

CURRICULUM VITAE

Personal Information:



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Research interests:

- Communication systems
- Wireless sensor networks
- Event detection and localization
- Fault tolerance
- Collaborative signal and information processing
- Intelligent systems
- Applications to environmental monitoring, smart buildings and smart transport

Research highlights:

- **SNAP** (Subtract on Negative, Add on Positive) algorithm for fault tolerant event localization in Wireless Sensor Networks using binary data
- **Fault tolerant architecture and algorithms** for detecting, identifying, localizing and tracking multiple targets using Wireless Sensor Networks
- **2014 Best Paper Award** in the Building and Environment Journal for “Contaminant Event Monitoring in Multi-zone Buildings Using the State-space Method”
- **Matlab-CONTAM Toolbox** for sensor placement and contaminant event monitoring in intelligent buildings
- **Intelligent irrigation scheduling system** that enables farmers to optimize the use of water for irrigating their crops
- **Air Quality Monitoring in Limassol** using 10 wireless nodes equipped with sensors for measuring temperature, humidity, light, noise, CO₂, CO, NO₂, O₃ and PM₁₀
- **First book on Maritime Informatics** published on Springer
- **STEAM Project coordinator** for Sea Traffic Management in the Eastern Mediterranean

Education:

- Ph.D. Electrical Engineering; University of Cyprus, Nicosia, Cyprus, 2009
 - Title: “Distributed Event Detection and Localization in Wireless Sensor Networks”
 - Supervisor: Dr. Christos Panayiotou
- M.S. Electrical Engineering; Purdue University, West Lafayette, Indiana, USA, 1998
 - Emphasis on systems and automatic controls
 - GPA: 3.8 / 4.0
- B.S. Electrical Engineering; Purdue University, West Lafayette, Indiana, USA, 1997
 - GPA: 3.97 / 4

Employment:

2023-today	Associate Professor	Dept. of Elec. Eng. and Inf. Tech., Cyprus University of Technology
2017-2023	Assistant Professor	Dept. of Elec. Eng. and Inf. Tech., Cyprus University of Technology
2012-2017	Lecturer	Dept. of Elec. Eng. and Inf. Tech., Cyprus University of Technology
2009-2011	Research Fellow	KIOS Research Center, University of Cyprus
2005-2009	Research / Teaching Assistant	Dept. ECE, University of Cyprus
2002-2007	Information Tech. Officer	Nicosia Race Club, Nicosia, Cyprus
1999-2002	Medical Service Engineer	MEDVISION, Nicosia, Cyprus

Awards:

- 2014 Best Paper Award in the Building and Environment Journal
- Dean’s list and semester honors for all years in Purdue University (1993-1998)
- Magoon award for outstanding teaching assistants 1997-1998
- Cyprus America Scholarship Program (CASP) Full Scholarship award for 1993-1997

RESEARCH EXPERIENCE**Research Projects:**

Role	Title	Duration	Fund. Agen.
Inv	MDigi-I: Maritime Digitalization Research Infrastructure	1/24-12/26	RIF
PI	FRIEND-NOW: Future Telecommunications Infrastructure and Next-generation Networks	11/23-4/25	EC
PI	SIEQUA-CERT: Real-time monitoring and actionable decision support for Sustainable Indoor Environment Quality Certification	1/23-12/24	RIF
PI	aerOS: Autonomous, scalable, tRustworthy, intelligent European meta Operating System for the IoT edge-cloud continuum	9/22-8/25	EC
PI	CoronaSense: Indoor Air Quality Monitoring for COVID-19	2/21-10/21	RIF
PI	AURA: Air Quality Monitoring for Indoor Environments	7/20-12/21	RIF
PI	MARI-Sense: Maritime Cognitive Decision Support System	1/20-12/22	RIF
PC	STEAM: Sea Traffic Management in the Eastern Mediterranean	1/19-12/21	RIF
Inv	Sea Traffic Management Validation	9/15-9/18	EU

