LISTA COMPLETĂ DE LUCRĂRI ȘTIINȚIFICE ȘI DE PUBLICAȚII
Ing. *Liviu-Dănuț VITAN*

1. Teza de doctorat

Titlu: Modeling, Control, and Testing of AC PM and Reluctance Electric Machines for Renewable Energies and Automotive Applications, Octombrie 2025

2. Lucrări ştiinţifice publicate în reviste indexate Web of Science-WoS (ISI)

1. R. Buzatu, V. Ungureanu, A. Ciutina, M. Gireadă, **D. Vitan**, and I. Petran, "Experimental Evaluation of Energy-Efficiency in a Holistically Designed Building," *Energies*, vol. 14, no. 16, Art. no. 16, Jan. 2021, (WOS:000690444200001)
2. S. Vasilie, **L.-D. Vitan**, C.-A. Tudoran, and F. Manea, "Flexible Electroflotocoagulation Reactor: New Design and Testing in Treatment of Real Surface Water," *Water*, vol. 14, no. 19, Art. no. 19, Jan. 2022, (WOS:000867197600001)
3. **L. – D. Vitan**, A. Martin, L. Tutelea, I. Boldea, I. Torac, and N. Muntean, "Supercapacitor City Minibus Bonded – NdFeB IPMSM Propulsion System: Design and System Modeling Methodology via a Case Study and Laboratory Experiments," *IEEE Trans. Ind. Appl.*, vol. 59, no. 2, pp. 1405–1417, Mar. 2023 (WOS:001037766800017)
4. N. Muntean, O. Cornea, D. Hulea, M. Gireadă, and **D. Vitan**, "Contributions to the development of a new family of hybrid DC-DC converters," *Proc. Romanian Acad. Ser. Math. Phys. Tech. Sci. Inf. Sci.*, vol. 24, no. 4, pp. 373–381, Jan. 2024, (WOS:001127857700006)
5. A.-D. Martin, **L.-D. Vitan**, L. Tutelea, and I. Boldea, "BIAXIAL EXCITATION GENERATOR (BEGA) – 9 PHASES OPERATION IN FAULTY CONDITIONS," *Rev. Roum. Sci. Tech. — Sér. ÉLECTROTECHNIQUE ÉNERGÉTIQUE*, vol. 70, no. 1, Art. no. 1, Mar. 2025, doi: 10.59277/RRST-EE.2025.1.7.

3. Lucrări ştiinţifice publicate în volumele unor manifestări ştiinţifice (Proceedings) indexate Web of Science-WoS (ISI) Proceedings

1. C. Patrascu, C. Rat, D. Hulea, **D. Vitan**, și N. Muntean, „Mixed PV-wind small power microgrid", în 2017 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP), 2017, pp. 699-704.
2. Hedeş, M. Svoboda, L. E. Anton, **D. Vitan**, and S. Muntean, "In situ Measurements on the Electrical Motors of Hydraulic Pumps Installed in a Wastewater Station," in *2018 IEEE International Conference on Environment and Electrical Engineering and 2018 IEEE Industrial and Commercial Power Systems Europe (EEEIC / I&CPS Europe)*, Jun. 2018, pp. 1–4, (WOS:000450163703021)
3. **L.-D. Vitan**, L. Tutelea, N. Muntean, and I. Boldea, "Sensorless Synchronous Reluctance Generator Control Based on q Axis Estimated Current," in *2019 International Aegean Conference on Electrical Machines and Power Electronics (ACEMP) & 2019 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM)*, Aug. 2019, pp. 260–267 (WOS:000535884900039)
4. A. Hedeş, **L.-D. Vitan**, C.-A. Tudoran, and O. Muntean, "Experimental Research on Electrocoagulation for Wastewater Treatment," in *2019 20th International Symposium on Power Electronics (Ee)*, Oct. 2019, pp. 1–5, (WOS:000535354200053)
5. **L.-D. Dănuţ**, D. Hulea, O. Cornea, N. Muntean, M. A. Iuoras, and N. Hinov, "Low Cost Implementation of a Wind Turbine Emulator," in *2020 IEEE International Conference on Environment and Electrical Engineering and 2020 IEEE Industrial and Commercial Power Systems Europe (EEEIC / I&CPS Europe)*, Jun. 2020, pp. 1–6. (WOS:000717543100112)
6. A. M. Iuoras, N. C. Szekely, **L. D. Vitan**, M. Bojan, and P. D. Teodosescu, "AC home appliances retrofiting for DC microgrids," in *2020 12th International Conference on Electronics, Computers and Artificial Intelligence (ECAI)*, Jun. 2020, pp. 1–6, (WOS:000627393500059)
7. D. Hulea, M. Gireada, **D. Vitan**, O. Cornea, and N. Muntean, "An Improved Bidirectional Hybrid Switched Inductor Converter," in *2020 22nd European Conference on Power Electronics and Applications (EPE'20 ECCE Europe)*, Sep. 2020, p. P.1-P.8. (WOS:000629036800328)
8. I. Boldea, I. Torac, A. Martin, **D. Vitan**, and L. Tutelea, "Axially-Laminated-Anisotropic-rotor Reluctance Synchronous Motor characterization: analytical design, key FEM validations and preliminary experiments:

