

Konstantinos Rantos, MSc., Ph.D.

- ✉ krantos@cs.duth.gr
- 🌐 <https://www.linkedin.com/in/rantos>
- 🌐 <https://www.wesis.cs.duth.gr/>
- 🌐 <https://www.scopus.com/authid/detail.uri?authorId=6507911474>
- 🌐 <https://scholar.google.com/citations?user=w7vmXjMAAAAJ&hl=en>
- 🌐 <https://orcid.org/0000-0003-2453-3904>
- 🌐 <https://publons.com/wos-op/researcher/1745577/konstantinos-rantos/>



Employment history

- 2024 – ···· • **Professor.** Department of Informatics, Democritus University of Thrace, Greece
- 2019 – 2024 • **Associate Professor.** Department of Computer Science, International Hellenic University, Greece.
- 2017 – 2019 • **Associate Professor.** Department of Computer and Informatics Engineering, Eastern Macedonia and Thrace Institute of Technology
- 2010 – 2017 • **Assistant Professor.** Department of Computer and Informatics Engineering, Eastern Macedonia and Thrace Institute of Technology
- 2007 – 2010 • **Information Security Scientific Officer.** Hellenic Ministry of Interior and e-Government
- 2006 – 2007 • **IT Security Consultant.** Encode Middle East FZ-LLC, Dubai, UAE
- 2004 – 2006 • **Assistant Professor.** Technological Educational Institute of Kavala, Greece
- 2001 – 2003 • **Software Engineer.** Datacard Group, London, UK
- 1997 – 2001 • **Research Assistant.** DRoyal Holloway, University of London, UK

Education

- 1997 – 2001 • **Ph.D. Information Security, Royal Holloway, University of London**
Thesis title: *Key Recovery in a Business Environment.*
Funded by the European Commission: **Marie Curie Research and Training Grant**
- 1996 – 1997 • **M.Sc. Information Security, Royal Holloway, University of London**
Thesis title: *An approach to a key recovery agent and its communication with the authorities.*
- 1990 – 1996 • **Diploma (5 years univ. studies cycle) in Computer Engineering and Informatics, University of Patras, Greece**
Thesis title: *Medical Data Security. Presentation and Comparative Study of Security Algorithms.*

Research and Development Projects

- “**Architecture and Management of Public Administration Base Registries: Knowledge Exchange for Digital Transformation and Enhanced Transparency**”, Hellenic Ministry of Economy and Finance, 2024.
- “**Development of Training material on Cybersecurity Governance based on ECSF**”, European Network and Information Security Agency (ENISA), 2023, Scientific Coordinator.
- “**R2D2 - Reliability, Resilience and Defense technology for the grid**”, Horizon 2020 Framework Programme, 2022-2025, Senior Research Fellow.
- “**Technical guidelines on security measures for providers of wallets with Blockchain**”, European Network and Information Security Agency (ENISA), 2022, Scientific Coordinator.
- “**Development and Delivery of a Course on Zero-Trust Architectures**”, European Network and Information Security Agency (ENISA), 2022, Senior Consultant.

Research and Development Projects (continued)

- **“Building Interoperable EU Risk Management Frameworks vol.2”**, European Network and Information Security Agency (ENISA), 2022, Senior Consultant.
- **“Support for the ENISA AHWG on Cybersecurity Skills Framework”**, European Network and Information Security Agency (ENISA), 2021, Scientific Coordinator.
- **“The new Greek eGovernment Interoperability Framework”**. Greek Ministry of Digital Governance, 2021. Scientific Coordinator.
- **Support for skills development, trainings and exercises (“Design & planning of ENISA Cyber Exercises/Capacity building activities”, “Development and Delivery of a Course on Cyber Threat Management”, “Development of e-learning modules in the area of cryptography”)**, European Network and Information Security Agency (ENISA), 2021, Senior Consultant.
- **“Interoperable EU Risk Management Framework”**, European Network and Information Security Agency (ENISA), 2021. Senior Consultant.
- **“ELECTRON - rEsilient and seLf-healed EleCTRical pOwer Nanogrid”**, Horizon 2020, Framework Programme, 2021-2023. Senior Research Fellow.
- **“INCIDENCE (promotING Cyber-hygiene in eDucation through sEcurIng distANce lEarning)”**, ERASMUS+, 2021, Senior Research Fellow.
- **“SmartROOT – Smart faRming innOvatiOn Training”**, ERASMUS+, 2021, Senior Research Fellow.
- **“JAUNTY – Joint undergrAduate coUrseS for smart eNergy managemenT sYstems”**, ERASMUS+, 2021, Senior Research Fellow.
- **“Development of an innovative scenario for risk management training and use of ICT security controls in a fictional public administration”**, European Network and Information Security Agency (ENISA), 2020. Scientific Coordinator.
- **“Conduct a gap analysis and recommend areas of improvement for a manuscript in the field of machine learning for incident detection and response”**, European Network and Information Security Agency (ENISA), 2020. Scientific Coordinator.
- **“State of Vulnerabilities 2018/2019 - Analysis of Events in the life of Vulnerabilities”**, European Network and Information Security Agency (ENISA), 2019. Senior Research Fellow.
- **“Design, development and delivery of a training programme in Information Security Management for MS and EU bodies”**, European Network and Information Security Agency (ENISA), 2019. Senior Consultant.
- **“CS-AWARE - A cybersecurity situational awareness and information sharing solution for local public administrations based on advanced big data analysis”**, Horizon 2020 Framework Programme, 2018. Senior Research Fellow.
- **“Specification of a PKI”**, European Agency EU-LISA, 2016. Scientific Coordinator.
- **“Mobile Applications Development Training Courses”**, Eastern Macedonia and Thrace Institute of Technology, 2015. Responsible for the “Mobile computing security” module.
- **“PIN Processing Options”**, UK Cards Association. System Security Specialist, 2014.
- **“nshield: new embedded Systems archItecturE for multi-Layer Dependable solutions”**, ARTEMIS Joint undertaking, 2011-2015. Senior Research Fellow.
- **“Hellenic Public Administration’s Certification Services”**, Hellenic Ministry of Interior, Decentralization and eGovernment, 2007-2010. Information Security Advisor.
- **“Design and development of the National e-Government Portal of Public Administration for Citizens and Enterprises Information and Secure Electronic Transactions - www.ermis.gov.gr”**, Hellenic Ministry of Interior, Decentralization and eGovernment, 2007-2010. Information Security Advisor – Working Group Leader for Digital Authentication – PKI.

