

Iacovos Ioannou, Ph.D.



Assistant Professor, Philips University | IEEE Senior Member

Email: iacovos.ioannou@gmail.com

Google Scholar: <https://scholar.google.com/citations?user=kq5bO1EAAAAJ>

ResearchGate: <https://www.researchgate.net/profile/Iacovos-Ioannou>

I. RESEARCH INTERESTS

I am an Assistant Professor at Philips University and a Researcher at the CYENS Centre of Excellence and the University of Cyprus's Networks Research Laboratory. My research focuses on:

- **5G/6G Networks:** Development of distributed AI-driven frameworks for next-generation communication.
- **Wireless Communications:** Interference management, resource allocation, massive MIMO systems, and RIS-aided localization.
- **Distributed AI & Machine Learning:** Enhancing D2D communications with ML models for clustering, optimization, and network control.
- **Internet of Things (IoT):** Security mechanisms, intrusion detection, federated learning, and protocol optimization.
- **Localization and Jamming Attack Mitigation:** Ensuring secure and precise wireless network operations.
- **Smart Grid & Mini-Grid Management:** Deep reinforcement learning for SoC balancing, power forecasting, and renewable energy integration.
- **Edge/Fog Computing:** Adaptive frameworks for real-time data processing in IoT environments.

Dr. Iacovos Ioannou demonstrates exceptional research excellence with **97+ peer-reviewed publications** and **660+ citations** since his 2021 PhD. His pioneering work on Distributed AI frameworks for 5G/6G networks appears in top-tier venues, including the *IEEE Internet of Things Journal*, *IEEE Systems Journal*, Elsevier's *Computer Networks*, and *Computer Communications*. As TPC Chair and Keynote Speaker at ASIANComNet 2024–2025, Workshop Chair of XAIoT 2026 and ISIoT 2026 (Reykjavik, Iceland), and TPC Chair at the DCOSS 2026 ISIoT Workshop, he

demonstrates remarkable leadership. A Senior IEEE Member contributing to EU Horizon projects (ADROIT6G, METACITIES), his research spans next-generation wireless standards, smart grids, and IoT security, attracting significant international collaboration across Europe, Asia, and the Middle East.

II. EDUCATION

- **Ph.D., Computer Science, University of Cyprus (2017 – 2021)**
Dissertation: A novel Distributed Artificial Intelligence (DAI) framework with Machine Learning for 5G/6G communication.
- **M.Sc., Computer Science, Open University of Cyprus (2012 – 2016)**
Grade: 9.4 / 10
- **B.Sc., Computer Science, University of Cyprus (2001 – 2005)**
Grade: 8.1 / 10, 3rd in class. Final Project: Geographic Information Systems for transportation (ARCIMS, ARCINFO, ARCGIS).

III. PROFESSIONAL EXPERIENCE

Assistant Professor, Philips University, Cyprus (2026 – Present)

- Teaching and developing BSc-level Computer Science courses including HCI (CST-234), Systems Analysis and Design (CST-233), Data Visualisation (CST-127), and Computer Applications.
- Leading curriculum development: syllabi design, weekly content creation, assessment frameworks, and course accreditation materials.

Assistant Professor, European University Cyprus (2025 – 2026)

- Taught Information Security (CSE-405) and related Computer Science courses.
- Developed examination materials, question banks, and course content.

Researcher, CYENS Centre of Excellence, Cyprus (2018 – Present)

- Researching smart city applications in IoT, 5G/6G, Distributed AI, and Metaverse technologies.
- Contributing to EU Horizon projects: ADROIT6G, METACITIES.

Researcher, GÉANT, Europe (2018 – Present)

- Leading research on next-generation networking, orchestration, automation and virtualisation (OAV).
- Co-authored white papers and deliverables on OAV architectures and maturity models.

