

## Asst. Prof. YILDIRAN YILMAZ

### Personal Information

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### International Researcher IDs

ScholarID: HfyM3c0AAAAJ

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Publons / Web Of Science ResearcherID: AAW-7629-2020

ScopusID: 57204834372

Yoksis Researcher ID: 319119

### Education Information

Doctorate, University of Southampton, Electronic and Computer Science, Computer Science, United Kingdom 2015 - 2019

Postgraduate, University of Southampton, Electronic and Computer Science, Cyber Security, United Kingdom 2014 - 2015

Undergraduate, Pamukkale University, Faculty Of Engineering, Department Of Computer Engineering, Turkey 2006 - 2010

### Foreign Languages

English, C2 Mastery

### Dissertations

Doctorate, LOW-COST SECURITY PROTOCOLS FOR RESOURCE-CONSTRAINED INTERNET OF THINGS DEVICES, University of Southampton, Electronic and Computer Science, Computer Science, 2019

Postgraduate, Crypto Tool for File and Text Encryption, University of Southampton, Electronic and Computer Science, Cyber Security, 2015

### Research Areas

Computer Sciences, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Recep Tayyip Erdogan University, MÜHENDİSLİK VE MİMARLIK FAKÜLTESİ, BİLGİSAYAR MÜHENDİSLİĞİ, 2021 - Continues

Lecturer PhD, Recep Tayyip Erdogan University, MÜHENDİSLİK VE MİMARLIK FAKÜLTESİ, BİLGİSAYAR MÜHENDİSLİĞİ, 2020 - 2020

## Academic and Administrative Experience

Deputy Head of Department, Recep Tayyip Erdogan University, MÜHENDİSLİK VE MİMARLIK FAKÜLTESİ, BİLGİSAYAR MÜHENDİSLİĞİ, 2020 - Continues

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

- I. **Predicting Mechanical Properties in Geopolymer Mortars, Including Novel Precursor Combinations, Through XGBoost Method.**  
Yılmaz Y., Çakmak T., Kurt Z., Ustabaş I.  
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.50, pp.2009-2033, 2025 (SCI-Expanded)
- II. **Neuro-inspired hardware solutions for high-performance computing: A TiO<sub>2</sub>-based nano-synaptic device approach with backpropagation**  
Yılmaz Y., Gül F.  
Integration, vol.97, 2024 (SCI-Expanded)
- III. **Stacked ensemble modeling for improved tuberculosis treatment outcome prediction in pediatric cases**  
Yılmaz Y.  
Concurrency and Computation: Practice and Experience, vol.36, no.13, 2024 (SCI-Expanded)
- IV. **Increasing the performance of a hospital department with budget allocation model and machine learning assisted by simulation**  
Alim M., Yılmaz Y., Boz E.  
Journal of Simulation, 2024 (SCI-Expanded)
- V. **Accuracy improvement in Ag:a-Si memristive synaptic device-based neural network through Adadelata learning method on handwritten-digit recognition**  
Yılmaz Y.  
Neural Computing and Applications, vol.35, no.33, pp.23943-23958, 2023 (SCI-Expanded)
- VI. **A novel framework for strength prediction of geopolymer mortar: Renovative precursor effect**  
Kurt Z., Yılmaz Y., Çakmak T., Ustabaş I.  
Journal of Building Engineering, vol.76, 2023 (SCI-Expanded)
- VII. **Correlation value determined to increase Salmonella prediction success of deep neural network for agricultural waters**  
Buyrukoglu S., Yılmaz Y., Topalcengiz Z.  
ENVIRONMENTAL MONITORING AND ASSESSMENT, vol.194, no.5, 2022 (SCI-Expanded)
- VIII. **Comparative Analysis of Energy Costs of Asymmetric vs Symmetric Encryption-Based Security Applications**  
Halak B., Yılmaz Y., Shiu D.  
IEEE ACCESS, vol.10, pp.76707-76719, 2022 (SCI-Expanded)
- IX. **ARMOR: An anti-counteRfeit security Mechanism for lOw cost Radio frequency identification systems**  
YILMAZ Y., Do V., Halak B.  
IEEE TRANSACTIONS ON EMERGING TOPICS IN COMPUTING, vol.9, pp.2125-2138, 2021 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Convolutional neural network for pothole detection in different road and weather conditions**  
Gazawy Q., Buyrukoglu S., Yılmaz Y.  
MediHealth Academy, vol.1, 2023 (Peer-Reviewed Journal)
- II. **Novel Machine Learning (ML) Algorithms to Classify IPv6 Network Traffic in Resource-Limited Systems**

YILMAZ Y., BUYRUKOĞLU S., ALIM M.