Research and Development Projects (continued)

- “**Greek eGovernment Interoperability Framework**”, <http://www.e-gif.gov.gr>, 2009. Role: Working Group Leader – Responsible for e-id and PKI-related issues.
- “**STORK 2.0 - Secure idenTity acrOss boRders linKed 2.0**”, Large scale pilot project, 2010. Deputy Scientific Coordinator.
- “**SPOCS - Simple Procedures Online for Cross-border Services**”, Large scale pilot project, 2009-2010. Senior Research Fellow, WP Leader.
- “**PKI for the Hellenic Bank Association**”, 2008. Security architect.
- “**Development and Delivery of eGovernment Services and Information Security related training material**”, Hellenic National Centre for Public Administration & Local Government, 2008.
- “**Design of a PKI for a security IT infrastructure**”, Arab Bank, 2006. Security Architect.
- “**Design and delivery of a security awareness program**”, Saudi Aramco, 2007. Security Architect.
- “**Delivering a security awareness program**”, Saudi Telecomms, 2006, Security Consultant.
- “**Best Practices for Key Management on Smart Cards**”, Codes&Ciphers, UK, 2006, Security Consultant.
- “**PKI Design & Implementation**”, Eurobank-Greece, 2003, Security Consultant.
- “**Minimum Interoperability Requirements for Key Recovery Mechanisms**”, European Commission - Marie Curie Research and Training Grant. 1997–2000. Role: Grant Holder.
- “**ASPeCT: Advanced Security for Personal Communications Technologies**”, EU ACTS project, 1996-1997. Role: Research assistant.

Selected Scientific Publications

Journal Articles

- 1 P. Cheimonidis and K. Rantos, “A dynamic risk assessment and mitigation model,” *Applied Sciences*, vol. 15, no. 4, p. 2171, 2025. [DOI: 10.3390/app15042171](https://doi.org/10.3390/app15042171).
- 2 P. Cheimonidis and K. Rantos, “A novel proactive and dynamic cyber risk assessment methodology,” *Computers & Security*, p. 104 439, 2025. [DOI: 10.1016/j.cose.2025.104439](https://doi.org/10.1016/j.cose.2025.104439).
- 3 K. A. Tychola and K. Rantos, “Cyberthreats and security measures in drone-assisted agriculture,” *Electronics*, vol. 14, no. 1, p. 149, 2025. [DOI: 10.3390/electronics14010149](https://doi.org/10.3390/electronics14010149).
- 4 D. Chatziamanetoglou and K. Rantos, “Cyber Threat Intelligence on Blockchain: A Systematic Literature Review,” *Computers*, vol. 13, no. 3, p. 60, Feb. 2024, IF: 2.8, ISSN: 2073-431X. [DOI: 10.3390/computers13030060](https://doi.org/10.3390/computers13030060).
- 5 P. Cheimonidis and K. Rantos, “Dynamic vulnerability severity calculator for industrial control systems,” *International Journal of Information Security*, May 2024, IF: 3.2, Available online: <https://rdcu.be/dHnYU>. [DOI: 10.1007/s10207-024-00858-4](https://doi.org/10.1007/s10207-024-00858-4).
- 6 A. Dimakopoulou and K. Rantos, “Comprehensive analysis of maritime cybersecurity landscape based on the NIST CSF v2.0,” *Journal of Marine Science and Engineering*, vol. 12, no. 6, 2024. [DOI: 10.3390/jmse12060919](https://doi.org/10.3390/jmse12060919).
- 7 I. Anastasaki, G. Drosatos, G. Pavlidis, and K. Rantos, “User Authentication Mechanisms Based on Immersive Technologies: A Systematic Review,” *Information*, vol. 14, no. 10, p. 538, Oct. 2023, IF: 3.1, ISSN: 2078-2489. [DOI: 10.3390/info14100538](https://doi.org/10.3390/info14100538).
- 8 D. Chatziamanetoglou and K. Rantos, “Blockchain-based security configuration management for ICT systems,” *Electronics (Switzerland)*, vol. 12, no. 8, 2023, IF: 2.9. [DOI: 10.3390/electronics12081879](https://doi.org/10.3390/electronics12081879).

