

Bivariate stochastic model of current harmonic analysis in the low voltage distribution grid

Iqbal, Muhammad Naveed; Kütt, Lauri; Daniel, Kamran; Jarkovoi, Marek; Asad, Bilal; Shabbir, Noman Proceedings of the Estonian Academy of Sciences 2021 / p. 190–206 : ill <https://doi.org/10.3176/proc.2021.2.08> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Conducted EMI emission evaluation considerations for test site and in-situ evaluation of DC microgrid supplied power converters

Kütt, Lauri; Daniel, Kamran; Sharma, Hetal; Parker, Martin; Chub, Andrii 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 5 p <https://doi.org/10.1109/ICDCM63994.2025.11144729>

Current harmonic aggregation cases for contemporary loads

Daniel, Kamran; Kütt, Lauri; Iqbal, Muhammad Naveed; Shabbir, Noman Energies 2022 / art. 437 <https://doi.org/10.3390/en15020437> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Current harmonics sensitivity analysis

Daniel, Kamran 21st International Symposium "Topical problems in the field of electrical and power engineering. Doctoral school of energy and geotechnology. III" : Pärnu, Estonia, June 15-18, 2022 2022 / p. 89-90 : ill https://www.ester.ee/record=b5504019*est

Description of practical load harmonic current emission due to voltage harmonic variation

Daniel, Kamran; Kütt, Lauri; Iqbal, Muhammad Naveed; Shabbir, Noman; Jarkovoi, Marek 2021 IEEE 62nd International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2021 / p. 1–6 <https://doi.org/10.1109/RTUCON53541.2021.9711594>

Distributed average integral control based energy management model

Shaukat, Neelofar; Khan, Bilal; Qureshi, Muhammad Bilal; Jawad, Muhammad; Shabbir, Noman; Daniel, Kamran 2023 IEEE International Conference on Energy Technologies for Future Grids (ETFG) 2023 / 5 p <https://doi.org/10.1109/ETFG55873.2023.10407358>

Effect of Bulk Capacitor on Harmonics of Energy-Efficient Devices

Daniel, Kamran; Kütt, Lauri; Lehtonen, Matti; Shabbir, Noman; Iqbal, Muhammad Naveed; Martins, Joao; Simson, Päivo IEEE Access 2025

Enhancing PV hosting capacity and mitigating congestion in distribution networks with deep learning based PV forecasting and battery management

Shabbir, Noman; Kütt, Lauri; Astapov, Victor; Daniel, Kamran; Jawad, Muhammad; Husev, Oleksandr; Rosin, Argo; Martins, Joao Applied energy 2024 / art. 123770 <https://doi.org/10.1016/j.apenergy.2024.123770> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Estimation of harmonic emission of electric vehicles and their impact on low voltage residential network

Iqbal, Muhammad Naveed; Kütt, Lauri; Daniel, Kamran; Asad, Bilal; Shams Ghahfarokhi, Payam Sustainability 2021 / art. 8551 <https://doi.org/10.3390/su13158551> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Estimation of peak voltage value and its occurrence timing upon non-sinusoidal supply voltage

Daniel, Kamran; Kütt, Lauri; Iqbal, Muhammad Naveed; Shabbir, Noman; Jarkovoi, Marek 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / p. 1-6 <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604412>

Fault detection and protection strategy for multi-terminal HVDC grids using wavelet analysis

Kaur, Jashandeep; Jayasooriya, Manilka; Iqbal, Muhammad Naveed; Daniel, Kamran; Shabbir, Noman; Peterson, Kristjan Energies 2025 / art. 1147 <https://doi.org/10.3390/en18051147>

Feasibility investigation for residential battery sizing considering EV charging demand

Shabbir, Noman; Kütt, Lauri; Daniel, Kamran; Astapov, Victor; Raja, Hadi Ashraf; Iqbal, Muhammad Naveed; Husev, Oleksandr Sustainability 2022 / art. 1079 <https://doi.org/10.3390/su14031079> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Forecasting of wind speed and power through FFNN and CFNN using HPSOBA and MHP SO-BAACs techniques

Ellahi, Manzoor; Usman, Muhammad Rehan; Arif, Waqas; Usman, Hafiz Fuad; Khan, Waheed A.; Satrya, Gandeve Bayu; Daniel, Kamran; Shabbir, Noman Electronics 2022 / art. 4193 <https://doi.org/10.3390/electronics11244193> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Hybrid Attention-Based LSTM and XGBoost Model for Short-Term Residential Load Forecasting

Shabbir, Noman; Shahid, Arqum; Daniel, Kamran; Jawad, M.; Rosin, Argo; Martins, Joao 2025 IEEE the 13th International Conference on Smart Energy Grid Engineering (SEGE 2025) 2025

Implementation and performance evaluation of quantum-inspired clustering scheme for energy-efficient WSNs

Uthayakumar, Chindiyababy; Jayaraman, Ramkumar; Raja, Hadi Ashraf; Daniel, Kamran Sensors 2025 / art. 5872

<https://doi.org/10.3390/s25185872> <https://www.mdpi.com/3507118>

Improving Residential Load Forecasting : A Probabilistic Tree-based Approach for Multi-Step Ahead Prediction
Shabbir, Noman; Daniel, Kamran; Jawad, M.; Rosin, Argo; Martins, J. International Scientific Conference on Information, Communication and Energy Systems and Technologies (ICEST) 2025