PI	Environmental Monitoring using WSNs	1/14-12/16	CUT
Inv	iSense: Making Sense of Nonsense	1/11-12/13	EC FP7
Inv	Fault Tolerant Detection, Localization and Tracking using WSNs	9/10-9/13	RPF
Inv	WATERBEE DA: WaterBee Demonstration Action	7/11-6/12	EC FP7
PI	WATERBEE: Intelligent ZigBee Enabled Water Irrigation System	9/08-8/10	EC FP7
PI	POSEIDON: Environmental Monitoring Using Sensor Networks	9/05-8/08	RPF
Inv	NoE: CRUISE: CReating Ubiquitous Intelligent Sensing Environments	1/06-12/07	EC FP6
Inv	NoE: E-NEXT Sensor Networks Task Force	1/05-12/06	EC

PC: Project Coordinator; PI: Principal Investigator; Inv: Co-Investigator; RIF/RPF: Research & Innovation Foundation /Research Promotion Foundation, Cyprus; EC: European Commission; EU: European Union; CUT: Cyprus University of Technology.

- FRIEND-NOW (Future Telecommunications Infrastructure and Next-generation Networks) – is an Erasmus Mundus Design Measures (EMDM) project to develop the program curriculum for a new joint Master Degree in Telecommunications and Networks by the EUT+ Telecom Cluster.
- MDigi-I: Maritime Digitalization Research Infrastructure - is the national strategic infrastructure for Cyprus that promotes research and innovation in maritime digitalization. The research infrastructure stimulates synergies and provides the means for the development and uptake of maritime digitalization technologies that improve safety, security, efficiency for the economic and environmental sustainability of Shipping - Marine Transport activities. <https://www.mdigii.eu/>
- SIEQUA-CERT (Real-time monitoring and actionable decision support for Sustainable Indoor Environment Quality Certification) - The general objective of the SIEQUA-CERT project is the development of real-time Indoor Environment Quality (IEQ) health-impact metrics per building zone and an Indoor Environment and Health Awareness Decision Support System (DSS) with measurable added value to support stakeholders in high occupancy public and private buildings. <https://lelantusinnovations.com/projects/siequa-cert/>
- aerOS: Autonomous, scalable, tRustworthy, intelligent European meta Operating System for the IoT edge-cloud continuum - The project aerOS aims at transparently utilising the resources on the edge-to-cloud computing continuum for enabling applications in an effective manner, incorporating multiple services deployed on such a path. Therefore, aerOS will establish the missing piece: a common meta operating system that follows a collaborative IoT-edge–cloud architecture supporting flexible deployments (e.g., federated or hierarchical), bringing tremendous benefits as it enables the distribution of intelligence and computation – including Artificial Intelligence (AI), Machine Learning (ML), and big data analytics – to achieve an optimal solution while satisfying the given constraints. <https://aeros-project.eu/>
- CoronaSense: Indoor Air Quality Monitoring for COVID-19 - The overall objective of the CoronaSense project is to develop and bring to the market an innovative software to assess in real-time the IAQ specifically for conditions that enable the spread of COVID-19 in large public indoor spaces. <https://lelantusinnovations.com/lelantus-project/coronasense/>

- *AURA: Air Quality Monitoring for Indoor Environments* - The overall objective of the AURA project is to bring to an international market an innovative software for IAQ monitoring, that can significantly improve the indoor air-quality monitoring in large, energy efficient buildings while also reducing the overall cost of the monitoring system. <https://lelantusinnovations.com/lelantus-project/project-aura/>
- *MARI-Sense: Maritime Cognitive Decision Support System* - The MARI-Sense project develops intelligent systems that allow human operators to make sense of the complex maritime environment for applications including transport and shipping, coastal tourism, search and rescue, and maritime spatial planning. <https://www.marisenseproject.net/>
- *STEAM: Sea Traffic Management in the Eastern Mediterranean* - The STEAM Project aims to develop the Port of Limassol to become a world-class transshipment and information hub adopting modern digital technologies brought to the maritime sector, as well as a driver for short sea shipping in the Eastern Mediterranean. <http://steam.cut.ac.cy/>
- *Sea Traffic Management Validation* - The STM Validation Project will demonstrate the STM concept in large-scale test beds in both the Nordic and Mediterranean Seas, encompassing around 300 vessels, 13 ports and 5 shore based service centres as well as using the European Maritime Simulator Network. <http://stmvalidation.eu/>
- *Environmental Monitoring using WSNs* – Develop a WSN for monitoring the outdoor air quality in an urban environment. <http://airquality.cut.ac.cy/>
- *iSense: Making Sense of Nonsense* - The mission of the i-Sense project is to develop intelligent data processing methods for analyzing and interpreting the data such that faults are detected (and whereas possible anticipated), isolated and identified as soon as possible, and accommodated for in future decisions or actuator actions. <http://www.i-sense.org/>
- *WATERBEE: Intelligent ZigBee Enabled Water Irrigation System* - The main objective of this project is to develop an intelligent irrigation scheduling system which will enable irrigation farmers to optimize the use of water and only irrigate where and when needed for as long as needed.
- *POSEIDON: Environmental Monitoring Using Sensor Networks* - The main goal of the project is high quality research in the area of Wireless Sensor Networks. The results of this project can be used towards a sensor network that provides real time assessment of the quality of water in damns.

