Dr Marios Raspopoulos

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Date of Birth: 10th July 1978

Employment

Sept. 2021 – Now **Associate Professor**, UCLan Cyprus, School of Sciences. Deputy Head of School. Programme Coordinator of BEng (Hons) Computer Engineering. Chair of the Research Committee.

April 2023 – Now **Research and Innovation Scientist, INSPIRE Research Centre.** Coordination and participation in cutting-edge ICT R&D projects.

Sept. 2015 – Aug. 2021 **Assistant Professor**, UCLan Cyprus, School of Sciences. Programme Coordinator of BEng (Hons) Electrical and Electronic Engineering. Chair of the Innovation & Enterprise Committee.

June 2007 – Aug. 2015 **Chief Technical Officer (CTO)**, Sigint Solutions Ltd. Head of Research, Innovation and Development Activities. Coordination and participation in cutting-edge ICT R&D projects receiving 2.3 million euros in funding for the period 2006–2014. Head of Technical, Consulting and Education Activities. Establishment, coordination and quality management of an ISO 17025 Electromagnetic Radiation Measurement Laboratory. Coordination of Software Development and ICT Platform Development projects.

Jan. 2013 – Jan. 2018 **Adjunct Lecturer**, Open University of Cyprus. Coordination, creation of course material and teaching of Telecommunications and Networking courses.

Sept. 2004 – Aug. 2007 **Research Assistant/Associate**, Centre for Communications Systems Research, University of Surrey, UK. Participation in research and development projects. Teaching Assistant.

Education

Sept. 2004 – Mar. 2008 **Ph.D.** *Telecommunication Engineering*, University of Surrey, UK. *Thesis:* "Radio Propagation in Frequency Selective Buildings". *Supervised by:* Dr Stavros Stavrou, Prof. Barry Evans. *Honours:* University Research Scholarship (URS).

Sept. 2003 – Sept. 2004 **M.Sc.** *Communications Networks and Software*, University of Surrey, UK. *Grade:* 84% (Distinction). *Thesis:* "Deterministic modelling in an indoor wireless environment and the effect of Frequency Selective Surfaces". *Honours:* MSc Advisory Board Prize, Cable and Wireless Prize.

Sept. 2001 – June 2003 **M.Eng.** *Electronics with Mobile Communications*, University of Surrey, UK. *Grade:* 80.6% (Distinction). *Final Year Project:* "Design and construction of a PC-based Spectrum Analyser operating at the GSM band (890–960 MHz)". *Honours:* IEEE UK & RI Best Project in Telecommunications Prize, Certificate of Radio Frequency Engineering, Cyprus State Scholarship.

Sept. 1998 – Sept. 2001 **HND.** *Electrical and Electronic Engineering*, Higher Technical Institute, Cyprus. *Grade:* 92.12% (Distinction). *Final Year Project:* "Mobile Communication Systems". *Honours:* Presidential Prize, IEE Cyprus Prize, ΣΕΠΑΗΚ Prize, ΕΠΟΕΤ Prize, CyBC Prize.

Other Education

26 Oct. 2021 **Fellow of the Higher Education Academy (FHEA)**.

Sept. 2015 – June 2016 **Certificate** in Higher Education Teaching Toolkit, University of Central Lancashire, Preston.

Research Interests

- Telecommunications — Wireless and Mobile Communications
- Indoor Positioning / Localisation / Tracking
- Radio Propagation / Radio Planning / Wireless Channel Modelling
- Human Exposure to Electromagnetic Radiation
- Internet of Things (IoT)
- Innovation and Entrepreneurship

PhD Students

- **Mr Marios Koundrouis** — Reconfigurable Intelligent Surfaces (RIS) and their Control Using Embedded Systems and Optimisation Techniques for Modern Communication Systems (2026 – present).
- **Mr Theodosis Pasiali** — Digital Twin-Aided Indoor Positioning and Activity Recognition System (2025 – present).
- **Mrs Constantina Stavrou** — Advancing Energy Communities through Flexible Energy Storage Systems (2025 – Now).
- **Dr Andrey Sesyuk** *[Completed]* — 3D Indoor Navigation and Tracking for the Internet of Things (2020–2024).

Scholarships

- **University of Surrey, Sept. 2004.** *University Research Scholarship (URS)* — Full Scholarship (3 years) awarded by the University of Surrey to study for the degree of Doctor of Philosophy. Awarded based on exceptional performance during the MSc degree.
- **Cyprus State Scholarship Foundation, Sept. 2002.** *3-year Scholarship for Undergraduate studies in the UK*, awarded based on exceptional performance during the HND degree at the Higher Technical Institute.

Research Projects

A. UCLan Cyprus

1. **ERIC-GE — Enhancement of Research and Innovation Capacity in Georgian Higher Education Institutions.** *Dates:* Jan. 2026 – Dec. 2027 (24 months). *Funding Programme:* Erasmus+ CBHE (Capacity Building in Higher Education). *Funding Body:* Erasmus+. *Total Budget:* €355,497. *Description:* Strengthens the research and innovation capacity of Georgian higher-education institutions through digital resources and advanced evaluation methods, including a new online course in scientometrics, training modules for academic staff, and the integration of Web of Science and InCites tooling, aligning institutional research policy with European Research Area (ERA) standards. *Partners:* Georgian Technical University (Coordinator), UCLan Cyprus, Università di Palermo (Italy), and five further Georgian HEIs. *Role:* **Senior Researcher**. **€41,198**
2. **PREVENT — Prevention of natural disasters using deep technology for advanced HEI curricula.** *Dates:* Jan. 2024 – Dec. 2025 (24 months). *Funding Body:* Erasmus+ (KA220-HED). *Total Budget:* €400,000. *Description:* Promotes environmental sustainability and digital education among universities by raising awareness about environmental issues and climate change, and how PLCs, robotics and drones can address challenges related to natural disasters. *Partners:* University of Halmstad (SWE), UCLan Cyprus (CY), Citizens in Power (CY), University of Patras (GR), University of West Macedonia (GR), Helix-Connect (RO), University of Vigo (ESP). **€46,340**

