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Publons / Web Of Science ResearcherID: AAH-5922-2019

Yoksis Researcher ID: 182934

#### Research Areas

Hiding Information, Cryptography, Quantum Cryptography, Communications and Network Protocols

## **Academic Titles / Tasks**

Assistant Professor, Abdullah Gul University, Fen Bilimleri Enstitüsü, Electrical and Computer Engineering, 2019 - Continues

# Published journal articles indexed by SCI, SSCI, and AHCI

I. EPIC: Efficient Privacy-Preserving Scheme With EtoE Data Integrity and Authenticity for AMI Networks

Alsharif A., Nabil M., TONYALI S., Mohammed H., Mahmoud M., Akkaya K. IEEE INTERNET OF THINGS JOURNAL, vol.6, no.2, pp.3309-3321, 2019 (SCI-Expanded)

- II. A realistic performance evaluation of privacy-preserving protocols for smart grid AMI networks TONYALI S., Munoz R., Akkaya K., Ozgur U.
  - JOURNAL OF NETWORK AND COMPUTER APPLICATIONS, vol.119, pp.24-41, 2018 (SCI-Expanded)
- III. Privacy-Preserving Protocols for Secure and Reliable Data Aggregation in IoT-enabled Smart Metering Systems

TONYALI S., AKKAYA K., SAPUTRO N., ULUAGAC S., NOJOUMIAN M.

Future Generation Computer Systems-The International Journal Of Grid Computing-Theory Methods And Applications, vol.78, pp.547-557, 2018 (SCI-Expanded)

IV. Scalable Certificate Revocation Schemes for Smart Grid AMI Networks Using Bloom Filters
Rabieh K., Mahmoud M. M. E. A., Akkaya K., TONYALI S.

IEEE TRANSACTIONS ON DEPENDABLE AND SECURE COMPUTING, vol.14, no.4, pp.420-432, 2017 (SCI-Expanded)

V. Secure Data Obfuscation Scheme to Enable Privacy-Preserving State Estimation in Smart Grid AMI Networks

TONYALI S., Cakmak O., Akkaya K., Mahmoud M. M. E. A., Guvenc I. IEEE INTERNET OF THINGS JOURNAL, vol.3, no.5, pp.709-719, 2016 (SCI-Expanded)

VI. Customized Certificate Revocation Lists for IEEE 802.11s-Based Smart Grid AMI Networks
Akkaya K., Rabieh K., Mahmoud M., TONYALI S.
IEEE TRANSACTIONS ON SMART GRID, vol.6, no.5, pp.2366-2374, 2015 (SCI-Expanded)

# **Books & Book Chapters**

I. A Review of Moving Target Defense Mechanisms for Internet of Things Applications

SAPUTRO N., TONYALI S., AYDEĞER A., AKKAYA K., RAHMAN M., ULUAĞAÇ A. S.

in: Modeling and Design of Secure Internet of Things, Kamhoua Charles A., Njilla Laurent L., Kott Alexander, Shetty Sachin, Editor, John Wiley Sons, Inc., pp.563-614, 2020

# Refereed Congress / Symposium Publications in Proceedings

I. Real-Time Wall Detection and Coloring in Android Platform

Nadifi A., Göktaş B., Tonyali S.

International Online Conferences on Engineering and Natural Sciences, Gümüşhane, Turkey, 05 July 2021, pp.332

II. Demonstration of Denial-of-Service Attack on an Internet-of-Things Device

Tonyali S.

INTERNATIONAL CONFERENCE ON CYBER SECURITY AND DIGITAL FORENSICS (ICONSEC), Yalova, Turkey, 04 June 2021, pp.28-32

III. Performing and Mitigating a Distributed Denial of Service Attack

Şanli Y., Mohmand H., Win L. L., Tonyali S.

International Symposium of Scientific Research and Innovative Studies (ISSRIS), Balıkesir, Turkey, 22 February 2021, pp.1267-1279

IV. A scalable protocol stack for IEEE 802.11s-based advanced metering infrastructure networks TONYALI S., AKKAYA K.

2018 15th IEEE Annual Consumer Communications Networking Conference (CCNC), Las Vegas, NV, 12 - 15 January 2018

V. An attribute-based reliable multicast-over-broadcast protocol for firmware updates in smart meter networks

TONYALI S., AKKAYA K., SAPUTRO N.

