

Ahmet Kurt, Ph.D.

Assistant Professor

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Summary

I'm a Tenure-Track Assistant Professor in the Department of Computer Science and Information Systems at East Texas A&M University (RELLIS campus). I work at the intersection of blockchains and their cybersecurity applications, and most of my research revolves around Bitcoin and the Lightning Network. My research interests include cybersecurity, blockchain, wireless networks, IoT security, and distributed systems.

Education

- 2019–2023 **Ph.D. in Electrical and Computer Engineering**, *Florida International University*, Miami, FL, GPA: 3.92/4.00
Dissertation: *Enabling Third Layer Bitcoin Applications Using Lightning Network* [🔗](#)
Advisor: Prof. Kemal Akkaya
- 2019–2021 **M.Sc. in Electrical Engineering (en route to Ph.D.)**, *Florida International University*, Miami, FL
- 2015–2018 **B.Sc. in Computer Engineering**, *Antalya Bilim University*, Antalya, Turkey
- 2013–2018 **B.Sc. in Electrical and Electronics Engineering**, *Antalya Bilim University*, Antalya, Turkey

Media Appearances

Featured at [Forbes](#) [🔗](#), [Decrypt](#) [🔗](#) [🔗](#), [FIU News](#) [🔗](#), [TFTC](#) [🔗](#), [ZenGo](#) [🔗](#) and many other smaller sites.

Patents

US Patent Systems and Methods for Detecting Cryptocurrency Wallet Artifacts in a File System [🔗](#)

Work Experience

- Aug 2024–Present **Assistant Professor**, *East Texas A&M University*, Bryan, TX
Joined the Computer Science and Information Systems department (RELLIS campus).
 - Teaching courses, conducting research and performing service.
 - **Courses Taught:** CSCI 451 (Wireless and Mobile Security), CSCI 463 (Systems Security & Trusted Computing), CSCI 399 (Junior Cyber Design Project), CSCI 499 (Senior Cyber Design Project), CSCI 458 (Network Security & Management), CSCI 459 (AI Enhanced Security), CSCI 353 (Threat and Vulnerability Management).
- Jun–Sep 2024 **Security Apprenticeship Program [PhD]**, *Nethermind*, Remote
 - Worked on Ethereum smart contract security audits within the Nethermind security team.
- 2023–2024 **Postdoctoral Associate**, *Florida International University*, Miami, FL
 - Conducted research on blockchain, security, and wireless network projects.
- 2019–2023 **Graduate Research and Teaching Assistant**, *Florida International University*, Miami, FL
 - Conducted research on Bitcoin Lightning Network security and applications, including offline payments (LNMesh), secure IoT micropayments with threshold cryptography (LNGate, LNGate²), covert botnets (LNBOT, D-LNBOT), and machine learning based cryptocurrency wallet forensics.
 - Instructor for EEL 3712L (Logic Design I Lab) and main TA for EEL 3110 (Circuit Analysis).
- 2016–2017 **Embedded Software Engineer**, *Desird Design R&D*, Antalya, Turkey
 - Developed software for a product using ESP8266 WiFi Modules in C++ and Lua.
- 2017 **Intern**, *Havelsan*, Istanbul, Turkey
 - Developed a desktop GUI application using Qt in C++.
- 2016 **Erasmus+ Intern**, *University of Bristol*, Bristol, UK
 - Contributed to 'optically reconfigurable microwave switches' research project.

Professional Service

- 2026 Publicity Chair, IEEE IPCCC 2026, Austin, TX, USA. [🔗](#)
- 2026 Panelist, National Science Foundation (NSF), Proposal Review Panel for Graduate Education.
- 2026 TPC Member, IEEE LCN 2026, Coimbra, Portugal. [🔗](#)
- 2026 Panelist, National Science Foundation (NSF), Proposal Review Panel for Computer and Network Systems.
- 2026 TPC Member, SAFE-ML 2026 Workshop (co-located with IEEE ICST 2026), Daejeon, South Korea. [🔗](#)
- 2025 TPC Member, IEEE IPCCC 2025 Workshop, Austin, TX, USA. [🔗](#)

Honors and Awards

- 2026 AI in Cybersecurity Education Faculty Development Summer Institute 2026 [🔗](#)
- 2023 FIU Dissertation Year Fellowship [🔗](#)
- 2021 Black Hat USA 2021, Student Scholarship [🔗](#)
- 2020 RSA 2020 Conference, Security Scholar [🔗](#)

Grants and Funding

- 2026 Research seed funding (\$5,000), awarded at the Texas A&M Engineering Experiment Station (TEES) Annual Research Conference (TARC). [🔗](#)

