

## Assoc. Prof. ADEM TEKEREK

### Personal Information

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### International Researcher IDs

ScholarID: wLXg-i8AAAAJ

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Publons / Web Of Science ResearcherID: U-9846-2018

ScopusID: 55129220600

Yoksis Researcher ID: 42110

### Education Information

Post Doctorate, Hacettepe University, Biliřim Enstitüsü, Bilgi Güvenlięi A.B.D., Turkey 2018 - 2018

Doctorate, Gazi University, Biliřim Enstitüsü, Elektronik Ve Bilgisayar Eęitimi Anabilim Dalı (Disiplinlerarası), Turkey 2010 - 2016

Postgraduate, Gazi University, Biliřim Enstitüsü, Elektronik Ve Bilgisayar Eęitimi Anabilim Dalı (Disiplinlerarası), Turkey 2007 - 2010

Undergraduate, Gazi University, Teknik Eęitim Fakóltesi, Elektronik Ve Bilgisayar Eęitimi Bölümü, Turkey 2002 - 2007

### Dissertations

Doctorate, Web tabanlı saldırı önleme amaçlı yeni bir gerçek zamanlı web uygulaması güvenlik duvarı algoritmasının gerçekleştirilmesi, Gazi University, Biliřim Enstitüsü, Elektronik Ve Bilgisayar Eęitimi Anabilim Dalı (Disiplinlerarası), 2016

Postgraduate, Kurumsal yapılara yönelik web içerik yönetim sistemi geliştirilmesi, Gazi University, Biliřim Enstitüsü, Elektronik Ve Bilgisayar Eęitimi Anabilim Dalı (Disiplinlerarası), 2010

### Research Areas

Computer Sciences, Engineering and Technology

### Academic Titles / Tasks

Associate Professor, Gazi University, Teknoloji Fakóltesi, Bilgisayar Mühendislięi, 2022 - Continues

Assistant Professor, Gazi University, Teknoloji Fakóltesi, Bilgisayar Mühendislięi, 2021 - 2022

Lecturer, Gazi University, Rektörlük, Rektörlük Ofisi (Özel Kalem), 2018 - 2021

Expert, Gazi University, Rektörlük, Rektörlük Ofisi (Özel Kalem), 2009 - 2018

## Academic and Administrative Experience

Deputy Head of Department, Gazi University, Teknoloji Fakültesi, Bilgisayar Mühendisliği, 2021 - Continues

## Courses

Veri Yapıları ve Algoritmaları, Undergraduate, 2024 - 2025  
Business Intelligence and Data Analysis, Doctorate, 2024 - 2025  
Game Programming, Undergraduate, 2021 - 2022  
Data Mining, Undergraduate, 2020 - 2021  
Scientific Research Methods and Ethics, Postgraduate, 2021 - 2022  
Database Management Systems, Undergraduate, 2021 - 2022  
OYUN PROGRAMLAMA, Undergraduate, 2020 - 2021  
Database Management Systems, Undergraduate, 2018 - 2019  
NESNESEL TASARIM VE PROGRAMLAMA, Postgraduate, 2017 - 2018, 2016 - 2017

## Advising Theses

TOPALOĞLU N., TEKEREK A., Development Of A Signature Verification Method Based On Deep Learning, Doctorate, M.MUTLU(Student), 2020

## Jury Memberships

Doctorate, Doctorate, Hacettepe Üniversitesi, May, 2023  
Doctorate, Doctorate, Hacettepe Üniversitesi, October, 2021  
Doctorate, Doctorate, Gazi Üniversitesi, November, 2020

