Assoc. Prof. Dr. Adam Tekerek

Gazi University Faculty of Technology
Computer Engineering Department

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Research Areas: Software development, Artificial Intelligence, Machine Learning, Deep Learning, Data Mining, Information Security, Content Management Systems, Distance Education, Web Semantics, Software Architecture

Profiles: Gazi Personel Portfolio
Web of Science
Google Scholar

Education

Degree	Section	University	Year
BSC	Department of Electronics and Computer Education	Gazi University	2007
MSC	Department of Electronics and Computer Education	Gazi University	2010
PHD	Department of Electronics and Computer Education	Gazi University	2016

PhD Thesis and Thesis Advisor

Implementation of a New Real-Time Web Application Firewall Algorithm for Web Based Intrusion Prevention, Supervisor: Prof. Dr. Omer Faruk Bay

Master Thesis and Thesis Advisor

Development of Web Content Management System for Institutional Structures, Advisor: Prof. Dr. Omer Faruk Bay

Experience

Academic

Title	Organisation	Section	Year
Specialist	Gazi University	Information Technology Department	2009-2018
Instructor	Gazi University	Information Technology Department	2018-2021
Instructor	Hacettepe University	Information Security Engineering Department	2018-2018
Faculty Member	Gazi University	Computer engineering Department	2021-2022
Assoc. Prof. Dr.	Gazi University	Computer engineering Department	2022- -

Other

Seafood Processor	Ocean Beauty Seafoods	Kodiak, Alaska, USA	2006

Software development	Cag Information Systems	Ankara	2007
Software development	Forsnet Information Systems	Ankara	2007
Software specialist	Gazi University	Information Processing Department	2009-2011
Software Branch Manager	Gazi University	Information Processing Department	2012-2015
Assistant Head of Department	Gazi University	Information Processing Department	2012-2015
Head of Department	Gazi University	Information Processing Department	2015-2016
Occupational Safety Specialist	Gazi University	Occupational Health And Safety Coordinator	2015-2016
Deputy Head of Department	Gazi University	Computer Engineering	2021-

Supervised Graduate Theses

Master

Öktem Kağan, Gazi University, Institute of Science and Technology, Department of Computer Engineering

Gülbahar Merter, Gazi University, Institute of Science and Technology, Department of Computer Engineering

Akçam, Öznur Şifa, Gazi University, Institute of Science and Technology, Department of Computer Engineering

Özten, Cren Uyam, Gazi University, Institute of Science and Technology, Department of Computer Engineering

Alrawe IAM, (2021), *A reliable Localization Mechanism Approach in IoT with Harris Hawks Optimization (HHO) algorithm,* Gazi University, Institute of Science, Department of Computer Engineering

Bayraktar Ayfer, (2022), *Malware detection using deep learning,* Gazi University, Institute of Science and Technology, Department of Computer Engineering

Doctorate

Yapıcı MM, (2020), *Development of a deep learning-based signature verification method,* Gazi University, Institute of Science and Technology, Department of Computer Engineering (**Completed**)

Almahmood RJK, *Development of E-Commerce Recommendation System Using Deep Learning and Optimization Algorithms,* Gazi University, Institute of Science, Department of Computer Engineering

Çelik, Büşra Duygu, Gazi University, Graduate School of Natural and Applied Sciences, Department of Computer Engineering

Thaer Sultan Darweesh Al-Ramlı, Gazi University, Graduate School of Natural and Applied Sciences, Department of Computer Engineering

Works

A. Papers published in international journals

A1.   Abas, SU, Duran, F., & Tekerek, A. (2023). A Raspberry Pi based Blockchain Application on IoT Security. Expert Systems with Applications, 120486. https://doi.org/10.1016/j.eswa.2023.120486 (SCI-Expanded)

A2.   Tekerek, A., & Al-Rawe, IAM (2023). A Novel Approach for Prediction of Lung Disease Using Chest X-ray Images Based on DenseNet and MobileNet. Wireless Personal Communications, 1-15. https://doi.org/10.1007/s11277-023-10489-y (SCI-Expanded)

