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Personal Information

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Education Information

Doctorate, Anadolu University, Faculty Of Engıneerıng, Department Of Computer Engıneerıng, Turkey 2010 - 2014
Undergraduate, Istanbul Technical University, İnşaat Fakültesi, İnşaat Mühendisliği Bölümü, Turkey 1992 - 1997

Foreign Languages

English, C1 Advanced

Academic Titles / Tasks

Lecturer, Ankara University, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2005 - 2015

Academic and Administrative Experience

Ankara University, 2015 - Continues

Courses

Undergraduate
VERİ MADENCİLİĞİ, Undergraduate, 2013 - 2014
DATABAE MANAGEMENT SYSTEMS, Undergraduate, 2013 - 2014
BİLGİ GÜVENLİĞİ, Undergraduate, 2013 - 2014
VERİ TABANI YÖNETİMİ, Undergraduate, 2013 - 2014
DATA STRUCTURES, Undergraduate, 2013 - 2014
VERİ YAPILARI, Undergraduate, 2013 - 2014

Supervised Theses

TUĞRUL B., Sentiment analysis with Turkish product review data, Postgraduate, B.POLAT(Student), 2021
TUĞRUL B., Açık kaynak istihbaratı: Twitter analizi, Postgraduate, S.ZEKİ(Student), 2020
TUĞRUL B., Nesne tabanlı metrikler kullanılarak yazılım projeleri maliyetlerinin tahmin edilmesi, Postgraduate,
A.DİLBAZ(Student), 2020

TUĞRUL B., Nesne tabanlı metrikler kullanılarak yazılım projeleri maliyetlerinin tahmin edilmesi / Prediction of software project costs using object-oriented metrics, Postgraduate, A.Dilbaz(Student), 2020

TUĞRUL B., Churn analysis in telecommunication sector, Postgraduate, M.SABRİ(Student), 2019

TUĞRUL B., A GIS solution to find optimal locations of ambulances in Ankara, Postgraduate, M.AMEEN(Student), 2019

TUĞRUL B., Design of geofence mechanism on real time tracking system with GPS+GSM+GPRS techonology and reducing the error rate in GPS location data, Postgraduate, Z.ÖZDEMİR(Student), 2019

TUĞRUL B., Privacy – preserving k-NN spatial interpolation method, Postgraduate, M.RIFTHY(Student), 2018

TUĞRUL B., Hibrit resimleri kullanan omuz sörfüne karşı dirençli grafik tabanlı kimlik doğrulama, Postgraduate, B.BİLGİ(Student), 2018

TUĞRUL B., Veri iletişiminde ağ dinleme saldırılarına karşı geliştirilmiş melez kriptosistem, Postgraduate, E.ERSAN(Student), 2017

TUĞRUL B., Bulanık mantık kullanarak katı atık depolama tesisi için en uygun konum belirleme, Postgraduate, B.ÖZDEMİR(Student), 2017

Published journal articles indexed by SCI, SSCI, and AHCI

I. **A systematic review of deep learning techniques for apple leaf diseases classification and detection**
Doutoum A. S., TUĞRUL B.
PeerJ Computer Science, vol.11, 2025 (SCI-Expanded)

II. **A new approach to Mergesort algorithm: Divide smart and conquer**
Emrah Amrahov S., AR Y., TUĞRUL B., Akay B. E., Kartli N.
Future Generation Computer Systems, vol.157, pp.330-343, 2024 (SCI-Expanded)

III. **Analysis of Turkish cuisine flavors network**
Ozhan B., TUĞRUL B.
International Journal of Food Science and Technology, vol.59, no.2, pp.908-915, 2024 (SCI-Expanded)

IV. **A Review of Leaf Diseases Detection and Classification by Deep Learning**
Doutoum A. S., Tuğrul B.
IEEE ACCESS, vol.11, no.11, pp.119219-119230, 2023 (SCI-Expanded)

V. **Deep Learning-Based Classification of Image Data Sets Containing 111 Different Seeds**
Tuğrul B., Eryiğit R., Ar Y.
Advanced Theory and Simulations, vol.6, no.11, 2023 (SCI-Expanded)