Primary Research Collaborators:

- Dr. Alexis Kyriacou, Lelantus Innovations Ltd, Nicosia, Cyprus. Topics: Indoor Air Quality, virus transmission risk, CO2 sensor placement, CFD analysis, contaminant detection and isolation.
- Dr. Herodotos Herodotou, Department of Electrical Engineering, Computer Engineering and Informatics, Cyprus University of Technology. Topics: Smart transport systems, Maritime informatics.
- Dr. Mikael Lind, (Adjunct) Professor in Maritime Informatics, Senior Strategic Research Advisor, Safety and Transport Department Safety Research, RISE Research Institutes of Sweden. Topics: Maritime Informatics.

- Dr. Christos Panayiotou, KIOS Research Center, Department of Electrical & Computer Engineering, University of Cyprus, Nicosia, Cyprus. Topics: Wireless Sensor Networks, Distributed event detection and localization.
- Dr. Christos Laoudias, KIOS Research Center, Department of Electrical & Computer Engineering, University of Cyprus, Nicosia, Cyprus. Topics: Localization, Fault Tolerant Tracking.
- Dr. Demetrios Eliades, KIOS Research Center, Department of Electrical & Computer Engineering, University of Cyprus, Nicosia, Cyprus. Topic: Sensor Placement.
- Dr. Vasso Reppa, KIOS Research Center, Department of Electrical & Computer Engineering, University of Cyprus, Nicosia, Cyprus. Topics: Fault Diagnosis.
- Dr. Manuel Roveri, Dipartimento di Elettronica, Informazione e Bioingegneria, Politecnico di Milano, Milano, Italy. Topic: Cognitive Fault Diagnosis.
- Dr. Miquel À. Cugueró, Intelligent Control Systems, Polytechnic University of Catalonia, Barcelona, Spain. Topic: Data Validation and Reconstruction.

TEACHING EXPERIENCE

2011-today Instructor

Cyprus University of Technology

- EEI 331 Probabilities and Random Processes (Fall 2020-today) - Random variables and probability distributions. Probability density functions. Conditional probability and independence. Expectation and variance of random variables. Estimation problems. Introduction to random processes. Autocorrelation and power spectrum. Response of linear systems to stochastic inputs.
- EEN 511 / EEN 451 – Digital Communications (Fall 2012-today) - Design and performance analysis of the major parts of a modern digital communication system. Emphasis is given on the fundamental limits for transmission of digital information over noisy channels. Digital modulation schemes. Performance analysis of digital communication systems in the presence of noise. Optimum signal detection and optimum receivers for AWGN channels. Carrier and symbol synchronization. Source encoding and channel capacity. Error correcting codes.
- EEN 552 / EEN 446 – Wireless Communications (Spring 2011-today) - Introduction to wireless telecommunication systems. Analysis and design of cellular communication systems: cellular concept, admission control and handoffs, channel allocation and power control. Characteristics of the mobile radio environment and propagation phenomena: large-scale, small-scale, multipath and fading. Modulation techniques. Multiple access techniques: FDMA, TDMA, CDMA, OFDMA. 2G/3G/4G cellular systems.
- EEN 317 – Communication Systems (Spring 2012-today) - Introduction to analog and digital telecommunication systems. Signals and signal space: analysis and transmission of signals. Modulation and demodulation: amplitude (AM) and angle (FM). Sampling and analog-to-digital conversion. Principles of digital data transmission. Introduction to information theory and coding.
- EEN 111 – Electrical Circuits Analysis I (Fall 2020) - KCL and KVL node and loop methods. Ideal and non-ideal sources. Thevenin and Norton equivalent circuits. Maximum power transfer theorem. Transitional analysis of

first and second order circuits. Zero input and status response. Semi-permanent state and power. Balanced three-phase systems. Introduction to Laplace transform.

