



Raluca Nelega

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 **Email address:** raluca_nelega@icloud.com

WORK EXPERIENCE

Research Assistant

National Institute for R&D of Isotopic and Molecular Technologies [08/2023 – Current]

Teaching Assistant

Technical University of Cluj-Napoca [01/10/2023 – Current]

Image Processing

Communications and Information Technology Technician

National Institute for R&D of Isotopic and Molecular Technologies [03/2023 – 07/2023]

Junior Software Engineer

Nooka Space [07/2022 – 04/2023]

EDUCATION AND TRAINING

Master Degree

Faculty of Electronics, Telecommunications and Information Technology, UTCN [01/10/2023 – Current]

Bachelor Degree

Faculty of Electronics, Telecommunications and Information Technology, UTCN [2019 – 2023]

Field(s) of study: Telecommunications Technologies and Systems

HONOURS AND AWARDS

Third Prize at PatriotFest

[2023]

Project: *AI algorithm for image processing*

Diploma of Excellence and Gold Medal

International Exhibition of Scientific Research, Innovation and Invention PRO INVENT [2023]

Project: *Intelligent system of virtual antenna arrays*

Bosch Scholarship in Computer Vision&Machine Learning

S.C. ROBERT BOSCH S.R.L [2023]

Bosch Scholarship in Big Data&Data Science

S.C. ROBERT BOSCH S.R.L [2022]

Roberto Rocca Scholarship

Tenaris Silcotub

[2021 and 2022]

DAAD Scholarship

DAAD [2021]

Telekom Scholarship

Deutsche Telekom [2020]

"Magna Cum Laude" distinction

Decebal National College

Second Prize at the Regional Physics Olympiad and Bronze Medal at the National Physics Olympiad

[2016 and 2017]

PUBLICATIONS

Prediction of Power Generation of a Photovoltaic Power Plant Based on Neural Networks

[2023]

R. Nelega, D.I. Greu, E. Jecan, V. Rednic, C. Zamfirescu, E. Puschita, R.V.F. Turcu "Prediction of Power Generation of a Photovoltaic Power Plant Based on Neural Networks," in *IEEE Access*, vol. 11, pp. 20713-20724, 2023, doi: 10.1109/ACCESS.2023.3249484.

Radio Frequency-Based Drone Detection and Classification using Deep Learning Algorithms

[2023]

R. Nelega, R.V.F. Turcu, B. Belean, E. Puschita "Radio Frequency-Based Drone Detection and Classification using Deep Learning Algorithms", *2023 International Conference on Software, Telecommunications and Computer Networks (SoftCOM)*, Split, Croatia, 2023

UAS-based Antenna Radiation Pattern Measurements: A Practical Approach

[2023]

A. Oprea, G. Kovacs, **R. Nelega**, E. Surducun, V. Surducun, R. V. F. Turcu, E. Puschita, "UAS-based Antenna Radiation Pattern Measurements: A Practical Approach", *International Conference on Advanced Scientific Computing (ICASC) 2023*, Cluj-Napoca, Romania, 2023

Intelligent system of virtual antenna arrays

[2023]

M. Surducun, E. Puschita, V. Surducun, B.S. Kirei, S. Gergely, B. Belean, G. Kovacs, A.D. Oprea, **R. Nelega** and R.V.F. Turcu, Patent application, "*Intelligent system of virtual antenna arrays*", no. Applicant/mandatory reference 1387/24.05.2023, OSIM Registry A/00270/29.05.2023.

CERTIFICATES AND COURSES

CVML Programming Short Course and Workshop on Deep Learning and Computer Vision

[09/2023]

Aristotle University of Thessaloniki (AUTH)

Summer School of Antennas and Propagation

[2023]

Cambridge Certificate in Advanced English (CAE)

Goethe-Zertifikat B2

C++ DevCamp {Girls Edition} Adobe

International Summer Academy at Martin Luther University Halle-Wittenberg

German language course B2/C1

Physics summer school "Cutting Edge Research in Romania"

[2017]

ECDL STANDARD Profile Certificate

Oracle Academy-Database Design and Programming with SQL Course

LANGUAGE SKILLS

Mother tongue(s): **Romanian**

Other language(s):

German

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

English

LISTENING C1 READING C2 WRITING C2

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Java / C / C++ / Git / SQL / Python / CSS / Docker / Linux / NodeJS / React / Microsoft Office /
JavaScript / HTML / MATLAB

NETWORKS AND MEMBERSHIPS

Member of LEO Club

„Lions Young Leaders in Service Award - 100 service hours" certificate