

Dr. George Melillos

AI Strategy & CAIO Advisor · International Keynote Speaker

Associate Professor · Researcher · PhD · CEng · MBCS · 30+ Years Experience

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PROFESSIONAL SUMMARY

Dr. George Melillos is an AI Strategy & CAIO Advisor and International Keynote Speaker who transforms artificial intelligence from concept into measurable organisational advantage. With over 30 years of experience spanning national defence, Information Technology leadership, higher education, and applied research, he is one of Cyprus's most recognised AI authorities — having delivered official AI advisory presentations to the House of Representatives of the Republic of Cyprus and keynote addresses to businesses, universities, and government agencies across Cyprus and internationally.

He served for 20 years as Head of Information Technology at the Cyprus Ministry of Defence, directing national-level IT strategy, cybersecurity frameworks, and a 50-person technology team. As an active researcher, he has contributed to 9 EU and national funded projects (Horizon 2020, Horizon Europe, NextGenerationEU, ESA PECS), published 60+ scientific papers (29 Web of Science indexed), and completed 291 verified peer reviews across 27 international journals. He is also Associate Professor at the American University of Cyprus, Special Teaching Scientist at Cyprus University of Technology, and has delivered 65,000+ hours of IT and AI training since 2000.

CORE COMPETENCIES

Chief AI Officer (CAIO) ▶ AI transformation strategy ▶ LLMs & Generative AI ▶ ChatGPT · Claude · Gemini ▶ Deep learning & YOLO ▶ AI ethics & governance ▶ Prompt engineering	IT Leadership & Security ▶ National IT strategy ▶ Cybersecurity (ISO 27001) ▶ Digital transformation ▶ IT team mgmt (50+ people) ▶ Systems architecture ▶ IT budget & procurement	Research & Education ▶ Remote Sensing & GIS ▶ SAR & Earth Observation ▶ EU-funded research ▶ AI in Education ▶ Keynote speaking ▶ 65,000+ training hours
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KEY ACHIEVEMENTS

- ★ Delivered official AI advisory presentation at the House of Representatives of the Republic of Cyprus (April 2025) — advising lawmakers on AI's role in public sector innovation and digital governance.
- ★ 20 years as Head of IT / Chief Information Technology Officer at the Cyprus Ministry of Defence — directing national IT strategy, cybersecurity, and a 50-person technology team for one of Cyprus's most sensitive institutions.
- ★ 291 verified peer reviews across 27 international journals (Elsevier + MDPI + IEEE), including 20 reviews for Engineering Applications of Artificial Intelligence — recognised internationally as a leading expert in applied AI.
- ★ 14+ AI keynote presentations (2023–2026) delivered to parliaments, corporations, universities, and professional organisations: House of Representatives, McDonald's, CBS College, Cyprus Workers' Confederation (SEK), Erasmus Project, and American University of Cyprus.
- ★ Lead researcher in 9 EU and national funded projects — Horizon 2020, Horizon Europe, NextGenerationEU,

ESA PECS, RIF — with total project value exceeding €15M.

- ★ Author of 2 officially approved educational books adopted in Cyprus secondary schools — vetted by the Ministry of Education, Cyprus Computer Society, and ECDL.
- ★ 65,000+ hours of IT and AI training delivered since 2000 across universities, corporations, and government agencies in Cyprus and internationally.

ACADEMIC & PROFESSIONAL POSITIONS

Chief AI Officer (CAIO) & International Keynote Speaker

Aug 2023 – Present

Independent AI Strategy & Consulting — Cyprus & International

- Acts as Chief AI Officer (CAIO) for organisations seeking AI transformation: designs AI adoption roadmaps, governance frameworks, and implementation strategies aligned with business objectives.
- International Keynote Speaker on Artificial Intelligence, LLMs (ChatGPT, Claude, Gemini, Copilot), Generative AI, Prompt Engineering, AI Ethics, and AI-driven Digital Transformation.
- Advises C-suite executives and government officials on responsible AI integration, workforce AI readiness, and competitive AI strategy.
- Key engagements: House of Representatives of Cyprus, McDonald's, CBS College, Cyprus Workers' Confederation (SEK), Cyprus Productivity Centre, AUCY, Erasmus Project (CDA College).

