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Personal Information

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International Researcher IDs

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

ScopusID: 57204834372

Yoksis Researcher ID: 319119

Education

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 Positions

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

Journal articles indexed in SCI, SSCI, and AHCI

- I. **Predicting Mechanical Properties in Geopolymer Mortars, Including Novel Precursor Combinations, Through XGBoost Method**
YILMAZ Y., ÇAKMAK T., KURT Z., USTABAŞ İ.
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.50, no.3, pp.2009-2033, 2025 (SCI-Expanded)
- II. **Increasing the performance of a hospital department with budget allocation model and machine learning assisted by simulation**
Alim M., Yilmaz Y., Boz E.
Journal of Simulation, vol.19, no.2, pp.127-140, 2025 (SCI-Expanded)
- III. **Design and Optimisations of Metal-Oxide Artificial Synaptic Device Based Machine Learning Model**
Yilmaz Y., Gul F.
IEEE TRANSACTIONS ON EMERGING TOPICS IN COMPUTATIONAL INTELLIGENCE, 2024 (SCI-Expanded)
- IV. **Neuro-inspired hardware solutions for high-performance computing: A TiO₂-based nano-synaptic device approach with backpropagation**
Yilmaz Y., Gül F.
Integration, vol.97, 2024 (SCI-Expanded)
- V. **Stacked ensemble modeling for improved tuberculosis treatment outcome prediction in pediatric cases**
Yilmaz Y.
Concurrency and Computation: Practice and Experience, vol.36, no.13, 2024 (SCI-Expanded)
- VI. **Accuracy improvement in Ag:a-Si memristive synaptic device-based neural network through Adadelat learning method on handwritten-digit recognition**
Yilmaz Y.
Neural Computing and Applications, vol.35, no.33, pp.23943-23958, 2023 (SCI-Expanded)
- VII. **A novel framework for strength prediction of geopolymer mortar: Renovative precursor effect**
Kurt Z., Yilmaz Y., Çakmak T., Ustabaş İ.
Journal of Building Engineering, vol.76, 2023 (SCI-Expanded)
- VIII. **Correlation value determined to increase Salmonella prediction success of deep neural network for agricultural waters**
Buyrukoglu S., Yilmaz Y., Topalcengiz Z.
ENVIRONMENTAL MONITORING AND ASSESSMENT, vol.194, no.5, 2022 (SCI-Expanded)
- IX. **Comparative Analysis of Energy Costs of Asymmetric vs Symmetric Encryption-Based Security Applications**
Halak B., Yilmaz Y., Shiu D.
IEEE ACCESS, vol.10, pp.76707-76719, 2022 (SCI-Expanded)
- X. **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. **A novel correlation study using Pearson and Spearman Algorithms for mineral component-driven strength analysis of construction materials including geopolymer**

Yılmaz Y., Çakmak T., Kurt Z., Ustabas İ.

PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, vol.31, no.3, pp.409-416, 2025 (ESCI)

- II. **Machine Learning-Enhanced Traffic Light Optimization System Prioritizing Emergency Vehicle Passage Using SVM and Random Forest Models**
YILMAZ Y.
Gazi University Journal of Science Part A: Engineering and Innovation, vol.12, no.1, pp.175-196, 2025 (Peer-Reviewed Journal)
- III. **Convolutional neural network for pothole detection in different road and weather conditions**
Gazawy Q., Buyrukoglu S., Yilmaz Y.
MediHealth Academy, vol.1, 2023 (Peer-Reviewed Journal)
- IV. **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)
- V. **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)
- VI. **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)
- VII. **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)
- VIII. **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)
- IX. **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)
- X. **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 Ipsec 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
- III. **Anti-counterfeiting Techniques for Resources-Constrained Devices**

YILMAZ Y., Hoa D. V., Halak B.

in: Hardware Supply Chain Security, Halak Basel, Editor, Springer, pp.89-126, 2021

IV. TIGHTEN: A Two-Flight Mutual Authentication Protocol for Energy-Constrained Devices

YILMAZ Y., Halak B.

in: Authentication of Embedded Devices, Halak Basel, Editor, Springer, pp.89-112, 2021

Papers Presented at Peer-Reviewed Scientific Conferences

I. Estimation of Optimal Time-to-Live Values for Mitigating Router Spoofing Attacks Utilizing Lasso and Ridge Regression Machine Learning Techniques

YILMAZ Y.

IEEE 2024 8th International Symposium on Innovative Approaches in Smart Technologies (ISAS), İstanbul, Turkey, 6 - 07 December 2024, (Full Text)

II. The SVM-ARIMA Fusion Approach for Forecasting the Structural Integrity of Obsidian Substitution Mortars

Çakmak T., Yılmaz Y., Ustabas İ.

2024 Innovations in Intelligent Systems and Applications Conference (ASYU), Ankara, Turkey, 16 - 18 October 2024, pp.1-7, (Full Text)

III. TIME SERIES ANALYSIS AND DATA MINING FOR ROBUST SHORT-TERM COMPRESSIVE STRENGTH FORECASTING IN GEOPOLYMER MORTAR: AN ARIMA MODEL DATADIVEN APPROACH

Yılmaz Y., Çakmak T.

1st International Future Engineering Conference, Şırnak, Turkey, 25 - 26 December 2023, pp.24-30, (Full Text)

IV. 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, (Full Text)

V. Seamlessly Implementable ML based Authentication Method for Resource-Scarce Embedded Systems

YILMAZ Y.

1st International Karatekin Science and Technology Conference, Çankırı, Turkey, 1 - 03 September 2022, pp.220-221, (Summary Text)

VI. An Approach for Airfare Prices Analysis with Penalized Regression Methods

BUYRUKOĞLU S., YILMAZ Y.

4th International Conference on Data Science and Applications (ICONDATA'21), June 4-5, 2021, TURKEY, Turkey, 4 - 06 June 2021, (Summary Text)

VII. 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, (Full Text)

VIII. 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, (Full Text)

IX. 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, (Full Text)

X. 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, (Summary Text)

Funded 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

Patent

Gül F., Eroğlu H., Yıldız Y., Yılmaz Y., Atesli havaleyi önlemek için vücut sıcaklığı ve oksijen satürasyonu takip cihazı, Utility Model, CHAPTER A Human Needs, The Invention Registration Number: 2022/04/21 , Standard Registration, 2024

Metrics

Publication: 35

Citation (WoS): 116

Citation (Scopus): 151

H-Index (WoS): 5

H-Index (Scopus): 6