VI. **Convolutional Neural Networks in Detection of Plant Leaf Diseases: A Review**
Tugrul B., Elfatimi E., Eryigit R.
AGRICULTURE-BASEL, vol.12, no.8, 2022 (SCI-Expanded)

VII. **Privacy-preserving k-NN interpolation over two encrypted databases**
OSMANOĞLU M., DEMİR S., TUĞRUL B.
PEERJ COMPUTER SCIENCE, vol.8, 2022 (SCI-Expanded)

VIII. **Performance of Various Deep-Learning Networks in the Seed Classification Problem**
ERYİĞİT R., TUĞRUL B.
SYMMETRY-BASEL, vol.13, no.10, 2021 (SCI-Expanded)

IX. **An Effective Yield Estimation System Based on Blockchain Technology**
OSMANOĞLU M., TUĞRUL B., Dogantuna T., BOSTANCI G. E.
IEEE TRANSACTIONS ON ENGINEERING MANAGEMENT, vol.67, no.4, pp.1157-1168, 2020 (SCI-Expanded)

X. **Privacy-preserving trend surface analysis on partitioned data**
DEMİR S., TUĞRUL B.
KNOWLEDGE-BASED SYSTEMS, vol.144, pp.16-20, 2018 (SCI-Expanded)

XI. **Privacy-preserving kriging interpolation on partitioned data**
TUĞRUL B., POLAT H.
KNOWLEDGE-BASED SYSTEMS, vol.62, pp.38-46, 2014 (SCI-Expanded)

XII. **Privacy-Preserving Inverse Distance Weighted Interpolation**

TUĞRUL B., POLAT H.

ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.39, no.4, pp.2773-2781, 2014 (SCI-Expanded)

XIII. **Estimating Kriging-based predictions with privacy**

TUĞRUL B., Polat H.

International Journal of Innovative Computing, Information and Control, vol.9, no.8, pp.3197-3209, 2013 (SCI-Expanded)

Articles Published in Other Journals

I. **Stream Data Analysis and Processing Frameworks for Detecting Outliers in Human Activities: A Review**

Sabha M., TUĞRUL B.

WSEAS Transactions on Information Science and Applications, vol.22, pp.104-117, 2025 (Scopus)

II. **Classification of Guava Leaf Disease using Deep Learning**

DOUTOUM A. S., ERYİĞİT R., TUĞRUL B.

World Scientific and Engineering Academy and Society (WSEAS), vol.20, no.38, pp.356-363, 2023 (Peer-Reviewed Journal)

III. **Classification of Trifolium Seeds by Computer Vision Methods**

Eryiğit R., Ar Y., Tuğrul B.

WSEAS Transactions on Systems, vol.22, pp.313-320, 2023 (Scopus)

IV. **Network traffic analysis with machine learning methods**

Tugrul B., AHMED A. S. A.

Niğde Ömer Halisdemir Üniversitesi Mühendislik Bilimleri Dergisi, vol.11, no.4, pp.862-870, 2022 (Peer-Reviewed Journal)

V. **Emotion Recognition System from Speech using Convolutional Neural Networks**

AYDIN M., TUĞRUL B., AR Y.

Journal of Computer Science, 2022 (Peer-Reviewed Journal)

VI. **Classification of five different rice seeds grown in Turkey with deep learning methods**

Tugrul B.

Communications Faculty of Sciences University of Ankara Series A2-A3: Physical Sciences and Engineering, vol.64, no.1, pp.40-50, 2022 (Peer-Reviewed Journal)

VII. **PRIVACY-PRESERVING K-NEAREST NEIGHBOUR INTERPOLATIONMETHOD IN AN OUTSOURCED ENVIRONMENT**

Kalideen M. R., OSMANOĞLU M., TUĞRUL B.

Communications Faculty of Sciences University of Ankara Series A2-A3 Physical Sciences and Engineering, vol.61, no.1, pp.1-11, 2019 (Peer-Reviewed Journal)

VIII. **Outsourcing of Secure k-Nearest Neighbours Interpolation Method**

Kalideen M. R., TUĞRUL B.

INTERNATIONAL JOURNAL OF ADVANCED COMPUTER SCIENCE AND APPLICATIONS, vol.9, no.4, pp.319-323, 2018 (ESCI)

IX. **PRIVACY-PRESERVING TREND SURFACE ANALYSIS**

DEMİR S., TUĞRUL B.

