

Professional Experience

University Teaching Assistant

01/10/2023 – Present

- Teaching: Conducted lab and seminar activities for Electromagnetic Field and Electric Circuits Theory courses; lab and project activities for Smart Grids and Distributed Energy Sources; lab activities for Technical Drawing.
- Research: Focused on Electromagnetic Compatibility and Power Quality for Electric Drives; modeling and simulation of electric circuits, electric drives, and power electronics.

R&D Project Coordinator – ERAGREAT ENERGY, Bucharest, Romania

01/11/2023 – 30/04/2024

- Designed the R&D department hydrogen innovation roadmap, aligning proposals with national and EU funding priorities
- Led the technical team through concept development, feasibility assessment, and proposal drafting
- Delivered a portfolio of R&D project concepts with defined milestones, budgets, and impact estimates

Early Stage Researcher – University of Craiova, Craiova, Romania

30/09/2020 – 30/09/2023

- Horizon 2020 ITN actions Project: "ETOPIA", EU Marie Skłodowska-Curie grant nr. 812753.
- Research: Analyzed electromagnetic compatibility and power quality for electric railway traction systems; improved power quality in traction systems with converters; modeled, tested, and processed data for electric drives and power electronics for EMC analysis; tools: Matlab Simulink, PSim, LT Spice.
- Planned research and published findings in most prestigious EMC conferences in USA and EU.
- Outreach: Published and disseminated research; organized conferences; published blog content.

Assistant Teacher – Department of Electrical Engineering, Technical University of Moldova, Chisinau, Moldova

08/2016 – 30/04/2021

Lecturing:

- Courses, laboratories, and seminars in Numerical Methods, Electrical Tools and Equipment, Renewable Energy Sources, Controllers and Programmable Relays, Electric Drives, and Electrotechnics.

Research:

- 01/2020-01/2023: State Program "Indigenous Integrated Electric Traction Systems for Urban Passenger Vehicles - ELTRAC".
- 09/2016-12/2018: UTM Institutional Project "Towards Energy Autonomy of the Republic of Moldova".
- 01/2016-12/2018: Bilateral research with Politehnica University of Timișoara on high-performance drive systems for hybrid and electric vehicles (HELSAX).

Management:

- International Relationships and Research lead (Sep 2018 – present); PR responsible (Sep 2017 – present); organized 2018 SIEMEN international conference in Chisinau.

Project Coordinator – Sentinels A.O., Chișinău, Moldova

30/04/2015 – 29/09/2017

- Project writing and management; event management; sports development; coaching in American football and cultural outreach.
- Managed a 20 000 USD fund for promoting American culture in Moldova.

Engineering Consultant (freelance) – Keymitt, Luxembourg, Luxembourg

14/10/2018 – 14/12/2018

- Improved a Smart Keylock IoT application for a start-up.
- Coordinated IoT product development, performed electronic development in Eagle CAD, designed micro electric drives, and embedded programming in C++ (Keil uVision IDE, Arduino IDE).

Alumni Coordinator (freelance) – Ecovisio NGO, Chisinau, Moldova

01/2016 – 09/2017

- Coordinated programs and events, built alumni community, managed and mentored projects.

Engineer – "ITS Informbusiness" SRL, Chisinau, Moldova

31/08/2013 – 28/02/2016

- Developed power electronics and components for urban electric public transport (trolleybus and tram).
- Developed, tested, and repaired electric/electronic devices; programmed microcontrollers; assessed environmental impact; mathematical modeling; designed electric schemes; technical drawing; wrote technical documentation.

Education and Training

PhD in Electrical Engineering – Dual degree between the University of Craiova & Politecnico di Milano, Craiova, Romania
10/01/2020 – 09/30/2024

- Part of ETOPIA project, funded by Horizon 2020 Marie Skłodowska-Curie. Thesis defended publicly on 09/27/2024.
- Thesis: Efficiency of an Electric Traction System Concerning the Improvement of Electric Energy Quality and the Reducing of EMI through Multi-Domain Design of Electric Drive Systems, Including Power Converters

MSc in Electrical Engineering – Technical University of Moldova, Chisinau, Moldova
08/31/2013 – 01/31/2015

- Thesis: "Traction System with Asynchronous Motor and Direct Torque Control"

Bachelor's in Electrical Engineering – Technical University of Cluj-Napoca, Cluj-Napoca, Romania
2008 – 2013

- Thesis: "Modelling the work of an electric traction system with Direct Current Motor"

Psychopedagogical Training Level 1, 2 – University of Craiova, Craiova, Romania
02/15/2024 – 06/15/2024
10/01/2023 – 01/31/2024

Training Certificates

Python Basic Competency Certificate – Tekwill Moldova, Chisinau . 03/31/2020 – 04/30/2020

Climate Launchpad Certificate – Eco-Startup development and competition. 05/2018 – 10/2018

Certificate of Capacity Training "System Innovation Lab 2016 – Shaping Europe's Energy Future" – Wuppertal Institute for Climate,

Certificate of capacity "Social Entrepreneurship" activEco 2015 Program Alumni. EcoVisio, Moldova. 03/2015 – 11/2015

Skills

Language: Romanian (Native), English (Fluent), Russian (Fluent), French (Intermediate)

IT & engineering software: Python, C++; Matlab, Simulink, Simscape; AutoCad, P-Sim. (all - intermediate)

Productivity software: MS Office (Excel, PowerPoint, Visio); Trello, Notion

Extra-Curricular

- **Brazilian Jiu-Jitsu athlete & coach** | Legio XIII Combat Sports Club Craiov. **2020 – Present**
- **Team & organization leader** | Sentinels American Football Club Moldova. **2013 – 2020**
- **Climate Launchpad – Eco Startup Competition** | European Institute of Innovation & Technology. **2018**
 - Team leader – 1st place in nationals and represented Moldova in finals held in Edinburgh, UK
 - Start-up pitch: Project "Good Sun" – Quality Assurance of PV solar panels using drones and big data
- **Project manager** | Ecovisio – NGO promoting sustainable development & social entrepreneurship. **2016 – 2017**
- **Founder at Makers Moldova Innovation Hub** | NGO promoting innovative STEM field initiatives. **2015 – 2017**

Data: 01.10.2025

Semnătura: