

Personal Information

Mircea RUBA



POSITION FOR WHICH THE CV IS SUBMITTED

Associated professor
Department of Electrical Machines and Drives, UTCN
Position 16

Professional experience

Octombrie 2011-Martie 2015 /
Martie 2015-in prezent

Assistant / Lecturer

Technical University of Cluj Napoca, Str. Memorandumului nr. 28 Cluj-Napoca

- Didactical and research activity in the field of electrical machines and power electronics

Field of activity Academic/Research

2010-2011

Postdoctoral researcher

Universite Libre de Bruxelles, Belgium

- Design and testing of laboratory test bench for wind based energy harvesting systems

Field of activity Academic/Research

Education and schools

2002-2007 / 2007-2010
(September)

Engineer / PhD. In Electrical Engineering

Technical University of Cluj Napoca, Str. Memorandumului nr. 28 Cluj-Napoca

Faculty of Electrical Engineering

- Title of PhD Thesis : *DESIGN AND STUDY OF A MODULAR SWITCHED RELUCTANCE MACHINE*
- Coordinator: Prof.Dr.Ing. Szabo Lorand

Skills and competences

Mother thong

Romanian

Other known languages

	COMPREHENSION		SPEAK		WRITE
	LISTEN	READ	CONVERSATE	ORAL SPEECH	
English	B2	B2	B2	B2	B2

Teaching courses

- Electrical machines,
- System Integration,
- Electronics

Attended courses / trainings

- Post-Doctoral Research stage (11 months) in the field of wind based energy harvesting systems, Bruxelles, Belgium, l'Université libre de Bruxelles
- Electrical machines design at Munchen, held by SPEED Laboratory from Glasgow
- Control of power electronics for coupling power converters to the utility grid organized by Technical Univ. of Aalborg, Denmark
- Simulation of electrical machines in Flux 2D held in Lyon, France, CEDRAT SA
- Analysis of RT simulation of electric vehicles, LMS International, Leuven, Belgium
- EMR Summer school Modelling and control using EMR, application to HEVs and others, Lille, France

Publicații

- 4 books
- 5 international publisher chapters
- 4 patents and 2 pending patents
- 110 conference papers (proceedings ISI, BDI, national and international conferences) (see full-list)
- 9 ISI journal papers (see full-list)

Hirsch indexes

- [Web of Science h9](#) [Scopus h12](#) [Google scholar h15](#)

Citations

- Web of Science 326 Scopus 531 Google scholar 857

Conference organizati

- **Chairman** VPPC 2017 - SS8.1 - Hardware-In-the-Loop Testing for Vehicle Applications;
- **Chairman** VPPC 2019 – SS8 - Multi-level models for simulation of electrified vehicle within the framework of the PANDA H2020 European Project.
- **Keynote speaker** SIELMEN 2021 “Energetic Macroscopic Representation For Control Of Energy Conversion Systems”

ISI Journals citing

- 132 citations in ISI journals recognized by UEFISCDI

Research projects coordination

- **1. Project manager** Multi-level digital development platform for electric vehicles (MULTILEVEL) PN-III-P1-1.1-TE-2019-0411. Outcomes: 4 IEEE conference papers, 1 ISI paper, 1 book
- **2. Project manager** Innovative high efficiency solutions for urban electric transportation (INHERIT), PN-III-P2-2.1-PED-2019-4384. Outcomes: 4 IEEE conference papers, 1 ISI paper, 1 book
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- 1. Project coordinator in a BD scholarship Grant CNCSIS, type BD, code 344 (2007-2010). Outcomes: One PhD. Thesis, more than 10 conference papers, one approved patent, 2 ISI papers
- 2. Project coordinator in the Post-Doctoral Programme POSDRU/159/1.5/S/137516 (2014-2015). Outcomes: complete functional models for 2 variable reluctance motors for LEV, 2 conference papers
- 3. Project coordinator in UTCN Internal Competition CICDI-2017 no.1988/12.07.17 (2017-2018). Outcomes: 6 international conference papers, 1 ISI paper, 1 pending patent
- 4. Project coordinator in UTCN- S.C. Electroprecizia Electrical Motors S.R.L., Săcele, tertiary contract (2015-2016) Outcomes: 2 industrial SyncRel motor designs for variable speed applications
- 5. Project coordinator in UTCN- Continental Sibiu tertiary contract (MagLev) No.5004/15.02.2017 (2017-2018) Outcomes: 3 efficiency optimized architectures of orbiting motors used for electric wheel-chairs
- 6. Project coordinator in UTCN-Delonghi Scholarship grant 1096/05.09.2018 (2018) Outcomes: testbench for parameter identification of DC motors used in home appliances
- 7. Project coordinator in subsidiary contract no.4 of URBIVEL, POC-A1-A1.2.3-G-2-15, ID: P_40_333, MySMIS: 105565 (2017-2019) Outcomes: 2 international conference articles, 2 ongoing PhD. Thesys, complete battery identification and testing facility (www: <https://urbivel.utcluj.ro/>)

- Patents**
- 1. M. Ruba, L. Szabo, "Fault tolerant modular design of switched reluctance machine", OSIM, No. A /00504c/2010
 - 2. M.Ruba, D. Fodorean, "Internal rotor self-ventilated switched reluctance machine", OSIM No.A/2012/00884,
 - 3. F. Jurca, M. Ruba, "Wheel system with built-in electric motor for electric vehicles", OSIM No. A 00665 2015
 - 4. M. Ruba, "Programmable procedure for detecting faults of the current sensors of a three-phase electronic converters", OSIM No. A/00156/04.07.2018
 - 5. R.Nemeş, M. Ruba, "Active battery cell balancing system without losses, synchronous with the charging process", OSIM No.A/00390/12.08.2019 – pending
 - 6. L.Szabo, M. Ruba, "Rotary-linear motor for integrated propulsion and steering assisting electric vehicles", OSIM No. A/00446/22.07.2019 – pending

- Awards**
- -2015 Premium Award for Best Paper in IET Electric Power Applications (yearly basis)
 - -24 International Exhibition of Innovation awards (see <https://ems.utcluj.ro/mircea-ruba/awards.htm>)

- Academic reviews**
- Reviewer for 31 ISI journal articles and conference papers
 - Book editor - INTECH "Electric and Hybrid Vehicles", ISBN: 978-1-83880-070-3 (in print)
 - Reviewer for EuroTech PostDoc Fellowship Programme financed by EU

- Other relevant information**
- Between 2007 – 2021 was research team member in 23 national, international, and FP7 research projects