

PERSONAL INFORMATION

Prof.dr.habil. Florin Emil MARIASIU



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Sex Male | Date of birth 10/09/1968 | Nationality Romanian

WORK EXPERIENCE

- from 2016 – to present

Professor  
 Technical University of Cluj-Napoca

  - Activities and responsibilities specific to the educational and research fields - Internal Combustion Engine Management, Command and Control of Internal Combustion Engines, Means of Transportation, Rational Exploitation of Transport Vehicles, Basis and Fundamentals of Artificial Intelligence courses
  
- from 2013 – to 2016

Associate professor  
 Technical University of Cluj-Napoca

  - Activities and responsibilities specific to the educational and research fields - Processes and Characteristics of Internal Combustion Engines, Means of Transportation, Vehicles Body Structure courses, Marketing
  
- from 2006 – to 2013

Lecturer  
 Technical University of Cluj-Napoca

  - Activities and responsibilities specific to the educational and research fields - Processes and Characteristics of Internal Combustion Engines, Internal Combustion Engines I, Maintenance of Agricultural Tractors courses
  
- from 2011 – to 2012

Associate Professor  
 Babes-Bolyai University of Cluj-Napoca

  - Activities and responsibilities specific to the educational and research fields - Organizational Theories course
  
- from 1995 – to 2006

Engineer  
 Robert Bosch GmbH

  - Activities and responsibilities specific to the management and marketing of sales network

EDUCATION AND TRAINING

- 2015

Habilitation Thesis in Mechanical Engineering  
 Technical University of Cluj-Napoca

  - RESEARCH ON POSSIBILITIES TO IMPROVE BIOFUEL'S USE IN INTERNAL COMBUSTION ENGINES FUELLING
  
- 2011-2013

Professional training program: "University school for initial and continuous training of teaching staff and trainers in the field of technical and engineering specializations - DidaTec" - project POSDRU / 87 / 1.3 / S / 60891.  
 Technical University of Cluj-Napoca

  - Use and development of modern educational technologies - E-learning and blended learning

- 2010-2020 Qualification courses in the operation and use of experimental research systems in the field of internal combustion engines  
AVL List GmbH, Graz, Austria
  - Operation and use of experimental research systems in the field of internal combustion engines
- 2010 CNFPA certificate, Romania
  - Project management certificate, mandatory to application for European funding programs and grants
- from 2004 – to 2005 Postgraduate courses in management and marketing  
Southern Connecticut State University (USA) and Lider XXI foundation (Romania)
  - Obtaining advanced and applied skills in the field of management and marketing
- from 1996 – to 2003 PhD degree in Mechanical Engineering  
Technical University of Cluj-Napoca
  - Contributions to the modelling of injection with the combustion chamber shape to optimize the functional cycle of compression ignition engine
- from 1987 – to 1993 BSc - Engineer Qualification  
Technical University of Cluj-Napoca
  - Mechanical engineering

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
German	A2	A2	A2	A1	A1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user  
Common European Framework of Reference for Languages

Communication skills

- Good communication skills acquired through own experience and working with distributors within the sales networks;
- Open attitude and permanent availability towards students;
- The use of psycho-pedagogical means and methods specific to the educational process;
- Good relationship with department colleagues

Organisational / managerial skills

- Member of the UTCN Ethics Commission (2015-2021)
- Member of the ARMM Faculty Council (2016-2020, 2024-2028)
- Experience in research project management as a project director and member of research teams
- Coordinator of student teams participating in the international competition of pneumatically operated vehicles "Bosch Rexroth / Aventics Pneumobil" 2010-2015, Eger, Hungary.

Job-related skills/  
Area of expertise

- Simulation and modelling of the functional processes of energy sources for vehicles,
- Renewable energies,
- Sustainable transportation;
- Nano materials and nanotechnologies applied in the automotive industry;
- Energy sources and high energy efficiency batteries for electric vehicles;
- Marketing and management of advanced technologies in the automotive industry;

Computer skills

- MS Office, Teams, MathCAD, Origin, Ansys, Boost, Fire, Cruise, Excite, Ricardo, Lotus Engineering

- Other skills**
- Creation and development of e-learning platforms for the disciplines: Engine Management for Transport Vehicles, Processes and Characteristics of Internal Combustion Engines
  - Editor of “Energy” and “Automotive & Transportation” fields - Open Engineering (former Central European Journal of Engineering), De Gruyter Publishing, (2009-2017), and Energies: Special Issue – Performance and simulation of electric vehicle (2020-2023)
  - Reviewer: Energy Conversion and Management Journal, Tribology Transaction, Transport, Central European Journal of Engineering, Energy Sources Part B: Economics, Planning and Policy, Journal of Air Transport Management, Annals of Operational Research, International Journal of Energy Technology and Policy, International Journal of Mechanical Engineering Education, Journal of Cleaner Production, Energies, Symmetry, Processes, Electronics, Sustainability, Applied Thermal Engineering, Journal of Energy Storage, Membranes, Machines, Energy, Science Reports, Vehicles, Numerical Heat Transfer: Part A.
  - Expert evaluator, ERC Grants Program (European Research Council) PE8-panel

