

## SHORT CURRICULUM VITAE

**Ioannis K. Mavridis**

PROFESSOR, DIRECTOR OF MULTIMEDIA, SECURITY &  
NETWORKING LABORATORY (MSN LAB)  
DEPARTMENT OF APPLIED INFORMATICS  
UNIVERSITY OF MACEDONIA, THESSALONIKI, GREECE

### Education

- 2000 Doctor of Philosophy. Thesis title: "Information and Database System Security in Mobile Computing". Aristotle University of Thessaloniki, Faculty of Engineering, Thessaloniki, Greece
- 1985 Diploma in Computer Engineering and Informatics (5-year course), University of Patras, Faculty of Engineering, Patras, Greece

### Professional Experience

- 2017 onwards Professor in Information Systems Security, Department of Applied Informatics, University of Macedonia (UoM)  
Director of Multimedia, Security and Networking laboratory (MSN lab),  
<https://msnlab.uom.gr>
- 2012 - 2017 Associate Professor, Department of Applied Informatics, UoM  
Founder and head of the Information Security (InfoSec) research group of the University of Macedonia, <https://infosec.uom.gr>
- 2006 - 2012 Assistant Professor, Department of Applied Informatics, UoM
- 2002 - 2006 Lecturer, Department of Applied Informatics, UoM
- 1993 - 2002 Informatics and new technologies head - Teacher in Informatics of secondary school
- 1989 - 1993 EDP manager – Analyst/programmer, Hellenic Vehicle Industry
- 1986 - 1987 Software developer, SDC S.A.

### Teaching

Undergraduate courses:

- Information and Systems Security
- Networks and Web Applications Security
- Computer Systems Security
- Blockchain Technologies and Decentralized Applications

Postgraduate courses:

- Blockchain
- Cybersecurity
- Information Security in Computer Networks
- Blockchain Technologies, Financial Applications and Cyber Security

### Participation in Research Projects

Participation in more than 20 international and national funded research and development (R&D) projects, indicatively:

- Project Coordinator (PC) & Principal Investigator (PI) in: HapticSOUND (Analysis, documentation and demonstration system for traditional musical instruments at the Cretan Ethnology Museum) NSRF, Greece.
- Principal Investigator (PI) in: FORTIKA (Cyber Security Accelerator for trusted SMEs IT Ecosystems) H2020-DS-2016-2017 (Digital Security Focus Area).
- Scientific Coordinator in: Basic Research 2019 Project, titled: "Conceptual framework for e-learning and training in cybersecurity", funded by the Research Committee of the UoM.
- Scientific Coordinator in: MAML (Machine Assessment of Multimodal Learning), GSRT Matching Funds 2017 for i-Treasures (Intangible Treasures - Capturing the Intangible Cultural Heritage and Learning the Rare Know-How of Living Human Treasures) FP7-ICT-2011-9 Project-ID: 600676.
- Principal Investigator (PI) in: FoodSMART (Shaping Smarter Consumer Behaviour and Food Choice) H2020-MSCA-RISE-2014.
- Researcher in: CARAT (History in Cities: Augmented Reality tools and applications), NSRF 2014-2020: T1EAK-04136.

- Scientific Coordinator in: INFRASTRUCTURE SERVICES, MANAGEMENT, INFORMATION AND OPERATION OF ELECTRONIC IDENTITY AT THE UOM “Priority” 04 – Digital convergence and entrepreneurship, “Macedonia – Thrace”, co-financed by the European Regional Development Fund.
- Scientific Coordinator in: ACADEMIC CONTENT TO OPEN ACCESS AT THE UOM: SERVICES ORGANIZATION, PROMOTION, AND ADOPTION OF INTERCONNECTION “Priority” 04 – Digital convergence and entrepreneurship, “Macedonia – Thrace”, co-financed by the European Regional Development Fund.
- Scientific Coordinator in: Basic Research 2012 Project, titled: "Development of a new improved role-based model for controlling access to Web services in Grid/Cloud Computing environments, and its laboratory implementation for experimental tests", funded by the Research Committee of the UoM.

