

ANGELOS ZACHARIA

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EDUCATION

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|---|--|
| Norwegian University of Science and Technology (NTNU)
<i>Doctorate of Philosophy in Engineering Cybernetics</i>
· Supervisor: Prof. Kostas Alexis | Trondheim, Norway
Jan. 2024 - Present |
| National Technical University of Athens (NTUA)
<i>Master of Science in Automatic Control Systems and Robotics</i>
9.7/10 - Distinction (Ranked 1st in the class)
· Thesis: “Event-Triggered Distributed Control for Optimal Consensus of Unknown Nonlinear Agents in Normal Form”
· Supervisor: Asst. Prof. Haris E. Psillakis | Athens, Greece
Oct. 2020 - Jun. 2022 |
| University of Cyprus (UCY)
<i>Bachelor of Science in Electrical Engineering</i>
8.27/10 - Very Good (Ranked 3rd in the class)
· Thesis: “Sensor Fault Accommodation for UAV Altitude Control: Virtual Sensor Approach”
· Supervisor: Prof. Marios M. Polycarpou | Nicosia, Cyprus
Sept. 2015 - Jul. 2019 |

WORK EXPERIENCE

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| Autonomous Robots Lab, NTNU
<i>PhD Candidate</i>
· Conducting research on heterogeneous robotic systems-of-systems for rapid exploration.
· Part of the Horizon Europe project: “SYNERGIZE: A novel integrated SYstem of Systems streNgthening tEchnical and logistical capacities to ensure better Response to emerGencies by synergIS-tically addrEssing FRs capability gap” | Trondheim, Norway
Jan. 2024 - Present |
| KIOS Research & Innovation CoE, University of Cyprus
<i>Research Engineer I</i>
· Developed cooperative control algorithms for multi-drone 3D inspection.
· Conducted simulations and real-world experiments using multi-drone systems.
· Part of the project: “GLIMPSE: Intelligent Multi-drone Emergency Response System”
· Member of Emergency Response Technologies team at KIOS CoE. | Nicosia, Cyprus
Sept. 2022 - Dec. 2023 |
| <i>Research Engineer I</i>
· Developed “ICARUS: Power dIstribution network inspeCtion plAtfoRm Using UAVS”.
· Conducted real-world field tests and demos of the integrated platform.
· Part of the funded project by the Electricity Authority of Cyprus
· Member of Emergency Response Technologies team at KIOS CoE. | Jan. 2020 - Oct. 2020 |
| YTM Stavrides Ltd
<i>Assistant Engineer</i>
· Designed electrical circuits for electrical installations in AutoCAD.
· Worked on tender documents and was responsible for measuring the requirements of circuits, control panels, and structured cabling. | Nicosia, Cyprus
Jun. 2016/17 - Aug. 2016/17 |

Cyprus National Guard

Second Lieutenant of Artillery Division

Larnaca, Cyprus

Sept. 2013 - Sept. 2015

- Ranked among the top 150 recruits out of 5,000 in both intellectual and fitness tests and underwent a 4-month training at the Reserve Officers School of Artillery in Nea Peramos, Greece.

PUBLICATIONS

A. Anastasiou, **A. Zacharia**, S. Papaioannou, P. Kolios, C. G. Panayiotou and M. M. Polycarpou, Automated Real-Time Inspection in Indoor and Outdoor 3D Environments with Cooperative Aerial Robots, 2024 International Conference on Unmanned Aircraft Systems (ICUAS), Jun. 2024.

A. Zacharia, S. Papaioannou, P. Kolios, and C. Panayiotou, Distributed Control for 3D Inspection using Multi-UAV Systems, 31st *Mediterranean Conference on Control and Automation*, Jun. 2023.

A. Savva, **A. Zacharia**, R. Makrigiorgis, A. Anastasiou, C. Kyrkou, P. Kolios, C. Panayiotou, and T. Theocharides, ICARUS: Automatic Autonomous Power Infrastructure Inspection with UAVs, *International Conference on Unmanned Aircraft Systems*, Jun. 2021.

N. Souli, R. Makrigiorgis, A. Anastasiou, P. Petrides, **A. Zacharia**, A. Lazanas, P. Valianti, P. Kolios, and G. Ellinas, HorizonBlock: Implementation of an Autonomous Counter-Drone System, *International Conference on Unmanned Aircraft Systems*, Jun. 2020.

ACHIEVEMENTS

Cooperative Aerial Robots Inspection Challenge,

62nd IEEE Conference on Decision and Control

First Place, Singapore 2023

- Designed a cooperative inspection algorithm utilizing multi-UAV systems for infrastructure inspection.

2nd CASS Student Design Competition, IEEE Circuits and Systems Society

Finalist at the world finals held in Florence, Italy in May 2018.

- Designed a versatile and low-cost, two layer PCB for soil quality monitoring.
(Project: “A Versatile Electronic Interface for Soil Quality Monitoring”)

University of Cyprus Student Innovators Competition (SINN 2018)

The team project was distinguished by the Climate Launchpad 2018 Competition in Athens, Greece.

- Designed a smart kitchen device able to provide information on the availability of products within the boxes. (Project: “Kouzinbox”)

State Scholarship Foundation of Cyprus

Scholarships were awarded due to the yearly grade scores during the undergraduate and graduate studies.

TECHNICAL SKILLS

Programming Languages: C, C++, Python

Simulation and Modeling: Gazebo, RViz, MATLAB, Simulink

Operating Systems and Tools: Windows, Linux, ROS, Fusion 360

Technical Documentation: LaTeX, Microsoft Office

Languages: Greek (Native), Romanian (Fluent), English (Fluent)