A3.   Almahmood, RJK, & Tekerek, A. (2022). Issues and Solutions in Deep Learning-Enabled Recommendation Systems within the E-Commerce Field. Applied Sciences, 12(21), 11256. https://doi.org/10.3390/app122111256 (SCI-Expanded)

A4 .   Tekerek, A., Kurt, E., & Tekerek, M. (2022). A New Artificial Neural Network Model for the Output Voltage and Power Predictions of Permanent Magnet Generators with Variable Air Gaps. Electric Power Components and Systems, 1-12. https://doi.org/10.1080/15325008.2022.2148017 (SCI-Expanded)

A5.   Tekerek, A., Yapıcı, MM., (2022), "A Novel Malware Classification And Augmentation Model Based On Convolutional Neural Network", Computers & Security, https://doi.org/10.1016/j.cose.2021.102515 (SCI-Expanded)

A6.   Tekerek, A., Kurt, E., (2021), " Artificial neural network analysis on an axial flux permanent magnet 4 generator having variable air gap and power regime", Sadhana Journal, https://doi.org/10.1007/s12046 -021-01768-0 (SCI-Expanded)

A7.   Tekerek, A., (2021). "A Novel Architecture for Web Based Attack Detection Using Convolutional Neural Network", Computers & Security, https://doi.org/10.1016/j.cose.2020.102096 (SCI-Expanded)

A8.   Yapici MM, Tekerek A., Topaloglu N., (2021). "Deep Leaning Based Data Augmentation Method and Signature Verification System for Offline Handwritten Signature", Pattern Analysis And Applications, https://link.springer.com/article/10.1007/s10044-020-00912-6 (SCI-Expanded)

A9.   Aydos, M., Vural, Y., & Tekerek, A. (2019). "Assessing risks and threats with layered approach to Internet of Things security", Measurement and Control, 52(5–6), 338-353, https://journals.sagepub.com/doi/10.1177/0020294019837991 (SCI-Expanded)

A10.   Tekerek, A., & Bay, OF., (2019). "Design And Implementation of an Artificial Intelligence-Based Web Application Firewall Model". Neural Network World, 29(4), 189-206, http://dx.doi.org/10.14311/NNW.2019.29.013 (SCI-Expanded)

A11.   Tekerek, A., Gemci, C., & Bay, OF., (2016), "Design and implementation of a web-based intrusion prevention system: a new hybrid model". Journal of the Faculty of Engineering and Architecture of Gazi University, 31(3), 646-655. https://dergipark.org.tr/tr/pub/gazimmfd/issue/24428/258916 (SCI-Expanded)

A12. Tekerek, A. & Dörterler, M. (2022). The Adaptation of Gray Wolf Optimizer to Data Clustering . Journal of Polytechnic, 25 (4), 1761-1767. DOI: 10.2339/polyteknik.778630 (ESCI-TR Index)

A13. Tekerek, A., (2019). "Support Vector Machine Based Spam SMS Detection". Journal of Polytechnic, 22(3), 779-784, https://dergipark.org.tr/tr/pub/politeknik/issue/47117/429707 (ESCI-TR Index)

A14. Tekerek, M., & Tekerek, A., (2013). "A research on students' information security awareness", Turkish Journal of Education, 2(3). https://dergipark.org.tr/tr/pub/turje/issue/17341/181065 (ESCI-TR Index)

A15. Tekerek, A., & BAY, Ö. F. (2009). Web Content Management System Design and Implementation, Journal of Polytechnic, 12(2), 85-91, https://dergipark.org.tr/tr/pub/politeknik/issue/33050/367830 (ESCI-TR Index)

A16. Yapıcı, M, Tekerek, A., Topaloğlu, N. (2019). "Literature Review of Deep Learning Research Areas", Gazi Journal of Engineering Sciences (GJES), 5(3), 188-215, https://dergipark.org.tr/tr/download/article-file/907912 (TR Index)