- 9 D. Chatziamanetoglou, K. Rantos, and A. Michienzi, "Blockchain-based cyber threat intelligence sharing using proof-of-quality consensus," *Security and Communication Networks*, vol. 2023, 2023. [DOI: 10.1155/2023/3303122](#).
- 10 P. Cheimonidis and K. Rantos, "Dynamic risk assessment in cybersecurity: A systematic literature review," *Future Internet*, vol. 15, no. 10, 2023, IF: 3.4. [DOI: 10.3390/fi15100324](#).
- 11 K. Demertzis, P. Kikiras, C. Skianis, K. Rantos, L. Iliadis, and G. Stamoulis, "Federated auto-meta-ensemble learning framework for AI-enabled military operations," *Electronics (Switzerland)*, vol. 12, no. 2, 2023. [DOI: 10.3390/electronics12020430](#).
- 12 K. Demertzis, K. Rantos, L. Magafas, and L. Iliadis, "A cross-modal dynamic attention neural architecture to detect anomalies in data streams from smart communication environments," *Applied Sciences (Switzerland)*, vol. 13, no. 17, 2023. [DOI: 10.3390/app13179648](#).
- 13 K. Demertzis, K. Rantos, L. Magafas, C. Skianis, and L. Iliadis, "A secure and privacy-preserving blockchain-based XAI-justice system," *Information (Switzerland)*, vol. 14, no. 9, 2023. [DOI: 10.3390/info14090477](#).
- 14 A. Papanikolaou, A. Alevizopoulos, C. Ilioudis, K. Demertzis, and K. Rantos, "A blockchained autoML network traffic analyzer to industrial cyber defense and protection," *Electronics (Switzerland)*, vol. 12, no. 6, 2023. [DOI: 10.3390/electronics12061484](#).
- 15 A. Papanikolaou, A. Alevizopoulos, C. Ilioudis, K. Demertzis, and K. Rantos, "An autoML network traffic analyzer for cyber threat detection," *International Journal of Information Security*, vol. 22, no. 5, pp. 1511–1530, 2023. [DOI: 10.1007/s10207-023-00703-0](#).
- 16 G. Drosatos, K. Rantos, and K. Demertzis, "Advanced technologies in data and information security," *Applied Sciences (Switzerland)*, vol. 12, no. 12, 2022. [DOI: 10.3390/app12125925](#).
- 17 S. Tsimenidis, T. Lagkas, and K. Rantos, "Deep learning in IoT intrusion detection," *Journal of Network and Systems Management*, vol. 30, no. 1, 2022. [DOI: 10.1007/s10922-021-09621-9](#).
- 18 K. Kaltakis, P. Polyzi, G. Drosatos, and K. Rantos, "Privacy-preserving solutions in blockchain-enabled internet of vehicles," *Applied Sciences (Switzerland)*, vol. 11, no. 21, 2021. [DOI: 10.3390/app11219792](#).
- 19 I. Lykidis, G. Drosatos, and K. Rantos, "The use of blockchain technology in e-government services," *Computers*, vol. 10, no. 12, 2021. [DOI: 10.3390/computers10120168](#).
- 20 K. Demertzis, K. Rantos, and G. Drosatos, "A dynamic intelligent policies analysis mechanism for personal data processing in the iot ecosystem," *Big Data and Cognitive Computing*, vol. 4, no. 2, pp. 1–16, 2020. [DOI: 10.3390/bdcc4020009](#).
- 21 K. Rantos, A. Spyros, A. Papanikolaou, A. Kritsas, C. Ilioudis, and V. Katos, "Interoperability challenges in the cybersecurity information sharing ecosystem," *Computers*, vol. 9, no. 1, 2020. [DOI: 10.3390/computers9010018](#).
- 22 P. Sarigiannidis, T. Lagkas, K. Rantos, and P. Bellavista, "The big data era in IoT-enabled smart farming: Re-defining systems, tools, and techniques," *Computer Networks*, vol. 168, 2020. [DOI: 10.1016/j.comnet.2019.107043](#).
- 23 A. Triantafyllou, J. A. P. Jimenez, A. D. R. Torres, T. Lagkas, K. Rantos, and P. Sarigiannidis, "The challenges of privacy and access control as key perspectives for the future electric smart grid," *IEEE Open Journal of the Communications Society*, vol. 1, pp. 1934–1960, 2020. [DOI: 10.1109/OJCOMS.2020.3037517](#).
- 24 K. Rantos, G. Drosatos, A. Kritsas, C. Ilioudis, A. Papanikolaou, and A. P. Filippidis, "A blockchain-based platform for consent management of personal data processing in the iot ecosystem," *Security and Communication Networks*, vol. 2019, 2019. [DOI: 10.1155/2019/1431578](#).
- 25 K. Tsiknas, K. Rantos, C. J. Schinas, and A. Soilemes, "Performance evaluation of TCP-BIAD in high-speed, long-distance networks," *Computing*, vol. 101, no. 4, pp. 319–337, 2019. [DOI: 10.1007/s00607-018-0673-y](#).

