

## Asst. Prof. MERVE SEDEF DEMİRCİ

### Personal Information

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### International Researcher IDs

ScholarID: LmXQJ-QAAAAJ

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Publons / Web Of Science ResearcherID: ABF-3633-2020

Yoksis Researcher ID: 191409

### Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (Dr), Turkey 2014 - 2020

Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (YI) (Tezli), Turkey 2012 - 2014

Undergraduate, Fatih University, Faculty Of Engineering, Department Of Computer Engineering, Turkey 2007 - 2012

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Sanal ağ güvenliği fonksiyonlarının enerji etkin yerleştirilmesi: Yöntem önerileri ve uygulama, Gazi University, Fen Bilimleri Enstitüsü, 2020

Postgraduate, Sosyal ağlardaki haber paylaşımı içeriklerinin sınıflandırılması, Gazi University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (YI) (Tezli), 2014

### Research Areas

Information Security and Reliability, Computer Networks, Artificial Intelligence, Computer Learning and Pattern Recognition

### Academic Titles / Tasks

Assistant Professor, Gazi University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2022 - Continues

Research Assistant PhD, Gazi University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2020 - 2022

Research Assistant, Gazi University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2012 - 2020

### Academic and Administrative Experience

## Courses

Database Systems, Undergraduate, 2022 - 2023  
Kablosuz Ağ Güvenliği, Postgraduate, 2022 - 2023  
Yeni Nesil İletişim Teknolojileri, Postgraduate, 2022 - 2023  
Mühendislik Projesi, Undergraduate, 2022 - 2023  
UNIX Programming, Undergraduate, 2020 - 2021  
Database Applications, Undergraduate, 2020 - 2021  
Introduction to Computer Security, Undergraduate, 2020 - 2021

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

- I. **TwitterBulletin: An Intelligent and Real-Time Automated News Categorization Tool for Twitter**  
DEMİRCİ M. S., SAĞIROĞLU Ş.  
Journal of Universal Computer Science, vol.28, no.4, pp.345-377, 2022 (SCI-Expanded)
- II. **Design and evaluation of a controller for energy efficient security management and traffic routing in SDN/NFV based 5G networks** SDN/NFV tabanlı 5G ağlarında enerji-etkin güvenlik yönetimi ve trafik yönlendirme için kontrolcü tasarımları ve değerlendirme  
DEMİRCİ M. S., SAĞIROĞLU Ş.  
Journal of the Faculty of Engineering and Architecture of Gazi University, vol.37, no.1, pp.1-15, 2022 (SCI-Expanded)
- III. **Energy-efficient virtual security function placement in NFV-enabled networks**  
Demirci M. S., Sağiroğlu Ş., Demirci M.  
SUSTAINABLE COMPUTING-INFORMATICS & SYSTEMS, vol.30, 2021 (SCI-Expanded)
- IV. **Optimal placement of virtual network functions in software defined networks: A survey**  
Demirci M. S., Sağiroğlu Ş.  
JOURNAL OF NETWORK AND COMPUTER APPLICATIONS, vol.147, 2019 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Deep Learning Based Fake News Detection on Social Media**  
Güler G., Demirci M. S.  
INTERNATIONAL JOURNAL OF INFORMATION SECURITY SCIENCE, vol.12, no.2, pp.1-21, 2023 (Peer-Reviewed Journal)
- II. **Virtual Security Functions and Their Placement in Software Defined Networks: A Survey**  
Demirci M. S., Demirci M., Sağiroğlu Ş.  
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.32, no.3, pp.833-851, 2019 (Peer-Reviewed Journal)
- III. **Sosyal Ağ Verilerinin Kullanım Alanları Üzerine Kapsamlı Bir İnceleme**  
Gündüz M. S., Sağiroğlu Ş.  
Gazi Üniversitesi Fen Bilimleri Dergisi Part: C Tasarım ve Teknoloji, vol.5, no.2, pp.1-21, 2017 (Peer-Reviewed Journal)
- IV. **Web Uygulama Güvenliği Açıklıkları Ve Güvenlik Çözümleri Üzerine Bir Araştırma**  
Aydoğdu d., GÜNDÜZ M. S.  
ULUSLARARASI BİLGİ GÜVENLİĞİ MÜHENDİSLİĞİ DERGİSİ, vol.2, no.1, 2016 (Peer-Reviewed Journal)

## **Books & Book Chapters**

- I. **Adaptive Learning in IoT-Based Smart City Applications**  
Abdulla N., Demirci M. S., Demirci M., Özdemir S.  
in: Principles and Applications of Adaptive Artificial Intelligence, Lv Zhihan, Editor, Idea Group Publishing (IGP) , Pennsylvania, pp.73-101, 2024
- II. **5G ve Siber Güvenlik**  
Demirci M. S., Demirci M.  
in: Bilişim Teknolojileri Güvenliği, Nursel Yalçın, Hüseyin Çakır, Editor, Nobel Yayınevi, Ankara, pp.1-21, 2023
- III. **Yazılım Tanımlı Ağlar ve Siber Güvenlik**  
Gündüz M. S., Yürekten Ö., Demirci M.  
in: Siber Güvenlik ve Savunma: Standartlar ve Uygulamalar, Şeref Sağiroğlu, Editor, Grafiker, Ankara, pp.121-152, 2019