A17 . Tekerek, M., Tekerek, A., & Ercan, O. (2012). "Assessment of physics teachers' attitudes towards internet use in terms of some variables", World Journal on Educational Technology, 4(1), 43-55. https://eric.ed.gov/?id=ED599650

A18. Tekerek, M., Ercan, O., & Tekerek, A. (2011). "A descriptive study about internet use attitudes of physics teachers. Procedia-Social and Behavioral Sciences", 15, 3758-3762, SSCI proceeding, https://doi.org/10.1016/j.sbspro.2011.04369

B. Papers Presented at İnternational Scientific Confenrences and Published İn Proceedings Books

B1. HE. E. Tekerek and A. Tekerek, "Image Encryption Using Lorenz's Attractor and Fractional Fourier Transform," 2021 2nd International Informatics and Software Engineering Conference (IISEC), 2021, pp. 1-5, https://doi.org/10.1109/IISEC54230.2021.9672362

B2. YAPICI MM , TEKEREK A. , Ayaz Z., Malware Classification Using Convolutional Neural Network, Interdisciplinary Conference on Mechanics, Computers and Electrics, Ankara, Turkey, 26 November 2021

B3. Tekerek A., "Human Recognition Based on Artificial Neural Network by Gait Pattern", Advanced Materials Science and Engineering and High Tech Device Applications, 2-4 October 2020, Ankara, Turkey.

B4. Tekerek A., Kurt E., "Artificial Neural Network Design For An Axial Flux Permanent Magnet Generator", 8th European Conference no Renewable Energy Systems, 24-25 August 2020, Istanbul, Turkey.

B5. Yapici, M. M,. Tekerek, A., Topaloğlu, N., Performance Comparison of Convolutional Neural NetworkModels on GPU, The 13th IEEE International Conference Application of Information and Communication Technologies, Azerbaijan, Baku, (23.10.2019-25.10.2019) 2019. https: // ieeexplore.ieee.org/document/8981749

B6. Tanriverdi, M., Tekerek, A., Implementation of Blockchain Based Distributed Web Attack Detection Application (06.11.2019 -07.11.2019), UBMYK 2019: IEEE I. International Informatics and Software Engineering Conference, 2019. https://ieeexplore . ieee.org/document/8965446

B7. Dagaoturan A., Tekerek A., Tekerek, M., Development of User Interactive Video Annotation Tool for Consultant Education, (02.05.2019 -04.05.2019), 13th International Computer and Instructional Technology Symposium (ICITS 2019), 2019.

B8. Baburoğlu, Barış., Tekerek, A., Tekerek, M., Development of a Deep Learning Based Natural Language Processing Model for Turkish (02.05.2019 -04.05.2019), 13th International Computer and Instructional Technology Symposium (ICITS 2019), 2019.

B9. Tekerek, A., Bay, ÖF., Spam E-Mail Detection Based On Machine Learning, (28.04.2018 - 01.05.2018), 7th International Conference on Advanced Technologies (ICAT'2018), 2018.

B10. Yapıcı, MM., Tekerek, A., Topaloğlu N., Convolutional Neural Network Based Offline Signature Verification Application (03.12.2018 - 04.12.2018), IEEE International Congress on Big Data, Deep Learning and Fighting Cyber Terrorism , 2018. https : //ieeexplore.ieee.org/document/8625290

B11. Tekerek, A., Guzel, A., Elbasan, B., Fırat S., Development Of Mobile Learning Platform For Caregivers Of Children With Cerebral Palsy, (27.09.2018 -28.09.2018), Educcon Education Conference-Education 4.0 Studies, 2018.

B12. Tekerek A., Aydos M., Data Mining and Applications in Education, (27.09.2018 -28.09.2018), Educcon 2018 Education Conference, 2018.

B13. Tekerek, A., Dorterler M., Semantic Web Search Engine Development, (07.12.2017 -10.12.2017), 1st International Turkish World Engineering and Science Congress, 2017.