**Driving licence** : B (automobiles) and C (trucks)

## ADDITIONAL INFORMATION

### Publications

- First author of 8 books, co-author of 4 books and 1 chapter in a monography
  - Author/first author of over 50 scientific articles and co-author of over 50 scientific papers in the field of mechanical, automotive and transportation engineering.
  - Citations: over 1000 (which over 200 in scientific journals indexed in WoS and Scopus)
- List of the most representative works:
- Buidin, T.I.C.; **Mariasiu, F.** (2024) Effects of using fireproof thermal management systems on the lifespan of battery cells. Case Studies in Thermal Engineering, 57,104347. <https://doi.org/10.1016/j.csite.2024.104347>, (WoS IF = 6.8, Q1)
  - **Mariasiu F**, Chereches IA, Raboca H. (2023) Statistical Analysis of the Interdependence between the Technical and Functional Parameters of Electric Vehicles in the European Market. Energies. 2023; 16(7):2974 (WoS IF = 3.252, Q3)
  - Szabo I, Scurtu LI, Raboca H, **Mariasiu F.** (2023) Topographical Optimization of a Battery Module Case That Equips an Electric Vehicle. Batteries. 2023; 9(2):77. <https://doi.org/10.3390/batteries9020077>, (WoS IF = 5.938, Q2)
  - Buidin, T.I.C.; **Mariasiu, F.** (2022) Parametric Evaluation of Thermal Behavior for Different Li-Ion Battery Chemistries. Batteries, 8, 291. <https://doi.org/10.3390/batteries8120291>, (WoS IF = 5.938, Q2)
  - Nicolae Vlad Burnete, **Florin Mariasiu**, Christopher Depcik, Istvan Barabas, Dan Moldovanu (2022) Review of thermoelectric generation for internal combustion engine waste heat recovery, Progress in Energy and Combustion Science, 91, 101009, <https://doi.org/10.1016/j.pecs.2022.101009>, (**WoS IF = 35.339, Q1 top**)
  - Sechel, I.C.; **Mariasiu, F.** (2022) Efficiency of Governmental Policy and Programs to Stimulate the Use of Low-Emission and Electric Vehicles: The Case of Romania. Sustainability, 14, 45. <https://doi.org/10.3390/su14010045> (WoS IF=3.251, Q2)
  - Buidin T.I.C., **Mariasiu F.** (2021) Battery Thermal Management Systems: Current Status and Design Approach of Cooling Technologies, Energies, 14(16), 4879 (WoS IF=3.004, Q3)
  - Buidin T.I.C., **Mariasiu F.** (2021) Modeling Approach of an Air-Based Battery Thermal Management System for an Electric Vehicle, Applied Sciences, 11(15), 7089 (WoS IF=2.679, Q2)
  - Burnete N.V., **Mariasiu F.**, Moldovanu D., Depcik C. (2021) Simulink model of a thermoelectric generator for vehicle waste heat recovery, Applied Sciences, 11 (3), 1340, (WoS IF=2.474, Q2)
  - Varga, B.O., **Mariasiu, F.**, Miclea C.D., Szabo I., A.A.Sirca, N. Vlad (2020) Direct and Indirect Environmental Aspects of an Electric Bus Fleet Under Service, Energies, 13(2), 336; <https://doi.org/10.3390/en13020336> (WoS IF=2.707, Q3)
  - Varga, B.O., Sagoian, A., **Mariasiu, F.** (2019) Prediction of Electric Vehicle Range: A Comprehensive Review of Current Issues and Challenges, Energies, 12(5), 946; <https://doi.org/10.3390/en12050946> (WoS IF=2.676, Q3)
  - **Mariasiu F.**, Burnete N.V., Moldovanu D., Varga B.O., Iclodean C., Kocsis L. (2015) Effects Of Bioethanol Ultrasonic Generated Aerosols Application On Diesel Engine Performances, Thermal Science, 19(5), 1931-1941, 2015 (WoS IF=0.939, Q2).
  - Manzetti S., **Mariasiu F.** (2015) Electric vehicle battery technologies: From present state to future systems, Renewable and Sustainable Energy Reviews 51, 1004–1012, 2015 (WoS IF=6.798, Q1).

- R&D Projects** Experience in project management as Project Director / Manager (4):
- PNII type contract Ideas Ex. ID175 - "Influence of external energy input on functional parameters and pollutant emissions of internal combustion engines powered by mixed biofuels" (2009-2012),
  - Grant of Ministry of European Funds and EEA-Norway, RO 01 Program, contract no.1140/2016,
  - Subsidiary contract no.6 - Partnership Program for knowledge transfer, R&D activities within the project "Technologies for intelligent urban electric vehicles - URBIVEL", SMIS 105565, 2018-2020 (partner Porsche Engineering Romania) – innovative battery for vehicles for passenger transport.
  - Subsidiary contract no.13 - Partnership Program for knowledge transfer, R&D activities within the project "Technologies for intelligent urban electric vehicles - URBIVEL", SMIS 105565, 2019-2021 (partner Inovo Finance) – prototype of a premium class electric vehicle.
- Expert in EU grants/projects (4): POS DRU 109 /2.1/G/81459, POCU/380/6/13-ANTREDOC, POC/SMIS 108428/CeS-UTCN, OLGA-H2020
- Participation as member in 15 national R&D and consulting projects with economic partners.
- Patents** 2 Patents (OSIM RO 128768-B1/30.06.2016, OSIM RO 127032-B1/30.05.2018) and 7 Patent applications - in mechanical and automotive domain (national)
- Honours and awards**
- More than 30 prizes and awards at Inventios and Innovation National and International Exhibitions
  - 8 awards from Romanian National Authority for Research and Innovation
  - Faculty of Mechanics' Prize, Technical University of Cluj-Napoca, for Research and Innovation Activity– 2016
  - Faculty of Automotive Engineering, Mechatronics and Mechanics' Prize, Technical University of Cluj-Napoca, for Research and Innovation Activity- 2022
- Memberships**
- Member of SIAR (Romanian Society of Automobile Engineers) 2006-2016,
  - Member of SIA (Society of Automotive Engineers) 2010-2016
  - Member of ASART (Association of Road Vehicle and Transport Specialists) 2018-present
  - Member IFAE (International Federation of Automotive Experts) 2016-present