- 26 K. Rantos, K. Fysarakis, C. Manifavas, and I. G. Askoxylakis, "Policy-controlled authenticated access to LLN-connected healthcare resources," *IEEE Systems Journal*, vol. 12, no. 1, pp. 92–102, 2018. [DOI: 10.1109/JSYST.2015.2450313](#).
- 27 K. Rantos, Y. Katsikogiannis, A. Papadakis, and A. C. Stasis, "Secure e-government services across EU," *International Journal of Electronic Governance*, vol. 6, no. 2, pp. 117–132, 2013. [DOI: 10.1504/IJEG.2013.058362](#).
- 28 K. Rantos, K. Fysarakis, and C. Manifavas, "How effective is your security awareness program? an evaluation methodology," *Information Security Journal*, vol. 21, no. 6, pp. 328–345, 2012. [DOI: 10.1080/19393555.2012.747234](#).
- 29 K. Rantos and C. J. Mitchell, "Matching key recovery mechanisms to business requirements," *Computers and Security*, vol. 24, no. 3, pp. 232–245, 2005. [DOI: 10.1016/j.cose.2004.08.010](#).
- 30 C. J. Mitchell and K. Rantos, "A fair certification protocol," *ACM Computer Communication Review*, vol. 29, no. 3, pp. 47–49, 1999. [DOI: 10.1145/505724.505730](#).
- 31 K. Rantos and C. Mitchell, "Remarks on kra key recovery block format," *Electronics Letters*, vol. 35, no. 8, pp. 632–634, 1999. [DOI: 10.1049/el:19990433](#).

Conference Proceedings

- 1 A. P. Filippidis, C. S. Hilas, A. Politis, K. Rantos, and H. Mouratidis, "A simulation-based education platform for security investments through culture and knowledge convergence," in *European Conference on Games Based Learning*, Academic Conferences International Limited, 2024, pp. 920–929.
- 2 V. G. Kaburlasos, C. Lytridis, G. Siavalas, *et al.*, "Skilled Agricultural Task Delivery by a Digital Twin," in *2023 IEEE Conference on Artificial Intelligence (CAI)*, Santa Clara, CA, USA: IEEE, Jun. 2023, pp. 364–365. [DOI: 10.1109/CAI54212.2023.00159](#).
- 3 C. Bampalas and K. Rantos, "Blockchain-based vaccination certificates management," in *Proceedings of the 26th Pan-Hellenic Conference on Informatics*, Athens Greece: ACM, Nov. 2022, pp. 309–316, ISBN: 978-1-4503-9854-1. [DOI: 10.1145/3575879.3576010](#).
- 4 D. Chatziamanetoglou and K. Rantos, "CTI Blockchain-Based Sharing using Proof-of-Quality Consensus Algorithm," in *2021 IEEE International Conference on Cyber Security and Resilience (CSR)*, Rhodes, Greece: IEEE, Jul. 2021, pp. 331–336. [DOI: 10.1109/CSR51186.2021.9527959](#).
- 5 N. Zapoglou, I. Patsakos, G. Drosatos, and K. Rantos, "Privacy-Preserving Blockchain-Based Solutions in the Internet of Things," in *Science and Technologies for Smart Cities*, S. Paiva, S. I. Lopes, R. Zitouni, N. Gupta, S. F. Lopes, and T. Yonezawa, Eds., Series Title: Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol. 372, Cham: Springer International Publishing, 2021, pp. 386–405. [DOI: 10.1007/978-3-030-76063-2_27](#).
- 6 G. Drosatos, K. Rantos, D. Karampatzakis, T. Lagkas, and P. Sarigiannidis, "Privacy-preserving solutions in the Industrial Internet of Things," in *2020 16th International Conference on Distributed Computing in Sensor Systems (DCOSS)*, Marina del Rey, CA, USA: IEEE, May 2020, pp. 219–226. [DOI: 10.1109/DCOSS49796.2020.00044](#).
- 7 A. Papastylianou, A. Stasis, K. Rantos, and V. Kalogirou, "Blended Learning and Open Courseware for Promoting Interoperability in Public Services," in *E-Democracy – Safeguarding Democracy and Human Rights in the Digital Age*, S. Katsikas and V. Zorkadis, Eds., Series Title: Communications in Computer and Information Science, vol. 1111, Cham: Springer International Publishing, 2020, pp. 79–93. [DOI: 10.1007/978-3-030-37545-4_6](#).
- 8 A. Spyros, K. Rantos, A. Papanikolaou, and C. Ilioudis, "An Innovative Self-Healing Approach with STIX Data Utilisation," in *Proceedings of the 17th International Joint Conference on e-Business and Telecommunications*, Lieusaint - Paris, France: SCITEPRESS - Science and Technology Publications, 2020, pp. 645–651. [DOI: 10.5220/0009893306450651](#).

