Europass Curriculum Vitae

Personal information

First name/ Surname	**ION Catalin Petrea**
Address	29 Eroilor Bvd
Telephone	+40268474718
Fax	+40268474718
E-mail	catalin.ion@unitbv.ro, catalin.petrea.ion@gmail.com
Nationality	Romanian
Date of birth	1981/02/05
Gender	Male

Employment/ Occupational field

Transilvania University of Brasov,
Department of Electrical Engineering and Applied Physics
Research center: Advanced Electrical System

Work experience

Dates	2015-present
Occupation or position held	Coordinator of Advanced Electrical System Research Center

Dates	2014-present
Occupation or position held	Associate professor
Main activities and responsibilities	Teaching: Electric energy generation, transport and distribution; Micro hydro power plants, Dynamic modeling of electrical systems, Power electronic circuits simulation, Electromechanical converters. Research: Generators and power electronics for Renewable energy sources.
Name and address of employer	Transilvania University of Brasov, 29 Eroilor Bvd., Brasov, 500036, ROMANIA
Type of business or sector	Higher education

Dates	2009-2014
Occupation or position held	Lecturer
Main activities and responsibilities	Teaching: Electric energy generation, transport and distribution; Micro hydro power plants. Research: Generators and power electronics for Renewable energy sources.
Name and address of employer	Transilvania University of Brasov, 29 Eroilor Bvd., Brasov, 500036, ROMANIA
Type of business or sector	Higher education

Education and training

Dates	2010-2013
Title of qualification awarded	Post-doctoral stage
Principal subjects/occupational skills covered	Parallel operation of micro hydro power plants
Name and type of organisation providing education and training	Transilvania University of Brasov, 29 Eroilor Bvd., Brasov, 500036, ROMANIA
Level in national or international classification	Post-doctoral studies

Dates	2004-2008
Title of qualification awarded	PhD in electrical engineering
Principal subjects/occupational skills covered	Control of autonomous Micro hydro power plants with induction generator
Name and type of organisation providing education and training	Transilvania University of Brasov, 29 Eroilor Bvd., Brasov, 500036, ROMANIA
Level in national or international classification	Doctoral studies

Dates	2004-2006
Title of qualification awarded	Master Diploma
Principal subjects/occupational skills covered	Electrical equipments optimisation
Name and type of organisation providing education and training	Transilvania University of Brasov, Bd. Eroilor, 29, Brasov, 500036, ROMANIA
Level in national or international classification	Master studies

Dates	1999-2004
Title of qualification awarded	Engineer diploma
Principal subjects/occupational skills covered	Electrical engineering
Name and type of organisation providing education and training	Transilvania University of Brasov, Bd. Eroilor, 29, Brasov, 500036, ROMANIA
Level in national or international classification	Higher education

Experience gathered abroad

- Nov. 2010, Two weeks stage at Institute of Energy Technology, Aalborg, Denmark
- July 2009, Two weeks stage at Anglia Ruskin University, Cambridge, Great Britain
- Oct - Dec 2008, Two months stage at Institute of Energy Technology, Aalborg, Denmark
- March -June 2004, Three months ERASMUS mobility at IUT Belfort, France

Personal skills and competences

Mother tongue(s) **Romanian**

Other language(s)

Self-assessment	Understanding		Speaking		Writing
European level (*)	Listening	Reading	Spoken interaction	Spoken production	
English	C1 Proficient User	C1 Proficient User	C1 Proficient User	C1 Proficient User	C1 Proficient User
French	B2 Independent User	B2 Independent User	B2 Independent User	B2 Independent User	B2 Independent User
Italian	B2 Independent User	B2 Independent User	B2 Independent User	B2 Independent User	B2 Independent User

(*) Common European Framework of Reference for Languages

Social skills and competences Experience in team work, Good communication skills

Organisational skills and competences: 2006-2008: Director of research contract CNCSIS TD no. 131/2006

Computer skills and competences: Advanced level for Matlab/Simulink, MS Office

Significant work:

Books:

- ION Cătalin Petrea, *Microhidrocentrale cu generator asincron*, Editura Universităţii Transilvania din Braşov, ISBN: 978-973-598-429-8

ISI Journals:

- Serban, **C.P. Ion**, "Microgrid Control Based on a Grid-Forming Inverter Operating as Virtual Synchronous Generator with Enhanced Dynamic Response Capability", *International Journal of Electrical Power and Energy Systems*, vol. 89, pp. 94-105, July 2017
- **C.P. Ion**, C. Marinescu , *Three -Phase Induction Generators for Single-Phase Power Generation: An Overview*, Renewable & Sustainable Energy Reviews, Elsevier, 2013 10.1016/j.rser.2013.01.031
- **C. P. Ion**, C. Marinescu, *Stand-alone micro-hydro power plant with induction generator supplying single phase loads*, J. Renewable Sustainable Energy 5, 013105 (2013)
- **C.P. Ion**, C. Marinescu, Autonomous micro hydro power plant with induction generator , Renewable Energy Journal, Volume 36, Issue 8, Pages 2259-2267
- **C.P Ion**, C. Marinescu, Autonomous three-phase induction generator supplying unbalanced loads, Advances in Electrical and Computer Engineering, Vol. 13, Issue 2,2013, Pp. 85–90.

Patent proposal

- **C.P. Ion**, C. Marinescu, Method, algorithm and control structure for starting autonomous induction generators with the help of a power electronic converter, RO-129324/A0

ORCID profile: orcid.org/0000-0002-6234-3418

Scientific reviewer:

- Renewable and Sustainable Energy Reviews, IEEE Transactions on Power Systems, International Journal of Electrical Power & Energy Systems, Electric Power Components and Systems, Sustainable Energy Technologies and Assessments

Team member in research contracts

- Young Research Team project, PN-II-RU-TE-2014-4-0359, 2015-2017, "Solutions to enhance the dynamic stability of microgrids with renewable energy sources"
- FP6, CRISTAL 038406/DG TREN, 2007-2009, "Control of renewable integrated systems targeting advanced landmarks"
- IDEAS national competition project, CNCSIS-134/2007-2010, „Renewable Energy Sources and their Integration in Smart Hybrid Grids"
- Partnerships national competition project, D3 21062/2007-2010, „Hybrid Hydro-Wind Energy Structure"
- Partnerships National Competition Project, D1 110004/2007-2010, "Intelligent distributed system for improving the efficiency of Hydroelectric plants"

Membership in scientific societies: IEEE member, since 2006; IES, PES member