

Curriculum Vitae

Personal information

First name(s) / Surname(s) Mihaela Crețu
 Telephone(s) 0264-401462
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 E-mail mihaela.cretu@ethm.utcluj.ro
 Nationality Romanian
 Date of birth September 1, 1980

Work experience

Dates **Starting from 2008 and today, the following degrees**

Name and address of employer Universitatea Tehnică din Cluj-Napoca, Facultatea de Inginerie Electrică, Str. George Barițiu Nr. 26-28, 400027, Cluj – Napoca, <https://ethm.utcluj.ro/>

Occupation or position held Associate professor (October 1, 2018 – today), Lecturer (October 1, 2013 – September 30 2018), University asistent (October 1 2008 – September 30 2013), PhD student (October 1 2004-September 30, 2008)

Main activities and responsibilities

- **Teaching activity:** course and laboratory on Advanced Technologies for Designing Electrical and Electronic Circuits, course and laboratory on Numerical Modeling of Electrical Circuits, course on Electrical Engineering, seminar and laboratory on Theory of Electrical Circuits, Theory of Electromagnetic Field
- **Research activity:** Bioelectromagnetism, Numerical Modeling of Electrical Circuits, Electromagnetic Field Theory, Energy Efficiency, Integration of renewable energy sources in buildings,

Education and training

Dates 2004-2012

Title of qualification awarded Doctor's degree -Excellent

Principal subjects/occupational skills Electrical Engineering

Name and type of organization providing education and training Technical University of Cluj-Napoca

Dates 2007-2010

Title of qualification awarded Economist/Licensed in Economics

Principal subjects/occupational skills Accounting and Economic Data Processing

Name and type of organization providing education and training Babes-Bolyai University, Cluj-Napoca, Faculty of Economics and Business Administration

Dates 2004-2005

Title of qualification awarded Master of Science in Engineering

Principal subjects/occupational skills :Computer Aided Design in Electrical Engineering

Name and type of organization providing education and training Technical University of Cluj-Napoca/Faculty of Electrotechnics

Dates 1999-2004
 Title of qualification awarded Engineering/Bachelor of Science
 Principal subjects/occupational skills :General Electrotechnics
 Name and type of organization providing education and training Technical University of Cluj-Napoca/Faculty of Electrotechnics

Personal skills and competences

Mother tongue(s) Romanian

Other language(s)

Self-assessment

European level (*)

English

French

Spanish

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
Very well	Very well	Very well	Very well	Very well
Certificate of Language Proficiency/Department of Modern languages and Communication. Level B2				
Very well	Very well	Good	Good	Good
Good	Good	Good	Good	Good

Didactic activity

Teaching Courses Advanced Technologies for Designing Electrical and Electronic Circuits, Numerical Modeling of Electrical Circuits, Theory of Electrical Circuits, Theory of Electromagnetic Field

Training Mobility **March- June 2004** - SOCRATES-ERASMUS Scholarship – Technische Universitat Stuttgart, Germany

Rehabilitation Engineering Course, University of Jyväskylä, Finland, **19-27 of March 2006**

2007 Aristotle University of Thessaloniki, Greece

2009, 2010, Biomedical Engineering Course, Medical University of Vienna, Austria

2022, Marmara University, Turkey

2022 Frederick University, Cyprus

2022 - University of Florida, USA;

Research

Author of 6 books, of which 2 as first author: one theoretical, one application and four laboratory guides

Scientific works: Author and co-author of a number of 120 scientific works and publications: 40 ISI indexed papers of which: 8 papers published in ISI Journal and 32 papers published in ISI Proceedings.

30 papers indexed in international databases (BDI), 50 non-indexed papers published in national and international scientific journals and events

over 150 citations in ISI and BDI databases

Project Manager of 5 scientific research contracts obtained through national and international competition

National Grants
 (max 5 the most representative)

- Clădiri pozitive energetice bazate pe surse regenerabile, No. 52PHE/2024, Total budget: 161.150 RON, - Project Manager
- Clădiri interactive eficiente de tip SMART-GRID, PN-IV-P8-8.1-PRE-HE-ORG-2023-0143, No. 56PHE/2024, Total budget 125.262 RON, - Member
- Contribuții privind studiul teoretic și experimental al stimulării magnetice funcționale, Contract TD_283, nr. Contract 601/2007 – Project Manager
- Numerical Calculus of Binary Dielectric Mixtures Permittivity with Inclusions of Different Geometrical Shapes and Sizes, Contract MC, Cod CNCIS 102/2007 – Project Manager

International Grants
(max 5 the most representative)