Previous teaching experience:

2004-2009 Teaching Assistant University of Cyprus

- ECE325 – Repetitive Methods (Fall 2007)
- ECE360 – Computer Networks (Spring 2007)
- ECE313 – Engineering of operating systems (Spring 2007)
- *Wireless Sensor Network Seminar Series* (Fall 2004) - Responsible for seminar organization and presentations on subjects related to sensor networks including data-centric architecture, data aggregation, geographic routing, network discovery and other.

1997-1998 Teaching Assistant Purdue University, IN, USA

- EE308 – Taught a senior level lab that involved designing and constructing controllers for motors and using analog computer to model physical systems. Supervised experiments designed and graded quizzes and taught fundamentals in control theory.

1993-1997 Physics Lab Assistant Purdue University, IN, USA

STUDENT SUPERVISION

PhD Students

1. Constantina Isaia, Cyprus University of Technology, Sep. 2019 – today, Ph.D. in Wireless Localization Algorithms and Technologies. **Active.**
2. Christina Kakoulli, Cyprus University of Technology, Sep. 2019 – today, Ph.D. in Air Quality Monitoring using Wireless Technologies. **Active.**
3. Chrysovalantis Spanias, Cyprus University of Technology, Jan. 2018 – Dec. 2020, Ph.D. in Distributed Schemes for Frequency Control and Demand Side Management in Smart Grids. **Completed.**
4. Marinos Christodoulou, Cyprus University of Technology, Jan. 2015 – Nov. 2015, Ph.D. in Contaminant Event Monitoring in Intelligent Buildings. **Dropout.**

MSc Students (Thesis Supervisor)

1. Andreas Panayiotou, Cyprus University of Technology, September 2020 – June 2021. *Thesis title:* Sensor Fault Diagnosis for UAVs using Machine Learning.
2. Charalambos Kouzoupou, Cyprus University of Technology, September 2018 – June 2019. *Thesis title:* Environmental Monitoring Design for the Limassol Port.
3. Christos Zartila, Cyprus University of Technology, September 2018 – June 2019. *Thesis title:* Real Time Cargo and Machinery Monitoring in Smart Ports.

4. Theofylaktos Pieri, Cyprus University of Technology, January 2015 – June 2016. *Thesis title: Air Pollution Monitoring using Wireless Sensor Networks. Paper in MELECON 2016 conference.*
5. Marinos Christodoulou, University of Cyprus. September 2013 – May 2014. *Thesis title: Contaminant Event Monitoring in Multi-zone Buildings. Co-authored 4 conference papers and 1 journal in Building and Environment which received Best Paper Award 2014.*

Undergraduate Students (Diploma Thesis Supervisor)