International Journal of Research and Reviews in Applied Sciences, vol.32, no.2, pp.28-33, 2017 (Peer-Reviewed Journal)

X. **Secure Outsourcing of Trend Surface Analysis**

DEMİR S., TUĞRUL B.

International Journal of Research and Reviews in Applied Sciences, vol.32, no.1, pp.16-22, 2017 (Peer-Reviewed Journal)

XI. **A complete CAD model for type-I quantum cascade lasers with the use of artificial bee colony algorithm**

Yigit S., TUĞRUL B., Celebi F. V.

Journal of Artificial Intelligence, vol.5, no.2, pp.76-84, 2012 (Scopus)

Books

I. **Convolutional Neural Networks in Detection of Plant Leaf Diseases: A Review**
TUĞRUL B., Elfatimi E., ERYİĞİT R.
in: Advances in Agricultural Engineering Technologies and Application, Sultan Muhammad, Shamshiri Redmond R., Ahamed Md Shamim, Farooq Muhammad, Editor, Academic Open Access Publishing, pp.245-265, 2023

II. **Simetrik Şifreleme ve Mesaj Gizliliği**
TUĞRUL B.
in: AĞ YÖNETİMİ VE BİLGİ GÜVENLİĞİ, Alper Bilge, Editor, ANADOLU ÜNİVERSİTESİ, pp.40-59, 2016

III. **Anahtar Dağıtımı ve Kullanıcı Kimlik Doğrulama**
TUĞRUL B.
in: AĞ YÖNETİMİ VE BİLGİ GÜVENLİĞİ, Alper Bilge, Editor, ANADOLU ÜNİVERSİTESİ, pp.80-97, 2016

IV. **İletim Katmanı ve Kablosuz Ağ Güvenliği**
TUĞRUL B.
in: AĞ YÖNETİMİ VE BİLGİ GÜVENLİĞİ, Alper Bilge, Editor, ANADOLU ÜNİVERSİTESİ, pp.98-117, 2016

V. **Açık Anahtar Şifreleme ve Mesaj Doğrulama**
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in: AĞ YÖNETİMİ VE BİLGİ GÜVENLİĞİ, Alper Bilge, Editor, ANADOLU ÜNİVERSİTESİ, pp.60-79, 2016

VI. **HESAP TABLOSU**
SEVİNDİK M., BAĞCI E., NUMANOĞLU M., KARATAŞ E., TUĞRUL B., DEMİR S.
in: TEMEL BİLGİSAYAR EĞİTİMİ, , Editor, Bıçaklar Kitabevi, Ankara, pp.216-295, 2006

Papers Published in Refereed Scientific Meetings

I. **Design of a Blockchain-Based Organ Donation and Transplantation Management Framework**
Osmanoğlu M., Karakuş M., Tuğrul B., Demir S.
9th International Congress on Information and Communication Technology (ICICT 2024), London, England, 19 - 22 February 2024, pp.155-164

II. **A Comparative Study on Two Apple Leaves Datasets Captured Under Diverse Conditions**
Doutoum A. S., ERYİĞİT R., TUĞRUL B.
9th International Congress on Information and Communication Technology, ICICT 2024, London, England, 19 - 22 February 2024, vol.1002 LNNS, pp.237-247

III. **Analysing Eastern Anatolian Region Food Recipes with Graph Database**
Akpınar S. I., Sepetci Y. E., TUĞRUL B.
8th International Scientific Conference "Telecommunications, Informatics, Energy and Management", Bandırma, Turkey, 1 - 03 December 2023, pp.352-359

IV. **Comparative Analysis of Differential Privacy over Multiple Data Sets**
Oztas R. C., TUĞRUL B.
8th International Scientific Conference "Telecommunications, Informatics, Energy and Management", Bandırma, Turkey, 01 December 2023

V. **An Analysis of Antalya's Wind Energy Potential Utilizing Machine Learning Algorithms**
DEMIRSOY G., OZSOY N., AYTAR D. B., KAYA B. B., TUĞRUL B.
7th International Artificial Intelligence and Data Processing Symposium, Malatya, Turkey, 07 September 2023, pp.1-10

