

Iurie Nuca

Iurie.Nuca@edu.ucv.ro Craiova, Romania

Professional Experience

University Teaching Assistant

University of Craiova | 01/10/2023 – Present | Craiova, Romania

- Facilitate laboratory and seminar sessions for Electromagnetic Field and Electric Circuits Theory courses
- Conduct lab and project activities for the Smart Grids and Distributed Energy Sources course
- Lead lab activities for Technical Drawing
- Engage in research focused on Electromagnetic Compatibility and Power Quality for Electric Drives
- Model and simulate electric circuits, drives, and power electronics

R&D Project Coordinator

EraGreat Energy | 01/11/2023 – 30/04/2024 | Bucharest, Romania

- Developed R&D strategy for hydrogen energy initiatives
- Managed a team of four professionals
- Authored project proposals on innovative hydrogen energy applications

Early Stage Researcher

University of Craiova | 30/09/2020 – 30/09/2023 | Craiova, Romania

Project: "ETOPIA," EU Programme Marie Skłodowska-Curie, Grant No. 812753

- Researched electromagnetic compatibility and power quality for electric railway traction systems
- Improved power quality in converter-based traction systems
- Modeled, tested, and processed data related to electric drives and power electronics for EMC analysis
- Utilized Matlab Simulink, PSim, LT Spice
- Planned research and published findings
- Organized conferences and conducted outreach, including blog publications

Lecturer

Department of Electrical Engineering, Technical University of Moldova | 31/08/2016 – 30/04/2021 | Chisinau, Moldova*

- Delivered lectures, seminars, and laboratories in Numerical Methods, Electrical Tools and Equipment, Renewable Energy Sources, Controllers and Programmable Relays, Electric Drives, and Electrotechnics
- Mentored student projects in- and extra-curricular
- Participated in national and bilateral research projects focused on electric traction, power electronics, and renewable energy
- Responsible for international relations and public relations within the department
- Organized the 2018 SIEMEN International Conference

Project Coordinator

Sentinels A.O. | 30/04/2015 – 29/09/2020 | Chisinau, Moldova

- Promoted American Football and cultural outreach programs in Moldova
- Oversaw project management, event coordination, and sports development
- Provided coaching and mentoring

Engineer

Keymitt | 14/10/2018 – 14/12/2018 | Luxembourg, Luxembourg

- Contributed to the development of a smart keylock application for a start-up
- Designed micro electric drives
- Programmed embedded systems in C++ (Keil uVision IDE, Arduino IDE)

Alumni Coordinator

EcoVisio NGO | 31/01/2016 – 29/09/2017 | Chisinau, Moldova

- Coordinated alumni programs, events, and community-building initiatives
- Mentored project teams

Co-Founder / Operations Coordinator

Makers Moldova | 14/02/2016 – 30/05/2017 | Chisinau, Moldova

- Served as co-founder and administrative board member
- Led community development and staff coordination
- Managed operations and oversaw educational, electrical, electronic, IoT, embedded systems, and renewable energy projects

Engineer

**"ITS Informbusiness" SRL | 31/08/2013 – 28/02/2016 | Chisinau, Moldova*

- Developed and tested power electronics components for urban electric transport
- Programmed microcontrollers and assessed environmental impact
- Developed mathematical models and technical documentation

Education & Training

PhD in Electrical Engineering

University of Craiova & Politecnico di Milano | 01/10/2020 – 30/09/2024 | Craiova, Romania

- Joint doctoral degree as part of ETOPIA Project, Horizon 2020 programme, Marie Skłodowska-Curie grant agreement No. 812753
- Thesis publicly defended on September 27, 2024
- Field of Study: Engineering, Manufacturing, and Construction
- Dissertation: "Efficiency of an Electric Traction System Regarding Improvement of Electric Energy Quality and Reduction of EMI through Multi-Domain Design of Electric Drive Systems, Including Power Converters"

MSc in Electrical Engineering

Technical University of Moldova | 31/08/2013 – 31/01/2015 | Chisinau, Moldova

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

BSc in Electrical Engineering

Technical University of Cluj-Napoca | 31/12/2008 – 30/12/2013 | Cluj-Napoca, Romania

- Thesis: "Modeling the Work of an Electric Traction System with Direct Current Motor"

Psychopedagogical Training Level 2

University of Craiova, Department for Teaching Staff Training | 15/02/2024 – 15/06/2024 | Craiova, Romania

Psychopedagogical Training Level 1

University of Craiova, Department for Teaching Staff Training | 01/10/2023 – 31/01/2024 | Craiova, Romania

Python Basic Competency Certificate

Tekwill Moldova | 31/03/2020 – 30/04/2020 | Chisinau, Moldova

Certificate | Climate Launchpad

31/05/2018 – 30/10/2018

- Achieved first place at Climate Launchpad – largest eco-entrepreneurship competition
- Project: GOOD SUN (Quality Assurance of PV Panels using Drones and Big Data)
- Represented Moldova at CLP finals in Edinburgh
- Received training in startup pitching and technical entrepreneurship

Certificate of Capacity Training: System Innovation Lab 2016 – Shaping Europe's Energy Future

Wuppertal Institute for Climate, Environment, Energy & Centre for Social Investment Heidelberg | 31/01/2016 – 30/05/2016 | Germany

- Project management, system mapping, design thinking, and system innovation
- Comprehensive knowledge of Europe's energy landscape, especially Germany and Poland

activEco 2015 Program Alumni

EcoVisio | 31/03/2015 – 29/11/2015 | Moldova

- Social entrepreneurship, project management, sustainable development

Language Skills _____

Mother tongue(s): **Romanian**

	Understanding		Speaking		Writing
	Listening	Reading	Spoken production	Spoken interaction	
Russian	C2	C2	C2	C2	C2
English	C1	C1	C1	C1	C1
French	A2	B1	A1	A1	A2