

Assoc. Prof. MURAT AYDOS

Personal Information

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International Researcher IDs

ORCID: 0000-0002-7570-9204

Publons / Web Of Science ResearcherID: J-1483-2013

ScopusID: 56928400400

Yoksis Researcher ID: 160043

Education Information

Doctorate, Oregon State University, Engineering Faculty, Electrical & Computer Engineering Department, United States Of America 1996 - 2001

Postgraduate, Oklahoma State University, Engineering Faculty, Electrical & Computer Engineering Department, United States Of America 1994 - 1996

Undergraduate, Yildiz Technical University, Mühendislik Fakültesi, Elektronik Ve Haberleşme Mühendisliği, Turkey 1987 - 1991

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Efficient Wireless Security Protocols based on Elliptic Curve Cryptography, Oregon State University, Electrical Computer Engineering Department, 2001

Research Areas

Computer Sciences, Information Security and Reliability, Information System Reliability, Hardware Security, Cryptography, Software Security, Computer Networks, Communications and Network Protocols, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Hacettepe University, Bilişim Enstitüsü, Bilgi Güvenliği A.B.D., 2021 - Continues

Assistant Professor, Hacettepe University, Bilişim Enstitüsü, 2018 - 2021

Assistant Professor, Hacettepe University, Bilişim Enstitüsü, 2013 - 2018

Academic and Administrative Experience

Hacettepe Üniversitesi, Bilişim Enstitüsü, Bilgi Güvenliği Anabilim Dalı, 2013 - Continues

Advising Theses

AYDOS M., Kurumsal kampüs ağlarında otomatik sanal yerel alan ağ tasarımları ve servis kalitesi analizleri, Postgraduate, M.ÇETİN(Student), 2006

AYDOS M., Kampus ağlarında sistem performansının optimizasyonu, Postgraduate, S.ALTAN(Student), 2005

AYDOS M., Uzaktan erişimli kriptografik güvenli haberleşme protokolü, Postgraduate, A.ÜĞÜR(Student), 2005

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **DICEguard: enhancing DICE security for IoT devices with periodic memory forensics**
Yamak Y., TOSUN S., AYDOS M.
JOURNAL OF SUPERCOMPUTING, no.13, pp.19824-19844, 2024 (SCI-Expanded)
- II. **GramBeddings: A New Neural Network for URL Based Identification of Phishing Web Pages Through N-gram Embeddings**
BOZKIR A. S., Dalgic F. C., AYDOS M.
Computers and Security, vol.124, 2023 (SCI-Expanded)
- III. **ERP failure: A systematic mapping of the literature**
Coskun E., GEZİCİ B., AYDOS M., KOLUKISA TARHAN A., Garousi V.
DATA & KNOWLEDGE ENGINEERING, vol.142, 2022 (SCI-Expanded)
- IV. **Security testing of web applications: A systematic mapping of the literature**
AYDOS M., Aldan C., Coskun E., Soydan A.
JOURNAL OF KING SAUD UNIVERSITY-COMPUTER AND INFORMATION SCIENCES, vol.34, no.9, pp.6775-6792, 2022 (SCI-Expanded)
- V. **The rise of ransomware: Forensic analysis for windows based ransomware attacks**
Kara I., AYDOS M.
EXPERT SYSTEMS WITH APPLICATIONS, vol.190, 2022 (SCI-Expanded)
- VI. **Catch them alive: A malware detection approach through memory forensics, manifold learning and computer vision**
BOZKIR A. S., Tahillioğlu E., AYDOS M., Kara I.
COMPUTERS & SECURITY, vol.103, 2021 (SCI-Expanded)
- VII. **LogoSENSE: A companion HOG based logo detection scheme for phishing web page and E-mail brand recognition**
BOZKIR A. S., AYDOS M.
COMPUTERS & SECURITY, vol.95, 2020 (SCI-Expanded)
- VIII. **Assessing risks and threats with layered approach to Internet of Things security**
AYDOS M., Vural Y., TEKEREK A.
MEASUREMENT & CONTROL, vol.52, pp.338-353, 2019 (SCI-Expanded)
- IX. **Laboratory data quality control: A new cost-effective approach**
AYDOS M., Nalbant A., Vural Y.
MEASUREMENT & CONTROL, vol.51, pp.160-171, 2018 (SCI-Expanded)
- X. **rho-Gain: a utility based data publishing model**
Vural Y., AYDOS M.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.33, no.4, pp.1355-1368, 2018 (SCI-Expanded)