### Professional Memberships

Member of:

- Technical Chamber of Greece
- Greek Computer Society
- ISACA Academic Advocate

### Scientific Activities

Member of Editorial Boards of International Conferences (indicatively):

- Area Editor: Array, published by Elsevier.
- Guest Editor (Special Issue: Blockchain Technologies and Decentralized Applications in Smart Environments): Electronics, published by MDPI.

Member of Scientific Committees of International Conferences (indicatively):

- International Conference on Availability, Reliability and Security (ARES)
- IEEE International Symposium on Computer and Communications (IEEE ISCC)
- International Symposium for Industrial Control System & SCADA Cyber Security Research (ICS-CSR)
- IFIP International Information Security and Privacy Conference (SEC)
- International Conference on Cloud Computing and Services Science (CLOSER)
- International Conference on Emerging Security Information, Systems and Technologies (SECURWARE)
- European Conference on Cyber Warfare and Security 2018 (ECCWS)
- Panhellenic Conference on Informatics (PCI)
- International Workshop on Cyber Crime Scene Investigations (CCSI)
- International Conference on Cloud Security and Management (ICCSM)
- European Conference on Information Warfare and Security (ECIW)

Reviewer of International Scientific Journals (indicatively):

- Journal of Circuits, Systems, and Computers, published by World Scientific.
- International Journal of Critical Infrastructure Protection, published by Elsevier.
- Computers and Security (COSE), published by Elsevier.
- ACM Transactions on Privacy and Security (TISSEC), published by ACM.
- EURASIP Journal on Information Security, published by Springer.
- Transactions on Services Computing, published by IEEE.
- Journal of Systems and Software (JSS), published by Elsevier.
- International Journal of Network Management, published by Wiley.
- Journal of the American Society for Information Science and Technology (JASIST), published by Wiley.
- Future Generation Computer Systems, The International Journal of Grid Computing and eScience, published by Elsevier.
- European Journal of Operational Research (EJOR), published by Elsevier.
- Journal of Requirements Engineering, published by Springer.
- IET Information Security, published by The Institution of Engineering and Technology.
- The Computer Journal, Oxford University Press.

### Research Interests

- Information Security
- Access Control
- Blockchain Technologies & Decentralized Security Applications
- Cyber Crime Investigation and Prediction
- Cyber Security Learning and Training

- Cyber Threat Intelligence

## Publications

### Citations:

- Google Scholar: >1820, h-index = 20, i10-index = 43

### Books:

- Mavridis I., “Information and Systems Security Laboratory Exercises”, 2016, ebook available at: <http://hdl.handle.net/11419/525> (in greek).
- Mavridis I., “Information Security in the Internet”, 2016, ebook available at: <http://hdl.handle.net/11419/1024> (in greek).
- G. Pangalos and I.Mavridis, "Information systems and networks security", Publ. ANIKOYAA, ISBN 960-516-018-8, 2002 (in greek).