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

- I. **A Raspberry Pi based blockchain application on IoT security**  
Upahm Abas S., DURAN F., TEKEREK A.  
Expert Systems with Applications, vol.229, 2023 (SCI-Expanded)
- II. **A Novel Approach for Prediction of Lung Disease Using Chest X-ray Images Based on DenseNet and MobileNet**  
TEKEREK A., Al-Rawe I. A. M.  
WIRELESS PERSONAL COMMUNICATIONS, 2023 (SCI-Expanded)
- III. **Issues and Solutions in Deep Learning-Enabled Recommendation Systems within the E-Commerce Field**  
Almahmood R. J. K., TEKEREK A.  
APPLIED SCIENCES-BASEL, vol.12, no.21, 2022 (SCI-Expanded)
- IV. **A New Artificial Neural Network Model for the Output Voltage and Power Predictions of Permanent Magnet Generators with Variable Air Gaps**  
Tekerek A., Kurt E., Tekerek M.  
Electric Power Components and Systems, vol.50, no.19-20, pp.1131-1142, 2022 (SCI-Expanded)
- V. **A NOVEL MALWARE CLASSIFICATION AND AUGMENTATION MODEL BASED ON CONVOLUTIONAL NEURAL NETWORK**  
Tekerek A., Yapıcı M.  
COMPUTERS & SECURITY, vol.1, no.1, pp.1-25, 2022 (SCI-Expanded)

- VI. **Artificial neural network analysis on an axial flux permanent magnet generator having variable air gap and power regime**  
TEKEREK A., KURT E.  
SADHANA-ACADEMY PROCEEDINGS IN ENGINEERING SCIENCES, vol.46, no.4, 2021 (SCI-Expanded)
- VII. **Deep learning-based data augmentation method and signature verification system for offline handwritten signature**  
Yapici M. M., Tekerek A., Topaloğlu N.  
PATTERN ANALYSIS AND APPLICATIONS, vol.24, no.1, pp.165-179, 2021 (SCI-Expanded)
- VIII. **A novel architecture for web-based attack detection using convolutional neural network**  
TEKEREK A.  
COMPUTERS & SECURITY, vol.100, 2021 (SCI-Expanded)
- IX. **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)
- X. **DESIGN AND IMPLEMENTATION OF AN ARTIFICIAL INTELLIGENCE-BASED WEB APPLICATION FIREWALL MODEL**  
Tekerek A., Bay Ö. F.  
NEURAL NETWORK WORLD, vol.29, no.4, pp.189-206, 2019 (SCI-Expanded)
- XI. **Design and implementation of a web-based intrusion prevention system: a new hybrid model**  
TEKEREK A., Gemci C., BAY Ö. F.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.31, no.3, pp.646-655, 2016 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Machine Learning-Based DDoS Attack Detection on SDN-Based SCADA Systems**  
Söğüt E., Tekerek A., Erdem O. A.  
Gazi Mühendislik Bilimleri Dergisi, vol.9, no.3, pp.596-611, 2023 (Peer-Reviewed Journal)
- II. **The Adaptation of Gray Wolf Optimizer to Data Clustering**  
Tekerek A., Dörterler M.  
JOURNAL OF POLYTECHNIC-POLITEKNİK DERGISI, vol.25, no.4, pp.1761-1767, 2022 (ESCI)
- III. **Literature Review of Deep Learning Research Areas**  
YAPICI M. M., TEKEREK A., TOPALOĞLU N.  
Gazi Journal of Engineering Sciences, vol.5, no.3, pp.188-215, 2019 (Peer-Reviewed Journal)
- IV. **Support Vector Machine Based Spam SMS Detection**  
TEKEREK A.  
JOURNAL OF POLYTECHNIC-POLITEKNİK DERGISI, vol.22, no.3, pp.779-784, 2019 (ESCI)
- V. **Assessment of physics teachers attitudes towards internet use in terms of some variables**  
TEKEREK M., TEKEREK A., ERCAN O.  
World Journal on Educational Technology, vol.4, no.1, pp.43-55, 2013 (Scopus)
- VI. **A research on students information security awareness**  
Tekerek M., Tekerek A.  
TURKISH JOURNAL OF EDUCATION, vol.2, no.3, pp.61-70, 2013 (ESCI)
- VII. **Web İçerik Yönetim Sistemi Tasarımı ve Gerçekleştirilmesi**  
TEKEREK A., BAY Ö. F.  
Journal of Polytechnic, vol.12, no.2, pp.85-91, 2009 (Peer-Reviewed Journal)