## **Refereed Congress / Symposium Publications in Proceedings**

- I. **Developing Explainable Intrusion Detection Systems for Internet of Things**  
Çelik A. F., Sağlam B., Demirci M. S.  
16th International Conference on Information Security and Cryptology, Ankara, Turkey, 18 - 19 October 2023, pp.1-6
- II. **Drone Network Security: Attack Types and Machine Learning Based Solutions**  
Çakırgöz R., Demirci M. S.  
8th IEEE International Conference on Computer Science and Engineering (UBMK), Burdur, Turkey, 13 - 15 September 2023, pp.352-357
- III. **DDoS Attack Aware Controller Placement in SDN**  
Taşkin B., Demirci M., Demirci M. S.  
8th International Congress on Engineering and Technology, İstanbul, Turkey, 8 - 10 December 2022, pp.635
- IV. **Twitter'daki Türkçe Haber Paylaşımlarının Derin Öğrenme Tabanlı Sınıflandırılması**  
Yolcu A. B., Demirci M. S.  
6. Uluslararası Bilgisayar Bilimleri ve Mühendisliği Konferansı, 15 - 17 September 2021, pp.1-6
- V. **Software-Defined Networking for Improving Security in Smart Grid Systems**  
Demirci M. S., Sağiroğlu Ş.  
7th International Conference on Renewable Energy Research and Applications (ICRERA), Paris, France, 14 - 17 October 2018, pp.1021-1026
- VI. **Optimal Placement of Virtual Security Functions to Minimize Energy Consumption**  
Demirci M. S., Demirci M., Sağiroğlu Ş.  
International Symposium on Networks, Computers and Communications (ISNCC), Rome, Italy, 19 - 21 June 2018
- VII. **An Intelligent System for Predicting Location from Text Content on Social Media**  
DEMİRCİ M. S., Ozdemir S. O.  
2017 International Conference on Computer Science and Engineering (UBMK), Antalya, Turkey, 5 - 08 October 2017, pp.671-676
- VIII. **Investigating sentimental relation between stress and heart disease mortality**  
Tepe N. A., DEMİRCİ M. S.  
2017 International Conference on Computer Science and Engineering (UBMK), Antalya, Turkey, 5 - 08 October 2017, pp.677-681
- IX. **A Review on Mobile Threats and Machine Learning Based Detection Approaches**  
ARSLAN B., Gunduz S., SAĞIROĞLU Ş.  
4th International Symposium on Digital Forensic and Security (ISDFS), Arkansas, United States Of America, 25 - 27 April 2016, pp.7-13
- X. **A Review of Techniques and Tools for Gathering Digital Evidence from Mobile Phones**

- Bal M., Öztürk B., Yayla E., Gündüz M. S., Demirci M.  
 3rd International Symposium on Digital Forensics and Security, Ankara, Turkey, 11 - 12 May 2015
- XI. **Güncel Mobil Tehditler ve Alınması Gereken Önlemler**  
 Arslan B., Gündüz M. S., Sağıroğlu Ş.  
 3rd International Symposium on Digital Forensics and Security, Ankara, Turkey, 11 - 12 May 2015
- XII. **A New Cyber Security Alert System for Twitter**  
 Erkal Y., Sezgin M., Gunduz S.  
 IEEE 14th International Conference on Machine Learning and Applications ICMLA, Florida, United States Of America, 9 - 11 December 2015, pp.766-770
- XIII. **A Review of Machine Learning Solutions to Denial-of-Services Attacks in Wireless Sensor Networks**  
 Gunduz S., Arslan B., Demirci M.  
 IEEE 14th International Conference on Machine Learning and Applications ICMLA, Florida, United States Of America, 9 - 11 December 2015, pp.150-155
- XIV. **Analyzing the Effects of Personality Traits on Facebook Use for Education A Study on University Students**  
 Gündüz M. S., Demirhan F.  
 5th Annual International Conference on Computer Science Education: Information & Technology, Singapore, Singapore, 22 - 23 September 2014
- XV. **Investigating sentimental relation between social media presence and academic success of Turkish Universities**  
 Gunduz S., Demirhan F., SAĞIROĞLU Ş.  
 13th International Conference on Machine Learning and Applications (ICMLA), Michigan, United States Of America, 3 - 06 December 2014, pp.574-579
- XVI. **A Novel Approach on Extracting Forensic Information from Location Based Social Networks**  
 Yavanoğlu U., Gündüz M. S., Sağıroğlu Ş.  
 1st International Symposium on Digital Forensics and Security (ISDFS'13), Elazığ, Turkey, 20 - 21 May 2013
- XVII. **Predicting next location of Twitter users for surveillance**  
 Gunduz S., YAVANOĞLU U., SAĞIROĞLU Ş.  
 12th International Conference on Machine Learning and Applications (ICMLA), Florida, United States Of America, 4 - 07 December 2013, pp.267-273