3. **HEIght — Higher Education Innovation Growth and Training (Phase 2).** *Dates:* Jan. 2022 – June 2023 (18 months). *Funding Body:* EIT. *Total Budget:* €800,000. *Description:* A pan-European consortium leveraging existing innovation and entrepreneurial knowledge to spur growth of sustainable innovation in communities and institutions, supporting development of academic/non-academic staff and students through tailored training and a train-the-trainers method. **€121,000**

4. **HEIght — Higher Education Innovation Growth and Training (Phase 1).** *Dates:* July 2021 – Dec. 2021 (6 months). *Funding Body:* EIT. *Total Budget:* €800,000. *Description:* Phase 1 of the HEIght initiative (as above), building HEI capacity in innovation and enterprise. **€51,000**

5. **IREEDER — Introducing Recent Electrical Engineering Developments into Undergraduate Curriculum.** *Dates:* Nov. 2019 – 2022 (36 months). *Funding Programme:* EAC/A03/2018: EPP-CBHE-JP. *Funding Body:* Erasmus+. *Total Budget:* €768,627. *Description:* Improves the capacity of higher education using state-of-the-art technology and staff training, with subjects oriented towards recent technologies in electrical engineering (renewable energy, IoT and communication systems) in accordance with EU requirements. *Partners:* Al-Hussein Bin Talal University (Jordan, Coordinator), Mutah University, Tafila Technical University, Princess Sumaya University for Technology, Philadelphia University, Isra University (all Jordan), Università degli Studi di Trento (Italy), UCLan Cyprus, University of Patras (Greece), Universidade de Vigo (Spain). **€42,557**

6. **RSE — Responsible Smart Environments.** *Dates:* Jan. 2019 – Dec. 2020. *Funding Body:* UCLan UK, Centre for Sustainable Transitions. *Total Budget:* €5,663. *Description:* Informed by Responsible Research and Innovation (RRI), the project focuses on empirical data collection to support guidelines for the implementation and use of IoT-based smart environments. *Partners:* UCLan Cyprus, UCLan UK. **€5,663**

B. Interdisciplinary Science Promotion & Innovative Research Exploration Centre (INSPIRE)

1. **ERMIS — Advancements in 3D Indoor Positioning Methods and Applications for Next-Gen Communication Systems.** *Dates:* May 2025 – April 2027. *Funding Programme:* EXCELLENCE/0524 — Excellence Hubs. *Funding Body:* Research and Innovation Foundation. *Partners:* INSPIRE, CYENS. *Total Budget:* €249,930.32. *Description:* Advances the state of the art in 3D positioning by designing, developing and validating new techniques using the most up-to-date wireless technologies, reaching technology readiness level 4. *Role:* **Coordinator**. **€171,770**

2. **THESIS — Three-dimensional millimeter-wave Positioning.** *Dates:* May 2023 – Jan. 2024. *Funding Programme:* CONCEPT/0722 — Proof of Concept. *Funding Body:* Research and Innovation Foundation. *Partners:* INSPIRE. *Total Budget:* €39,952. *Description:* Demonstrates the applicability of millimetre-wave (mmWave) radio technology towards high-precision 3D positioning, leveraging the very wide bandwidths used in Wi-Fi (IEEE 802.11ad) and planned for 5G and beyond. *Role:* **Coordinator**. **€39,952**

3. **DEMETRA — 3D Precision Farming using Internet of Things and Unmanned Aerial Vehicles in Greenhouses.** *Dates:* April 2023 – Dec. 2023. *Funding Programme:* CONCEPT/0722 — Proof of Concept. *Funding Body:* Research and Innovation Foundation. *Partners:* INSPIRE. *Total Budget:* €39,902. *Description:* Adapts existing precision-agriculture technologies into an indoor (greenhouse) prototype system using unmanned ground and aerial vehicles (UGV and UAV). *Role:* **WP Leader – Researcher**. **€39,902**

4. **OpTec E-Charge — Optimized and Innovative Techniques for Energy-efficient operation of Electric Car Chargers.** *Dates:* Dec. 2022 – June 2023. *Funding Programme:* Innovation Coupons. *Funding Body:* Research and Innovation Foundation. *Partners:* INSPIRE, BlueSun Automations Ltd. *Total Budget:* €5,000. *Description:* In collaboration with industry (BlueSun Automations, Nicosia), studies the performance of various electric-car chargers. *Role:* **Researcher**. **€5,000**