Special Teaching Scientist, Various Institutions (2017 – 2025)

- University of Cyprus, UCLan Cyprus, European University Cyprus, Ledra College, American University of Cyprus.
- Teaching courses on Java Programming, IoT, Wireless & Mobile Networks, Advanced Databases, and Information Security.

Software Developer, PrimeTel (2013 – 2018)

- Developed and maintained web and mobile network applications.
- Technologies: SharePoint, Java, HTML5, PHP, SQL, and backend services.

IT & Programmer, Cyprus Stock Exchange (2008 – 2013)

- System administration, software development, and database management.

IV. PROFESSIONAL SERVICE

Workshop Organisation:

- Workshop Chair & Organiser: XAIoT 2026 – Workshop on Explainable AI for IoT (Reykjavik, Iceland, June 2026).
- Workshop Chair & Organiser: ISIoT 2026 – Workshop on IoT Security and Intelligence (Reykjavik, Iceland, June 2026).

Conference Organisation & TPC Roles:

- TPC Chair: ASIANComNet 2024, ASIANComNet 2025, IFIP Networking 2025, DCOSS 2026 ISIoT Workshop.
- TPC Member: IEEE Globecom, IEEE ICC, IEEE WCNC, MedComNet, CIoT, AIoT.

Editorial Service:

- Associate Editor: IEEE Networking Letters.
- Associate Editor: International Journal of Antennas and Propagation (Wiley).
- Reviewer: IEEE Access, IEEE IoT Journal, Computer Networks (Elsevier), Computer Communications (Elsevier), Sensors (MDPI), and 20+ other journals. Over 300 papers reviewed.

Invited Talks & Keynotes:

- Keynote Speaker: ICRISSET 2022, CEII 2022, WiSPNET 2024, ASIANComNet 2024, ASIANComNet 2025, ICCSS 2025.
- Invited Speaker: MNIT Jaipur, DTU Delhi, NIT Goa (India).

V. HONORS, AWARDS, & FELLOWSHIPS

- **IEEE Senior Member** Recognition.

- TPC Chair: ASIANComNet 2024, ASIANComNet 2025, IFIP 2025, DCOSS 2026 ISIoT Workshop.
- Associate Editor: IEEE Networking Letters, International Journal of Antennas and Propagation (Wiley).
- Multiple conference awards and funding for research contributions.
- Over 660 Google Scholar citations.

VI. RESEARCH PROJECTS

- **ADROIT6G** – EU Horizon: Distributed AI-driven open and programmable architecture for 6G networks.
- **METACITIES** – EU Horizon: Exploiting digital twins and metaverse technologies in south-eastern Europe.
- **GÉANT OAV Project** – Research and integration of orchestration, automation and virtualisation in Europe’s research networks.
- **Cybersafe Cyprus** – Development of a national cybersecurity framework.
- **National CSIRT – CTIP System** – Cyber threat intelligence and response framework.

VII. PUBLICATIONS & BOOKS

Publication Summary: 97+ peer-reviewed publications | 660+ citations | h-index: 15

- **Journal Articles:** 35 (24 in Scimago Q1 journals)
- **Conference Papers:** 51 peer-reviewed
- **Book:** 1 (CRC Press)
- **Book Chapters:** 2 (forthcoming)
- **White Papers & Technical Reports:** 7 (GÉANT, ADROIT6G)
- **PhD Thesis:** 1

Book:

- I. Ioannou, P. Nagaradjane, V. Vassiliou, A. Pitsillides, C. Christophorou, *Distributed Artificial Intelligence for 5G/6G Communications: Frameworks with Machine Learning*, CRC Press (Taylor & Francis), 2024. ISBN: 978-1-032-46553-3.