- 9 K. Rantos, G. Drosatos, K. Demertzis, C. Ilioudis, A. Papanikolaou, and A. Kritsas, "ADvoCATE: A Consent Management Platform for Personal Data Processing in the IoT Using Blockchain Technology," in *Innovative Security Solutions for Information Technology and Communications*, J.-L. Lanet and C. Toma, Eds., Series Title: Lecture Notes in Computer Science, vol. 11359, Cham: Springer International Publishing, 2019, pp. 300–313, ISBN: 978-3-030-12941-5 978-3-030-12942-2. [DOI: 10.1007/978-3-030-12942-2_23](#).
- 10 T. Schaberreiter, V. Kupfersberger, K. Rantos, *et al.*, "A Quantitative Evaluation of Trust in the Quality of Cyber Threat Intelligence Sources," in *Proceedings of the 14th International Conference on Availability, Reliability and Security*, Canterbury CA United Kingdom: ACM, Aug. 2019, pp. 1–10. [DOI: 10.1145/3339252.3342112](#).
- 11 K. Rantos, G. Drosatos, K. Demertzis, C. Ilioudis, and A. Papanikolaou, "Blockchain-based Consents Management for Personal Data Processing in the IoT Ecosystem," in *Proceedings of the 15th International Joint Conference on e-Business and Telecommunications*, Porto, Portugal: SCITEPRESS - Science and Technology Publications, 2018, pp. 572–577. [DOI: 10.5220/0006911005720577](#).
- 12 K. Fysarakis, C. Konstantourakis, K. Rantos, C. Manifavas, and I. Papaefstathiou, "WSACd - A Usable Access Control Framework for Smart Home Devices," in *Information Security Theory and Practice*, R. N. Akram and S. Jajodia, Eds., Series Title: Lecture Notes in Computer Science, vol. 9311, Cham: Springer International Publishing, 2015, pp. 120–133. [DOI: 10.1007/978-3-319-24018-3_8](#).
- 13 D. Jayasinghe, R. N. Akram, K. Markantonakis, K. Rantos, and K. Mayes, "Enhancing EMV Online PIN Verification," in *2015 IEEE Trustcom/BigDataSE/ISPA*, Helsinki, Finland: IEEE, Aug. 2015, pp. 808–817. [DOI: 10.1109/Trustcom.2015.451](#).
- 14 K. Rantos, K. Fysarakis, O. Soutatos, and I. Askoxylakis, "Secure and Authenticated Access to LLN Resources Through Policy Constraints," in *Information Security Theory and Practice*, R. N. Akram and S. Jajodia, Eds., Series Title: Lecture Notes in Computer Science, vol. 9311, Cham: Springer International Publishing, 2015, pp. 271–280. [DOI: 10.1007/978-3-319-24018-3_18](#).
- 15 "Embedded Systems Security Challenges:" in *Proceedings of the 4th International Conference on Pervasive and Embedded Computing and Communication Systems*, Lisbon, Portugal: SCITEPRESS - Science, 2014, pp. 255–266. [DOI: 10.5220/0004901602550266](#).
- 16 K. Fysarakis, I. Papaefstathiou, C. Manifavas, K. Rantos, and O. Sultatos, "Policy-based access control for DPWS-enabled ubiquitous devices," in *Proceedings of the 2014 IEEE Emerging Technology and Factory Automation (ETFA)*, Barcelona, Spain: IEEE, Sep. 2014, pp. 1–8. [DOI: 10.1109/ETFA.2014.7005233](#).
- 17 C. Manifavas, K. Fysarakis, K. Rantos, and G. Hatzivasilis, "DSAPE – Dynamic Security Awareness Program Evaluation," in *Human Aspects of Information Security, Privacy, and Trust*, D. Hutchison, T. Kanade, J. Kittler, *et al.*, Eds., Series Title: Lecture Notes in Computer Science, vol. 8533, Cham: Springer International Publishing, 2014, pp. 258–269. [DOI: 10.1007/978-3-319-07620-1_23](#).
- 18 C. Manifavas, K. Fysarakis, K. Rantos, K. Kagiambakis, and I. Papaefstathiou, "Policy-Based Access Control for Body Sensor Networks," in *Information Security Theory and Practice. Securing the Internet of Things*, D. Hutchison, T. Kanade, J. Kittler, *et al.*, Eds., Series Title: Lecture Notes in Computer Science, vol. 8501, Berlin, Heidelberg: Springer Berlin Heidelberg, 2014, pp. 150–159. [DOI: 10.1007/978-3-662-43826-8_11](#).
- 19 C. Manifavas, G. Hatzivasilis, K. Fysarakis, and K. Rantos, "Lightweight Cryptography for Embedded Systems – A Comparative Analysis," in *Data Privacy Management and Autonomous Spontaneous Security*, J. Garcia-Alfaro, G. Lioudakis, N. Cuppens-Bouahia, S. Foley, and W. M. Fitzgerald, Eds., Series Title: Lecture Notes in Computer Science, vol. 8247, Berlin, Heidelberg: Springer Berlin Heidelberg, 2014, pp. 333–349. [DOI: 10.1007/978-3-642-54568-9_21](#).
- 20 A. Papanikolaou, K. Rantos, and I. Androulidakis, "Proxied IBE-based key establishment for LLNs," in *The 10th International Conference on Digital Technologies 2014*, Zilina, Slovakia: IEEE, Jul. 2014, pp. 275–280. [DOI: 10.1109/DT.2014.6868727](#).