C. Sigint Solutions Ltd

1. **TruNet — 3D Wireless Network Planning Simulator.** *Dates:* Jan. 2013 – Dec. 2014 (24 months). *Funding Programme:* Industrial Funding Schemes 2007–2013. *Funding Body:* Ministry of Energy, Commerce, Trade and Tourism, Cyprus. *Description:* Design, implementation and commercialisation of a 3D wireless network planning simulator based on a custom in-house electromagnetic engine. *Role:* **Project Coordinator**; coordinated the design and development of the simulator in the .NET framework. **€130,857**
2. **WHERE-2 — Wireless Hybrid Enhanced Radio Estimators 2.** *Dates:* July 2010 – June 2013 (36 months). *Funding Programme:* FP7 ICT 2009. *Funding Body:* European Commission. *Total Budget:* €7.45M. *Partners:* Sigint Solutions Ltd (CY), DLR Institute of Communications and Navigation (DE), Aalborg University (DK), ACORDE (ES), CEA-LETI (FR), Institut Eurécom (FR), Siradel (FR), Université de Rennes 1 (FR), Instituto de Telecomunicações (PT), Mitsubishi Electric ITE (FR), University of Surrey (UK), Universidad Politécnica de Madrid (ES), University of Alberta (CA), City University of Hong Kong (HK), Telefónica I+D (ES), OTE S.A. (GR), University of Athens (GR), Portugal Telecom Inovação S.A. (PT). *Description:* Combines positioning and communications to enhance the efficiency of future wireless systems. *Role:* **Task Leader** and **Principal Investigator** in task T2.2 (enhancing localisation precision by fusing radio with non-radio context such as inertial sensors and map constraints); also led demonstration and proof-of-concept tasks. **€271,125**
3. **C2Power — Cognitive Radio and Cooperative strategies for power saving in multi-standard wireless devices.** *Dates:* Jan. 2010 – Dec. 2012 (36 months). *Funding Programme:* FP7-ICT-2009-4. *Funding Body:* European Commission. *Total Budget:* €3.45M. *Partners:* Sigint Solutions Ltd, Instituto de Telecomunicações (PT), CEA-LETI (FR), Portugal Telecom Inovação S.A. (PT), University of Surrey (UK), CREATE-NET (IT), Wroclawskie Centrum Badan EIT+ (PL), EADS Defence and Security Systems (FR), Veebeem (UK), Lantiq Deutschland GmbH (DE). *Description:* Researches, develops and demonstrates energy-saving technologies for multi-standard wireless devices, combining cognitive radio and cooperative strategies while maintaining data-rate and QoS performance. *Role:* **Work Package Leader** and **Principal Investigator** in WP6 (context-aware energy-efficient vertical and horizontal handover algorithms via a custom test-bed). **€342,510**
4. **CogEU — Cognitive radio systems for efficient sharing of TV white spaces in a European context.** *Dates:* Jan. 2010 – Dec. 2012 (36 months). *Funding Programme:* FP7-ICT-2009-1.1. *Funding Body:* European Commission. *Total Budget:* €5.1M. *Partners:* Sigint Solutions Ltd (CY), Instituto de Telecomunicações (PT), Thales (FR), Portugal Telecom Inovação S.A. (PT), Trinity College (IE), University of the Aegean (GR), Poznań University of Technology (PL), Institut für Rundfunktechnik (DE), Rohde & Schwarz (DE), Towercom A.S. (SK). *Description:* Develops cognitive radio systems that take advantage of the TV digital switch-over by promoting real-time secondary spectrum trading and new spectrum-commons regimes. *Role:* **Work Package (WP5) Leader** and **Principal Investigator** (experimental cognitive radio emulator evaluating interference between DVB-T systems and TVWS systems). **€356,715**

5. **LOCME — Localization of Mobile Terminals.** *Dates:* Oct. 2011 – Sept. 2013 (24 months). *Funding Programme:* ΤΠΕ/ΕΠΙΚΟΙ/0609(BIE). *Funding Body:* Cyprus Research Promotion Foundation. *Total Budget:* €164,736. *Partners:* Sigint Solutions (CY), Open University of Cyprus (CY), University of Cyprus (CY). *Description:* Investigates and develops advanced positioning algorithms using building geometry extracted from satellite imagery. *Role:* **Task Leader** and **Principal Investigator** (advanced fingerprinting positioning algorithms; coordinated an Android demonstration app). **€74,026**

6. **MOBILIA — Mobility concepts for IMT-Advanced Networks.** *Dates:* Dec. 2008 – Dec. 2010 (24 months). *Funding Programme:* EUREKA CELTIC. *Funding Body:* Cyprus Research Promotion Foundation. *Total Budget:* €1.9M. *Partners:* TTI Telecom (ES), CTTC (ES), Creativ IT (ES), TST Sistemas (ES), Universidad de Cantabria (ES), Instituto de Telecomunicações (PT), Wavecom (PT), Sigint Solutions Ltd (CY). *Description:* Targets ITU IMT-Advanced requirements (peak data rates of 100 Mbps mobile / 1 Gbps low mobility) for future wireless systems. *Role:* **Technical Coordinator** at national level; internationally **Task Leader** and **Principal Investigator** (cooperative relaying and capacity improvements via Distributed MIMO; developed a MIMO capacity module for TruNET). **€275,126**

7. **FUTON — Fibre Optic Networks for Distributed, Extensible Heterogeneous Radio Architectures and Service Provisioning.** *Dates:* Jan. 2008 – Sept. 2010 (30 months). *Funding Programme:* FP7-ICT-2007. *Funding Body:* European Commission. *Total Budget:* €9.85M. *Partners:* Nokia Siemens Networks (PT), Instituto de Telecomunicações (PT), Alcatel-Thales III-V Labs (FR), CEA-LIST (FR), Portugal Telecom Inovação (PT), VIVO (BR), OTE Research (GR), ACORDE (ES), Wavecom (PT), Sigint Solutions Ltd (CY), University of Kent (UK), University of Patras (GR), Technical University of Dresden (DE), VTT (FI), NICT (JP). *Description:* Researches a flexible wireless architecture based on joint processing of radio signals from distinct remote antenna units over a transparent fibre infrastructure. *Role:* **Work Package Leader** of WP4 (Mobile-IP-based middleware performing vertical handovers between heterogeneous radio technologies). **€349,120**

8. **WHERE — Wireless Hybrid Enhanced Radio Estimators.** *Dates:* Jan. 2008 – Dec. 2010 (36 months). *Funding Programme:* FP7 ICT 2007-1. *Funding Body:* European Commission. *Total Budget:* €5.5M. *Partners:* DLR (DE), Aalborg University (DK), ACORDE (ES), CEA-LETI (FR), Institut Eurécom (FR), Siradel (FR), Université de Rennes 1 (FR), Instituto de Telecomunicações (PT), Mitsubishi Electric ITE (FR), Sigint Solutions Ltd (CY), University of Surrey (UK), Universidad Politécnica de Madrid (ES), University of Alberta (CA), City University of Hong Kong (HK). *Description:* Combines wireless communications and navigation for ubiquitous access in future mobile radio systems. *Role:* **Task Leader** and **Principal Investigator** (radio propagation predictions via ray tracing feeding advanced location estimators; accuracy of fingerprinting positioning with ray-traced maps under environmental uncertainties). **€179,630**

