



Cristina-Ioana Despina-Stoian

Nationality: Romanian **Date of birth:** 14/02/1995 **Gender:** Female

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WORK EXPERIENCE

Teaching Assistant

Department of Communications and Information Technology, 'Ferdinand I' Military Technical Academy [15/01/2022 – Current]

City: Bucharest

Country: Romania

Junior Researcher

C.E.C.T.I, 'Ferdinand I' Military Technical Academy [31/07/2018 – 15/01/2022]

City: Bucharest

Country: Romania

EDUCATION AND TRAINING

PhD Degree in Telecommunications

Université de Bretagne Occidentale [01/10/2020 – Current]

City: Brest

Country: France

Thesis: Full-Duplex MIMO and Beamforming Approaches for the Cybersecurity of IoT and Spatial Communications

Master Degree in Telecommunications

'Ferdinand I' Military Technical Academy [01/10/2018 – 12/06/2020]

City: Bucharest

Country: Romania

Field(s) of study: Information and Communication Technologies

Thesis: Adaptive Filtering Strategies for Self-Interference Cancellation in LTE Full-Duplex Communication

Engineering of electronic communications and security systems

- Radiofrequency communications
- Information management in integrated communication systems
- Cryptography and computer security
- Artificial Intelligence for communications and networks
- Scientific research methodology

Erasmus Scholarship

Laboratoire des Sciences et Technologies de l'Information, de la Communication et de la Connaissance
[02/09/2019 – 20/12/2019]

City: Brest

Country: France



- In-band full-duplex communication system design based on SDR technology
- Study and simulation of the LTE communication system
- Different training strategies for adaptive filtering based self-interference cancellation, using the LTE frame preamble and the OFDM cycle prefix.

Erasmus Scholarship

Laboratoire des Sciences et Technologies de l'Information, de la Communication et de la Connaissance
[25/02/2019 – 25/06/2019]

City: Brest

Country: France

- In-band full-duplex communication system
- Digital self-interference cancellation techniques
- Adaptive filtering techniques in self-interference cancellation approach
- Simulation of an in-band full-duplex transceiver (using Matlab environment)

Bachelor Degree in Telecommunications

'Ferdinand I' Military Technical Academy [01/09/2014 – 28/07/2018]

City: Bucharest

Country: Romania

Thesis: 'Implementation of real-time security mechanisms using FPGA modules

Faculty of Communications and Electronics Systems for Defence and Security

- Theory of information and coding
- Data transmissions
- Analog and digital signal processing
- Communications networks and protocols
- Communications networks security
- Radiofrequency transmitters and receivers
- High-level programming languages (Matlab, C, Python) and assembly language

High School Diploma

'Dimitrie Cantemir' National Military High School [15/09/2010 – 15/06/2014]

City: Breaza

Country: Romania

Awards and achievements:

- 2011: Third award at the County Physics Olympiad
- 2012: First award at the County Physics Olympiad
- 2013: Second award at the County Physics Olympiad
- 2014: Mention at the 'Gheorghe Lazăr' Intercounty Competition (Mathematics)

LANGUAGE SKILLS

Mother tongue(s): **Romanian**

Other language(s):

English

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

French

LISTENING B1 READING B2 WRITING B1

SPOKEN PRODUCTION B1 SPOKEN INTERACTION B1

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



PUBLICATIONS

Journals

- Despina-Stoian C, Youssef R, Digulescu A, Radoi E, Gautier R, Serbanescu A. *Widely-Linear Digital Self-Interference Cancellation in Full-Duplex USRP Transceiver*. *Sensors*. 2022; 22(24):9607. <https://doi.org/10.3390/s22249607>.
- B.Q. Vuong; R. Gautier; A. Fiche; M. Marazin; C. Despina-Stoian, "Secrecy Coding Analysis of Short-Packet Full-Duplex Transmissions with Joint Iterative Channel Estimation and Decoding Processes", *Sensors* 2022, 22(14), 5257. <https://doi.org/10.3390/s22145257>.
- D. Voicu, R.M. Stoica, R. Vilău, M. Marinescu, A. Digulescu, C. Despina-Stoian, F. Popescu. *Frequency Analysis of Vibrations in Terms of Human Exposure While Driving Military Armoured Personnel Carriers and Logistic Transportation Vehicles*. *Electronics* 2023, 12, 3152. <https://doi.org/10.3390/electronics12143152>.
- A. Digulescu, C. Despina-Stoian, F. Popescu, D. Stanescu, D. D. Nastasiu, D. Sburlan. *UWB Sensing for UAV and Human Comparative Movement Characterization*. *Sensors* 2023, 23, 1956. <https://doi.org/10.3390/s23041956>.
- A. Digulescu, C. Despina-Stoian, D. Stănescu, F. Popescu, F. Enache, C. Ioana, E. Rădoi, I. Rîncu, A. Șerbănescu, *New Approach of UAV Movement Detection and Characterization Using Advanced Signal Processing Methods Based on UWB Sensing*, *Sensors*. 2020; 20(20):5904. <https://doi.org/10.3390/s20205904>.
- I. Narita, F. Popescu, C. Despina-Stoian. *Internet of Things Communication Systems based on MQTT and BLE Protocols*. *Journal of Military Technology*. 4. 39-44. 10.32754/JMT.2021.2.08.
- A. Celmare, A. Digulescu, C. Leca, C. Despina-Stoian, D. Stanescu. *Spectral Analysis in Mobile Communications*. *Journal of Military Technology*. 4. 5-8. 10.32754/JMT.2021.2.01.

International Conferences

- C. Despina-Stoian et al., "USRP Experimental Approach for Digital Self-Interference Cancellation in Full-Duplex Communications," 2021 International Conference on Advanced Technologies for Communications (ATC), 2021, pp. 232-236, doi: 10.1109/ATC52653.2021.9598203.
 - C. Despina-Stoian, A. Digulescu-Popescu, S. Alexandra, R. Youssef and E. Radoi, *Comparison of Adaptive Filtering Strategies for Self-Interference Cancellation in LTE Communication Systems*, 2020 13th International Conference on Communications (COMM), 2020, pp. 73-76, doi: 10.1109/COMM48946.2020.9141965.
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