Associate Professor (Part-Time) — AI & Computer Science

Sep 2024 – Present

The American University of Cyprus (AUCY), Larnaca

- Courses: Databases (MSE 471), Compilers (MSE 361), Parallel Systems (MSE 362), Communications & Networks (CSC 208), Computer Systems Security (CSC 307) — all enriched with AI-integrated content and case studies.
- Delivers dedicated public lectures on AI and Machine Learning — deep learning architectures, neural networks, LLMs, and AI ethics.
- Integrates leading AI platforms — ChatGPT (OpenAI), Claude (Anthropic), Copilot (Microsoft), Gemini (Google) — and Python ML libraries (TensorFlow, scikit-learn, PyTorch) into course delivery.

Special Teaching Scientist

Feb 2017 – Present

Cyprus University of Technology (CUT), Limassol

- Courses: Geoinformatics (GEO 565), Cartography I (GEO 234), Advanced Detection & Navigation Applications (GEO 562), GIS Applications (GEO 435), Databases (GEO 231), Python Programming for AI & Geospatial Applications, C++ (CIV 118), Python for Engineers (CIV 213).
- Python taught with AI emphasis: NumPy, Pandas, scikit-learn, and geospatial ML pipelines applied to real Remote Sensing datasets.
- Curriculum development with AI-integrated content; MSc thesis supervision on AI-driven geospatial analysis.

Adjunct Lecturer — MBA Program (Business Intelligence & AI)

Jul 2024 – Present

CBS – College of Business Studies, Nicosia

- Courses: Business Intelligence (Power BI, Advanced Excel); AI and Emerging Technologies in Media — generative AI, automation, and AI ethics for MBA executives.

Adjunct Lecturer — MIS Program

Sep 2025 – Present

University of Nicosia

- Course: MIS 155 – Introduction to Transformative Technologies.

Adjunct Lecturer & AI Trainer

Jul 2015 – Present

Cyprus Productivity Centre (CPC), Nicosia

- Designed and delivers: Using Artificial Intelligence (LLMs — ChatGPT, Claude, Gemini — Generative AI, automation), Prompt Engineering for ChatGPT & Claude, Python for AI Applications, Digital Marketing, Information Systems Security, Advanced Excel for Data Analytics.

Head of Sector / Researcher A / Liaison Officer

Nov 2022 – Jul 2024

ERATOSTHENES Centre of Excellence (ECoE), Limassol

- Led AI and Remote Sensing research team: deep learning (YOLO), machine learning, Big Data Analytics for geospatial and Earth Observation challenges under Horizon Europe funding.
- Applied AI research: object detection in SAR imagery, ML-based geospatial classification, anomaly detection for Defence and Security applications.
- Served as Liaison Officer between academia, industry, and government; presented AI research to policymakers.

Head of Information Technology / Chief IT Officer

Nov 2002 – Oct 2022

Ministry of Defence (Security Agency), Republic of Cyprus

- Chief IT Officer for a national security institution — 20 years directing information systems, cybersecurity, enterprise technology strategy, and digital infrastructure at the highest level of government sensitivity.
- Led and managed a 50-person IT team; full responsibility for IT budget, procurement, vendor management, policy development, and systems architecture.
- Designed and implemented national cybersecurity frameworks aligned with ISO/IEC 27001; oversaw incident response, access management, and classified information systems.
- Official representative of the Republic of Cyprus at international defence and technology meetings.

Postdoctoral Researcher

Feb 2017 – Oct 2022

Cyprus University of Technology (CUT), Limassol

- Maritime surveillance for security and safety: AI-based vessel detection (YOLO), oil spill monitoring, and anomaly identification using Sentinel-1 SAR and Big Data Analytics.