## Books & Book Chapters

### I. Güvenli Yazılım Geliştirme

TEKEREK A., BAY Ö. F.

in: Bilişim Teknolojileri Güvenliği , Yalçın Nursel, Çakır Hüseyin, Editor, Nobel Akademik Yayıncılık, Ankara, pp.120-140, 2023

### II. Web Servisleri

Tekerek A.

in: İnternet Programcılığı II, Doç. Dr. Oktay Yıldız, Editor, Atatürk Üniversitesi Açıköğretim Fakültesi Yayını, Erzurum, pp.294-312, 2022

### III. Sağlık Hizmetlerinde Büyük Veri ve Bulut Tabanlı Sistemler

GÜZEL A., TEKEREK A.

in: Sağlık Yönetiminde Çağdaş Gelişmeler, Zekai Öztürk, Editor, Nobel Akademik Yayıncılık, Ankara, pp.313-332, 2022

### IV. Güvenli Web Programlama

Tekerek A.

in: İnternet Programcılığı II, Doç. Dr. Oktay Yıldız, Editor, Atatürk Üniversitesi Açıköğretim Fakültesi Yayını, Erzurum, pp.313-332, 2022

### V. SIZMA TESTLERİ

TEKEREK A., Vural Y.

in: Siber Güvenlik ve Savunma Problemler ve Çözümler 2, Şeref Sağıroğlu, Mustafa Şenol, Editor, Grafiker Yayınlar, Ankara, pp.437-456, 2019

## Refereed Congress / Symposium Publications in Proceedings

### I. Brain Tumor Detection using Convolutional Neural Networks

ABDULLAHOĞLU M., TEKEREK A.

III. Interdisciplinary Conference on Mechanics, Computers and Electrics, İstanbul, Turkey, 21 October 2023

### II. EVALUATION OF ENVIRONMENT, RECYCLING AND SUSTAINABILITY CONCEPTS IN TERMS OF SPORTS PRACTICES (COMPILATION STUDY)

Kılıç Altınışık E., Pekel H. A., Altunsoy M., Pekel A. Ö., Fırat S., Güzel A., Elbasan B., Tekerek A.

6. Uluslararası Sosyal ilimler ve İnaovasyo Kongresi, Ankara, Turkey, 25 - 26 February 2023

### III. Fractional Fourier Transform, Image Encryption Using Lorenz's Attractor

Tekerek Ö. E., TEKEREK A.

2nd International Informatics and Software Engineering Conference, Ankara, Turkey, 16 December 2021

### IV. Malware Classification Using Convolutional Neural Network

TEKEREK A., YAPICI M. M., AYAZ Z.

Interdisciplinary Conference on Mechanics, Computers and Electrics, Ankara, Turkey, 27 November 2021

### V. Human Recognition Based on Artificial Neural Network by Gait Pattern

TEKEREK A.

INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS SCIENCE ENGINEERING AND HIGH TECH DEVICE APPLICATIONS, Ankara, Turkey, 2 - 04 October 2020

### VI. Artificial Neural Network Design for an Axial Flux Permanent Magnet Generator

TEKEREK A., KURT E.

8. European Conference on Renewable Energy Systems, İstanbul, Turkey, 24 - 25 August 2020

### VII. Implementation of Blockchain Based Distributed Web Attack Detection Application

Tanrıverdi M., Tekerek A.

UBMYK 2019: I. International Informatics and Software Engineering Conference, Ankara, Turkey, 6 - 07 November 2019, pp.16-21

### VIII. Türkçe İçin Derin Öğrenme Tabanlı Doğal Dil İşleme ModeliGeliştirilmesi

BABÜROĞLU B., TEKEREK A., TEKEREK M.

