O**pass** Curriculum Vitae Mircea RUBA

Personal Information

Mircea RUBA

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Sex M | Dane of birth 02.07.1983 | Nationality Romanian

POZITION FOR WHICH THE CV IS SUBMITTED

Associated professor Department of Electrical Machines and Drives, UTCN

Professional experience

Octombrie 2011-Martie 2015 /	Assistant / Lecturer	
Martie 2015-în prezent	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	
2023	Habilitation for coordination of PhD. Studies in Electrical Engineering	
	Coordination of 5 PhD. Students.	

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

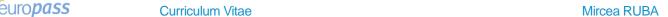
Mother thong

Romanian

Other known languages

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

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- 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

Publication

- 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 organization

- 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 citating

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
- •
- 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/)



Mircea RUBA



- 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