Invited Talks

- July 2026 Invited research talk, First Bitcoin Education Institute Annual Conference, The George Washington University, Washington, DC, USA. [🔗](#)

Selected Publications

- 2026 A. Aydeger, **A. Kurt**. *Agentic Cryptographic Agility for Post-Quantum Smart Grid Communications*, in **IEEE International Conference on Communications, Control, and Computing Technologies for Smart Grids (SmartGridComm 2026)** (to appear).
- 2026 T. Bakaysa, **A. Kurt**, A. Beibitkhan, J. M. Romo Diaz de Leon, T. Kalat, J. Kramer, E. Rodriguez, A. Watkins, A. Aydeger. *LNTest: A Testbed for Evaluating Bitcoin Lightning Network-Based Botnets*, in **21st International Conference on Availability, Reliability and Security (ARES 2026)** (to appear). [🔗](#)
- 2026 A. Aydeger, E. Zeydan, **A. Kurt**. *AI-Enabled Cloud-Edge-IoT Continuum for Hyper-Distributed and Trustworthy Applications*, in **IEEE 35th Wireless and Optical Communications Conference (WOCC 2026)**. [🔗](#)
- 2025 A. Bhattarai, A. Sahin, M. Veksler, **A. Kurt**, D. Aras, C. Imery, K. Akkaya. *Cryptocurrency Forensics Automation: A Deep Learning and NLP-based Approach for Mobile Platforms*, in **Discover Computing**. [🔗](#)
- 2024 **A. Kurt**, E. Erdin, K. Akkaya, A. S. Uluagac, M. Cebe. *D-LNBot: A Scalable, Cost-Free and Covert Hybrid Botnet on Bitcoin's Lightning Network*, in **IEEE Transactions on Dependable and Secure Computing**. [🔗](#)
- 2024 **A. Kurt**, K. Akkaya, S. Yilmaz, S. Mercan, O. Shlomovits, E. Erdin. *LNGate²: Secure Bidirectional IoT Micro-payments Using Bitcoin's Lightning Network and Threshold Cryptography*, in **IEEE Transactions on Mobile Computing**. [🔗](#)
- 2023 **A. Kurt**, A. Sahin, R. Harrilal-Parchment, K. Akkaya. *LNMesh: Who Said You Need Internet to Send Bitcoin? Offline Lightning Network Payments Using Community Wireless Mesh Networks*, in **IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM 2023)**. [🔗](#)
- 2023 A. Bhattarai, M. Veksler, H. Sahin, **A. Kurt**, K. Akkaya. *Crypto Wallet Artifact Detection on Android Devices Using Advanced Machine Learning Techniques*, in **13th EAI International Conference on Digital Forensics and Cyber Crime (ICDF2C 2022)**. [🔗](#)
- 2022 S. Mercan, **A. Kurt**, E. Erdin, K. Akkaya. *Cryptocurrency Solutions to Enable Micro-payments in Consumer IoT*, in **IEEE Consumer Electronics Magazine**. [🔗](#)
- 2021 **A. Kurt**, S. Mercan, E. Erdin, K. Akkaya. *3-of-3 Multisignature Approach for Enabling Lightning Network Micro-payments on IoT Devices*, in **ITU Journal on Future and Evolving Technologies (ITU J-FET)**. [🔗](#)

- 2021 **A. Kurt**, S. Mercan, O. Shlomovits, E. Erdin, K. Akkaya. *LNGate: Powering IoT with Next Generation Lightning Micro-payments Using Threshold Cryptography*, in **ACM Conference on Security and Privacy in Wireless and Mobile Networks (WiSec '21)**. [🔗](#)
- 2021 **A. Kurt**, S. Mercan, E. Erdin, K. Akkaya. *Enabling Micro-payments on IoT Devices Using Bitcoin Lightning Network*, in **IEEE International Conference on Blockchain and Cryptocurrency (ICBC 2021)**. [🔗](#)
- 2021 **A. Kurt**, N. Saputro, K. Akkaya, A. S. Uluagac. *Distributed Connectivity Maintenance in Swarm of Drones During Post-Disaster Transportation Applications*, in **IEEE Transactions on Intelligent Transportation Systems**. [🔗](#)
- 2020 **A. Kurt**, E. Erdin, M. Cebe, K. Akkaya, A. S. Uluagac. *LNBot: A Covert Hybrid Botnet on Bitcoin Lightning Network for Fun and Profit*, in **European Symposium on Research in Computer Security (ESORICS 2020)**. [🔗](#)
- 2020 **A. Kurt**, K. Akkaya. *Connectivity Maintenance Extensions to IEEE 802.11s MAC Layer in ns-3*, in **Workshop on ns-3 (WNS3 2020)**. [🔗](#)

Languages

Turkish Native
English Proficient