Computer Science, pp.219-224, 2022 (Peer-Reviewed Journal)

- III. **Development and evaluation of ensemble learning models for detection of DDOS attacks in IoT**  
YILMAZ Y., Buyrukoglu S.  
Hittite Journal of Science and Engineering, vol.9, no.2, pp.73-82, 2022 (Peer-Reviewed Journal)
- IV. **An Approach for Airfare Prices Analysis with Penalized Regression Methods**  
Buyrukoglu S., Yilmaz Y.  
Veri Bilimi Dergisi, vol.4, no.2, pp.57-61, 2021 (Peer-Reviewed Journal)
- V. **A Novel Semi-Automated Chatbot Model: Providing Consistent Response of Students' Email in Higher Education based on Case-Based Reasoning and Latent Semantic Analysis**  
Buyrukoglu S., Yilmaz Y.  
International Journal of Multidisciplinary Studies and Innovative Technologies, vol.5, no.1, pp.6-12, 2021 (Peer-Reviewed Journal)
- VI. **ASSURE: A Hardware-Based Security Protocol for Resource-Constrained IoT Systems**  
Yilmaz Y., Aniello L., Halak B.  
Journal of Hardware and Systems Security, vol.5, no.1, pp.1-18, 2021 (Peer-Reviewed Journal)
- VII. **Covid-19 Impact on Students' Performances in Computer Programming Module Based on Formative Assessment**  
Buyrukoğlu S., Yilmaz Y., Buyrukoğlu G.  
World Journal of Multidisciplinary Research, vol.4, no.1-2, pp.87-94, 2021 (Peer-Reviewed Journal)
- VIII. **Hybrid Machine Learning Model Coupled with School Closure For Forecasting COVID-19 Cases in the Most Affected Countries**  
Yilmaz Y., Buyrukoglu S.  
Hittite Journal of Science and Engineering, vol.8, no.2, pp.123-131, 2021 (Peer-Reviewed Journal)

## Books

- I. **Doğrusal Regresyon Makine Öğrenmesi Metodunu Kullanarak AES ile Şifrelenmiş Tcp/Ip Paketlerinin Ipv6 Güvenlikli Ağda Aktarım Süresi Tahmini**  
YILMAZ Y.  
in: Teori ve Uygulamada Makine Öğrenmesi, Buyrukoglu Selim, Savaş Serkan, Editor, Nobel Bilimsel, pp.21-35, 2022
- II. **A Hybrid Data Mining Model for Prediction of Alzheimer Disease Stages Using Principal Component Analysis (PCA) and Multilayer Perceptron (MLP)**  
YILMAZ Y.  
in: Programming Solutions For Engineering Problems, Ayhan Akbaş Selim Buyrukoğlu Aytül Gökçe, Editor, Nobel Bilimsel, pp.13-35, 2021

## Refereed Congress / Symposium Publications in Proceedings

- I. **TIME SERIES ANALYSIS AND DATA MINING FOR ROBUST SHORT-TERM COMPRESSIVE STRENGTH FORECASTING IN GEOPOLYMER MORTAR: AN ARIMA MODEL DATA-DRIVEN APPROACH**  
Yilmaz Y., Çakmak T.  
1st International Future Engineering Conference, Şırnak, Turkey, 25 - 26 December 2023, pp.24-30
- II. **ANOVA Method Reveals Key Factors Influencing Geopolymer Strength: A Comprehensive Evaluation of Input Variables**  
YILMAZ Y., ÇAKMAK T., KURT Z.  
7th International Symposium on Innovative Approaches in Smart Technologies, ISAS 2023, İstanbul, Turkey, 23 - 25 November 2023
- III. **Seamlessly Implementable ML based Authentication Method for Resource-Scarce Embedded Systems**

YILMAZ Y.

1<sup>st</sup> International Karatekin Science and Technology Conference, Çankırı, Turkey, 1 - 03 September 2022, pp.220-221

**IV. MÜŞTERİLERİN KURUMSAL SOSYAL SORUMLULUKLARA (KSS) YAKLAŞIMLARININ VE BUNUN MÜŞTERİ SATIN ALMA DAVRANIŞI ÜZERİNDEKİ ETKİSİNİN ANALİZİ**

ALIM M., YILMAZ Y.

4. Uluslararası Mersin Sempozyumu, 22 - 24 October 2020, vol.4, pp.362-370

**V. A Two-Flights Mutual Authentication for Energy-Constrained IoT Devices**

Yılmaz Y., Halak B.

2019 IEEE 4th International Verification and Security Workshop (IVSW), Rodos, Greece, 1 - 03 July 2019, pp.31-36

**VI. Lightweight PUF-Based Authentication Protocol for IoT Devices**

YILMAZ Y., Gunn S. R., Halak B.

2018 IEEE 3rd International Verification and Security Workshop (IVSW), Costa Brava, 2 - 04 July 2018

**VII. Cryptotool: A secure data storage software**

YILMAZ Y., Halak B.

The National Conference on Learning and Teaching in Cybersecurity, Birmingham, United Kingdom, 15 June 2016

## Supported Projects

Yılmaz Y., Baltacı M. O., Ayça S., TUBITAK Project, Topluluk Katılımlı Coğrafi Bilgilendirme Sistemi, 2024 - 2025

Yılmaz Y., Gümüşler M. A., Dervişoğlu G., TUBITAK Project, Yapay Zekâ Destekli Sanal Giyim Deneme Platformu, 2024 - 2025

Yılmaz Y., Yüksel M., Eroğlu H., Gül F., TUBITAK Project, Gıda Güvenliğinde Sevkiyat Ve Soğuk Zincir Uygulamaları İçin, Nesnelerin İnterneti (Iot) Tabanlı, Çok Amaçlı Takip Cihazı Geliştirilmesi, 2022 - 2024

## Metrics

Publication: 34

Citation (WoS): 36

Citation (Scopus): 61

H-Index (WoS): 2

H-Index (Scopus): 3