### Conference proceedings (selected):

- Antonios Gouglidis, Ioannis Mavridis. “On the Definition of Access Control Requirements for Grid and Cloud Computing Systems”, In the Proceedings of the 3rd International ICST Conference on Networks for Grid Applications (GridNets 2009), Athens, Greece, 8-9 September 2009, ISBN: 978-963-9799-63-9.
- Dimitrios Michalopoulos, Ioannis Mavridis. “Towards Risk Based Prevention of Grooming Attacks”, In the Proceedings of the International Conference on Security and Cryptography (SECRYPT 2010), poster, Athens, Greece, July 2010.
- Aristeidis Chatzipoulidis, Ioannis Mavridis. “An ICT Security Management Framework”, In the Proceedings of the International Conference on Security and Cryptography (SECRYPT 2010), poster, Athens, Greece, July 2010.
- Dimitrios Michalopoulos, Ioannis Mavridis. “Surveying Privacy Leaks Through Online Social Networks”, In the Proceedings of the Special Session on "Performance analysis of Computer Networks (PaCoNet)" organized in conjunction with the 14th Panhellenic Conference on Informatics (PCI 2010), September 2010 Tripoli, Greece.
- Antonios Gouglidis, Ioannis Mavridis, "Role-based Secure Inter-operation and Resource Usage Management in Mobile Grid Systems", International Workshop in Information Security Theory and Practice, WISTP'11, June 1-3, 2011, Crete, Greece.
- Dimitrios Michalopoulos, Ioannis Mavridis. “Utilizing Document Classification for Grooming Attack Recognition”, In the Proceedings of the 16th IEEE International Symposium on Computer and Communications (IEEE ISCC 2011), June 28 - July 1, 2011, pp. 864 – 869, Corfu, Greece.
- Christos Grompanopoulos and Ioannis Mavridis. “Towards Use-Based Usage Control”, In the Proceedings of the 27th IFIP International Information Security and Privacy Conference (IFIP SEC 2012), 4-6 June, Heraklion, Crete, Greece.
- Dimitrios Michalopoulos and Ioannis Mavridis. “Utilizing Survival Analysis for Modeling Child Hazards of Social Networking”, In the Proceedings of the 6th International Symposium on Human Aspects of Information Security & Assurance (HAISA 2012), 6-8 June, 2012, Crete, Greece.
- Christos Grompanopoulos and Ioannis Mavridis. “A Use-based Approach for Enhancing UCON”, In the Proceedings of the 8th International Workshop on Security and Trust Management (STM 2012) in conjunction with ESORICS 2012, Pisa, Italy - September 13-14, 2012.
- Antonios Gouglidis and Ioannis Mavridis, "A Methodology for the Development and Verification of Access Control Systems in Cloud Computing", In the Proceedings of the 12th IFIP Conference on e-Business, e-Services, e-Society "Collaborative, trusted and privacy aware e/m-services" (I3E 2013), April 25-26, Athens, Greece.
- Antonios Gouglidis and Ioannis Mavridis, "Verification of Secure Inter-operation Properties in Multi-domain RBAC Systems", In the Proceedings of the International Workshop on Trustworthy Computing (TC 2013), co-located at the SERE 2013, Washington D.C. USA.
- Stavros Salonikias, Ioannis Mavridis, Dimitris Gritzalis. “Access Control Issues in Utilizing Fog Computing for Transport Infrastructure”, In the Proceedings of the 10th International Conference on Critical Information Infrastructures Security (CRITIS 2015), Berlin, Germany, October 5–7, 2015.
- Menelaos Katsantonis, Panayotis Fouliras, Ioannis Mavridis, “Conceptual Analysis of Cyber Security Education based on Live Competitions”, In the Proceedings of 2017 IEEE Global Engineering Education Conference (EDUCON 2017), Athens, Greece, April 26-28, 2017.
- M. N. Katsantonis, P. Fouliras and I. Mavridis. 2017. Conceptualization of Game Based Approaches for Learning and Training on Cyber Security. In Proceedings of ACM Pan-Hellenic Conference on Informatics, Larisa, Greece, September 2017 (PCI2017).

- N. Tsinganos, G. Sakellariou, P. Fouliras, and I. Mavridis. 2018. Towards an Automated Recognition System for Chat-based Social Engineering Attacks in Enterprise Environments. In ARES 2018: Intern. Conference on Availability, Reliability and Security, August 27–30, 2018, Hamburg, Germany.
- M. N. Katsantonis, I. Kotini, P. Fouliras and I. Mavridis, "Conceptual Framework for Developing Cyber Security Serious Games," In Proceedings of IEEE Global Engineering Education Conference (EDUCON 2019), Dubai, United Arab Emirates, April 9-11, 2019, pp. 872-881.
- M. N. Katsantonis and I. Mavridis, "Ontology-based Modelling for Cyber Security E-Learning and Training" In Proceedings of 18th International Conference on Web-based Learning (ICWL 2019), Magdeburg, Germany, September 23-25, 2019.
- Athanasios Dimitriadis, Efstratios Lontzetidis and Ioannis Mavridis (2021) Evaluation and Enhancement of the Actionability of Publicly Available Cyber Threat Information in Digital Forensics. 2021 IEEE International Conference on Cyber Security and Resilience (CSR)/2021 IEEE CSR Workshop on Actionable Cyber Threat Intelligence (ACTI), Virtual Conference, July 26-28 2021.
- Anagnostopoulou A., Mavridis I. and Gritzalis D., "Risk-based illegal information flow detection in the IIoT", 20th International Conference on Security and Cryptography (SECRYPT 2023), July 10 - 12, 2023 Rome, Italy.

