Sahand University of Technology

Kazem Varesi

Associate Professor

College: Faculty of Electrical and Computer Engineering

Education

Degree	Graduated in	Major	University
BSc	2008	Electrical Power Engineering	University of Tabriz
MSc	2011	Electrical Power Engineering / Power Electronics	K. N. Toosi University of Technology
Ph.D	2017	Electrical Power Engineering / Power Electronics	University of Tabriz

Executions And Scientific Activities

- Publication Committee Chair of the 12th International Annual Power Electronics & Drives: Systems and Technologies Conference (PEDSTC 2021), Tabriz, Iran (2021).
- Publication Committee Chair of the 11th Smart Grid Conference (SGC 2021), Tabriz, Iran (2021).
- International Publication Committee Chair of the 8th International Conference on Technology and Energy Management (ICTEM 2023), Babol, Iran (2023).
- Technical Program Committee Chair of the 9th International Conference on Technology and Energy Management (ICTEM 2024), Behshahr, Iran (2024).
- Executive Committee Chair of "16th International Annual Power Electronics & Drives: Systems and Technologies Conference (PEDSTC 2025), Tabriz, Iran (2025).
- Technical Program Committee Chair of the 10th International Conference on Technology and Energy Management (ICTEM 2025), Tabriz, Iran (2025).

Conferences

- Publication Committee Chair of the 12th International Annual Power Electronics & Drives: Systems and Technologies Conference (PEDSTC 2021), Tabriz, Iran (2021).
- Publication Committee Chair of the 11th Smart Grid Conference (SGC 2021), Tabriz, Iran (2021).
- International Publication Committee Chair of the 8th International Conference on Technology and Energy Management (ICTEM 2023), Babol, Iran (2023).

- Technical Program Committee Chair of the 9th International Conference on Technology and Energy Management

(ICTEM 2024), Behshahr, Iran (2024).

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- Technical Program Committee Chair of the 10th International Conference on Technology and Energy Management (ICTEM 2025), Tabriz, Iran (2025).

Journal Membership

- Editor of the "Iran Energy Association" Newsletter, (2014-2015).
- Manager of "Tabriz Journal of Electrical Engineering (TJEE)", (August 2021-Continues).

Papers in Journals

1. N. V. Kurdkandi* et al.,Transformer-Less Seven-Level Inverter with Triple Boosting Capability and Common Ground,Energies,Vol. 17,No. 13,pp. 3115,2024 06 18.
2. M. K. Eslamloo , K. Varesi* , H. Tarzamni , S. S. Lee,Comprehensive Reliability Review and Assessment of Switched-Capacitor Step-Up DC–DC Converters,IEEE Transactions on Reliability,2024 06 09.
3. A. Ghorbani Esfahlan , K. Varesi* , H. M. Kojabadi,Design and Implementation of an Improved Non-Isolated Step-Up DC-DC Converter with Continuous Input Current and Common-Ground Point Suitable for DC Micro-Grids and Low-Power Solar Systems,Iranian Electric Industry Journal of Quality and Productivity,Vol. 12,No. 1,pp. 57-70,2024 04 30.
4. Armin Ghelichi , Kazem Varesi , Amirhossein Zeinaly , Mahalingam Prabhakar,Dual-input step-up switched-capacitor multilevel inverter with reduced voltage stress on devices,International Journal of Circuit Theory and Applications,Vol. 52,No. 11,pp. 5766-5785,2024 04 10.
5. H. Rouin ,& K. Varesi,An Improved Two-Stage Inverter with High Voltage Boosting Capability and Continuous Input Current Feasible for Low-Power Solar Applications,Journal of Iranian Association of Electrical and Electronics Engineers,Vol. 20,No. 4,pp. 1-13,2023 08 06.
6. I. H. Malick et al.,Implementation and reliability analysis of a new non-isolated quadratic buck–boost converter using improved Markov modelling,IET Renewable Power Generation,Vol. 17,No. 11,pp. 2733-2749,2023 08 01.
7. S. Deliri , K. Varesi* , S. Padmanaban,An extendable single-input reduced-switch 11-level switched-capacitor inverter with quintuple boosting factor,IET Generation, Transmission & Distribution,Vol. 17,No. 3,pp. 621-631,2023 02 02.
8. P. Kargar , M. Karimi , K. Varesi,A Switched-Capacitor based 7-Level Inverter Capable of Voltage-Boosting and Natural Voltage Balancing of Capacitors, Suitable for Supplying Off-Grid AC Loads,Journal of Advanced Defense Science & Technology,Vol. 13,No. 3,pp. 139-154,2023 01 01.
9. K. Varesi* ,& S. Padmanaban,A transformer-less high-boosting common-grounded multi-phase DC–DC converter with continuous input-current favourable for low-power applications,IET Renewable Power Generation,2022 09 16.
10. K. Varesi* , F. Esmaeili , S. Deliri , H. Tarzamni,Single-Input Quadruple-Boosting Switched-Capacitor Nine-Level Inverter with Self-Balanced Capacitors,IEEE Access,Vol. 10,pp. 70350-70361,2022 06 29.
11. M. Karimi , P. Kargar , K. Varesi,An extendable asymmetric boost multi-level inverter with self-balanced capacitors,International Journal of Circuit Theory and Applications,Vol. 50,No. 4,pp. 1297-1316,2022 04 05.
12. S. Deliri , K. Varesi* , Y. P. Siwakoti , F. Blaabjerg,A boost type switched-capacitor multi-level inverter for renewable energy sources with Self-Voltage balancing of capacitors,International Journal of Energy Research,Vol. 45,No. 10,pp. 15217-15230,2021 07 16.