10kW, 2.4-4.8krpm," in *2022 IEEE 20th International Power Electronics and Motion Control Conference (PEMC)*, Sep. 2022, pp. 113–120. (WOS:001338023800018)

4. Lucrări ştiinţifice publicate în volumele unor manifestări ştiinţifice (Proceedings) indexate BDI (cu specificarea BDI)

1. A.D. Martin, **D. L. Vitan**, L. N. Tutelea, and N. Muntean, "DOUBLE STATOR WINDING INDUCTION GENERATOR FOR RENEWABLE ENERGY CONVERSION SYSTEMS," J. Electr. Eng., Vol 15, No 3, p. 8. (2015):
2. R. Buzatu, D. Muntean, V. Ungureanu, A. Ciutina, M. Gireadă, and **D. Vitan**, "Holistic energy efficient design approach to sustainable building using monitored energy management system," *IOP Conf. Ser. Earth Environ. Sci.*, vol. 664, no. 1, p. 012037, May 2021, (BDI: Scopus)
3. **L.-D. Vitan**, A.-D. Martin, L. Tutelea, and I. Boldea, "Supercapacitor City Minibus Propulsion System Simulations, Methodology, and Case Study," in *2021 International Aegean Conference on Electrical Machines and Power Electronics (ACEMP) & 2021 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM)*, Sep. 2021, pp. 181–190. (BDI: IEEE Xplore)
4. A. – D. Martin, **L. – D. Vitan**, I. Torac, L. –Nicolae Tutelea, and I. Boldea, "BEGA-biaxial excitation generator - operation for constant diode dc output voltage with 3,6,9 phases for increased redundancy," in *2021 International Aegean Conference on Electrical Machines and Power Electronics (ACEMP) & 2021 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM)*, Sep. 2021, pp. 383–390. (BDI: IEEE Xplore)
5. **L.-D. Vitan**, L. Tutelea, A.-D. Martin, N. Muntean, and I. Boldea, "Axially laminated anisotropic (ALA) rotor reluctance synchronous motor (RSM): comprehensive experiments characterization," in *2023 International Aegean Conference on Electrical Machines and Power Electronics (ACEMP) & 2023 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM)*, Sep. 2023, pp. 1–6. (BDI: IEEE Xplore)
6. K. Khodabux, A. D. Martin, **L.-D. Vitan**, L.-N. Tutelea, K. Busawon, and I. Boldea, "Three-Phase Biaxial Excitation Synchronous Generator (BEGA) Intern-Fault Experimental Characterisation," in *2023 22nd International Symposium on Power Electronics (Ee)*, Oct. 2023, pp. 01–06, (BDI: IEEE Xplore)
7. **L.-D. Vitan**, L. Tutelea, A.-D. Martin, N. Muntean, and I. Boldea, "Efficient ALA Rotor RSM Control Based on an MTPA Offline Computed Function," in 2025 International Aegean Conference on Electrical Machines and Power Electronics (ACEMP) & 2025 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM), May 2025, pp. 1–6. doi: 10.1109/OPTIM-ACEMP62776.2025.11075232.