1. Georgios Christofi, Cyprus University of Technology, September 2020 - September 2021. Thesis title: "Smart Beehive: Fight against varroa parasite with heat therapy"
2. Michalis Dionysiou, Cyprus University of Technology, September 2020 - May 2021. Thesis title: "Tracking in Smart Ports using RFID".
3. Maria Sofokleous, Cyprus University of Technology, September 2020 - May 2021. Thesis title: "Indoor Air Quality Monitoring in Smart Buildings using COMOB".
4. Michalis Aristotelous, Cyprus University of Technology, September 2020 - May 2021. Thesis title: "Data Visualisation for Air Quality Monitoring".
5. Lefteris Stasi, Cyprus University of Technology, September 2020 - May 2021. Thesis title: "Data Analysis for Air Quality Monitoring".
6. Christos Gelasis and Michalis Antoniou, Cyprus University of Technology, September 2019 - May 2020. Thesis title: "Air quality measurement with the construction of a hybrid unmanned aerial vehicle type VTOL".
7. Andreas Georgiou, Cyprus University of Technology, September 2018 - May 2019. Thesis title: "Smart medicine warehouse".
8. Kyriakos Nikolaou, Cyprus University of Technology, September 2018 - May 2019. Thesis title: "Smart fishing rod".
9. Andreas Panayiotou and Tzountmprian Ramez, Cyprus University of Technology, September 2018 - May 2019. Thesis title: "Air Quality Monitoring for Smart Ports".
10. Konstantina Papazoglou, Cyprus University of Technology, September 2017 - May 2019. Thesis title: "Data analysis and validation for Air Quality WSN".
11. Michalis Christodoulou, Cyprus University of Technology, September 2017 - May 2018. Thesis title: "WSN for Air Quality Monitoring using WiFi".
12. Elina Araklitou, Markos Shimitras and Monica Nicolaou, Cyprus University of Technology, September 2017 - May 2018. Thesis title: "Smart Greenhouse".
13. Theofilos Onisiforou, Cyprus University of Technology, September 2017 - May 2018. Thesis title: "Real-time ship monitoring using AIS data". *Poster in HDMS 2018 conference.*
14. Christos Zartila, Cyprus University of Technology, September 2016 - May 2017. Thesis title: "Autonomous Calibration of Low-Cost Air Quality Sensors using Machine Learning".
15. Panagiotis Agapiou, Cyprus University of Technology, September 2016 - May 2017. Thesis title: "Sea water monitoring for Akti Olympion".

16. Theophanis Christou, Cyprus University of Technology, September 2016 - May 2017. Thesis title: "AIS receiver implementation for real-time tracking of ships".
17. Marios Panagi and Andreas Neokleous, Cyprus University of Technology, September 2015 - May 2016. Thesis title: "Indoor Air Quality Monitoring".
18. Kyriakos Frangou and Constantinos Psyllis, Cyprus University of Technology, September 2014 - May 2015. *Thesis title: "Body Area Networks for Monitoring Vital Signals"*.
19. Andreas Nikolaou, Cyprus University of Technology, September 2013 - May 2014. *Thesis title: "Simulation of Contaminant Transport in Intelligent Buildings using CONTAM and CFD Methods"*. ***Paper in CRITIS 2014 conference.***
20. Kypros Zachariou, Polyvios Michael and Theofylaktos Pieri, Cyprus University of Technology, September 2013 - May 2014. *Thesis title: "Wireless Sensor Networks for Monitoring and Control of Buildings through the Internet using Smartphones"*.
21. Yiannakis Ioannou, Cyprus University of Technology, graduated, September 2013 - May 2014. *Thesis title: "ZigBee Automated System for Measuring and Monitoring the Water Distribution Network"*.
22. Demetris Demetriou, Andreas Evangelou and Michalis Christofi, Cyprus University of Technology, September 2012 - May 2013. *Thesis title: "Design and Performance Evaluation of Wireless Sensor Nodes for Measuring Indoor Temperature"*.
23. Alexis Athanasiou, Pavlos Lambrou and Charis Markoulli, Cyprus University of Technology, September 2012 - May 2013. *Thesis title: "Wireless Sensor Networks Implementation and Programming using TinyOS"*.

ACADEMIC & PROFESSIONAL SERVICE & TRAINING

Master Committee Duties:

- Eleni Yiangou, "Study of Double-Refraction in Advanced Micro-Structured Optical Fibers," Cyprus University of Technology, MSc awarded Sep. 2014.
- Marinos Christodoulou, "Contaminant Event Monitoring in Multi-zone Buildings," University of Cyprus, MSc awarded May 2014.

PhD Committee Duties:

- Alexis Kyriacou, "System Partitioning for Improved Event Diagnosis and Accommodation," University of Cyprus, PhD awarded May, 2020.
- Chrysovalantis A. Spanias, "Distributed Schemes for Frequency Control and Demand Side Management in Smart Grids," Cyprus University of Technology, Comprehensive exam passed March 2016, PhD awarded Dec. 2020.
- Elisavet (Liza) Charalambous, "An Algorithm Agnostic Framework for the Evaluation and Learning of Robust Classifiers for Data under Uncertainty," University of Cyprus, PhD awarded Dec., 2019.
- Panayiotis Panagi, "Distributed Fault Tolerant Control and Communication for Interconnected Systems," University of Cyprus, PhD awarded May, 2015.
- Francesco Trovo, "A Cognitive Fault Diagnosis System for Sensor Networks," Politecnico di Milano (POLIMI), PhD awarded Mar. 2015.