## Supported Projects

SAĞIROĞLU Ş., KARA A., DEMİRCİ M. S., DENER M., DEMİRCİ M., ATAY Y., Project Supported by Higher Education Institutions, Akıllı Şebekeler için Zeki Siber Güvenlik Çözümleri Geliştirme, 2022 - Continues

## Scientific Refereeing

- WIRELESS PERSONAL COMMUNICATIONS, SCI Journal, February 2024  
 Handbook of Research on Adaptive Artificial Intelligence, Chapter Scientific / Professional Book Published by Renowned Publishing Houses, November 2023  
 SCIENTIFIC REPORTS, SCI Journal, September 2023  
 22nd International Conference on Machine Learning and Applications, Conference Paper (Full Text), September 2023  
 16. ULUSLARARASI BİLGİ GÜVENLİĞİ VE KRIPTOLOJİ KONFERANSI , Conference Paper (Full Text), August 2023  
 PLOS ONE, SCI Journal, April 2023  
 TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, SCI Journal, February 2023  
 JOURNAL OF SUPERCOMPUTING, SCI Journal, October 2022  
 HELIYON, SCI Journal, September 2022  
 ENGINEERING SCIENCE AND TECHNOLOGY-AN INTERNATIONAL JOURNAL-JESTECH, SCI Journal, June 2022

Bilişim Teknolojileri Dergisi, Other Indexed Journal, May 2022  
Bilişim Teknolojileri Dergisi, Other Indexed Journal, May 2022  
DIGITAL JOURNALISM, Journal Indexed in SSCI, February 2021  
Journal of Yaşar University, Other Indexed Journal, June 2020

## Tasks In Event Organizations

Demirci M. S., SCSN 2021 : The 10th IEEE International Workshop on Semantic Computing for Social Networks and Organization Sciences: from user information to social knowledge, Scientific Congress, United States Of America, Ocak 2022  
Demirci M. S., UBMK, Scientific Congress, Turkey, Eylül 2021  
Demirci M. S., The 19 th IEEE International Conference on Machine Learning and Applications, Scientific Congress, United States Of America, Aralık 2020  
Demirci M. S., International Conference on Information Security and Cryptology, Scientific Congress, Ankara, Turkey, Ekim 2019  
Demirci M. S., IEEE International Conference on Computer Science and Engineering , Scientific Congress, Turkey, Haziran 2019  
Demirci M. S., IBIGDELFT, Scientific Congress, Turkey, Aralık 2018  
Demirci M. S., International Conference on Information Security and Cryptology, Scientific Congress, Ankara, Turkey, Ekim 2018  
Demirci M. S., IEEE International Conference on Computer Science and Engineering , Scientific Congress, Turkey, Haziran 2018  
Demirci M. S., International Conference on Information Security and Cryptology, Scientific Congress, Ankara, Turkey, Ekim 2017  
Demirci M. S., IEEE International Conference on Computer Science and Engineering , Scientific Congress, Turkey, Haziran 2017  
Demirci M. S., International Conference on Information Security and Cryptology, Scientific Congress, Ankara, Turkey, Ekim 2016  
Demirci M. S., IEEE International Conference on Computer Science and Engineering , Scientific Congress, Turkey, Haziran 2016  
Demirci M. S., International Conference on Information Security and Cryptology, Scientific Congress, Ankara, Turkey, Ekim 2015  
Demirci M. S., 3rd International Symposium on Digital Forensics and Security, Scientific Congress, Ankara, Turkey, Mayıs 2015  
Demirci M. S., International Conference on Information Security and Cryptology, Scientific Congress, Ankara, Turkey, Ekim 2014  
Demirci M. S., International Conference on Information Security and Cryptology, Scientific Congress, Ankara, Turkey, Eylül 2013

## Scientific Research / Working Group Memberships

Güvenli Ve Esnek Ağlar Araştırma Grubu, Gazi University, Türkiye, <https://avesis.gazi.edu.tr/arastirma-grubu/sfnet>, 2021 - Continues

## Metrics

Publication: 29  
Citation (WoS): 68

Citation (Scopus): 123

H-Index (WoS): 5

H-Index (Scopus): 7

## Awards

Demirci M. S., Gazi Üniversitesi Endüstri ve Teknoloji Tezleri Yarışması Teşvik Ödülü, Gazi Üniversitesi, June 2015

Demirci M. S., Gazi Üniversitesi Bilim Şenliği Mansiyon Ödülü, Gazi Üniversitesi, May 2015