

Mihai COCA

Email: [mihai.coca@mta.ro](mailto:mihai.coca@mta.ro)

## **Curriculum Vitae**

### **Education:**

**PhD in Electronic Engineering, Telecommunication and Information Technologies, oct. 2017 - jan. 2023**

*"Hybrid artificial intelligence methods for latent information extraction from remote sensing images: on-board natural hazard analysis" (Main topics: On-ground and on-board artificial intelligence methods for detecting changes and anomalies in multispectral and SAR imagery, Deep machine learning algorithms for embedded systems)*

Distinction: Summa Cum Laude

Ph. D. Advisor: Professor Dr. Mihai DATCU

University POLITEHNICA of Bucharest, Bucharest

**Master in Information Security, feb. 2016 – jul. 2017**

Graduating mark: 9.33

Military Technical Academy "Ferdinand I", Bucharest

**Bachelor in Computer Science, oct. 2011 – jul. 2015**

Graduating mark: 8.90

Military Technical Academy "Ferdinand I", Bucharest

**High School Graduate, sept. 2007 – iun. 2011**

National Military College "Ștefan cel Mare", Câmpulung Moldovenesc

### **Other training courses**

CCNA Routing and Switching, Crystal Mind, Association for Education and Information, Bucharest, 2013-2014

### **Professional Experience:**

**Military Technical Academy "Ferdinand I", 2015 – present**

Lecturer

Main activities and responsibilities:

#### Teaching area

- Courses and laboratories for: *Architecture of Computer Systems, Microprocessor Systems, and Computer Programming.*
- Diploma projects for students.

#### Research area

- Applications of deep learning in satellite imagery.
- Applications for change and anomaly detection in satellite imagery.
- Hardware mechanisms for satellite image analysis.

- Development and application of emerging technologies of spatial data acquisition and analysis to address environmental issues.

### **Bento - Intellectually Curious, 2015 - 2017**

Software developer

Main activities and responsibilities:

- Design and development of ERP software solutions.

### **Research projects:**

#### **Team member**

1. *Cloud based cryptographic mechanisms under the sole control of the user (MC3Ex)*. The National Plan for Research, Development and Innovation III (PN-III-P2-2.1-PTE-2016-0191), 2016 – 2018.
2. *Key word spotting for real time surveillance in telephone conversations in Romanian*. The National Plan for Research, Development and Innovation III (PN-III-P2-2.1-PED-2016-1974), 2017 – 2018.
3. *Integrated system for support and command of crisis response actions (9SOL)*. The National Plan for Research, Development and Innovation III (PN-III-P2-2.1-SOL-2017-08-0107), 2018 – 2021.
4. *Avant-garde Technology Hub for Advanced Security (ATLAS)*. The National Plan for Research, Development and Innovation III (PN-III-P1-1.2-PCCDI-2017-0272), 2018 – 2021.
5. *Development of prototypes of ventilators with parameters adapted to assist patients infected with the sars-cov-2 virus*. The National Plan for Research, Development and Innovation III (PN-III-P2-2.1-SOL-2020-2-0337), 2020.
6. *Sentinel-1 ground motion service for Romania*. The National Plan for Research, Development and Innovation III (PN-III-P2-2.1-PTE-2019-0865), 2020-2022.
7. *Artificial intelligence for space-based monitoring of infrastructure stability in Romania*. The National Plan for Research, Development and Innovation III (PN-III-P2-2.1-PTE-2021-0513), 2022-2023.
8. *Through-the-wall radar imaging using a hand-held device*. The National Plan for Research, Development and Innovation III (PN-III-P2-2.1-PED-2021-0679), 2022-2024.
9. *Explainable Deep Learning for Earth Observation: xAI Deep Sensing*. The National Plan for Research, Development and Innovation III (PN-III-P4-ID-PCE-2020-2120), 2021-2023.

### **Review activity for:**

- IEEE Transactions on Geoscience and Remote Sensing
- IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing
- IEEE International Geoscience and Remote Sensing Symposium
- Journal of Supercomputing, Springer Nature

### **Publications:**

Research papers (Annex 1)

Mihai COCA