- Marco Rocco, "Economic Mechanisms for Online Pay-Per-Click Advertising: Complexity, Algorithms and Learning," Politecnico di Milano (POLIMI), PhD awarded Mar. 2015.
- Michele Pirovano, "The Design of Exergaming Systems for Autonomous Rehabilitation," Politecnico di Milano (POLIMI), PhD awarded Mar. 2015.

Reviewer for the following journals:

- Elsevier Building and Environment (2016, 2015)
- Elsevier Computer Networks (2016, 2015)
- IEEE Transactions on Signal Processing (2016, 2015)
- IEEE Transactions on Mobile Computing (2014)
- IEEE Transactions on Computers (2014, 2012)
- IEEE Sensors Journal (2014, 2010)
- Hindawi International Journal on Distributed Sensor Networks (2012)
- IEEE Signal Processing Letters (2011)
- IEEE Transactions on Dependable and Secure Computing (2010)
- Elsevier Journal of Network and Computer Applications (2013,2012)
- MDPI Sensors (2009)
- IEEE Transactions on Instrumentation and Measurement (2007)

Participation in editorial boards:

1. Member of Editorial Board of Journal of Marine Engineering & Technology (2023-2025).
2. Guest Editor for Special Issue "Application of Wireless Sensor Networks in Environmental Monitoring", MDPI Sensors Journal (2022-2023).

Participation in conference committees:

1. Invited Session Co-Chair of the *31st Mediterranean Conference on Control and Automation (MED2023)*, Limassol, Cyprus, June 26-29 (2023).
2. Co-Chair of the *AMCIS mini-track on Maritime Informatics, Green IS and Sustainability Track*, (AMCIS 2020), online, Aug. 9-13, (2020).
3. Co-Chair of the *AMCIS mini-track on Maritime Informatics, Green IS and Sustainability Track*, (AMCIS 2019), Cancun, Mexico, August 15-17, (2019).
4. Member of the Technical Program Committee of the *Symposium on Intelligence for Embedded and Cyber-physical Systems, (IntECS 2016)*, Athens, Dec. 6-9 (2016).
5. Member of the Program Committee of the *Ad-hoc and Sensor Networking Symposium, IEEE International Conference on Communication, (ICC 2015, AHSN)*, London, UK, June 8-12 (2015).
6. Member of the Program Committee of the *IEEE International Symposium on Signal Processing and Information Technology (ISSPIT 2014)*, Noida, India, Dec. 15-17 (2014).
7. Member of the Program Committee and Chairman of a session of the *9th International Conference on Critical Information Infrastructures Security (CRITIS 2014)*, Limassol, Cyprus, Oct. 13-15 (2014).

Reviewer for the following conferences:

ICC 2016, WCCI 2016, SSCI 2016, GLOBECOM 2016, ICC 2015, SSCI 2014, ISSPIT 2014, CRITIS 2014, ACC 2014, ISSPIT 2013, HSBC 2013, PWSN 2013, ACC 2012, CDC 2010, IFAC 2010, MED 2010

Professional memberships:

- HKN honorary society for Electrical Engineers (since 1997)
- ETEK Scientific and Technical Chamber of Cyprus for Electrical Engineers (since 1998)
- IEEE member (since 2004). Currently a member of IT Professional, Internet of Things Community, Communications Society, Computational Intelligence Society and Computer Society.

IEEE Professional service:

- Member of IEEE Cyprus Executive Committee (since Jan. 2014)
- Student Branch Counselor for newly formed IEEE Student Branch at the Cyprus University of Technology (since 2014)
- Chair of IEEE Cyprus Computational Intelligence Chapter (2014-2015)

Professional training:

- *Summer School on Intelligent Systems*, University of Cyprus, Nicosia, Cyprus, July 2-6, 2007.
- *COST 295 1st Workshop on Dynamic Networks*, Fisciano, Italy, May 7-8, 2007.
- *MINEMA Winter School on Middleware for Mobile Computing*, Anzère, Switzerland, Feb. 12-16, 2007.
- *CRUISE 1st Summer School on Wireless Sensor Networks*: Aalborg University, Aalborg, Denmark, Sep. 11-13, 2006.
- *Summer School on Applications of Wireless Sensor Networks*, Faculty of Technical Sciences, University of Novi Sad, Novi Sad, Serbia, Jul 31st – Aug 4th, 2006.

