NIL MUNTÉ GUERRERO

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EDUCATION

2023/Current. **Ph.D. in Computer Engineering and Mathematics of Security**. Universitat Rovira i Virgili (URV).

2022/2023. **Master's Degree in Computer Security and Artificial Intelligence**. Universitat Rovira i Virgili (URV). Tarragona.

Average Grade: 9.42

Achieved 8 Honors in Master's courses.

Other:

- Ended in June, 2023.
- Skills: Machine Learning Deep Learning, Computer Vision, Complex Networks.

2017/2021. **Telecommunications Engineering**. Universitat Rovira i Virgili (URV). Tarragona.

Average Grade: 9.01

Achieved 16 Honors in Bachelor's courses.

Other:

- Class representative in the academic courses 2018-2019, 2019-2020, 2020-2021.
- Programming languages: C, C++, Java, Matlab, Python, HTML, Julia.
- Embedded Systems, FPGA, Arduino, Raspberry Pi.
- Assembly languages and PIC microcontrollers.
- Big Data, SQL (SQLite, MongoDB).

2017. **Scientific-Technological Baccalaureate**. Institut Joan Guinjoan i Gispert. Riudoms.

Average Grade: 9.2

Honors in Baccalaureate. Scholarship for the first University year.

PROFESSIONAL EXPERIENCE

2023 (September) / Current. Laboratory Technician, Group I. Rovira i Virgili University. Tarragona.

Research associated with the Ph.D. in the Alephsys research group of the Department of Computer Engineering and Mathematics (DEIM) at Universitat Rovira i Virgili (URV).

2020 (octubre) / Current. **Professor**. Acadèmia Gaudí. Riudoms.

Group tutor offering Pyhsics and Mathematics review lessons for High School and Engineering Students.

2021 (October) / 2023 (August). **Associate Professor**. Universitat Rovira i Virgili (URV). Tarragona.

Laboratory practice supervision for 2nd and 3rd-year students in Telecommunications Engineering and Biomedical Engineering, covering courses such as Digital Communications, Digital Electronics, Technologies for Sensor Networks, the Internet of Things, and Smart Cities, and Wave Transmission and Propagation.

2021 (March) / 2022 (November). **Laboratory Technician, Group III**. Universitat Rovira i Virgili (URV). Tarragona.

Development of a person detection application inside a vehicle and a gesture detection application using a 77 GHz FMCW radar.

Development of a gesture detection and recognition application using a 60 GHz radar and a convolutional neural network.

Programming with Matlab, Python, and Raspberry Pi.

2020 (November) / 2021 (March). Intern. Generation RFID. Reus.

Development of Embedded Systems in C and Simplicity Studio environment. Conducted a study and optimization of the battery consumption of an HF-RFID system using the Energy Profiler tool.

2019-2020 (summer season). Monitor. English Summer S.A.

2018-2019 (summer season). **Monitor**. Escola de lleure (Riudoms).

2015/ Current. Monitor (volunteering). Esplai del Casal Riudomenc. Riudoms.

2019/2023. Vicepresident.

COMPLEMENTARY EDUCATION

2024. Google Analytics Certification. Google Digital Academy.

2017. Course for Monitors in Leisure Activities for Children and Youth Education. ESCOLA DE L'ESPLAI DE TARRAGONA. Reus. Duration: 310 hours.

2015. Basic First Aid Course. Creu Roja. Riudoms. Duration: 2.5 hours.

2015. Course "Physics and Technology of the 21st Century: a Week of Exciting Science". Universitat Rovira i Virgili. Tarragona. Duration: 20 hours.

2011. 4th Elementary Grade in Musical Language and Instrument (Guitar). Escola Municipal de Música. Riudoms.

LANGUAGES

Català: Native Language. Certificat C1 del MECR.

Castellà: Native language.

Anglès: Advanced Level (CAE-C1).

2019. Certificate in Advanced English (CAE), ESOL International (Cambridge University), Tarragona.

2016. Stay in Budapest. "Erasmus+ Project" (18/23-04-2016).

2016. First Certificate in English Title, ESOL International (Cambridge University), Reus.

2015 (July). Stay in Ireland (Dublin and Athlone).

PUBLICATIONS

Munte, N., Lazaro, A., Villarino, R., & Girbau, D. (2022). **Vehicle occupancy detector based on FMCW mm-wave radar at 77 GHz**. IEEE Sensors Journal, 22(24), 24504-24515.

Lazaro, A., Munte, N., Villarino, R., & Girbau, D. (2023, November). In-Vehicle Monitoring Based on a Low-Cost mm-Wave Radar at 60 GHz. In 2023 SBMO/IEEE MTT-S International Microwave and Optoelectronics Conference (IMOC)(pp. 241-243). IEEE.

AWARDS

2022. Extraordinary Final Degree Award in Telecommunications Systems and Services Engineering in recognition of the best students of the 2020-2021 graduating class. Universitat Rovira i Virgili (URV). Tarragona.

2022. 2nd COITT Award "Future of Telecommunications" - TELECOMMUNICATION SYSTEMS ENGINEERING CATEGORY. Official College of Telecommunication Engineers (COITT). Madrid.

2018. Awarded "Best Baccalaureate Records of the Joan Guinjoan Institute of Riudoms". Riudoms Town Hall. Riudoms.

2017. Awarded at the Youth Research Awards (PRJ 2017) with the research work "Electronic Noses - Smell on a Chip".

2017. Awarded at the "III Innovation Challenge Contest". Higher Technical School of Engineering. Universitat Rovira i Virgili (URV). Tarragona.

CONFERENCES

International Student Conference 2024 (Bandung, Indonesia). "Empowering Youth and Local Voices for Human-Centric, Sustainable and Inclusive Smart Cities".

ALTRES DADES D'INTERÈS

Driving License.