Senior IT & AI Trainer — Programme Designer

Jan 2000 – Present

Cyprus Computer Society · University of Cyprus · CUT · AUCY · CPC · CBS & others

- 65,000+ hours of IT and AI training delivered: Artificial Intelligence, Machine Learning, Python for AI, Cybersecurity, Information Systems, Database Management, Web Applications, Digital Marketing, and Advanced Data Analysis.
- Designed and delivered Train-the-Trainer programmes (ECDL, Python, C++, Web Editing, Photoshop) certified by Cyprus Computer Society.

RESEARCH INTERESTS

- Artificial Intelligence for Earth Observation: deep learning (CNN, YOLO), object detection and image classification applied to SAR and multispectral satellite imagery
- AI-driven maritime surveillance: vessel detection, oil spill monitoring, and anomaly identification using Sentinel-1 SAR and Big Data Analytics
- Machine Learning for geospatial analysis: supervised/unsupervised classification, anomaly detection, and AI-enhanced decision support systems
- Detection of buried and underground structures using Remote Sensing, field spectroscopy, and AI-based geospatial methods
- AI in Education: pedagogy, AI literacy, prompt engineering, LLMs in academic settings, and responsible AI governance
- AI for public sector transformation: digital governance, policy-level AI advisory, and intelligent decision support

EDUCATION

PhD – Geoinformatics & Space Technologies

2018

Cyprus University of Technology, Limassol

Thesis: Integrated use of Geo-informatics and Space Technologies for the Detection of Underground Structures in Military Facilities in Cyprus.

Key modules: Remote Sensing & Earth Observation · GIS & Geoinformatics · Field Spectroscopy · SAR Image Analysis · Space Technologies · AI for Geospatial Applications · Underground Structure Detection.

MA – ICT and Education

2013

[University of Leeds, United Kingdom](#)

Dissertation: Design & Evaluation of Web-based Learning Environments for Students with Disabilities.

Key modules: Design & Evaluation of Web-based Learning Environments · Learning with Virtual Worlds · Issues in ICT & Education · Language Learning & Teaching with ICT.

BSc (Hons) – Computing

2009

[University of Huddersfield, United Kingdom](#)

Project: An Online Directory Using Google Earth and Google Maps Mashups.

Key modules: E-Commerce Business & Technology · Enterprise Systems Development · Advanced Databases · Algorithms, Process & Data · Computer-Based Work Environments.

BTEC Higher National Diploma – Computing (Software Engineering)

2007

[Omiros College, Athens, Greece](#)

Key modules: Systems Analysis · Software Engineering · Database Design · Object-Oriented Programming · HCI · Visual Programming · Multimedia & Internet Development.

EDITORIAL & PEER REVIEW ACTIVITY

Guest Editor

Sustainability (MDPI) — Special Issue: Remote Sensing for Sustainable Environmental Ecology

Academic Editor

IntechOpen

Elsevier — 50 Certified Reviews, 6 Journals

Journal	Reviews	Period
Engineering Applications of Artificial Intelligence	20	Apr 2024 – Apr 2026
Expert Systems with Applications	10	Mar 2024 – Mar 2026
Remote Sensing Applications: Society and Environment	8	Nov 2023 – Sep 2025
Ocean Engineering	7	Oct 2021 – May 2024
ISPRS Journal of Photogrammetry and Remote Sensing	3	Oct 2020 – Jan 2021
Urban Forestry & Urban Greening	2	Jun 2022 – Jul 2022
TOTAL — Elsevier Certified	50	

MDPI — 171 Certified Reviews, 21 Journals (2020–2025)

Buildings, Remote Sensing, Journal of Marine Science and Engineering, ISPRS International Journal of Geo-Information, Sensors, Electronics, Photonics, Atmosphere, Sustainability, AI, Biomimetics, Applied Sciences, Drones, Plants, Water, Urban Science, Fire, Aerospace, Micromachines, Processes, Minerals.

Certificate signed by Stefan Tochev, CEO, MDPI — 4 May 2026.

Also serves as Reviewer for: IEEE Access · ISPRS · Additional Elsevier journals.