- Renewable Energy-based Positive Homes - RENplusHOMES, HORIZON-CL5-2022-D4-01-02, No. 101103450/2023, Total budget: 5.999.987 EUR, TUCN budget: 463.187 EUR, <https://renplushomes.eu/> - Project Manager
- Supporting increased knowledge on renewable energy and energy efficiency in Alba Iulia-346649 – GREENER, RO-ENERGY-0146, EEA and Norway grants, Total budget: 210.196 EUR, TUCN budget: 38.000 EUR, <https://eeagrants.org/archive/2014-2021/projects/RO-ENERGY-0146> - Project Manager
- Smart Grid-Efficient Interactive Buildings, 101123238/2023– EVELIXIA, HORIZON-CL5-2022-D4-02, Total budget: 8.189.865 EUR; TUCN budget: 360.437 EUR, <https://build-up.ec.europa.eu/en/resources-and-tools/links/evelixia-project> - Member
- Holistic Green Airport, 101036871 – OLGA, HORIZON: H2020-LC-GD-5-1-2020, Total budget: 25.364.993 EUR; TUCN budget: 758.437 EUR, www.olga-project.eu – Member
- Renewable Cogeneration and Storage Technologies Integration for energy Autonomous Buildings 815301-RE-COGNITION, HORIZON: H2020-LC-SC3-2018-2019-2020/H2020-LC-SC3-2018-RESTwoStages, Total budget: 4.990.000 EUR; TUCN budget: 221.250 EUR, <https://re-cognition-project.eu/> - Member

Scientific publications

- Mihaela Crețu, L. Czumbil, B. Bargauan, A. Ceclan, A. Berciu, A. Polycarpou R. Rizzo, D. D. Micu, Modelling and Evaluation of the Baseline Energy Consumption and the KPIs in TUCN Buildings within a Demand Response Programme – A Case Study, IET Renewable Power Generation Journal, Rank Q1, Vol. 14, Issue 15, pp 2864-2875, 2020, DOI: 10.1049/iet-rpg.2020.0096, Q1 ranked
- Mihaela Crețu, A. Darabant, R. Ciupa, Magnetic Stimulation of the Spinal Cord: Evaluating the Characteristics of an Appropriate Stimulator, Artificial Organs, Rank Q2, vol. 39, Issue 10, pp. 841–848, ISSN 0160564X, october 2015, Q2 ranked
- Mihaela Crețu, D. D. Micu, Improved coil design for repetitive magnetic stimulation of the spinal cord, COMPEL, Rank Q3, vol. 34, Issue: 4, pp. 1043-1053, ISSN 03321649, 2015.
- L. Darabant, Mihaela Crețu, A. Darabant, Magnetic Stimulation of the Spinal Cord: Experimental Results and Simulations, IEEE Transactions on Magnetics, vol. 49, nr.5, 2013, pp. 1845-48, Q2 ranked.
- L. Darabant, Mihaela Crețu, R. V. Ciupa, D. D. Micu, D. Șteț, Assessment of the Electric Field Induced in the Human Tissue during Magnetic Stimulation of the Spinal Cord, COMPEL, Rank Q3, 2012, vol. 31, nr. 4, pg. 1164-1172.
- Mihaela Crețu, Nicoleta Mureșan, Timea Farkas, Darabant, L. Czumbil, L. Dan D. Micu, Analysis and simulation of a hybrid energy system using HOMER Pro for TUCN blocks of buildings, Proceedings of MPS, 2023.
- Farkas T., Ungureșan P., Mihaela Crețu, D. Șteț, I. Czumbil, A. Ceclan, Mureșan C., Polycarpou A., D.D. Micu, Hybrid Energy System Analysis for a Swimming Pool Complex using HOMER Pro, Proceedings of 57th International Universities Power Engineering Conference (UPEC 2022), DOI10.1109/UPEC55022.2022.9917941.

Additional information

Awards

1. Best European Energy Service Project granted to Technical University of Cluj-Napoca & Cluj-Napoca City Municipality - by EU Commission - Brussels –2019 (Team award)
2. AEE Regional Award for Institutional Energy Management Association - by Association of Energy Engineers (AEE) – Charlotte, USA –2018 (Team award)
3. Romanian Energy Award – Special Jury Award (Team award) - 2015
4. 2nd Prize for Research Projects - CEEEx No. 136/2006: Intelligent and active diagnosis and prediction of buildings in a complex polluted environment (Team award) – 2008
5. Research Awards – Articles in ISI Journals - awarded through competition by ANCS: 4 awards - PN-II-RU-PRECISI and PN-III-P1-1.1- PRECISI

Membership of
Professional Societies

National Society for Biomedical Engineering, Energy Transition Research Center

Other relevant activities Reviewer: International ISI Journals: IET Renewable Power Generation, Electronics, Energies, COMPEL, Sustainability, Applied Sciences, Sensors, Processes, International Journal of Environmental Research and Public Health

International conferences: Modern Power Systems, International Symposium on Advanced Topics in Electrical Engineering, Biomedical Engineering and Technology, International Conference on Electrical, Computer, Communications and Mechatronics Engineering, Universities Power Engineering

Professional training courses:

1. SOCRATES-ERASMUS Scholarship
march 2004 – may 2004, Stuttgart University, Germany
2. Rehabilitation Engineering Course, University of Jyväskylä, Finland, 19-27 of March 2006
- 3 Biomedical Engineering Course, Medical University of Vienna, Austria
4. ANSYS Courses - Certificate of Attendance, No. 389/15.03.2008, Technical University of Cluj-Napoca, Sheffield University U.K. and ANSYS, Inc. Romanian Channel Partner, INAS S.A., Craiova
5. EMTP-RV course, POWERSYS France, februarie 2016

Cluj-Napoca,
Date: September 2024

Name and signature:
Mihaela Crețu