B14. Tekerek A., Bay, OF, Development of Web Application Firewall Interface WAFI, (23.11.2016 - 25.11.2016), International Conference on Advanced Technology Sciences (ICAT'Rome), 2016.

B15. Tekerek, A., Gemci, C., & Bay, OF, Development of a hybrid web application firewall to prevent web based attacks, (15.10.2014 -17.10.2014), 2014 IEEE 8th International Conference on Application of Information and Communication Technologies (AICT), 2014. https://ieeexplore.ieee.org/document/7035910

B16. Tekerek M., Tekerek, A., An Application for Computer Aided Design of Card Stunt Systems, (06.05.2009 -08.05.2009), Proceedings of 9th International Educational Technology Conference (IETC2009), 2009.

B17. Tekerek M., Tekerek, A., Implementation of a Web Content Management System for the Students Club Works, (06.05.2009 -08.05.2009), Proceedings of 9th International Educational Technology Conference (IETC2009), 2009.

C. Books

C1. Tekerek A., Vural Y., Penetration Tests, Cyber Security and Defense Problems and Solutions 2, Şeref Sağıroğlu, Mustafa Şenol, Editor, Graphics Publications, Ankara, pp.437-456, 2019

C2.   Tekerek A., Web Services, Internet Programming II, Assoc. Dr. Oktay Yıldız, Editor, Atatürk University Open Education Faculty Publication, Erzurum, pp.294-312, 2022

C3.   Tekerek A., Secure Web Programming, Internet Programming II, Assoc. Dr. Oktay Yıldız, Editor, Atatürk University Open Education Faculty Publication, Erzurum, pp.43-62, 2022

C4.   Güzel A., Tekerek A., Big Data and Cloud-Based Systems in Healthcare, Editor: Prof. Dr. Zekai Öztürk, Contemporary Developments in Health Management, Ankara, pp.313-332, 2022 ISBN: 978-625-417-920-4

D. Papers Presented At National Scientific Conferences And Published İn Proceedings Books

D1.   Tekerek, A., Data Mining Processes and Open Source Data Mining Tools, Akademik Bilişim'11 - XIII. Academic Informatics Conference Proceedings, İnönü University, Malatya, 161-169, 2-4 February 2011.

Project Experience

Term	Project Name	Jop	Type
2022-2024	Mentoring elementary students and teachers about CONSENT	Researcher	Erasmus+
2022-2024	Robot Cooperation "RoboCoop"	Coordinator	Erasmus+
2022-2024	Martial arts towards rehabilitation of cerebral palsy (CP) affected people (MACPTraining)	Researcher	Erasmus+
2021-2024	DIVERSASIA: Embracing diversity in ASIA through the adoption of Inclusive Open Practices	Researcher	Erasmus+
2020-2023	ECOCOM To encourage students to engage in environmentally friendly outdoor sports activities.	Researcher	Erasmus+
2017-2020	VET program for medical practitioners supporting parents of babies with disabilities and complex needs	Researcher	Erasmus+
2017-2019	Mobile youth peer mentoring application to facilitate distance mentoring guidance for youth with disabilities (MYPEERMENTOR)	Researcher	Erasmus+
2016-2019	Specialized ECVET Training of Caregivers for People with Cerebral Palsy (CPCARE)	Researcher	Erasmus+
2014-2016	Training Entrepreneurs in Connecting Generations and Supporting Successful Business Succession Planning for micro.SMEs (INTO GENERATION)	Researcher	Erasmus+
2013-2015	Implementation of a New Real-Time Web Application Firewall Algorithm for Web Based Intrusion Prevention (SANTEZ)	Researcher	Ministry of Science, Industry and Technology

Research Experience

Assessing risks and threats with layered approach to Internet of Things security, Department of Information Security Engineering, Hacettepe University