9. **4GOpen — Optimization and Convergence for Next Generation Networks.** *Dates:* May 2009 – Oct. 2011 (30 months). *Funding Programme:* EUREKA-EUROSTARS. *Funding Body:* Cyprus Research Promotion Foundation. *Partners:* Sigint Solutions (CY), Wavecom (PT). *Description:* Interconnects two simulators working on different communication layers (geographically separated, linked over TCP/IP) and compares output with real measurements. *Role:* **Research Associate** (integration of a physical-layer channel prediction with a Wavecom link-layer simulator). **€205,880**

10. **ASPIDA — Security in Sensor Networks.** *Dates:* Dec. 2006 – Dec. 2010 (48 months). *Funding Programme:* Research for New Researchers (ΠΕΝΕΚ). *Funding Body:* Cyprus Research Promotion Foundation. *Partners:* Sigint Solutions, University of Cyprus, University of Piraeus. *Total Budget:* €214,412. *Description:* Designs and develops a prototype security layer offering security services to sensor nodes. *Role:* **Project Coordinator** (Principal Investigator: Dr Eliana Stavrou). **€115,458**

D. University of Surrey

1. **Optimising Radio Tactical Positions.** *Funding Body:* Defence Science and Technology Laboratory (DSTL) — British Ministry of Defence. *Role:* **Research Associate** (radio measurement campaigns). **N/A**
2. **Electromagnetic Propagation in Complex Aircraft Environments.** *Funding Body:* Rolls-Royce Ltd. *Role:* **Research Associate** (radio measurement campaigns in emulated aircraft engine environments to evaluate transmission losses through the aircraft body). **N/A**

Industrial Projects

- EMF Measurement Campaigns to evaluate human exposure to electromagnetic radiation from **MTN**'s base stations (∼600 base stations). *Duration:* 2009–2011, 2014–2015 (7 rounds of periodic 6-month measurements). *Role:* **Project Manager**.
- EMF Measurement Campaigns to evaluate human exposure to electromagnetic radiation from **CYTA**'s base stations (∼600 base stations). *Duration:* 2013–2014 (4 rounds of periodic 6-month measurements). *Role:* **Project Manager**.
- EMF Measurement Campaigns to evaluate human exposure to electromagnetic radiation from CyBC stations (∼10 antenna stations). *Duration:* 2014 (2 rounds of periodic 6-month measurements). *Role:* **Project Manager**.

Teaching

University of Central Lancashire

Coordinated, developed and taught the following courses:

- EL1785: Electronics and Instrumentation
- EL2006: Data Communications
- CO2403: Professional Skills
- CO3509: Network Design and Management
- CO3514: Wireless and Mobile Networks
- EL3801: Wireless, Mobile and Fibre Optic Communication
- EL3807: Mobile Technologies
- EL3808: Digital Communications
- EL3995: Undergraduate and Postgraduate Projects Supervision
- EL3996: Engineering Professionalism

Open University of Cyprus

Coordinated, developed and taught the following postgraduate courses:

- PES 513: Communication Networks (Spring 2012–13 and 2013–14, Autumn 2016–17)
- SAE 511: Digital Communications (Autumn 2014–15, Autumn 2017–18)
- PES 612: Mobile and Ubiquitous Computing (Spring 2012–13)
- SAE 700: Supervision of Postgraduate Dissertations

University of Surrey

Teaching Assistant in:

- Antennas and Propagation (2004–2005)
- Mobile and Personal Communications (2004–2005)
- Supervision of Postgraduate and Undergraduate Projects (2004–2006)