#### Journals (selected):

- I.Mavridis. "Deploying Privacy Improved RBAC in Web Information Systems", International Journal of Information Technologies and the Systems Approach (IJITSA), Special Issue on Privacy and Security Issues in IT, 4(2), pp.70-87, July-December 2011, ISSN: 1935-570X.
- T. Margaritopoulos, M. Margaritopoulos, I. Mavridis, A.Manitsaris "Quantifying and measuring metadata completeness", Journal of the American Society for Information Science and Technology (JASIST), Volume 63, Issue 4, pp. 724–737, April 2012, ISSN: 1532-2882.
- Antonios Gouglidis, Ioannis Mavridis, "domRBAC: An Access Control Model for Modern Collaborative Systems", Journal: Computers & Security (COSE), Volume 31, Issue 4, June 2012, pp. 540-556..
- Dimitrios Michalopoulos and Ioannis Mavridis, "A method to calculate social networking hazard probability in definite time", Journal: Information Management & Computer Security (IMCS), Vol. 21, No. 1, 2013, pp. 16-29, ISSN: 0968-5227, Emerald.
- Antonios Gouglidis, Ioannis Mavridis, "Security policy verification for multi-domains in Cloud systems", International Journal of Information Security (IJIS), Special Issue: Security policy verification for multi-domains in Cloud systems, 2013, pp.1 – 15, ISSN: 1615-5262, Springer.
- Dimitrios Michalopoulos, Ioannis Mavridis and Marija Jankovic, "GARS: real-time system for identification, assessment and control of cyber grooming attacks", Journal: Computers & Security (COSE), Volume 42, May 2014, Pages 177–190, 2014, ISSN 0167-4048, Elsevier.
- Aristeidis Chatzipoulidis, Dimitrios Michalopoulos, Ioannis Mavridis, "Information infrastructure risk prediction through platform vulnerability analysis", Journal of Systems and Software (JSS), Volume 106, August 2015, Pages 28–41, 2015, ISSN: 0164-1212, Elsevier.
- Athanasios Dimitriadis, Nenad Ivezic, Boonserm Kulvatunyou, Ioannis Mavridis. (2019) "D4I - Digital forensics framework for reviewing and investigating cyber attacks", in Elsevier's open access journal: Array, Volume 5, 2020, 100015, ISSN 2590-0056, <https://doi.org/10.1016/j.array.2019.100015>.
- Athanasios Dimitriadis, Jose Luis Flores, Boonserm Kulvatunyou, Nenad Ivezic, Ioannis Mavridis. (2020) "ARES: Automated Risk Estimation in Smart Sensor Environments", in Elsevier's open access journal: Sensors, 2020; 20(16):4617, ISSN 1424-8220, <https://doi.org/10.3390/s20164617>.
- Menelaos N. Katsantonis, Ioannis Mavridis, Dimitris Gritzalis, Design and Evaluation of COFELET-based Approaches for Cyber Security Learning and Training, Computers & Security, Volume 105, 2021, 102263, ISSN 0167-4048, <https://doi.org/10.1016/j.cose.2021.102263>
- Dimitriadis, A.; Prassas, C.; Flores, J.L.; Kulvatunyou, B.; Ivezic, N.; Gritzalis, D.A.; Mavridis, I.K. Contextualized Filtering for Shared Cyber Threat Information. Sensors 2021, 21, 4890. <https://doi.org/10.3390/s21144890>
- Katsantonis, M., & Mavridis, I. (2021). Evaluation of HackLearn COFELET Game User Experience for Cybersecurity Education. International Journal of Serious Games, 8(3), 3 - 24. <https://doi.org/10.17083/ijsg.v8i3.437>
- Tsinganos, Nikolaos, and Ioannis Mavridis. 2021. "Building and Evaluating an Annotated Corpus for Automated Recognition of Chat-Based Social Engineering Attacks" Applied Sciences 11, no. 22: 10871. <https://doi.org/10.3390/app112210871>
- Sakellariou, G.; Fouliras, P.; Mavridis, I.; Sarigiannidis, P. A. Reference Model for Cyber Threat Intelligence (CTI) Systems. Electronics 2022, 11, 1401. <https://doi.org/10.3390/electronics11091401>
- Salonikias S, Khair M, Mastoras T, Mavridis I. Blockchain-Based Access Control in a Globalized Healthcare Provisioning Ecosystem. Electronics. 2022; 11(17):2652. <https://doi.org/10.3390/electronics11172652>