Courses Offered, Undergraduate and Graduate

2012-2018	Spring-Fall	(BELTEK) Vocational and Technical Training Courses (Web Programming)
2015-2016	Spring	Ahmet Yesevi University, Object Oriented Programming
2016-2017	Fall	Ahmet Yesevi University, Object Oriented Programming
	Spring	Ahmet Yesevi University, Object Oriented Programming
2019-2020	Fall	Yıldırım Beyazıt University, Computer Engineering, Database Management Systems
2020-2021	Fall	Gazi University, Computer Engineering, Game Programming
		National Defense University, Military Academy, Information Technologies and Programming
	Spring	National Defense University, Military Academy, Database Management Systems
		National Defense University, Military Academy, Software Engineering
		Gazi University, Computer Engineering, Game Programming
		Gazi University, Computer Engineering, Data Mining
2021-2022	Fall	National Defense University, Military Academy, Software Engineering
		Gazi University, Computer Engineering, Game Programming
		Gazi University, Computer Engineering, Database Management Systems
2021-2022	Spring	National Defense University, Military Academy, Database Management System
		Gazi University, Computer Engineering, Data Structures and Algorithms
		Gazi University, Computer Engineering, Scientific Research Methods and Ethics
2022-2023	Fall	National Defense University, Military Academy, Software Engineering
		Gazi University, Computer Engineering, Game Programming
		Gazi University, Computer Engineering, Database Management Systems
2022-2023	Spring	Gazi University, Computer Engineering, Information Security
		Gazi University, Computer Engineering, Data Structures and Algorithms
		Gazi University, Computer Engineering, Business Intelligence and Data Analysis
2023-2024	Fall	Ankara Medipol University, Computer Systems
		Gazi University, Computer Engineering, Game Programming
		Azerbaycab Hazar University, Artificial Intelligence

Administrative Duties

- Head of IT Department, Gazi University Rectorate, 2015-2016
- Deputy Head of Information Technologies Department, Gazi University Rectorate, 2012-2015
- Deputy Head of Department, Gazi University, Faculty of Technology, Department of Computer Engineering, 2021-Continued

Editorship and Refereeing and Memberships

- Field Editor, Turkish Journal of Education
- Field Editor, Journal of Energy Systems

- Field Editor, Gazi Journal of Engineering Sciences

Scholarships and Awards

Publication Incentive Award	2016	Gazi University
Publication Incentive Award	2019	Gazi University
Publication Incentive Award	2021	TUBITAK
Publication Incentive Award	2022	TUBITAK

Qualifications

Language Skill:

English *(Reading-Writing-Speaking: Good)* ; Russian *(Read-Write-Speak: Basic)*

Specialization Skills

- Computer Science and Engineering,
- Artificial Intelligence and Deep Learning Applications,
- Data Mining and business intelligence
- Project development and management,
- Project development and management practices for product development,
- Preparation of Software Engineering Projects and Management of Software Development Projects,

Computer skills

- Programming Languages   Python, PHP (Advanced), C#, C, C++
- Database   MySQL, MsSQL Server,
- Web Design   Adobe Family
- Operating Systems: Windows family, Linux (UBUNTU)
- Scientific Programs   Matlab, SPSS

Trainings Received

- Project Preparation and Implementation, 2005
- Effective Lecture, Presentation and Diction, 2006
- Hp ProCurve Active Device Management Training, 2010
- Cyber Security Training, 2012
- Corporate Information Secure Training, 2010
- Web Programming with ASP.NET, 2010
- Occupational Health and Safety Specialization Course, 2012
- ISO 27001 Information Security Management System Basic Training Course, 2015

Activities

- Robocon 2005 Robot Competition, Sabancı University Türkiye First Place, 2005
- Information Security Awareness, Spyware Training, 2013
- EDUCCON 2018 Education Conference, Organizing Committee, 2017
- EDUCCON 2017 Education Conference, Organizing Committee, 2018

Memberships

- Civil Defense: Volunteer Search and Rescue Team, Ankara
- Turkish Red Crescent: Turkish Red Crescent Association Volunteer, Ankara
- BİLSEK: Information Communication Art Education and Culture Youth Club, Kahramanmaraş
- Association of Academicians Union, Ankara

8

Assoc. Prof. Dr. Adem Tekerek (atekerek@gazi.edu.tr) May , 2023