Publications

Journals

1. L. Nisiotis and **M. Raspopoulos**, "InterwovenXR: A Cyber–Physical–Social Testbed System for Robotics, Digital Twins, and Hyperautomation," *Computer*, vol. 59, no. 6, pp. 73–84, June 2026, doi: 10.1109/MC.2026.3671749.
2. S. Mamun, S. Ioannou, **M. Raspopoulos**, and S. Peng, "Artificial Intelligence and Machine Learning in Cyber-Physical Systems: A Unified Review of Methodologies for Smart Energy Systems and Intelligent Localization," in *IEEE Access*, doi: 10.1109/ACCESS.2026.3704476.
3. I. Ioannou, M. Georgiades, P. Nagaradjane, A. Khalifeh, C. Christophorou, **M. Raspopoulos**, V. Vassiliou, "A Coupled Multi-Stage Hybrid Framework for BER Prediction and Beam Angle Optimization in Massive MIMO Systems," *Network*, 6, 35, 2026, https://doi.org/10.3390/network6020035.
4. I. Ioannou, C. Christophorou, A. Andreou, **M. Raspopoulos**, C. Mavromoustakis, V. Vassiliou, F. Granelli, "Adaptive active-defense hardening of ML-based NIDS against RL-driven adversaries: A comparative analysis with static defenses," *Journal of Information Security and Applications*, vol. 100, 2026, 104496, https://doi.org/10.1016/j.jisa.2026.104496.
5. L. Nisiotis, A. Anikina and **M. Raspopoulos**, "The Development of a Virtual-Reality Wireless Signal Propagation Simulator in Unreal Engine: A Device and Performance Testing," *IT Professional*, vol. 28, no. 1, pp. 44–50, Jan.–Feb. 2026, doi: 10.1109/MITP.2024.3503434.
6. I. Ioannou, V. Vassiliou and **M. Raspopoulos**, "Adaptive Multi-Stage Hybrid Localization for RIS-Aided 6G Indoor Positioning Systems," *Sensors*, 26, 1084, 2026, https://doi.org/10.3390/s26041084.
7. I. Ioannou, **M. Raspopoulos**, P. Nagaradjane, C. Christophorou, A. Gregoriades, V. Vassiliou, "Access Point Selection and Localization for Cluster-Based Realization of a Device-to-Device Cell-Free 6G Communications Network," *IET Communications*, 19, no. 1, e70096, 2025, https://doi.org/10.1049/cmu2.70096.
8. I. Ioannou, **M. Raspopoulos**, P. Nagaradjane, C. Christophorou, W. A. Aziz, V. Vassiliou, A. Pitsillides, "DeepRISBeam: Deep Learning-based RIS Beam Management for Radio Channel Optimization," *IEEE Access*, 2024, doi: 10.1109/ACCESS.2024.3411929.
9. A. Sesyuk, S. Ioannou and **M. Raspopoulos**, "Radar-Based Millimeter-Wave Sensing for Accurate 3-D Indoor Positioning: Potentials and Challenges," *IEEE Journal of Indoor and Seamless Positioning and Navigation*, vol. 2, pp. 61–75, 2024, doi: 10.1109/JISPIN.2024.3359151.
10. A. Sesyuk, S. Ioannou and **M. Raspopoulos**, "A Survey of 3D Indoor Localization Systems and Technologies," *Sensors*, vol. 22, no. 23, p. 9380, Dec. 2022, doi: 10.3390/s22239380.
11. **M. Raspopoulos**, "Multi-Device, Map-constrained, Fingerprint-based Indoor Positioning using Ray Tracing," *IEEE Transactions on Instrumentation and Measurement*, vol. 67, no. 2, pp. 466–476, Feb. 2018, doi: 10.1109/TIM.2017.2774181.
12. N. Paspallis and **M. Raspopoulos**, "An Open Platform for Studying and Testing Context-Aware Indoor Positioning Algorithms," in *Complexity in Information Systems Development*, Lecture Notes in Information Systems and Organisation, vol. 22, pp. 39–50, Springer, Cham, 2017.
13. **M. Raspopoulos** and S. Stavrou, "Frequency Selective Buildings through Frequency Selective Surfaces," *IEEE Transactions on Antennas and Propagation*, vol. 59, no. 8, pp. 2998–3005, Aug. 2011.
14. **M. Raspopoulos**, P. King and S. Stavrou, "Capacity of MIMO Systems in FSS environments," *IET Electronics Letters*, vol. 44, no. 4, pp. 304–305, Feb. 2008.
15. **M. Raspopoulos** and S. Stavrou, "Frequency Selective Surfaces on Building Materials — Air gap Impact," *IET Electronics Letters*, vol. 43, no. 13, pp. 700–702, June 2007.

16. **M. Raspopoulos**, F. A. Chaudhry and S. Stavrou, "Radio Propagation in Frequency Selective Buildings," *European Transactions in Telecommunications*, vol. 17, pp. 407–413, Mar. 2006.

Conferences

1. **M. Raspopoulos**, I. Ioannou and N. Paspallis, "Wi-Fi FTM Versus UWB for 3D Indoor Positioning," *IEEE COMPSAC 2026*, Madrid, Spain, July 7–10, 2026. [Accepted — to be presented]
2. **M. Raspopoulos**, I. Ioannou and N. Paspallis, "Decimetre-Level Single- and Multi-Target 3D mmWave Sensing Using Mechanical Sensor Steering and Kalman Filtering," *IEEE IPIN 2026*, Rome, Italy, October 5–8, 2026. [Accepted — to be presented]
3. L. Nisiotis and **M. Raspopoulos**, "VRadioSim: A GPU-Based Ray Tracing Simulator for Real-Time Wireless Propagation Visualisation in Virtual Reality," *IEEE COMPSAC 2026*, Madrid, Spain, July 7–10, 2026. [Accepted — to be presented]
4. S. Ioannou, **M. Raspopoulos** and S. Peng, "Seamless Indoor Navigation: Leveraging AI Computer Vision and GPS Spoofing for UGV Autonomy," *12th International Conference on Control, Decision and Information Technologies (CoDIT 2026)*, Bari, Italy, July 13–16, 2026. [Accepted — to be presented]
5. I. Ioannou, **M. Raspopoulos**, M. Georgiades, C. Christophorou, A. Khalifeh and V. Vassiliou, "DRL-based Position-Aided Beam-Management in RIS-Enabled Indoor Environments," *International Workshop on Intelligent Systems for the IoT (DCOSS-IoT 2026)*, Reykjavik, Iceland, June 22–24, 2026. [Accepted — to be presented]
6. I. Ioannou, P. Nagaradjane, **M. Raspopoulos**, V. Papadopoulou-Lesta, C. Christophorou, A. Khalifeh and V. Vassiliou, "Topology-Aware Deep Reinforcement Learning for RIS Beamforming: A GNN-PPO and Risk-Sensitive Evaluation," *2025 Asian Conference on Communication and Networks (ASIANComNet 2025)*. [Presented — to be published]
7. I. Ioannou, C. Christophorou, C. Politi, S. Denazis, **M. Raspopoulos** and V. Vassiliou, "A Deep Q-Network (DQN) Framework for Joint Optimization of EV Charging Station Placement and Vehicle Routing," *2025 IEEE International Smart Cities Conference (ISC2)*, Patras, Greece, 2025, pp. 1–6, doi: 10.1109/ISC266238.2025.11293297.
8. **M. Raspopoulos**, I. Ioannou and L. Nisiotis, "mmWave-Based Crowd Sensing for Metaverse Applications," *2025 IEEE International Symposium on Emerging Metaverse (ISEMV)*, Honolulu, HI, USA, 2025, pp. 46–54, doi: 10.1109/ISEMV67326.2025.00019.
9. L. Nisiotis, N. Markov, C. Nikolaou, A. Hadjiliasi and **M. Raspopoulos**, "Enhancing Digital Heritage Experiences: Evaluating Fine-Tuned LLM Integration within a Cyber-Physical-Social Virtual Museum System," *2025 IEEE ISEMV*, Honolulu, HI, USA, 2025, pp. 17–26, doi: 10.1109/ISEMV67326.2025.00016.
10. **M. Raspopoulos**, A. Sesyuk and I. Ioannou, "3D millimeter-Wave Multi-Target Sensing," *2025 International Conference on Indoor Positioning and Indoor Navigation (IPIN)*, Tampere, Finland, 2025, pp. 1–6, doi: 10.1109/IPIN66788.2025.11213372.
11. I. Ioannou, A. Gregoriades, C. Christophorou, **M. Raspopoulos** and V. Vassiliou, "Implementing a Cell-Free 6G Distributed AI Network With the Use of Deep ML Under a Traditional Multi-Cell Mobile Network," *2025 5th IEEE MENACOMM*, Byblos, Lebanon, 2025, pp. 1–8, doi: 10.1109/MENACOMM62946.2025.10910986.
12. I. Ioannou, **M. Raspopoulos**, P. Nagaradjane, C. Christophorou, A. Khalifeh and V. Vassiliou, "Optimization of the D2D Topology Formation Using a Novel Two-Stage Deep ML Approach for 6G Mobile Networks," *2024 Asian Conference on Communication and Networks (ASIANComNet)*, Bangkok, Thailand, 2024, pp. 1–9, doi: 10.1109/ASIANComNet63184.2024.10811034.
13. A. Sesyuk, S. Ioannou and **M. Raspopoulos**, "3D millimeter-Wave Sensing vs Ultra-Wideband Positioning," *2024 14th International Conference on Indoor Positioning and Indoor Navigation (IPIN)*, Hong Kong, Oct. 2024.
14. L. Nisiotis, A. Anikina and **M. Raspopoulos**, "Exploring Gaming Technologies, Digital Twins, and VR to Visualise Wireless Propagation Simulations," *2024 IEEE 48th COMPSAC*, Osaka, Japan, 2024, pp. 656–661, doi: 10.1109/COMPSAC61105.2024.00094.
15. I. Ioannou, M. Savva, **M. Raspopoulos**, C. Christophorou and V. Vassiliou, "Revolutionising IoT Network Security By Assessing ML Localisation Techniques Against Jamming Attacks," *2024 22nd MedComNet*,