Journal Publications (Selected – Top Cited)

#	Title	Journal	Year
1	Distributed Artificial Intelligence Solution for D2D Communication in 5G Networks	IEEE Systems Journal	2020
2	A novel Distributed AI framework with ML for D2D communication in 5G/6G networks	Computer Networks	2022
3	Detection of DDoS attacks in D2D communications using machine learning approach	Computer Communications	2023

4	GEMPLIDS-MIOT: A Green Effective ML IDS based on FL for Medical IoT security hardening	Computer Communications	2024
5	AI/ML-aided capacity maximization strategies for URLLC in 5G/6G wireless systems: A survey	Computer Networks	2024
6	A novel automated approach for fish biomass estimation through deep learning	Ecological Informatics	2024
7	Content-aware network traffic prediction framework for QoS-aware dynamic network resource management	IEEE Access	2023
8	A novel deep hierarchical ML approach for identification of security attacks in D2D	IEEE Access	2023
9	A distributed AI framework for Nano-Grid power management and control	IEEE Access	2024
10	DeepRISBeam: deep learning-based RIS beam management for radio channel optimization	IEEE Access	2024
11	Enhancing 5G/6G networks through a dynamic dual-stage ML framework for selecting UEs as UE-VBSs	Ad Hoc Networks	2025
12	Intelligent congestion control in 5G URLLC SDN via Reinforced Dueling Deep Q-Networks	J. Netw. Comput. Appl.	2025
13	A Multi-Layered Framework for Adaptive Real-Time Data Processing in Edge-Fog IoT	IEEE IoT Journal	2026
14	Relay Performance in D2D Communications Overlaying Multi-Antenna Cellular Networks	IEEE OJCOMS	2026
15	A self-supervised hybrid CNN with uncertainty-aware referral for diabetic retinopathy screening	Biomed. Signal Proc. Ctrl.	2026

[Full list of 35 journal articles available in separate publication list document]

Conference Publications (Selected – Top Cited)

#	Title	Conference	Year
1	Fuzzy-Logic Based IDS for Detecting Jamming Attacks in Wireless Mesh IoT Networks	MedComNet 2022	2022
2	Performance Evaluation of Transmission Mode Selection in D2D Communication	NTMS 2021	2021
3	Performance evaluation of ML cluster metrics for mobile network augmentation	WiSPNET 2024	2024
4	Location-enabled IoT (LE-IoT): Indoor localization for IoT environments using ML	DCOSS-IoT 2024	2024
5	ADROIT6G DAI-driven open and programmable architecture for 6G networks	IEEE Globecom WS 2023	2023
6	Metacities Excellence Hub: Exploiting Digital Twins and Metaverse Technologies in SE Europe	IEEE ISC2 2023	2023
7	Implementing a cell-free 6G distributed AI network with deep ML	MENACOMM 2025	2025

[Full list of 51 conference papers available in separate publication list document]

VIII. COURSES TAUGHT

- Human-Computer Interaction (CST-234) – Philips University

- Systems Analysis and Design (CST-233) – Philips University
- Data Visualisation (CST-127) – Philips University
- Computer Applications – Philips University
- Information Security (CSE-405) – European University Cyprus
- Java Programming – University of Cyprus, UCLan Cyprus
- IoT Systems – University of Cyprus
- Wireless & Mobile Networks – University of Cyprus
- Advanced Databases – Various institutions

IX. TECHNICAL SKILLS

- **Programming:** Python, Java, C/C++, PHP, SQL, MATLAB, JavaScript.
- **Networking & Security:** NS3, OMNET++, OpenAirInterface, srsLTE, LTE/5G Testbeds.
- **AI & ML:** Deep Learning, GANs, Federated Learning, Reinforcement Learning, GNNs, XAI.
- **Tools & Platforms:** Docker, Kubernetes, GitHub, Jenkins, LaTeX, DSpace.
- **Simulation:** MATLAB Simulink, Python-based wireless network simulation frameworks.

X. PERSONAL INFORMATION

- Date of Birth: 11.03.1978
- Nationality: Cypriot
- Languages: Greek (Native), English (Fluent), French (Proficient)
- References: Available upon request.