13th International Computer and Instructional Technology Symposium (ICITS 2019), Kırşehir, Turkey, 2 - 04 May

2019, pp.671-679

- IX. Danışman Eğitimine Yönelik Kullanıcı Etkileşimli Video Açıklama Aracı Geliştirilmesi**  
DAĞAOTURAN A., TEKEREK A., TEKEREK M.  
13th International Computer and Instructional Technology Symposium (ICITS 2019), Kırşehir, Turkey, 2 - 04 May 2019, pp.680-687
- X. Performance Comparison of Convolutional Neural Network Models on GPU**  
Yapici M. M., TEKEREK A., TOPALOĞLU N.  
13th IEEE International Conference on Application of Information and Communication Technologies (AICT), Baku, Azerbaijan, 23 - 25 October 2019, pp.164-167
- XI. Development Of Mobile Learning Platform For Caregivers Of Children With Cerebral Palsy**  
TEKEREK A., GÜZEL A., ELBASAN B., FIRAT S.  
EDUCCON – Educon Education Conference- Education 4.0 Studies, Ankara, Turkey, 27 - 28 September 2018, pp.30
- XII. Eğitimde Veri Madenciliği ve Uygulamaları**  
TEKEREK A., AYDOS M.  
Educon 2018 Education Conference, Ankara, Turkey, 27 - 28 September 2018, pp.52-60
- XIII. Spam E-Mail Detection Based On Machine Learning**  
TEKEREK A., BAY Ö. F.  
Conference: 7th International Conference on Advanced Technologies (ICAT'xx18), 28 April - 01 May 2018
- XIV. Convolutional Neural Network Based Offline Signature Verification Application**  
Yapici M. M., TEKEREK A., TOPALOĞLU N.  
International Congress on Big Data, Deep Learning and Fighting Cyber Terrorism (IBIGDELFT), Ankara, Turkey, 3 - 04 December 2018, pp.30-34
- XV. Anlamsal Web Arama Motoru Geliştirilmesi**  
TEKEREK A., DÖRTERLER M.  
1st International Turkish World Engineering and Science Congress, Antalya, Turkey, 7 - 10 December 2017
- XVI. Development of Web Application Firewall Interface WAFI**  
TEKEREK A., BAY Ö. F.  
International Conference on Advanced Technology Sciences (ICAT'Rome), ROMA, Italy, 23 - 25 November 2016
- XVII. Development of a Hybrid Web Application Firewall to Prevent Web Based Attacks**  
TEKEREK A., Gemci C., BAY Ö. F.  
8th IEEE International Conference on Application of Information and Communication Technologies (AICT), Astana, Kazakhstan, 15 - 17 October 2014, pp.51-54
- XVIII. Veri madenciliği süreçleri ve açık kaynak kodlu veri madenciliği araçları**  
TEKEREK A.  
Akademik Bilişim, 2011, Malatya, Turkey, 2 - 04 February 2011, vol.11, pp.2-4
- XIX. A descriptive study about internet use attitudes of physics teachers**  
TEKEREK M., ERCAN O., TEKEREK A.  
3rd World Conference on Educational Sciences (WCES), İstanbul, Turkey, 3 - 07 February 2011, vol.15, pp.3758-3762
- XX. Implementation of a Web Content Management System for the Students Club Works**  
TEKEREK M., TEKEREK A.  
Proceedings of 9th International Educational Technology Conference (IETC2009), Ankara, Turkey, 6 - 08 May 2009, pp.57-63
- XXI. An Application for Computer Aided Design of Card Stunt Systems**  
TEKEREK M., TEKEREK A.  
Proceedings of 9th International Educational Technology Conference (IETC2009), Ankara, Turkey, 6 - 08 May 2009, pp.282-288