Inaccuracies and uncertainties for harmonic estimation in distribution networks

Iqbal, Muhammad Naveed; Kütt, Lauri; Daniel, Kamran; Shabbir, Noman; Amjad, Anas; Awan, Abdul Waheed; Ali, Majid
Sustainability 2024 / art. 6523 <https://doi.org/10.3390/su16156523> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Integrating Attention-Based LSTM with XGBoost for Improved Residential DC Load Forecasting

Shabbir, Noman; Shahid, Arqum; Daniel, Kamran; Rosin, Argo; Kilter, Jako; Martins, Joao 2025 IEEE International Conference on Energy Technologies for Future Grids (ETFG) 2025

Integrating smart energy management system with internet of things and cloud computing for efficient demand side management in smart grids

Saleem, M. Usman; Shakir, Mustafa; Usman, M. Rehan; Bajwa, M. Hamza Tahir; **Shabbir, Noman; Shams Ghahfarokhi, Payam; Daniel, Kamran** Energies 2023 / art. 4835 : ill <https://doi.org/10.3390/en16124835> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Load current harmonic model complexity reduction through empirical pattern analysis

Daniel, Kamran; Kütt, Lauri; Iqbal, Muhammad Naveed; Shabbir, Noman; Jarkovoi, Marek; Parker, Martin 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / p. 1-6
<https://doi.org/10.1109/CPE-POWERENG58103.2023.10227474>

Load current harmonic sensitivity of AC/DC power converters of energy efficient devices = Energiatõhusate seadmete vahelduv-alalisvoolumuundurite koormusvoolu harmoonikute tundlikkus

Daniel, Kamran 2024 <https://doi.org/10.23658/taltech.35/2024> <https://digikogu.taltech.ee/et/Item/6401470b-5c33-473d-b82c-5793dfb1c543>

Load current harmonics analysis and modelling

Daniel, Kamran 22nd International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology III : Pärnu, Estonia, August 23-26, 2023 2023 / p. 77-78 : ill https://www.ester.ee/record=b5570906*est

Multi-step ahead short-term residential DC load forecasting : A comparative study of NGBoost-based algorithms

Shabbir, Noman; Husev, Oleksandr; Hokmabad, Hossein Nourollahi; Daniel, Kamran; Jawad, Muhammad; Martins, Joao 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 6 p <https://doi.org/10.1109/ICDCM63994.2025.11144710>

NACA 2412 drag reduction using V-shaped riblets

Selvanose, Smitha Mol; Marimuthu, Siva; Awan, Abdul Waheed; **Daniel, Kamran** Eng 2024 / p. 944-957
<https://doi.org/10.3390/eng5020051> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

An overview of measurement standards for power quality

Shabbir, Noman; Kütt, Lauri; Jarkovoi, Marek; Iqbal, Muhammad Naveed; Rassõlkin, Anton; Daniel, Kamran Agronomy research 2021 / p. 944-960 <https://doi.org/10.15159/ar.21.074> [Journal metrics at Scopus](#) [Article at Scopus](#)

Performance investigation of active, semi-active and passive suspension using quarter car model

Samaroo, Kyle; Awan, Abdul Waheed; Marimuthu, Siva; Iqbal, Muhammad Naveed; **Daniel, Kamran; Shabbir, Noman** Algorithms 2025 / art. 100 <https://doi.org/10.3390/a18020100>

Phase angle sensitivity characterisation of current harmonics in practical loads

Daniel, Kamran 20th International Symposium "Topical problems in the field of electrical and power engineering. Doctoral school of energy and geotechnology. III" : Tallinn, Estonia, September 8-10, 2021 2021 / p. 71-72 : ill https://www.ester.ee/record=b5457278*est

A review of harmonic detection, suppression, aggregation and estimation techniques

Daniel, Kamran; Kütt, Lauri; Iqbal, Muhammad Naveed; Shabbir, Noman; Raja, Hadi Ashraf; Sardar, Muhammad Usman Applied sciences 2024 / art. 10966 <https://doi.org/10.3390/app142310966> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Short-term residential DC load forecasting using extreme gradient boost (XgBoost) algorithm

Shabbir, Noman; Husev, Oleksandr; Daniel, Kamran; Jawad, Muhammad; Rosin, Argo; Martins, Joao 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604392>

Spectrum analysis for condition monitoring and fault diagnosis of ventilation motor : a case study

Shabbir, Noman; Kütt, Lauri; Asad, Bilal; Jawad, Muhammad; Iqbal, Muhammad Naveed; **Daniel, Kamran** Energies 2021 / art.

2001 <https://doi.org/10.3390/en14072001> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Waveform variation defined model for harmonic current emissions including cross-order supply voltage harmonics influence

Daniel, Kamran; Kütt, Lauri; Iqbal, Muhammad Naveed; Shabbir, Noman; Jarkovoi, Marek; Parker, Martin IEEE Access 2023 / p. 42276-42289 : ill <https://doi.org/10.1109/ACCESS.2023.3270805> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Voltage main harmonic level influence on harmonic current emission modeling

Daniel, Kamran; Kütt, Lauri; Iqbal, Muhammad Naveed; Shabbir, Noman; Jarkovoi, Marek; Parker, Martin 2023 International Conference on Future Energy Solutions (FES) 2023 / p. 1-6 <https://doi.org/10.1109/FES57669.2023.10183302>