Nice, France, 2024, pp. 1–10, doi: 10.1109/MedComNet62012.2024.10578201.

16. A. Sesyuk, S. Ioannou and **M. Raspopoulos**, "3D millimeter-Wave Indoor Localization," *2023 13th IPIN*, Nuremberg, Germany, 2023, pp. 1–7, doi: 10.1109/IPIN57070.2023.10332537.
17. J. Ye, S. Ioannou, P. Nikolaou and **M. Raspopoulos**, "CNN based Real-time Forest Fire Detection System for Low-power Embedded Devices," *2023 31st Mediterranean Conference on Control and Automation (MED)*, Limassol, Cyprus, 2023, pp. 137–143, doi: 10.1109/MED59994.2023.10185692.
18. C. Laoudias, **M. Raspopoulos**, S. Christoforou and A. Kamilaris, "Privacy-Preserving Presence Tracing for Pandemics Via Machine-to-Machine Exposure Notifications," *2022 23rd IEEE MDM*, 2022, pp. 355–360, doi: 10.1109/MDM55031.2022.00080.
19. S. Ioannou, M. C. Argyrou, P. Christodoulides, **M. Raspopoulos**, M. Darwish and C. C. Marouchos, "Modulation Processes and Mathematical Models of the TCR," *2021 ICECCME*, 2021, pp. 1–5, doi: 10.1109/ICECCME52200.2021.9591093.
20. S. Ioannou, S. Hirodontis and **M. Raspopoulos**, "An Adaptive Load Shedding Method for Blackout Prevention in Active Distribution Networks," *12th MEDPOWER 2020*, Paphos, Cyprus, Nov. 2020.
21. S. Ioannou, S. Hirodontis and **M. Raspopoulos**, "Load Shedding Schemes for Islanding Distribution Network Operation," *12th MEDPOWER 2020*, Paphos, Cyprus, Nov. 2020.
22. **M. Raspopoulos**, N. Paspallis and P. Kaimakis, "PINSPOT: An oPen platform for INtelligent context-baSed Indoor POsiTioning," *18th International Conference on Information Systems Development (ISD2019)*, Toulon, France, Aug. 28–30, 2019.
23. N. Paspallis, I. Polycarpou, P. Andreou, J. Antoniou, P. Kaimakis, **M. Raspopoulos** and M. Terzi, "An Experience Report on the Effectiveness of Five Themed Workshops at Inspiring High School Students to Learn Coding," *23rd Annual ACM Conference on Innovation and Technology in Computer Science Education*, Pyla, Cyprus, July 2–4, 2018.
24. N. Paspallis and **M. Raspopoulos**, "An Open Platform for Studying and Testing Context-Aware Indoor Positioning Algorithms," *25th International Conference on Information Systems Development (ISD2016)*, Katowice, Poland, Aug. 24–26, 2016, pp. 314–321.
25. P. Andreou and **M. Raspopoulos**, "Active Life Coach: Towards a Framework for Holistic Care of Citizens as They Age," *MCIS 2016 Proceedings*, Paper 42, 2016, http://aisel.aisnet.org/mcis2016/42.
26. L. Kanaris, A. Kokkinis, **M. Raspopoulos**, A. Liotta and S. Stavrou, "Improving RSS fingerprint-based localization using directional antennas," *8th European Conference on Antennas and Propagation (EuCAP)*, The Hague, 2014, pp. 1593–1597.
27. A. Kokkinis, L. Kanaris, **M. Raspopoulos**, A. Liotta and S. Stavrou, "Optimizing route prior knowledge for map-aided fingerprint-based positioning systems," *8th EuCAP*, The Hague, 2014, pp. 2141–2144.
28. A. Kokkinis, **M. Raspopoulos**, L. Kanaris, A. Liotta and S. Stavrou, "Map-Aided Fingerprint-based Indoor Positioning," *IEEE 24th PIMRC'13*, London, Sept. 2013, pp. 270–274.
29. I. Arambasic, J. Casajus, I. Raos, **M. Raspopoulos** and S. Stavrou, "Anchor-less Self-Positioning in Rectangular Room Based on Sectorized Narrowband Antennas," *19th European Wireless Conference 2013*, Guildford, UK, April 2013, pp. 1–6.
30. L. Kanaris, A. Kokkinis, A. Liotta, **M. Raspopoulos** and S. Stavrou, "A Binomial Distribution Approach for the Evaluation of Indoor Positioning Systems," *20th International Conference on Telecommunications*, Casablanca, Morocco, May 2013, pp. 1–4.
31. I. Arambasic, **M. Raspopoulos**, J. Casajus Quiros, I. Raos and S. Stavrou, "Self Positioning and Mapping of Rectangular Rooms with Sectorized Narrowband Antennas," *SoftCOM 2012*, Split, Sept. 2012, pp. 1–4.
32. M. Laaraiedh, B. Uguen, J. Stephan, Y. Corre, Y. Lostanlen, **M. Raspopoulos** and S. Stavrou, "Ray Tracing-Based Radio Propagation Modeling for Indoor Localization Purposes," *IEEE CAMAD 2012*, Barcelona, Sept. 2012, pp. 276–280.
33. **M. Raspopoulos**, C. Laoudias, L. Kanaris, A. Kokkinis, C. Panayiotou and S. Stavrou, "Cross Device Fingerprint-based Positioning using 3D Ray Tracing," *8th International Workshop on Communications and Mobile Computing (IWCMC 2012)*, Limassol, Aug. 2012, pp. 147–152.
34. I. Arambasic, J. Casajus, B. Denis, M. D. Noes, M. Laaraiedh, B. Uguen, Y. Lostanlen, **M. Raspopoulos**,