- N. Tsinganos, I. Mavridis and D. Gritzalis, "Utilizing Convolutional Neural Networks and Word Embeddings for early-stage recognition of persuasion in chat-based social engineering attacks," in IEEE Access, 2022, doi: <https://doi.org/10.1109/ACCESS.2022.3213681>
- Tsinganos, Nikolaos, Panagiotis Fouliras, and Ioannis Mavridis. 2022. "Applying BERT for Early-Stage Recognition of Persistence in Chat-Based Social Engineering Attacks" Applied Sciences 12, no. 23: 12353. <https://doi.org/10.3390/app122312353>
- A. Dimitriadis, E. Lontzetidis, B. Kulvatunyou, N. Ivezic, D. Gritzalis and I. Mavridis, "Fronesis: Digital Forensics-Based Early Detection of Ongoing Cyber-Attacks," in IEEE Access, vol. 11, pp. 728-743, 2023, doi: <https://doi.org/10.1109/ACCESS.2022.3233404>
- Sakellariou G, Fouliras P, Mavridis I. SECDIFAN: A Cyber Threat Intelligence System for Discussion Forums Utilization. Eng. 2023; 4(1):615-634. <https://doi.org/10.3390/eng4010037>
- Katsantonis, M.N., Manikas, A., Mavridis, I., Gritzalis D. Cyber range design framework for cyber security education and training. Int. J. Inf. Secur. (2023). <https://doi.org/10.1007/s10207-023-00680-4>
- Tsinganos N, Fouliras P, Mavridis I. Leveraging Dialogue State Tracking for Zero-Shot Chat-Based Social Engineering Attack Recognition. Applied Sciences. 2023; 13(8):5110. <https://doi.org/10.3390/app1308511>

#### Book Chapters (selected):

- Gouglidis, A., & Mavridis, I. (2012). "Grid Access Control Models and Architectures". In N. Preve (Ed.), Computational and Data Grids: Principles, Applications and Design (pp. 217-234). Hershey, PA: Information Science Reference. doi:10.4018/978-1-61350-113-9.ch008.
- Stavros Salonikias, Antonios Gouglidis, Ioannis Mavridis and Dimitris Gritzalis "Access Control in the Industrial Internet of Things" in Security and Privacy Trends in the Industrial Internet of Things, Series: Advanced Sciences and Technologies for Security Applications, ISBN-13: 9783030123291, Publisher: Springer International Publishing, Publication date: 05/29/2019
- Evangelos K. Markakis, Yannis Nikoloudakis, Evangelos Pallis, Ales Cernivec, Panayotis Fouliras, Ioannis Mavridis, Georgios Sakellariou, Stavros Salonikias, Nikolaos Tsinganos, Anargyros Sideris, Nikolaos Zotos, Anastasios Drosou, Konstantinos M. Giannoutakis and Dimitrios Tzouvaras "The FORTIKA Accelerated Edge Solution for Automating SMEs Security" in Challenges in Cybersecurity and Privacy – the European Research Landscape, Series in Security and Digital forensics, ISBN: 978-87-7022-088-0 (Hardback), 978-87-7022-087-3 (Ebook), 2019 River Publishers.
- I. Mavridis, S. Salonikias, M Khair "Access Control and Authorization" in Information and systems Security in the Cyberspace, Editors: S. Gritzalis, S. Katsikas, K. Lamprinouidakis, ISBN-13: 9789605780647, Publisher: NewTech-Pub, Publication date: March 2021, Pages: 816.