

### **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](#)

### **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](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>

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

**Iqbal, Muhammad Naveed; Kütt, Lauri; Daniel, Kamran; Asad, Bilal; Ghahfarokhi, Payam Shams** 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 MHPSO-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

### **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>

### **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](https://www.ester.ee/record=b5570906*est)

### **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](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>