Europass
Curriculum Vitae

Personal information

First name / Surname	**Daniel FODOREAN**
Business Address	28 Memorandumului, Cluj-Napoca, 400114, Cluj, ROMANIA
Telephone	+40-264-401828
Fax)	+40-264-593117
E-mail	daniel.fodorean@emd.utcluj.ro
Nationality	Romanian
Date of birth	22, November, 1977
Gender	male

Occupation | **Lecturer at the Technical University of Cluj-Napoca (TUCN), Cluj – ROMANIA, since 2011**

Work experience

2007-2009	Associated Professor at Université de Technology de Belfort-Montbéliard (UTBM), Belfort-FRANCE
2006-2007, 2009-2011	Assistant Lecturer at TUCN, Cluj-ROMANIA
2003-2004, 2005-2006	Teaching-research assistant at UTBM, Belfort-FRANCE
2001-2003, 2004-2005	Teaching-research assistant at TUCN, Cluj-ROMANIA

Education and training

11-12 June 2013	„FPGA-Basics" and „FPGA-EDrive" courses organized by dSPACE GmbH company, from Germany.
28-30 November 2011	„Sensorless Control of Permanent Magnet Machines" course organized by Aalborg University (Denmark).
July 2010-April 2013	Postdoctoral project, at TUCN, with the project title: Optimal energy management for light electric vehicles.
2001-2005	Mutual PhD cooperation, between TUCN and UTBM. Title of the thesis (public presentation in French, on 12 of July 2005, at Belfort): "*Design and Prototype Realization of a Double Excited Synchronous Machine: Electric Vehicle Propulsion Application*" – original title in French "*Conception et réalisation d'une machine synchrone à double excitation : Application à l'entraînement direct*".
2001-2002	Master of Science in Electrical Engineering, at the Technical University of Cluj-Napoca.
1996-2001	Engineer at the TUCN, Faculty of Electrical Engineering.

Personal skills and competences

Mother tongue	**Romanian**
Other language(s): **English**	Independent user for understanding (listening, reading), speaking and writing.
French	Independent user for understanding (listening, reading), speaking and writing.

Technical skills and competences	- Design, numerical modeling and optimization of the electrical machines (PMs and hybrid excited synchronous machines, with different rotor configuration, SRM, induction cage motor, transformer, synchronous reluctance). - Electrical drives: design and construction of power static converters (dc/dc, dc/ac). - Control of electrical machine (scalar, vector control – DTC, FOC –, opened and closed loop control techniques) - Industrial informatics: programing in C and assembly language of microcontrollers (PIC products) and DSP (TMS320LF2407/28335)
Organisational skills and competences	- "Bureau Member" of the Electrical Engineering Department at the Université de Technology de Belfort-Montbéliard (2008-2009) - Member in the scientific comity for diploma delivery at the UTBM and TUCN.
Editorial activity	- Scientific Secretary at the *International Journal on Electrical Engineering and Transportation* (IJEET), www.ijeet.org, edited by Université de Technology de Belfort-Montbéliard, since 2008. - Reviewer at IEEE Industrial Electronics Society, since 2008, and at IEEE Vehicular Technology Society, since 2009.
Publications	(5 books, 10 ISI journal-articles, 4 other international journal-articles, 34 articles in proceedings of international conferences)
Books	1. D. Fodorean, F.Jurca, M.Ruba and D.C. Popa. *Motorization Variants for Light Electric Vehicles – design, magnetic, mechanical and thermal aspects*, AlmaMater, June 2013. 2. D.Fodorean: *Global Design and Optimization of a Permanent Magnet Synchronous Machine used for Light Electric Vehicle*, Intech, June 2011 –book chapter in monograph *Electric Vehicles – Modelling and Simulations*, edited by Serif Soylu. 3. D.Fodorean : *Initiation in programming the digital signal processors of TMS320LF2407(A) type* (original title in Romanian: *Initiere în programarea procesoarelor digitale de semnal din clasa TMS320LF2407(A)*), UT Press, Cluj-Napoca , Romania , 2010. 4. L.Szabo and D.Fodorean: *Simulation of the converter-machine assembly used in electromechanical systems* (original title in Romanian: Simularea ansamblului convertor-masina in sisteme electromecanice), UT Press 2009. 5. I-A.Viorel, D.Fodorean, F.N.Jurca: *Special Electrical Machines - Applications* (original title in Romanian: *Masini Electrice Speciale – Aplicatii*), Mediamira 2007, Cluj-Napoca , Romania.
Selection of ISI Journal articles	1. D. Fodorean, L. Idoumghar, and L. Szabo, "Motorization for electric scooter by using permanent magnet machines optimized based on hybrid metaheuristic algorithm", IEEE Transaction on Vehicular Technology, vol.62, n.1, pp.39-49, January 2013. 2. M. Ruba, D. Fodorean, "Analysis of Fault-Tolerant Multiphase Power Converter for a Nine-Phase Permanent Magnet", IEEE Transaction on Industry Applications, vol.48, nr.6, pp.2092-2101, November/December 2012. 3. D.Fodorean, L.Idoumghar, A.N'diaye, D.Bouquain and A.Miraoui: "Simulated Annealing Algorithm for the Optimisation of an Electrical Machine", IET Electric Power Applications, vol.6, n°9, pp.735-742, November, 2012. 4. T.Raminosoa, B.Blunier, D.Fodorean and A.Miraoui, "Design and optimisation of a Switched Reluctance Motor driving a Compressor for a PEM Fuel Cell System for Automotive Applications", IEEE Transactions on Industrial Electronics, vol.57, n°9, pp.2988-2997, Sept.2010. 5. D.Fodorean, A.Djerdir, I.A.Viorel, A.Miraoui: "A Double Excited Synchronous Machine for Direct Drive Application - Design and Prototype Tests", IEEE Transactions on Energy Conversion, vol.22, n.3, pp.656-665, September 2007.
Research Projects	(5 as project manager, many other research projects as team member - 4 in international grants)
Manager for National Projects	1. Title: **Hardware-in-the-Loop Modular Platform for Testing the Energy Management of Competitive & Highly-Efficient Hybrid-Electric Vehicles.** PCCA grant, code 191/2012. Duration: July 2012 – June 2015. Budget 2 809 700lei (aprox.660 000 €) – supplementary, the project is also financed by two private companies, theirs contribution being 949 200 lei (aprox.220 000 €) – www.hitech-hev.utcluj.ro. 2. Title: **Intelligent hybrid vehicle for transportation of individual persons with reduced mobility**. Project type/code TE-250, number: 32/28.07.2010. Duration: 28 July 2010-27 July 2013. Budget: 813,700 lei (aprox.200,000€) – www.wheel-ee.utcluj.ro. 3. Title: **Design and construction of a double excited synchronous machine**. Project type/code: TD/39, project number nr: 33532/2003. Periode: 2003-2005. Budget 9 900 lei (aproximately 2500€).

Manager for International Projects	1. Title: **Design of two types of special electrical machine**. Project type: industry project between *TUCN* and *XANTOS company* (Switzerland). Duration: March – May 2011. Budget: 15 387 €. 2. Title: **Assistance for the manufacturing and the testing phases of special electrical machines**. Project type: industry project between *TUCN* and *HYTEN company* (Switzerland). Duration: July – December 2011. Budget: 6 486 €.
Membership	Member of the *Institute of Electrical and Electronics Engineers* (IEEE), since 2007.