



Emil Nita

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<https://scholar.google.com/citations?hl=ro&user=aR8WgTAAAAAJ>

WORK EXPERIENCE

01/11/2024 – CURRENT Bucharest, Romania

SYSTEM APPLICATION ENGINEER INFINEON TECHNOLOGIES

- Plan test procedures for cutting edge ICs (main focus on HV/LV gate drivers)
- Develop automated testing procedures
- Measure and analyse electrical data
- Microcontroller programming (Matlab, C++)

15/06/2023 – 01/05/2024 București, Romania

MEDICAL DEVICE ENGINEER MEDIZIN TECHNOLOGIES

- Creating and analysing technical documentation
- Performing instalation and commissioning activities on site
- Performing technical trainings for medical personnel (Electrical Beds, ECGs, Defibrillators, etc.)
- Developing internal management structure to increase work flow efficiency

30/04/2020 – 01/09/2023 Otopeni, Romania

ELECTRONICS ENGINEER AUTOMATICA S.A.

- Designing and manufacturing of electrical circuits (Easy EDA, I developed a Flash Arc Sensor for medium voltage cubicals)
- Microcontroller, PLCs and protection relay programming:
 - Microchip studio (ATtiny family),
 - PC Works (EV Chargers),
 - STEP 7 (Automatic load transfer system for medium voltage facilities)
 - SIMOCODE (Motor protection relays for LV applications)
 - Easergy pro, Easergy studio, PCM600 (Protection function and logic programming)
 - CET850 (Creating CID files for IEC61850 protocol for P3-P5 protection relays)
- Designing the communication architecture for the protection relays intended for HVAC cubicals (good knowledge of MODBUS and IEC61850)
- Designing the redundant communication architecture coordonating with other suppliers (SCADA, LV vendors, etc.)
- Carrying out Onshore/Offshore tests for commissioning (usage of Omicron/ISA testing tool)

14/11/2020 – 01/09/2022 Bucuresti, Romania

ASSISTANT PROFESSOR PUB

- Guiding students in carrying out practical applications
- Developing educational materials for application classes (Presentations, Aplicative tasks, Demo systems, Evaluation tests)
- Conducting experiments to demonstrate fundamental principles on research projects (PN-III-P2-2.1-PTE-2019-0253)
- Coordonating students in competitions and activities to promote the faculty
- Subjects of interest: Numerical Methods, Mechatronics System Modeling (Impedance approach), Actuation of Pneumatic and Hydraulic Systems

31/01/2019 – 01/11/2020 Bucuresti, Romania

MECHATRONICS ENGINEER PUB

- Providing the technical guidance to future engineers to complete the final year projects
- Providing maintenance activities for the laboratories equipment (Department of Mechatronics and Precision Mechanics)
- Creating promotional presentations, clips and robotic systems for the Mechatronics Department

- Modeling 3D parts for the mechanical projects (Conveyors, Automatic assembly machine, Hydraulic actuated barges, Hydraulic skids)
- Drawing electrical, pneumatic or hydraulic diagrams;
- Coordinating the manufacturing team based on the approved mechanical project;
- Providing the mechatronics approach for the ongoing projects.

● **EDUCATION AND TRAINING**

30/09/2020 – CURRENT București, Romania

PHD STUDENT UNSTPB

I am developing a unique laser scalpel type device that it is able to compensate the surgeon hand tremor based on a 3DoF compliant platform actuated by piezo electric stacks. This device will improve the surgery operation accuracy and may open a new path to more flexible surgeries cases.

Address Spaiul Independentei 313 , 032614 , București, Romania | **Field of study** Mechatronics, Medical |

Thesis Theoretical and experimental research on the dynamic behavior of medical systems based on lasers

26/09/2018 – 24/06/2020 București, Romania

MASTER DEGREE Advanced mechatronics, PUB

30/09/2014 – 04/07/2018 Bucuresti

BACHELOR DEGREE Mechatronics and Precision Mechanics Department, PUB

● **ORGANISATIONAL SKILLS**

Organisational skills

I have the ability to manage a project and coordinate a team: assigning tasks to each team member, respecting deadlines and leading the team by example;
Encouraging the team spirit;
I pay attention to small details that makes the difference.

● **COMMUNICATION AND INTERPERSONAL SKILLS**

Communication and interpersonal skills

Good understanding of different people types and cultures based on the experience abroad (ERASMUS/WORK and TRAVEL programs), within the research projects carried out in the faculty (presenting my research projects to international conferences) or work-related projects (working on Onshore/Offshore manufacturing facilities)

● **ADDITIONAL ENGINEERING SKILLS**

Additional engineering skills

- Microsoft 365 (document processing including text, charts, tables and cloud backup)
- Inventor/Solidworks (3D design - experienced user)
- MatLab (Mathematical modeling, programming and simulation)
 - Developed and maintained laboratory and project themes within the department of Mechatronics and Fine Mechanics, IMM, PUB - 2 years
- LabView (Programming with blocks - average user)
 - Development of automated acquisition programs for the characterization of piezoelectric stacks/wires with shape memory - Master/Doctoral project
- Autocad/GstarCAD (Communication and logic diagram designing - experienced user)
- EasyEDA (Electronics diagram and layout design - experienced user)
- FluidSim (Design and simulation of hydraulic and pneumatic schemes)
- Amesim (System modeling and simulation - average user)

● ACHIEVEMENTS

Achievements

- First prize at *Craiova Student Technical Days contest*, Mobile Robots section (2019)
- First prize at *Mechatronics Education Days contest*, Mobile Robots section (2018);
- Second place at "*Traian Lalescu*" *National Mathematics Contest*, Special mathematics section (2015);
- Second place at "*Traian Lalescu*" *National Mathematics Contest*, Mathematical analysis and algebra section (2014);
- First mention at the "*C.C. Teodorescu*" *Mechanical contest* (2015)

● DRIVING LICENCE

Driving Licence: B

● OFFSHORE CERTIFICATIONS

28/03/2023 – 27/03/2025

Basic H2S Opito approved training

11/01/2023 – 10/01/2027

Basic Offshore Safety Induction & Emergency training