VI. **Gayrimenkulde Büyük Veri: Tapu ve Kadastro Bilgi Sistemi Örneği**
SUNGUROĞLU E., TUĞRUL B., TANRIVERMİŞ Y.

III. Uluslararası Gayrimenkul Geliştirme ve Yönetimi Konferansı, Turkey, 01 February 2023

VII. **Türkiye Eğitim Verisinin OECD Ülkeleri ile Karşılaştırılması**
AYDIN İ., TUĞRUL B.
6th International Symposium on Innovative Approaches in Smart Technologies, Ankara, Turkey, 08 December 2022

VIII. **Otomotiv Trendleri Veri Seti Görselleştirme Çalışması**
Girgin İ., ERYİĞİT R., TUĞRUL B.
6th International Symposium on Innovative Approaches in Smart Technologies, Ankara, Turkey, 08 December 2022

IX. **Interactive Machine Learning for Wheat Head Counting**
TUĞRUL B., ERYİĞİT R.
International Conference on Design, Research and Development 2021, Konya, Turkey, 15 December 2021

X. **Breast Cancer Prediction Using Different Classification Algorithms with Various Feature Selection Strategies**
TUĞRUL B., Sabha M.
5th International Conference on Informatics and Computational Sciences (ICICoS), Semarang, Indonesia, 24 November 2021

XI. **Automobile Price Prediction in Turkey Marketplace with Linear Regression**
Satioglu M. C., AR Y., TUĞRUL B.
International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT), Bolu, Turkey, 21 October 2021

XII. **Comparison of VGG and MobileNet Models for Grass Seed Dataset**
ERYİĞİT R., TUĞRUL B.
5th International Conference on Informatics and Computational Sciences (ICICoS), Aachen, Germany, 24 - 25 October 2021

XIII. **Geofencing on the Real-Time GPS Tracking System and Improving GPS Accuracy with Moving Average, Kalman Filter and Logistic Regression Analysis**
ÖZDEMİR Z., TUĞRUL B.
3rd International Symposium on Multidisciplinary Studies and Innovative Technologies, ISMSIT 2019, Ankara, Turkey, 11 - 13 October 2019

XIV. **Designing Yield Estimation MechanismUsing Blockchain Technology**
Doğantuna T., Ceran A. A., Tuğrul B., Demir S., Osmanoğlu M., Bostancı G. E.
3. International Conference on Theoretical and Applied Computer Science and Engineering, Ankara, Turkey, 23 - 24 November 2018, pp.82-85

XV. **A Community Detection Algorithm on Graph Data**
EMRAH Ş., TUĞRUL B.
International Conference on Artificial Intelligence and Data Processing (IDAP), Malatya, Turkey, 28 - 30 September 2018

XVI. **A Shoulder-Surfing Resistant Graphical Authentication Method**
Bilgi B., TUĞRUL B.
International Conference on Artificial Intelligence and Data Processing (IDAP), Malatya, Turkey, 28 - 30 September 2018

XVII. **Bulanık Mantık Kullanılarak Sincan Bölgesi için En Uygun Katı Atık Depolama Sahası Konumunun Belirlenmesi**
Özdemir B., TUĞRUL B.
International Advanced Researches and Engineering Congress, Osmaniye, Turkey, 16 - 18 November 2017, pp.1278-1284

XVIII. **An analysis of imperative programming languages from data and function abstraction perspective**
GÜNDÜÇ S., ERYİĞİT R., TUGRUL B.
International Conference on theoretical and applied Computer Science and Engineering, Ankara, Turkey, 10 - 12 November 2017

XIX. **An Analysis of imperative programming languages from data and function abstraction perrspective**

GÜNDÜÇ S., TUĞRUL B., ERYİĞİT R.

International conference on theoretical and applied computer science, 10 - 11 November 2017

XX. **Robustness of Complex Networks**

DEMİR S., TUĞRUL B.

ICADET International Conference on Advanced Engineering Technologies, Bayburt, Turkey, 21 - 23 September 2017, pp.850-856

XXI. **Privacy-Preserving Kriging Interpolation on Distributed Data**

TUĞRUL B., POLAT H.

14th International Conference on Computational Science and Its Applications (ICCSA), Guimaraes, Portugal, 30 June - 03 July 2014, vol.8584, pp.695-708

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