

Curriculum Vitae

Personal information

First name(s) / Surname(s) **BREBAN ȘTEFAN**
 Address **42A SIMERIA STREET, 400257, CLUJ-NAPOCA, ROMANIA**
 Telephone(s) **(40-264) 401829**
 E-mail Stefan.Breban@emd.utcluj.ro; stefanbreban@yahoo.com
 Nationality Romanian
 Date of birth 21.12.1981

Work experience

Dates 01.10.2008 - present
 Name and address of employer Electrical Machines and Drives Department, Electrical Engineering Faculty, Technical University of Cluj-Napoca, 28 Memorandumului street, Cluj-Napoca, Romania
 Occupation or position held Associate Professor (Assistant lecturer until 01.10.2013, Lecturer until 01.10.2018)
 Main activities and responsibilities Teaching and Research

Education and training

Dates 2005-2008
 Title of qualification awarded PhD in Electrical Engineering
 Principal subjects/occupational skills PhD thesis with title: Etude du Système de Conversion Electromécanique d'une Microcentrale Hydroélectrique à Vitesse Variable, Coordinators: Prof.dr.ing. Mircea M. Rădulescu from Technical University of Cluj-Napoca and Prof.dr.ing. Benoit Robyns from Ecole Nationale Supérieure d'Arts et Métiers – Lille, France.
 Name and type of organization providing education and training Technical University of Cluj-Napoca, Ecole Nationale Supérieure d'Arts et Métiers – Lille, France

Personal skills and competences

Mother tongue(s) Romanian

Other language(s) **English, French**

Self-assessment
European level ()*

English

French

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
B1	B1	B1	B1	B1
B2	B2	B2	B2	B2

Didactic activity

Teaching Courses Electric Traction, Energy management and storage in electric vehicles

Research

National Grants
(max 5 the most representative)

- *Development and support of multidisciplinary postdoctoral programs in priority technical areas of national strategy research - development - innovation – 4D-POSTDOC*, Postdoctoral research project, POSDRU funding, period 2010 – 2013 (34 months), research member.
- *Innovative wind energy conversion micro-system with direct-driven electric generator for residential uses*, PCCA 29/2012, period 2012-2014, BMEnergy Ltd project partner manager.
- *Management system of renewable energy for small communities*, PCCA 53/2014, period 2014-2016, BMEnergy Ltd project partner manager.
- *Experimental testing of counter-rotating VAWT*, PED 64/2017, period Jan. 2017 – June 2018, UTCN project partner manager.
- *Advanced technologies for smart urban electric vehicles*, Contract 11/1.09.2016, research team member.

Scientific publications

More than 50, of which: 2 books and 2 book chapters; 14 papers published in international journals (5 WOS, 9 IDB); 36 papers presented at international conferences.

Significant papers published in the last 10 years (max 10)

1. M. Chirca, M. Dranca, C.A. Oprea, P.D. Teodosescu, A.M. Pacuraru, C. Neamtu, S. Breban, *Electronically Controlled Actuators for a Micro Wind Turbine Furling Mechanism*, *Energies*, Vol. 13 Iss. 16, Aug. 2020, eISSN: 1996-1073.
2. Chloe Leicht, S. Breban, „Fuzzy logic energy management for electric vehicles battery charging using renewable energy sources”, *Acta Electrotehnica*, vol. 61, nr. 4, 2020 pp. 302 – 306.
3. S. Breban, M. Dranca, I. Malael, „Airborne Ultra-Light Micro-Wind Turbine System”, *Acta Electrotehnica*, vol. 61, nr. 4, 2020 pp. 275 – 278.
4. S. Breban, M. Drancă, M. Chirca, A.M. Pacuraru, P.D. Teodosescu, C.A. Oprea, „Experimental Tests on a Spoke-Type Permanent Magnets Synchronous Machine for Light Electric Vehicle Application” *Appl. Sci.* 2022, 12 (6), 3019; <https://doi.org/10.3390/app12063019>.
5. C.A. Oprea, C. Iclodean, M. Chirca, M. Dranca, F. Ghita, S. Breban, „Initial Evaluation of Permanent Magnet Synchronous Motor Structures for Light Electric Vehicle Applications”, *IEEE 28th International Symposium on Industrial Electronics (ISIE)*, 12-14 June 2019, Vancouver, Canada, ISBN 978-1-7281-3666-0, Electronic ISSN: 2163-5145 (IEEEExplore - ISI).
6. S. Breban, M. Drancă, M. Fartan, „Energy efficient operation of permanent magnet synchronous machines powering a Railway Electric Vehicle”, *International Conference on Applied Energy ICAE 2019*, 12-15 August, Västerås, Sweden.
7. M. Chirca, M. A. Drancă, S. Breban, C.A. Oprea, „PMSM Evaluation for Electric Drive Train for L6e Light Electric Vehicles”, *2020 International Conference and Exposition on Electrical And Power Engineering (EPE)*, 22-23 Oct. 2020, Iași, România. (IEEEExplore)
8. M. A. Drancă, M. Chirca, S. Breban, M. Fărtan, „Thermal and Demagnetization Analysis of an Axial-Flux Permanent Magnet Synchronous Machine”, *2020 International Conference and Exposition on Electrical And Power Engineering (EPE)*, 22-23 Oct. 2020, Iași, România. (IEEEExplore)
9. M. A. Drancă, M. Chirca, S. Breban, D. Fodorean, „Comparative Design Analysis of Two Modular Permanent Magnet Synchronous Generators”, *2021 7th International Symposium on Electrical and Electronics Engineering (ISEEE)*, 28-30 October 2021, Galati, Romania. (IEEEExplore).
10. M. Dranca, M. Chirca, S. Breban, M. Fartan, „Design and Optimization of an Axial-Flux Permanent Magnet Synchronous Machine for Railway Traction Application”, *8th International Conference on Modern Power Systems (MPS)*, 21-23 Mai 2019, Cluj-Napoca, Romania, ISBN 978-1-7281-0750-9.

Cluj-Napoca,
Date: November 2024

Stefan Breban