S. Stavrou, J. Nielsen, T. K. Madsen, D. M. Condeço and R. Raulefs, "Context-Awareness and Self-Localization in Wireless Networks: The WHERE2 Proposals," *ICT-Future Network and Mobile Summit 2012*, Berlin, Germany, July 2012.

35. **M. Raspopoulos**, B. Denis, M. Laaraiedh, J. Domínguez, L. de Celis, D. Slock, G. Agapiou, J. Stephan and S. Stavrou, "Location-Dependent Information Extraction for Positioning," *International Conference on Localization and GNSS*, Starnberg, June 2012, pp. 1–6.
36. **M. Raspopoulos**, C. Laoudias, L. Kanaris, A. Kokkinis, C. Panayiotou and S. Stavrou, "3D Ray Tracing for device-independent fingerprint-based positioning," *9th Workshop on Positioning Navigation and Communications 2012 (WPNC2012)*, Dresden, Germany, Mar. 16, 2012, pp. 109–113.
37. J. Bastos, V. Monteiro, J. Rodriguez, R. Agüero, D. Gómez, Y. Fernández, M. Peña, F. Baber, C. Verikoukis, J. Herrero, B. Cendón, **M. Raspopoulos**, S. Stavrou, M. Cabanas, J. Sainz and M. R. Santos, "Mobility concepts for IMT-Advanced," *MOBIMEDIA 2010, 6th International ICST Conference on Mobile Multimedia Communications*, Lisbon, Sept. 2010, pp. 6–8.
38. **M. Raspopoulos** and S. Stavrou, "Capacity Assessment in Distributed MIMO in Outdoor Environments using Deterministic Channel Modelling," *MOBIMEDIA 2010*, Lisbon, Sept. 2010, pp. 6–8.
39. F. A. Chaudhry, **M. Raspopoulos** and S. Stavrou, "Effect of Frequency Selective Surfaces on radio wave propagation in indoor environments," *11th European Wireless Conference 2005*, Nicosia, Cyprus, vol. 2, pp. 732–736, April 2005. *(Best Paper Award)*
40. J. Rodriguez, P. Marques, A. Radwan, K. Moessner, R. Tafazolli, **M. Raspopoulos**, S. Stavrou, P. Trapps, D. Noguet, K. Sithamparanathan, Á. Gomes, R. Piesiewicz, H. Mokrani, A. Foglar and C. Verikoukis, "Cognitive radio and cooperative strategies for power saving in multi-standard wireless devices," *ICT Mobile Summit 2010*, Florence, June 2010.

Books / Book Chapters

1. Co-Editor of *Advances in Information Systems Development: Methods, Tools and Management*, Lecture Notes in Information Systems and Organisation, Springer, 2018, ISBN 978-3-319-74817-7.
2. Co-author of the chapter "Showcasing 5G Handsets" in *Energy Efficient Smart Phones for 5G Networks*, Springer, Nov. 2014, ISBN 978-3-319-10313-6.
3. Co-author of *Influence of the Propagation Channel on Satellite Communications — Channel Dynamics Effects on Mobile, Fixed and Optical Multimedia Applications*, written during the EU IST FP6 SatNEx project (Satellite Communications Network of Excellence), 2008, ISBN 978-3-8322-6904-3.

Academic Awards and Honours

1. **August 2016: Best Paper Award.** Awarded at the 25th International Conference on Information Systems Development (ISD2016), Katowice, Poland, for "An Open Platform for Studying and Testing Context-Aware Indoor Positioning Algorithms".
2. **April 2005: Best Paper Award.** Awarded at the 11th European Wireless Conference, Nicosia, Cyprus, for "Effect of Frequency Selective Surfaces on radio wave propagation in indoor environments".
3. **September 2004: The MSc Advisory Board Prize.** Awarded by the Department of Electronic Engineering, University of Surrey, UK, for the best project by a full-time MSc student (taught programme).
4. **June 2003: Certificate of Radio Frequency Engineering.** Awarded by the Department of Electronic Engineering, University of Surrey, UK.
5. **June 2002: IEEE UK & RI Project Prize.** Certificate of Merit for the best final-year undergraduate project in Telecommunications, awarded by the IEEE UK and Republic of Ireland Communications Chapter.
6. **June 2001: Presidential Prize** for the highest overall performance at the Higher Technical Institute, awarded by the President of the Republic of Cyprus, Mr Glafkos Clerides.
7. **June 2001: IEE Cyprus Prize.** Certificate of Merit for the highest overall performance in the Electrical Engineering course at the Higher Technical Institute, awarded by IEE Cyprus.
8. **June 2001: ΣΕΠΑΗΚ Prize.** Certificate of Merit for the best performance in Electrical Power subjects at the Higher Technical Institute, awarded by the EAC Professional Employees Union.