- 21 K. Rantos, A. Papanikolaou, and C. Manifavas, "IPsec over IEEE 802.15.4 for low power and lossy networks," in *Proceedings of the 11th ACM international symposium on Mobility management and wireless access*, Barcelona Spain: ACM, Nov. 2013, pp. 59–64. [DOI: 10.1145/2508222.2508240](https://doi.org/10.1145/2508222.2508240).
- 22 K. Rantos, A. Papanikolaou, C. Manifavas, and I. Papaefstathiou, "IPv6 security for low power and lossy networks," in *2013 IFIP Wireless Days (WD)*, Valencia, Spain: IEEE, Nov. 2013, pp. 1–8. [DOI: 10.1109/WD.2013.6686510](https://doi.org/10.1109/WD.2013.6686510).
- 23 K. Rantos, A. Papanikolaou, K. Fysarakis, and C. Manifavas, "Secure policy-based management solutions in heterogeneous embedded systems networks," in *2012 International Conference on Telecommunications and Multimedia (TEMU)*, Heraklion, Crete, Greece: IEEE, Jul. 2012, pp. 227–232. [DOI: 10.1109/TEMU.2012.6294723](https://doi.org/10.1109/TEMU.2012.6294723).
- 24 A. Papadakis, K. Rantos, and A. Stasis, "Promoting e-Gov Services: E-Document Interoperability across EU," in *2011 15th Panhellenic Conference on Informatics*, Kastoria, Greece: IEEE, Sep. 2011, pp. 304–308. [DOI: 10.1109/PCI.2011.62](https://doi.org/10.1109/PCI.2011.62).
- 25 K. Rantos, "Digital Signatures: How Close Is Europe to Truly Interoperable Solutions?" In *Communications and Multimedia Security*, B. De Decker, J. Lapon, V. Naessens, and A. Uhl, Eds., Series Title: Lecture Notes in Computer Science, vol. 7025, Berlin, Heidelberg: Springer Berlin Heidelberg, 2011, pp. 155–162. [DOI: 10.1007/978-3-642-24712-5_13](https://doi.org/10.1007/978-3-642-24712-5_13).
- 26 K. Rantos and C. J. Mitchell, "Key Recovery Scheme Interoperability - A Protocol for Mechanism Negotiation," in *Cryptography and Coding*, G. Goos, J. Hartmanis, J. Van Leeuwen, and B. Honary, Eds., Series Title: Lecture Notes in Computer Science, vol. 2260, Berlin, Heidelberg: Springer Berlin Heidelberg, 2001, pp. 268–276. [DOI: 10.1007/3-540-45325-3_23](https://doi.org/10.1007/3-540-45325-3_23).

Books and Chapters

- 1 G. Drosatos, I. Mavridis, and K. Rantos, *Foundations and Applications of Modern Cryptography*. Kallipos, Open Academic Editions, 2025. [DOI: 10.57713/KALLIPOS-1067](https://doi.org/10.57713/KALLIPOS-1067).
- 2 T. Schaberreiter, J. Röning, G. Quirchmayr, et al., *A cybersecurity situational awareness and information-sharing solution for local public administrations based on advanced big data analysis: The CS-AWARE project*. 2019, pp. 149–180. [URL: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85090095290&partnerID=40&md5=e446f91456654977f83ba6a6304c2e50](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85090095290&partnerID=40&md5=e446f91456654977f83ba6a6304c2e50).
- 3 P. Azzoni, L. Geretti, A. Abramo, et al., *Measurable and Composable Security, Privacy, and Dependability for Cyberphysical Systems*, oth ed., A. Fiaschetti, J. Noll, P. Azzoni, and R. Uribeetxeberria, Eds. CRC Press, Dec. 2017, ISBN: 978-1-138-04285-8. [DOI: 10.1201/9781138042858](https://doi.org/10.1201/9781138042858).
- 4 P. Azzoni, K. Rantos, L. Geretti, A. Abramo, and S. Gosetti, *Biometric Security Domain*, A. Fiaschetti, Ed. Boca Raton: Taylor & Francis, a CRC title, part of the Taylor & Francis imprint, a member of the Taylor & Francis Group, the academic division of T&F Informa, plc, 2017, ISBN: 978-1-138-04275-9.
- 5 K. Rantos and K. Markantonakis, *Analysis of Potential Vulnerabilities in Payment Terminals*, K. Markantonakis and K. Mayes, Eds. New York, NY: Springer New York, 2014, pp. 311–333, ISBN: 978-1-4614-7914-7 978-1-4614-7915-4. [DOI: 10.1007/978-1-4614-7915-4_13](https://doi.org/10.1007/978-1-4614-7915-4_13). (visited on 01/15/2024).

Technical Reports

- 1 C. Papadatos, K. Rantos, A. Makrygeorgou, K. Koulouris, S. Klontza, C. Lambrinouidakis, S. Gritzalis, C. Xenakis, S. Katsikas, M. Karyda, A. Tsochou, A. Zacharis, *Interoperable EU risk management toolbox*. European Union Agency for Cybersecurity (Publications Office), 2023. [URL: https://data.europa.eu/doi/10.2824/68948](https://data.europa.eu/doi/10.2824/68948).
- 2 C. Lambrinouidakis, S. Gritzalis, C. Xenakis, S. Katsikas, M. Karyda, A. Tsochou, K. Papadatos, K. Rantos, Y. Pavlosoglou, S. Gasparinatos and A. Pantazis, *Compendium of risk management frameworks with potential interoperability: Supplement to the interoperable EU risk management framework report*. European Union Agency for Cybersecurity (Publications Office), 2022. [URL: https://data.europa.eu/doi/10.2824/75906](https://data.europa.eu/doi/10.2824/75906).