Articles Published in Other Journals

- I. **Characteristic Behavioral Analysis of Malware: A Case study of Cryptowall Ransomware**
KARA İ., AYDOS M., BOZKIR A. S.
Avrupa Bilim ve Teknoloji Dergisi, vol.0, pp.486-493, 2020 (Peer-Reviewed Journal)
- II. **Brand Recognition of Phishing Web Pages via Global Image Descriptors**
Erođlu E., BOZKIR A. S., AYDOS M.
Avrupa Bilim ve Teknoloji Dergisi, vol.0, pp.436-443, 2019 (Peer-Reviewed Journal)
- III. **Local Image Descriptor Based Phishing Web Page Recognition as an Open-Set Problem**
BOZKIR A. S., AYDOS M.
Avrupa Bilim ve Teknoloji Dergisi, vol.0, pp.444-451, 2019 (Peer-Reviewed Journal)
- IV. **THE GHOST IN THE SYSTEM: TECHNICAL ANALYSIS OF REMOTE ACCESS TROJAN**
Kara I., AYDOS M.
INTERNATIONAL JOURNAL ON INFORMATION TECHNOLOGIES AND SECURITY, vol.11, no.1, pp.73-84, 2019 (ESCI)
- V. **CHAOTIC IMAGE ENCRYPTION WITH RANDOM SHUFFLING OF DATA**
AYDOS M., UđUR A.
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, vol.20, no.2, pp.31-35, 2014 (ESCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **Wireless Intrusion Detection Using Shallow Neural Network Models**
Ozturk S. B., AYDOS M.
2023 IEEE International Black Sea Conference on Communications and Networking, BlackSeaCom 2023, İstanbul, Turkey, 4 - 07 July 2023, pp.39-44
- II. **Software Implementation Performances of Block Ciphers: A Systematic Literature Review**
Zorba B. B., ALKAR A. Z., AYDOS M., Kolukisa-Tarhan A.
7th International Workshop on Big Data and Information Security, IWBIS 2022, Depok, Indonesia, 1 - 03 October 2022, pp.65-74
- III. **Utilization and comparison of convolutional neural networks in malware recognition Kötücül Yazilimlerin Taninmasında Evrişimsel Sinir Ağlarının Kullanımı ve Karşılaştırılması**
BOZKIR A. S., Cankaya A. O., AYDOS M.
27th Signal Processing and Communications Applications Conference, SIU 2019, Sivas, Turkey, 24 - 26 April 2019
- IV. **Utilization and Comparison of Convolutional Neural Networks in Malware Recognition**
BOZKIR A. S., Cankaya A. O., AYDOS M.
27th Signal Processing and Communications Applications Conference (SIU), Sivas, Turkey, 24 - 26 April 2019
- V. **Spam/Ham E-Mail Classification using Machine Learning Methods based on Bag of Words Technique**
Sahin E., AYDOS M., Orhan F.
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- VI. **Static and Dynamic Analysis of Third Generation Cerber Ransomware**
Kara I., AYDOS M.
International Congress on Big Data, Deep Learning and Fighting Cyber Terrorism (IBIGDELFT), Ankara, Turkey, 3 - 04 December 2018, pp.12-17
- VII. **Phish-IRIS: A New Approach for Vision Based Brand Prediction of Phishing Web Pages via Compact Visual Descriptors**
Dalgic F. C., BOZKIR A. S., AYDOS M.
2nd International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT), Kizilcahamam, Turkey, 19 - 21 October 2018, pp.176-183
- VIII. **Spam E-Mail Classification by Utilizing N-Gram Features of Hyperlink Texts**
BOZKIR A. S., ŞAHİN E., AYDOS M., AKÇAPINAR SEZER E., ORHAN F.
The 11th IEEE International Conference AICT2017, Moscow, Russia, 20 - 22 September 2017
- IX. **A New Approach to Utility-based Privacy Preserving in Data Publishing**

Vural Y., AYDOS M.

17th IEEE International Conference on Computer and Information Technology (CIT) / IEEE Int Workshop on Secure and Resource-Efficient Edge Computing (SecureEdge) / IEEE Int Symposium on Recent Advances of Computer and Information Technologies (RACIT), Helsinki, Finland, 21 - 23 August 2017, pp.204-209

X. A Review on Cyber Security Datasets for Machine Learning Algorithms

Yavanoglu O., AYDOS M.

IEEE International Conference on Big Data (IEEE Big Data), Massachusetts, United States Of America, 11 - 14 December 2017, pp.2186-2193

XI. Trustworthy Scrum: Development of Secure Software with Scrum

Koc G., AYDOS M.

2017 International Conference on Computer Science and Engineering (UBMK), Antalya, Turkey, 5 - 08 October 2017, pp.244-249

Supported Projects

AYDOS M., Project Supported by Other Private Institutions, Akredite Ortak Kriterler Değerlendirmeleri Süreç İyileştirme ve Ürün Geliştirici Değerlendirme Delilleri Oluşturma Platformu Projesi (SPIDER Projesi), 2017 - Continues

AYDOS M., Project Supported by Other Private Institutions, Bütünleşik IT ve Güvenlik Yönetim Platformu Geliştirme Projesi, 2016 - 2018

AYDOS M., Project Supported by Other Private Institutions, Akıllı Süreç İzleme Yönetim Analiz Platformu, 2016 - 2017

AYDOS M., Project Supported by Other Private Institutions, E-Posta Siber İstihbarat Merkezi, 2015 - 2017

AYDOS M., Project Supported by Other Private Institutions, Siber Saldırlara Karşı Güvenli Ağ Cihazı, 2013 - 2016

AYDOS M., Project Supported by Other Private Institutions, Yeni Nesil Güvenli Reklam Dağıtım Platformu: AdTrust, 2014 - 2015

AYDOS M., Project Supported by Other Private Institutions, Map2Heal: Sağlık Haritası, 2014 - 2015

Metrics

Publication: 26

Citation (WoS): 29

Citation (Scopus): 69

H-Index (WoS): 3

H-Index (Scopus): 4

Non Academic Experience

TÜBİTAK

rTrust Technologies

INTEL