INVITED PRESENTATIONS AND OTHER TALKS

1. "POSTLab: IoT enabled Smart Applications." In EUt+ Tech Showcase Day: Discover the future of Smart Technologies, October 29, 2025, Cartagena, Spain.
2. IoT for Indoor Environmental Monitoring. In Blended Intensive Programme on Internet of Things (IoT): Smart Applications, online, October 3, 2025.
3. "MetaOS for innovative AI and Computer Vision in Limassol Port (aerOS)." In ITS European Congress 2025, May 19-21, 2025, Seville, Spain.
4. "Emerging IoT Applications and Architectures for Smart Maritime Container Terminals." In 2023 IEEE 9th World Forum on Internet of Things (WF-IoT), 12–27 October, 2023, Aveiro, Portugal.
5. "IoT for the maritime industry: challenges and emerging applications." In 2023 18th Conference on Computer Science and Intelligence Systems (FedCSIS), pp. 855-858. IEEE, 17–20 September, 2023, Warsaw, Poland.
6. "Contaminant event detection and isolation for smart buildings: From a multi-zone approach to CFD," Workshop on Indoor Environmental Quality (IEQ) Monitoring and Control for Smart Buildings, in the 31st Mediterranean Conference on Control and Automation (MED2023), Limassol, Cyprus, June 26 – 29, 2023.
7. "STEAMing – a Digital way forward to promote port-to-port efficiency", in 3rd CSN Cyprus ICT Conference "Roadmap in Maritime Digital Transformation", Limassol, Cyprus, 14 October 2022.
8. "Sea Traffic Management in the Eastern Mediterranean", in Eastern Mediterranean Conference (EMC 2021), Nicosia, Cyprus, 10-12 November 2021.
9. "STEAM Project" in International Panel discussing data sharing, STM conference, online, June 2021.
10. "STEAM Project: Sea Traffic Management in the Eastern Mediterranean", in First Workshop of EUt+ Sustainability Lab, online, June 2021.
11. "CoronaSense Project: Indoor Air Quality Monitoring for COVID-19", in First Workshop of EUt+ Sustainability Lab, online, June 2021.
12. "STEAM Project Overview", in DESTINI First School on Smart Data Processing and Systems of Deep Insight, online, April 2021.
13. "Event Detection and Localization Algorithms for Smart Systems", in DESTINI First School on Smart Data Processing and Systems of Deep Insight, online, April 2021.
14. "Maritime informatics technology", in *World of Shipping Portugal International Research Conference on Maritime Affairs*, online, Jan. 2021.
15. "Sea Traffic management in the EAstern Mediterranean (STEAM)", in *3rd Annual Workshop on Dual Use Marine Technologies*, online, Dec. 2020.