60+ Publications 29 Web of Science Indexed	291 Verified Peer Reviews Elsevier + MDPI + IEEE	9 EU / National Projects Horizon 2020 · Horizon Europe	65K+ Teaching Hours Since 2000
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FUNDED RESEARCH PROJECTS

Programme	Project Title	Year	Role
Horizon Europe	AI-OBSERVER: Enhancing Earth Observation via AI for Disaster Risk Reduction	2022	Researcher
Horizon Europe	Nostradamus: Data Cube & Copernicus Data for Food Security	2023	Researcher
ESA PECS	CY9_11: Enabling Cyprus for EO Ground Segment Operations	2024	Researcher
Horizon 2020	EXCELSIOR: ERATOSTHENES Centre of Excellence for Earth Surveillance	2019	Researcher
RIF	CyCLOPS: Space-based Monitoring of Geohazards in Cyprus	2022	Researcher
Interreg GR-CY	THAL-CHOR 2: Marine Spatial Planning Cross-border Cooperation	2018	Researcher
THALIA 2021–27	THALIA: Foundations of Change, Prosperity, Equality and Development	2021	Training Coord.
NextGeneration EU	Make it Digital: Digital Skills for the General Public	2023	Training Coord.
MED Programme	MEDNET: Mediterranean Network for Customs Procedures in Ports	2012	Researcher

SELECTED PUBLICATIONS (60+ TOTAL · 29 WEB OF SCIENCE INDEXED)

Peer-Reviewed Journal & Conference Papers

- Melillos, G., et al. (2023). Monitoring coastal erosion in Cyprus: an analysis utilizing Sentinel-1 SAR data. SPIE Vol. 12728, pp. 164–172.
- Melillos, G., et al. (2023). Ship detection using SAR images based on YOLO. RSCy2023, SPIE Vol. 12786, pp. 394–403.
- Melillos, G., et al. (2023). Oil spill detection and monitoring in the Cyprus region. Ocean Sensing XV, SPIE Vol. 12543.
- Melillos, G. & Hadjimitsis, D. (2022). Ship detection using SAR images based on YOLO at Cyprus's coast. SPIE Geospatial Informatics XII. DOI: 10.1117/12.2614526.
- Melillos, G. & Hadjimitsis, D. (2021). Oil spill detection using Sentinel-1 SAR data at Cyprus's coasts. SPIE Vol. 11729. DOI: 10.1117/12.2585886.
- Melillos, G. & Hadjimitsis, D. (2020). Detection underground structures in Cyprus using Landsat-8 bands. IGARSS 2020 IEEE. DOI: 10.1109/IGARSS39084.2020.9323447.
- Melillos, G., et al. (2020). Detecting Migrant Vessels in the Cyprus Region using Sentinel-1 SAR data. SPIE Vol. 11542. DOI: 10.1117/12.2573744.
- Melillos, G., et al. (2019). Field spectroscopy for the detection of underground military structures. European Journal of Remote Sensing, 52(1), 385–399. DOI: 10.1080/22797254.2019.1625075.
- Melillos, G., et al. (2019). The Use of Field Spectroscopy for Satellite Remote Sensing Detection of Underground Military Structures. IGARSS 2019, Yokohama. DOI: 10.1109/IGARSS.2019.8898822.
- Melillos, G., et al. (2018). Monitoring military landscapes and detection of underground critical infrastructures using Earth Observation. Advances in Geosciences, 45, 335–342. DOI: 10.5194/adgeo-45-335-2018.
- Melillos, G., et al. (2018). Detection of Military Underground Structures through Remote Sensing Investigation of Phenological Cycle of Crops. Advances in Remote Sensing, 7(3), 235. DOI: 10.4236/ars.2018.73016.
- Danezis, C. & Melillos, G. CyCLOPS: A National Integrated GNSS/InSAR Infrastructure for Monitoring Geohazards. Int. Association of Geodesy Symposia, 2021.

Book Chapters

- Melillos, G., et al. (2019). Detecting underground military structures using field spectroscopy. In Military Engineering. IntechOpen. ISBN 978-1-78923-953-9. DOI: 10.5772/intechopen.86690.

