonics using CWT," *TENCON 2009 - 2009 IEEE Region 10 Conference*, Singapore, 2009, pp. 1-6. doi: 10.1109/TENCON.2009.5396105

[C90] S. Kashyap, C. Meena and **A. K. Singh**, "Comparison of WPT and DWT in quantization of power system harmonics in context of IEEE standard 1459–2000," *TENCON 2008 - 2008 IEEE Region 10 Conference*, Hyderabad, 2008, pp. 1-5. doi: 10.1109/TENCON.2008.4766553.

[C91] S. Kashyap and **A. K. Singh**, "Most suitable mother wavelet for measurement of power system harmonics using DWT in view of IEEE Standard 1459-2000," *2008 13th International Conference on Harmonics and Quality of Power*, Wollongong, NSW, 2008, pp. 1-6. doi: 10.1109/ICHQP.2008.4668870

[C92] S. Kashyap and **A. K. Singh**, "A comparative study of WPT and DWT based techniques for measurement of harmonics," *2008 13th International Conference on Harmonics and Quality of Power*, Wollongong, NSW, 2008, pp. 1-5. doi: 10.1109/ICHQP.2008.4668869

[C93] **A. K. Singh**, G. K. Singh and R. Mitra, "Impact of Source Voltage Unbalance on AC-DC Rectifier Performance," *2006 2nd International Conference on Power Electronics Systems and Applications*, Hong Kong, 2006, pp. 96-101. doi: 10.1109/PESA.2006.343078

[C94] **A. K. Singh**, G. K. Singh and R. Mitra, "Some Observations on Definitions of Voltage Unbalance," *2007 39th North American Power Symposium*, Las Cruces, NM, 2007, pp. 473-479. doi: 10.1109/NAPS.2007.4402352

[C95] **A. K. Singh**, G. K. Singh and R. Mitra, "Some Observations on Multiplicity and Operating/Processing Modes of PC Loads with UPS," *2007 International Conference on Electrical Engineering*, Lahore, 2007, pp. 1-5. doi: 10.1109/ICEE.2007.4287325

[C96] **A. K. Singh**, G. K. Singh and R. Mitra, "Evaluation of Harmonic Distortion under Unbalanced Supply Conditions," *2006 IEEE International Conference on Industrial Technology*, Mumbai, 2006, pp. 2569-2574. doi: 10.1109/ICIT.2006.372617

[C97] A. Narain, and **A. K. Singh**, "*Development of Instrumentation Laboratory through Innovative Strategies*", Workshop on Laboratory Teaching in Electrical Engineering, Electrical Engineering Department, MNREC, Allahabad (India), Nov.17, 1997.

[C98] **A. K. Singh**, and D. Chandra, "*Parameter Optimization Approach for Robust Control of a DC Servomotor*", International Conference on Computer Applications in Electrical Engineering (CERA 97), Roorkee, (India), September 8-11, 1997, pp. 615-619.

[C99] K. K. Ghosh, and A**. K. Singh**, "*A PV Power Supply Plan for Rural Areas*", National Seminar on Energy Management, Institution of Engineers, M.N.R.E.C., Allahabad (India), March 2-3, 1995

[C100] K. K. Ghosh, and **A. K. Singh**, "*Chopper-controlled Wind-driven Self-excited Induction Generator for DC Power*", National Seminar on 'Energy saved is Energy Generated', Institution of Engineers, R.E.C., Kurukshetra (India), Nov. 26, 1994.

[C101] K. K. Ghosh, and **A. K. Singh**, "*A PV Power Supply Plan for Rural Areas*", National Seminar on 'Energy saved is Energy Generated', Institution of Engineers, R.E.C., Kurukshetra (India), Nov. 26, 1994.

[C102] **A. K. Singh**, and A. Swarup, "*Robust Control of A DC Servo Motor*", National Symposium on Advances in Control and Instrumentation (SACI-94), March 16-18, 1994, Bhabha Atomic research centre, Bombay (India), pp. 189-196.

[C103] **A. Singh**, G. Singh and R. Mitra, "Some Observations on Multiplicity and Operating/Processing Modes of PC Loads with UPS", *2007 International Conference on Electrical Engineering*, 2007. Available: 10.1109/icee.2007.4287325.

EDITED BOOKS

[BK1] A. K. Prajapati, M. Tripathy, **A. K. Singh**, V. K. Sood, and O. P. Malik, Control Applications in Modern Power Systems. Springer, 2025.

[BK2] A. K. Singh, B. Kumar, Ibraheem, **A. K. Singh**, and S. Khatoon, "Intelligent Control for Modern Transportation Systems - 1st Edition," *Routledge & CRC Press*, Oct. 2023, ISBN - 9781032393001.

[BK3] S. M. Tripathi and **A. K. Singh**, "Energy Conversion: Methods, Technology and Future Directions," *Nova Publishers*, Dec. 2022, ISBN: 979-8-88697-370-9.

[BK4] Y. K. Chauhan, R. K. Behera, **A. K. Singh**, "Applied Artificial Intelligence (AI) to Green Power Technology," Nova Science Publishers, Inc., November 17, 2022, ISBN: 979-8-88697-131-6.

Patents held

Sl. No.	Name of Patent	Registration No.	Date of Award/ Application	Awarding Country	Co-Awardee[s], if any
1.	Charging Station for Electric Vehicle	372208-001	03/02/2023	India	Anish Gupta, Y. Lakshman Kumar, Supriya Lamba Sachdev
2.	Smart Cradle for Infant	379725-001	12/05/2023	India	Anoop Kumar, Anish Gupta, Lalit Kumar Tyagi
3.	Pipe Inspecting Robot	359330-001	29/04/2022	India	Anish Gupta, Manish Kumar Gupta, Ruchika Gupta