- 3 C. Lambrinouidakis, S. Gritzalis, C. Xenakis, S. Katsikas, M. Karyda, A. Tsochou, K. Papadatos, K. Rantos, Y. Pavlosoglou, S. Gasparinatos and A. Pantazis, *Interoperable EU risk management framework: Methodology for and assessment of interoperability among risk management frameworks and methodologies*. European Union Agency for Cybersecurity (Publications Office), 2022.  URL: <https://data.europa.eu/doi/10.2824/07253>.
- 4 V. Katos, S. Rostami, P. Bellonias, N. Davies, A. Kleszcz, S. Faily, A. Spyros, A. Papanikolaou, C. Ilioudis and K. Rantos, *State of vulnerabilities 2018/2019: Analysis of events in the life of vulnerabilities*. European Union Agency for Cybersecurity (Publications Office), 2020.  URL: <https://data.europa.eu/doi/10.2824/139301>.

Additional Professional Activities

- Teaching in the following MSc/MPhil Degree Programmes:
 - “MSc in Cybersecurity”, International Hellenic University, Course: Information Systems Security, 2019 – to date.
 - “MSc in Immersive Technologies - Innovation in Education, Training and Game Design”, International Hellenic University, Course: Security and privacy issues in Immersive Technologies, 2021 – to date.
 - “MPhil in Advanced Technologies in Informatics and Computers”, International Hellenic University Course: Secure Systems and Applications, Applied Cryptography, Security and Privacy in Cyber-physical Systems, 2016 – to date.
 - “MSc in Informatics”, Ionian University, Specialisation: Computer technologies and information systems, Course: Information Systems and Network Security, 2016 – 2018.
 - “MSc in WEB Intelligence”, Department of Information Technology, Alexander TEI of Thessaloniki, Course: Internet Security, 2016 – 2018.
- Director of the “Web Services and Information Security-WeSIS” Research Lab – Democritus University of Thrace.
- Member of the Research Ethics Committee of the Democritus University of Thrace (2024 – to date).

Additional Professional Activities (continued)

- Guest Editor (Special Issues):
 - G. Drosatos, K. Rantos. Advanced Technologies in Data and Information Security IV, MDPI, Applied Sciences, 2024.
 - G. Drosatos, K. Rantos. Security and Privacy Solutions for Biomedical Human-Cyber-Physical Systems, Computational and Structural Biotechnology Journal, 2024. https://www.csbj.org/call_Security
 - G. Drosatos, K. Rantos, K. Dermertzis. Advanced Technologies in Data and Information Security III, MDPI, Applied Sciences, 2023.
 - K. Rantos, V. Katos G. Drosatos, K. Demertzis and K.Fysarakis. Advances in Cyber Threat Intelligence, Security and Communication Networks, Hindawi, 2022.
 - G. Drosatos, K. Rantos, K. Dermertzis. Advanced Technologies in Data and Information Security II, MDPI, Applied Sciences, 2022.
 - K. Rantos, V. Katos, G. Drosatos, K.Demertzis and K.Fysarakis. Advances in Cyber Threat Intelligence, Security and Communication Networks, Hindawi, 2021.
 - G. Drosatos, K. Rantos, K. Dermertzis. Advanced Technologies in Data and Information Security, MDPI, Applied Sciences, 2021.
 - P. Sarigiannidis, T. Lagkas, K. Rantos, F. Ramos. Special Issue on 'Cybersecurity and Privacy-Preserving in Modern Smart Grid', MDPI Sensors, 2020.
 - P. Sarigiannidis, P. Bellavista, T. Lagkas, K. Rantos, The Big Data Era in IoT-enabled Smart Farming: Re-defining Systems, Tools, and Techniques. Elsevier, 2019
- Member of the ENISA Network and Information Security Experts Groups (07/2017 – to date)
- Chair of the Research Ethics Committee of the International Hellenic University (2021 – 2023)
- Data Protection Officer at Eastern Macedonia and Thrace Institute of Technology (2018 – 2019)
- External Scientific Advisor, Cyber Noesis, Greece (2015 – to date).
- Representative of the Greek Government to EU technical groups for digital signatures, e-procedures and EU2020 Committee – E-government subgroup (2008 – 2010).
- Teaching in e-government services and digital signatures related training courses organized by the Hellenic National Centre for Public Administration & Local Government (2007 — to date).
- Participation in management, evaluation and implementation of EU co-funded IT related Greek projects:
 - Research – Development – Innovation, Special Management and Action Implementation Service of Research, Technological Development and Innovation (Evaluator -- 2017)
 - Supporting researchers with an emphasis on young researchers, Special Management Service of Education and LifeLong Learning (Evaluator – 2017)
 - Digital Acropolis museum (Evaluation Committee Chairman — 2014)
 - G-cloud Datacenter Facilities (Evaluation Committee Deputy Chairman -- 2014)
 - ICT infrastructures Assessment Laboratory (Evaluation Committee Member — 2008)
 - Design and development of the National e-Government Portal of Public Administration for Citizens and Enterprises Information and Secure Electronic Transactions - www.ermis.gov.gr (Digital Authentication and PKI Working Group Leader -- 2010),
 - Greek e-government interoperability framework (Digital Authentication Working Group Leader -- 2007).