## Supported Projects

Güzel A., Tekerek A., Takıl N. B., Fırat S., Erasmus Project, Mentoring elementary students and teachers about CONSENT, 2022 - 2024

Tekerek A., Kanbur Tekerek B., Erasmus Project, Robot Cooperation (ROBOCOOP), 2022 - 2024

Fırat S., Güzel A., Elbasan B., Tekerek A., Erasmus Project, DIVERSASIA: Embracing diversity in ASIA through the adoption of Inclusive Open Practices, 2021 - 2024

Fırat S., Elbasan B., Tekerek A., Erasmus Project, Supporting Preschoolers' Psychomotor Skills for Encouraging Them to do Sport (SupSport), 2021 - 2022

Fırat S., Elbasan B., Pekel H. A., Güzel A., Tekerek A., Pekel A. Ö., Altunsoy M., Erasmus Project, "Encouraging students to pursue grassroot sports activities outdoor in an Eco-friendly manner" adlı (Acronym: "ECOCOM") ECOCOM Öğrencilerin çevre dostu olarak açık hava spor aktivitelerine teşvik etmek, 2020 - 2022

Tekerek A., Project Supported by Other Official Institutions, Çevrimiçi Destek Sistemi Yazılımının Geliştirilmesi, 2021 - 2021

Elbasan B., Fırat S., Güzel A., Tekerek A., Erasmus Project, VET programme for medical practitioners supporting parents of babies with disabilities and complex needs (MEDVET project), 2017 - 2021

Elbasan B., Oskay D., Fırat S., Güzel A., Tekerek A., EU Supported Other Project, Specialised ECVET Training of Caregivers for People with Cerebral Palsy, 2016 - 2020

Fırat S., Güzel A., Tekerek A., Elbasan B., EU Supported Other Project, Mobile youth peer mentoring application to facilitate distance mentoring guidance for youth with disabilities (MyPeerMentor), 2017 - 2019

Tekerek A., Erasmus Project, Training Entrepreneurs in Connecting Generations and Supporting Successful Business Succession Planning for micro.SMEs, 2014 - 2017

TEKEREK A., Industrial Thesis Project, Web Tabanlı Saldırı Önleme Amaçlı Yeni Bir Gerçek Zamanlı Web Uygulaması Güvenlik Duvarı Algoritmasının Gerçekleştirilmesi, 2013 - 2015

## Activities in Scientific Journals

COMPUTER AND INFORMATICS, Editor, 2022 - Continues

Gazi Mühendislik Bilimleri Dergisi, Committee Member, 2021 - Continues

Journal of Energy Systems, Committee Member, 2018 - Continues

Turkish Journal of Education, Committee Member, 2018 - Continues

## Scientific Refereeing

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Gazi University, Turkey, October 2022

APPLIED INTELLIGENCE, Journal Indexed in SCI-E, October 2021

IEEE ACCESS, Journal Indexed in SCI-E, October 2021

COMPUTERS & SECURITY, Journal Indexed in SCI-E, August 2021

Erasmus Project, Erasmus+ KA1 Learning Mobility of Individuals, National Level, Gazi University, Turkey, August 2021

COMPUTERS & SECURITY, Journal Indexed in SCI-E, June 2021

IEEE ACCESS, Journal Indexed in SCI-E, December 2019

## Metrics

Publication: 45

Citation (WoS): 190

Citation (Scopus): 276

H-Index (WoS): 7

H-Index (Scopus): 9

## **Awards**

Tekerek A., TÜBİTAK Yayın Teşvik Ödülü, Tübitak, July 2021

Tekerek A., Gazi University Publication Incentive Award, Gazi Üniversitesi, May 2019

Tekerek A., Gazi University Publication Incentive Award, Gazi Üniversitesi, May 2017

## **Non Academic Experience**

HACETTEPE ÜNİVERSİTESİ BİLİŞİM ENSTİTÜSÜ BİLGİ GÜVENLİĞİ ANABİLİM DALI