13. S. Deliri Khatoonabad , K. Varesi* , Y. P. Siwakoti , F. Blaabjerg,Generalized Diamond-Type Single DC-Source Switched-Capacitor Based Multi-Level Inverter with Step-Up and Natural Voltage Balancing Capabilities,IET Power Electronics,Vol. 14,No. 6,pp. 1208-1218,2021 05 06.
14. K. Varesi* ,& M. Ghorbani,A Generalized Common-Ground Single-Switch Continuous Input-Current Boost Converter Favorable for DC-Microgrids,International Journal of Circuit Theory and Applications,Vol. 48,No. 10,pp. 1658-1675,2020 10 20.
15. K. Varesi* , N, Hassanpour , S. Saeidabadi,Novel High Step-Up DC-DC Converter with Increased Voltage Gain per Devices and Continuous Input-Current Suitable for DC Microgrid Applications,International Journal of Circuit Theory and Applications,Vol. 48,No. 10,pp. 1820-1837,2020 10 20.
16. Fatemeh Esmaeili ,& Kazem Varesi,A Novel Single-Phase Multi-Level Inverter Topology Based on Bridge-Type Connected Sources with Enhanced Number of Levels per Number of Devices,Journal of Energy Management and Technology,Vol. 4,No. 3,pp. 37-47,2020 09 01.
17. K. Varesi* et al.,Design and Analysis of a Developed Multi-Port High Step-Up DC-DC Converter with Reduced Device Count and Normalized Peak Inverse Voltage on the Switches/Diodes,IEEE Transactions on Power Electronics,Vol. 34,No. 6,pp. 5464-5475,2018 08 01.
18. K. Varesi* , S. H. Hosseini , M. Sabahi , E. Babaei,Modular Non-Isolated Multi-Input High Step-Up DC-DC Converter with Reduced Normalized Voltage Stress and Component Count,IET Power electronics,Vol. 11,No. 6,pp. 1092-1100,2018 03 14.
19. K. Varesi* , S. H. Hosseini , M. Sabahi , E. Babaei,A High Voltage Gain Non-Isolated Non-Coupled Inductor Based Multi-Input DC-DC Topology with Reduced Number of Components for Renewable Energy Systems,International Journal of Circuit Theory and Applications,Vol. 46,No. 3,pp. 505-518,2018 03 14.
20. K. Varesi , S. H. Hosseini* , M. Sabahi , E. Babaei,Performance analysis and calculation of critical inductance and output voltage ripple of a simple non-isolated multi-input bidirectional DC-DC converter,International Journal of Circuit Theory and Applications,Vol. 46,No. 3,pp. 543-564,2018 03 14.
21. K. Varesi* , S. H. Hosseini , M. Sabahi , E. Babaei,A Generalized Relationship for Calculation of Critical Inductance in an n-Input Buck DC-DC Converter,Nashriyyah-i Muhandisi-i Barq va Muhandisi-i Kampyutar-i Iran,Vol. 15,No. 4,pp. 269-276,2018 02 10.
22. Performance and design analysis of an improved non-isolated multiple input buck DC–DC converter,IET Power Electronics,Vol. 10,No. 9,pp. 1034-1045,2017 07 01.
23. K. Varesi* , A. Radan , A. Ghayebloo , M. R. Nikzad,An Efficient Methodology Proposed for Deciding about the Number of Battery Modules Used in Hybrid Electric Vehicles,Automatika,Vol. 57,No. 1,pp. 99-108,2017 01 20.
24. K. Varesi* , A. Radan , S. H. Hosseini , M. Sabahi,A Simple Technique for Optimal Selection of DOH in Hybrid Parallel Passenger Cars,Automatika,Vol. 56,No. 1,pp. 33-41,2017 01 20.
25. A. Ashraf Ghandomi* , K. Varesi , S. H. Hosseini,Control Strategy Applied on Double Flying Capacitor Multi-cell (DFCM) Inverter for Increasing Number of Generated Voltage Levels,IET Power Electronics,Vol. 8,No. 6,pp. 887-897,2015 06 01.
26. Kazem Varesi,Optimal Allocation of DG Units for Power Loss Reduction and Voltage Profile Improvement of Distribution Networks Using PSO Algorithm,World Academy of Science, Engineering and Technology International Journal of Computer and Systems Engineering,Vol. 5,No. 12,pp. 1847-1851,2011 12 26.
27. Kazem Varesi* ,& Ahmad Radan,A Novel Methodology Proposed for Optimizing the Degree of Hybridization in Parallel HEVs Using Genetic Algorithm,World Academy of Science, Engineering and Technology, International Journal of Electrical and Computer Engineering,Vol. 5,No. 8,pp. 915–920,2011 08 21.
28. Kazem Varesi* ,& Ahmad Radan,A Novel GA Based Technique for Optimizing Both the Design and Control Parameters in Parallel Passenger Hybrid Car,International Review of Electrical Engineering (IREE),Vol. 6,No. 3,pp. 1279-1286,2011 06 01.