Additional Professional Activities (continued)

- Scientific Journals Reviewer
 - IEEE: Transactions on Information Forensics and Security; Software; Access
 - Elsevier: Computers & Security; Journal of Systems and Software; Computer Networks; Information Sciences; Blockchain: Research and Applications; Journal of Biomedical Informatics
 - Springer: SpringerPlus; Journal of Computer Science and Technology; Springer Nature; Applied Sciences
 - MDPI: Applied Sciences; Sensors; Computers;
 - Wiley: Security and Communication Networks
 - IET Information Security
- Conferences committees (most recent)
 - IEEE CSR Workshop on Cyber-Physical Resilience and Security Against Digital Breakdowns (CYPRES), Chania, Greece, 2025
 - EICC 2025, European Interdisciplinary Cybersecurity Conference, Rennes, France, 2025
 - EICC 2024, European Interdisciplinary Cybersecurity Conference, Xanthi, Greece, 2024
 - CyberHunt 2024, Workshop on Cyber Threat Intelligence and Hunting 2024, Washington DC, USA, 2024
 - CyberHunt 2023, Workshop on Cyber Threat Intelligence and Hunting 2023, Sorrento, Italy, 2023
 - CyberHunt 2022, Workshop on Cyber Threat Intelligence and Hunting 2022, Osaka, Japan, 2022.
 - ATC 2021, The 18th IEEE International Conference on Advanced and Trusted Computing, October 2021, Atlanta, USA. Part of the 2021 IEEE Smart World Congress.
 - 14th IADIS International Conference on Information Systems (IS 2021).
 - CM BSCI 2021, The 3rd ACM International Symposium on Blockchain and Secure Critical Infrastructure, Hong Kong, China.
 - ATC 2020, The 17th IEEE International Conference on Advanced and Trusted Computing, Melbourne, Australia, 2020.

Additional Professional Activities (continued)

- Conferences committees (most recent) (continued)
 - IoTI4 2019, International Workshop on IoT Applications and Industry 4.0, Santorini, Greece, 2019
 - 26th International Conference on Telecommunications (ICT) (ICT 2019), Hanoi, Vietnam, 2019
 - The 16th IEEE International Conference on Advanced and Trusted Computing 2019, Leicester, UK
 - 2019 IEEE Sensors Applications Symposium, Sophia Antipolis, France, 2019
 - 21st International Conference on Enterprise Information Systems (ICEIS 2019), Heraklion, Crete.
 - ICoS 2019, International Conference on Computing for Society, Bahawalpur, Pakistan
 - The 15th IEEE International Conference on Advanced and Trusted Computing, Guangzhou, China, 2018.
 - 2018 IEEE Sensors Applications Symposium, Seoul, Korea.
 - 20th International Conference on Enterprise Information Systems (ICEIS 2018), Portugal, 2018.
 - IEEE Globecom 2017. IEEE Workshop on Low Power Wide Area networking technologies for emerging Internet of Things (LPWA4IoT), Singapore.
 - Cloud and Trusted Computing 2017 (C&TC 2017), International Symposium on Secure Virtual Infrastructures, Rhodes, Greece
 - The 14th IEEE International Conference on Advanced and Trusted Computing, Toulouse, San Francisco Bay Area, 2017.
 - Second International Conference on Internet of Things Data, and Cloud Computing, Cambridge, United Kingdom, 2017
 - 24th International Conference on Telecommunications, Limassol, Cyprus, 2017.
 - 2017 IEEE Sensors Applications Symposium, New Jersey, USA, 2017.
 - The 13th IEEE International Conference on Advanced and Trusted Computing, Toulouse, France, 2016.
 - 23rd International Conference on Telecommunications, Thessaloniki, Greece, 2016
 - 2016 IEEE Sensors Applications Symposium, Italy, 2016.
 - 2015 IEEE Sensors Applications Symposium, Croatia, 2015.
 - IADIS International Conference: Information Systems 2014, Spain 2014.
 - 4th International Conference on Pervasive and Embedded Computing and Communication Systems, PECCS 2014, Portugal.

Organisational / Managerial Skills

- | | |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2015 – 2017 | <ul style="list-style-type: none">• Member of Eastern Macedonia and Thrace Institute of Technology Board.• Head of Department of Computer and Informatics Engineering, Eastern Macedonia and Thrace Institute of Technology |
| 2013 – 2015 | <ul style="list-style-type: none">• Deputy Head of Department of Computer and Informatics Engineering, Eastern Macedonia and Thrace Institute of Technology |
| 2007 – ... | <ul style="list-style-type: none">• Chair and Deputy Chair of Evaluation Committees. |

Awards

- | | |
|------|--------------------------------------------------------------------------------------------------------------------------------|
| 2024 | <ul style="list-style-type: none">• CSAW AI Hardware attack contest 2024 - 2nd place. Submitted by El. Batzolis. |
|------|--------------------------------------------------------------------------------------------------------------------------------|

Awards (continued)

- 2023
 - European Defence Agency – Defence Innovation Prize 2023. Topic 2: “Innovative solutions and technologies for implementing Zero Trust Architecture in tactical defence communication and information systems.” Proposal submitted in collaboration with Cyber Noesis.
 - CSAW AI Hardware attack contest 2023 - 3rd place. Submitted by El. Batzolis.

Miscellaneous Experience

Member of Advisory Boards

- 2021 – 2024
 - “**AInception**”, Horizon 2020 Framework Programme.
- 2018
 - “**SlideWiki**”, Horizon 2020 Framework Programme.
- 2016 – 2019
 - “**DANTE – Detecting and ANalysing Terrorist-related online contents and financing activities**”, Horizon 2020 Framework Programme.
- 2014
 - “**ADVISE – Advanced Video Surveillance archives search engine for security applications**”, FP7 Security Research Project.