Books (Ministry of Education Approved)

14. Melillos, G. (2014). Image Editing – Using Adobe Photoshop. ISBN: 978-9963-2940-1-5. Approved by Cyprus Ministry of Education, Cyprus Computer Society & ECDL.
15. Melillos, G. (2013). Web Editing Using Adobe Dreamweaver. ISBN: 978-9963-2940-0-8. Approved by Cyprus Ministry of Education, Cyprus Computer Society & ECDL.

AI KEYNOTE ENGAGEMENTS & PUBLIC LECTURES (2023–2026)

Date	Topic / Presentation	Organisation
April 2025	Using AI — Official Presentation to Lawmakers	House of Representatives, Cyprus
April 2025	The Future of AI in Education (Erasmus Project)	CDA College
July 2025	Mastering ChatGPT: Prompting Best Practices for Success in AI	American University of Cyprus
July 2025	Using AI – Prompt Engineering for ChatGPT	McDonald's Cyprus
June 2025	Change the Game: AI & Prompt Engineering for Business	CBS College
March 2025	Decoding AI: From Intelligent Machines to ChatGPT and the Future	CBS College
February 2025	The Future of AI in Education	Agia Varvara Lyceum
January 2025	The Future of AI in Education	KES College
December 2024	The Future of AI in Education	American University of Cyprus
May 2024	Using AI: Workforce Development & Automation	Cyprus Workers' Confederation (SEK)
April 2024	Using AI – Prompt Engineering for ChatGPT	Cyprus Productivity Centre
December 2023	Security of Information Systems and the Internet	Agia Varvara High School
August 2023	AI in Business Productivity & Automation	Cyprus Productivity Centre

PROFESSIONAL CERTIFICATIONS & QUALIFICATIONS

- ✓ Chartered Engineer (CEng) — Engineering Council UK
- ✓ Professional MBCS — BCS Chartered Institute for IT
- ✓ EITCA/AI Artificial Intelligence Academy Certification — EITCI (ML, Neural Networks, Deep Learning)
- ✓ Google AI Essentials (TensorFlow, AutoML, Google Cloud AI)
- ✓ Google Prompting Essentials
- ✓ Prompt Engineering for ChatGPT — Vanderbilt University
- ✓ ITILv4 Foundation
- ✓ ISO/IEC 27001 Lead Implementer — PECB
- ✓ Microsoft Certified Trainer (MCT) — Microsoft
- ✓ Microsoft Office Specialist Master — Microsoft
- ✓ Microsoft Certified Application Developer (MCAD) — Microsoft
- ✓ Microsoft Certified Professional (MCP) ID: 3326395 — Microsoft
- ✓ ECDL Certified Trainer Professional (ECDL CTP) — Cyprus Computer Society
- ✓ Adobe Certified Associate (ACA) — Dreamweaver CS5 & Photoshop CS
- ✓ Certified Trainer of Vocational Training (EEK) — ANAD
- ✓ Certificate in Psychology — Cyprus Ministry of Education
- ✓ Certificate in Management & Leadership — Cyprus Productivity Centre

PROFESSIONAL MEMBERSHIPS

Engineering Council UK (Chartered Engineer CEng)	2019 – Present
IEEE – Institute of Electrical and Electronics Engineers	2018 – Present
IEEE Geoscience and Remote Sensing Society	2016 – Present
SPIE – Society of Photo-Optical Instrumentation Engineers	2015 – Present

BCS – The Chartered Institute for IT (MBCS)	2009 – Present
The Cyprus Remote Sensing Society	2019 – Present
Cyprus Space Exploration Organisation (CSEO)	2019 – Present
Cyprus Computer Society	2002 – Present

LANGUAGES

Greek	Native
English	Fluent — BSc, MA and PhD all completed in English

Chief AI Officer (CAIO) · International Keynote Speaker · Associate Professor · 30+ Years Experience

60+ Publications · 291 Verified Peer Reviews · 65,000+ Teaching Hours · 9 EU Projects · 27 International Journals