2017 IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS), Atlanta, GA, 1 - 04 May 2017

VI. An Attribute and Network Coding-Based Secure Multicast Protocol for Firmware Updates in Smart Grid AMI Networks

TONYALI S., AKKAYA K., SAPUTRO N., XIUZHEN C.

 $2017\ 26$ th International Conference on Computer Communication and Networks (ICCCN), Vancouver, BC, Canada,  $31\ July$  -  $03\ August\ 2017$ 

VII. Efficient Certificate Verification for Vehicle-to-Grid Communications

SAPUTRO N., TONYALI S., AKKAYA K., CEBE M., MAHMOUD M.

International Conference on Future Network Systems and Security (FNSS), 31 August - 02 September 2017

VIII. Performance Analysis of Certificate Renewal Scheme for AMI Networks

ALSHARIF A., TONYALI S., MAHMOUD M., AKKAYA K., ISMAIL M., SERPEDİN E.

International Workshop on Computer Science and Engineering (WCSE), 25 - 27 June 2017

IX. Attribute and Network Coding based Secure Multicast Protocol for Firmware Updates in Smart Grid AMI Networks

TONYALI S., AKKAYA K.

Florida Institute for Cybersecurity - Research Conference on Cybersecurity, 24 - 27 March 2017

X. Testbed and Simulation-based Evaluation of Privacy-preserving Algorithms for Smart Grid AMI Networks

OZGUR U., TONYALI S., AKKAYA K.

IEEE Conference on Local Computer Networks Workshops (LCN Workshops), 7 - 10 November 2016, pp.181-186

XI. Efficient Privacy-Preserving Data Collection Scheme for Smart Grid AMI Networks MOHAMMED H., TONYALI S., RABIEH K., MAHMOUD M., AKKAYA K.

IEEE Global Communications Conference (GLOBECOM), 4 - 08 December 2016

XII. An Attribute & Network Coding-based Secure Multicast Protocol for Firmware Updates in Smart Grid AMI Networks

TONYALI S., Akkaya K., Saputro N., Cheng X.

26th International Conference on Computer Communication and Networks (ICCCN), Vancouver, Canada, 31 July - 03 August 2017

XIII. Addressing Network Interoperability in Hybrid IEEE 802.11s-LTE Smart Grid Communications SAPUTRO N., AKKAYA K., TONYALI S.

IEEE Conference on Local Computer Networks (LCN), 7 - 10 November 2016, pp.623-626

XIV. Comparative Evaluation of Smart Grid AMI Networks: Performance under Privacy OZGUR U., TONYALI S., AKKAYA K., ŞENEL F.

IEEE Symposium on Computers and Communication (ISCC), 27 - 30 June 2016

XV. A Reliable Data Aggregation Mechanism with Homomorphic Encryption in Smart Grid AMI Networks TONYALI S., AKKAYA K., SAPUTRO N., ULUAĞAÇ A. S.

IEEE Annual Consumer Communications Networking Conference (CCNC), 8 - 11 January 2016

XVI. Assessing the Feasibility of Fully Homomorphic Encryption for Smart Grid AMI Networks TONYALI S., SAPUTRO N., AKKAYA K.

International Conference on Ubiquitous and Future Networks, 7 - 10 July 2015

XVII. Application of Recently Proposed Metaheuristics to the Sequence Dependent TSP TONYALI S., ALKAYA A. F.

International Conference on Computer Science, Applied Mathematics and Applications (ICCSAMA), 11 - 13 May 2015

XVIII. Efficient Generation and Distribution of CRLs for IEEE 802.11s-based Smart Grid AMI Networks AKKAYA K., RABIEH K., MAHMOUD M., TONYALI S.

IEEE International Conference on Smart Grid Communications (SmartGridComm), 3 - 06 November 2014, pp.982-988

XIX. An Efficient Certificate Revocation Scheme for Large-scale AMI Networks MAHMOUD M., AKKAYA K., RABIEH K., TONYALI S.

IEEE 33rd International Performance Computing and Communications Conference (IPCCC), 5 - 07 December 2014

#### **Metrics**

Publication: 26 Citation (WoS): 77 Citation (Scopus): 105 H-Index (WoS): 5 H-Index (Scopus): 5