9. **June 2001: ΕΠΟΕΤ Prize.** Certificate of Merit for the best performance in Electronic Engineering subjects at the Higher Technical Institute, awarded by the Free Pancyprian Organization of Telecommunication Employees.
10. **June 2001: CyBC Prize.** Certificate of Merit for the best project in Electronic Engineering at the Higher Technical Institute, awarded by the Cyprus Broadcasting Corporation.

Professional Memberships

- **Member** of the Cyprus Scientific and Technical Chamber — ETEK (No. A090532).
- **Senior Member** of the Institute of Electrical and Electronics Engineers — IEEE (No. 91311193).

Service

Conference Organization

- Local Organizing Chair, 3rd IEEE International Symposium on Emerging Metaverse (ISEMV 2026), Larnaca Cyprus. October 2026.
- Programme Co-Chair, 26th International Conference on Information Systems Development, Larnaca, Cyprus (ISD2017).
- Workshops Chair, 10th EAI International Conference on Game Theory and Networks (online, 16 Dec. 2021).
- Publicity Chair, The 3rd IEEE Intl. Workshop on ALgorithms for Indoor Architectures and Systems (ALIAS 2023) (held during IEEE MDM2022).
- Publicity Chair, The 2nd IEEE Intl. Workshop on ALgorithms for Indoor Architectures and Systems (ALIAS 2022) (held during IEEE MDM2023).

Reviewer

- IEEE Transactions on Antennas and Propagation
- IEEE Communications Letters
- IET Circuits, Devices & Systems
- Springer — Mobile Networks & Applications (MONE)
- Springer — Wireless Networks (WINE)
- The Applied Computational Electromagnetics Society
- EURASIP Journal on Wireless Communications and Networking
- Progress in Electromagnetics Research (PIER) Journals

PhD Examiner

- **June 2026:** Nektarios Fotiou, "Evaluating performance and resilience of drone-assisted applications and services: A Risk Assessment approach," European University Cyprus, Nicosia, Cyprus. (**Member**)
- **February 2025:** Juan José López Escobar, "Design of a new distributed Mist, Edge and Fog architecture in Beyond-5G environments for the Internet of Things," University of Vigo, Spain. (**Chair**)
- **June 2016:** Firooz Baheshti Saghezchi, "Cooperative Strategies for Energy Efficiency in Multi-standard Wireless Devices," University of Aveiro, Portugal. (**Member**)

Technical Expert

- EUROSTARS Technical Expert in the EUREKA Network.
- Registered Expert in the EC Research & Innovation Portal.
- Approved Evaluator for the General Secretariat of Research and Innovation in Greece.

Quality Assurance in Higher Education Expert

- **Chair** of the Expert Group to evaluate the Information Systems field of study (one undergraduate and one postgraduate programme) at ISMA University in Riga, Latvia, and its overseas campus in Fergana, Uzbekistan, on behalf of the Latvian Higher Education Quality Agency (AIKA), April 2024.

- **Secretary** of the Expert Group to evaluate the Information Systems field of study (one undergraduate and one postgraduate programme) at Riga Nordic University, Latvia, and its overseas campus in Fergana, Uzbekistan, on behalf of the Latvian Higher Education Quality Agency (AIKA), April 2026.

Standardization

- Member of the Indoor Positioning Indoor Navigation (IPIN) International Standards Committee (ISC).

Administrative / Management Roles

- Chair of the Research Subcommittee, UCLan Cyprus (2021 – 2025).
- Chair of the Innovation and Enterprise Subcommittee, UCLan Cyprus (2019–2021).
- Member of the Research and Innovation Committee, UCLan Cyprus (2015 – Now).
- Electrical and Electronic Engineering Course Leader, UCLan Cyprus (2015 – Now).
- Mentor in the RIEMT Mentoring Scheme (2015 – Now).
- Member of the Teaching and Learning Committee, UCLan Cyprus (2018–2020).
- Innovation Champion for the School of Sciences, UCLan Cyprus (2015–2018).

Other

- Member of the Parallel Parliament on the Environment, Sustainability and Public Health.
- Member of the National Committee on Open Science (Deputy Ministry of Research, Innovation and Digital Policy).
- Member of the 5G Specialists Group formed by the Ministry of Health.

Industrial Products

- **TruNET:** Provided the scientific and technical know-how and led the software development activities at Sigint Solutions Ltd for a 3D wireless network planning simulator based on a custom-developed, in-house electromagnetic engine. Standard output provides magnitude and phase of the received electric field, Power Delay Profiles (PDP), Angle of Arrival/Departure (AoA/AoD), SNR, SNIR and C/I information. Core functionality is extended through telecommunication modules and connectors (MIMO, UWB, NS2/Matlab connectors for higher-OSI-layer simulations, WiFi/LTE and localisation modules). TruNET has been a company project since 2007 and was also funded by the Industrial Funding Schemes 2007–2013 of the Ministry of Energy, Commerce, Trade and Tourism.
- **WiFi Exposure Meter:** Provided the technical know-how and led the development of an Android mobile application that evaluates (against recognised international limits) human exposure to EMF radiation from Wi-Fi access points. Available on the Play Store (free and paid versions).