16. "Detecting contaminants in smart buildings by exploiting temporal and spatial correlation", in *IEEE SSCI Conference*, Cape Town, S. Africa, Dec. 2015.
17. "A Cognitive Monitoring System for Contaminant Detection in Intelligent Buildings", in *IEEE WCCI Conference*, Beijing, China, July 2014.
18. "Fault Diagnosis in Smart Buildings", in *iSense Project Final Review Meeting*, Agrate, Italy, Feb. 2014.
19. "A Matlab – CONTAM Toolbox for Contaminant Event Monitoring in Intelligent Buildings", in *LEAPS Workshop on Learning Strategies and Data Processing in Nonstationary Environments, AIAI Conference*, Pafos, Cyprus, Oct. 2013.
20. "Fault Tolerant Target Tracking in Binary Wireless Sensor Networks", in *6th Cyprus Workshop on Signal Processing and Informatics (CWSPI) Workshop*, Nicosia, Cyprus, July 2013.
21. "Contaminant Event Monitoring in Intelligent Buildings using a Multi-Zone Formulation", in *8th IFAC SAFEPROCESS Conference*, Mexico City, Mexico, Aug. 2012.
22. "Contaminant Event Monitoring in Intelligent Buildings using a Multi-Zone Formulation", in *KIOS Seminar Series, University of Cyprus*, Nicosia, Cyprus, Feb. 2012.
23. "Contaminant Source Isolation in Intelligent Buildings", in *KIOS Seminar Series, University of Cyprus*, Nicosia, Cyprus, Oct. 2011.
24. "Fault Tolerant Target Localization and Tracking in Wireless Sensor Networks using Binary Data", in *IntelliCIS Workshop*, Milan, Italy. Sep. 2011.
25. "Fault Tolerant Detection and Tracking of Multiple Sources in WSNs using Binary Data", in *1st KIOS Workshop*, Nicosia, Cyprus, April 2011.
26. "Plug & Play Control", in *KIOS Seminar Series, University of Cyprus*, Nicosia, Cyprus, Feb. 2011.
27. "Building Systems: Methods for Fault Detection, Diagnosis and Prognosis", in *KIOS Seminar Series, University of Cyprus*, Nicosia, Cyprus, Jan. 2011.
28. "Fault Detection and Diagnosis: Survey of Recent Accomplishments and Trends for the Future", in *KIOS Seminar Series, University of Cyprus*, Nicosia, Cyprus, Dec. 2010.
29. "Event Localization using Sensor Networks for Sources with non-Circular Footprint", in *ISCCSP Conference*, Limassol, Cyprus, March 2010.
30. "Fault Tolerant Detection and Tracking of Multiple Sources in WSNs using Binary Data", in *CDC Conference*, Shanghai, China, Dec. 2009.
31. "WATER-BEE: Intelligent Irrigation Scheduling System", in *ECE Department Seminar, University of Cyprus*, Nicosia, Cyprus, Nov. 2009.
32. "Wireless Sensor Networks for Environmental Control", in *POSEIDON Project Final Review Meeting*, Nicosia, Cyprus, May 2009.

33. "Distributed Event Detection and Localization in Wireless Sensor Networks", *PhD Thesis presentation*, Nicosia, Cyprus, Mar. 2009.
34. "Distributed Event Detection and Localization in Wireless Sensor Networks", *in C4C Project Meeting*, Nicosia, Cyprus, Feb. 2009
35. "Fault Tolerant Event Localization in Sensor Networks using Binary Data", *in ACC Conference*, Seattle, Washington, June 2008.
36. "SNAP: Fault Tolerant Event Location Estimation in Sensor Networks using Binary Data", *in ECE Department Seminar, University of Cyprus*, Nicosia, Cyprus, Feb. 2008.
37. "Subtract on Negative Add on Positive (SNAP) Estimation Algorithm for Sensor Networks", *in ISSPIT Conference*, Cairo, Egypt, Dec. 2007.
38. "Event Detection Using Sensor Networks", *in ECE Seminar Series, University of Cyprus*, Nicosia, Cyprus, Feb. 2007.
39. "Event Detection Using Sensor Networks", *in CDC Conference*, San Diego, USA, Dec. 2006.
40. "Plume Tracking Using Sensor Networks", *in Summer School on Applications of Wireless Sensor Networks*, Novi Sad, Serbia, Aug. 2006.
41. "Event Source Position Estimation Using Sensor Networks", *in MED Conference*, Ancona, Italy, June 2006.
42. "Event detection using sensor networks," *in E-NEXT WG1 Meeting (Sensor Networks Task Force)*, Nicosia, Cyprus, March 2006.
43. "Plume tracking using sensor networks," *in ECE Department Seminar, University of Cyprus*, Nicosia, Cyprus, Nov. 2005.
44. "Plume source position estimation using sensor networks," *in E-NEXT WG1 Meeting (Sensor Networks Task Force)*, Cork, Ireland, Sep. 2005.
45. "Plume tracking using sensor networks," *in E-NEXT WG1 Meeting (Sensor Networks Task Force)*, Cork, Ireland, Nov. 2004.

PUBLICATIONS

Journals:

1. Evmides, Nicos, Michalis P. Michaelides, and Herodotos Herodotou. "Vessel Trajectory Prediction with Deep Learning: Temporal Modeling and Operational Implications." *Journal of Marine Science and Engineering* 13, no. 8 (2025): 1439.
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