

Asst. Prof. EMRE ÜNSAL

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: LZF-3847-2025

ScopusID: 57188860087

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Education Information

Doctorate, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (Dr), Turkey 2010 - 2016

Postgraduate, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (YI) (Tezli), Turkey 2006 - 2010

Undergraduate, Erciyes University, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, Turkey 2000 - 2004

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Energy efficient wireless sensor networks for underground mining applications, Dokuz Eylül Üniversitesi, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (Dr), 2016

Postgraduate, Obtaining the three-dimensional structure of the current environment by using fiber grating laser system, Dokuz Eylül Üniversitesi, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (YI) (Tezli), 2010

Research Areas

Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Sivas Cumhuriyet University, Teknoloji Fakültesi, Yazılım Mühendisliği Bölümü, 2018 - Continues

Research Assistant, Sivas Cumhuriyet University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2017 - 2018

Research Assistant, Dokuz Eylul University, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2006 - 2017

Research Assistant, Sivas Cumhuriyet University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2005 - 2006

Academic and Administrative Experience

Head of Department, Sivas Cumhuriyet University, Teknoloji Fakültesi, Yazılım Mühendisliği Bölümü, 2019 - 2022

Courses

Postgraduate

Yazılım Tasarım Desenleri ve Mimarileri, Postgraduate, 2023 - 2024, 2022 - 2023

Yüksek Başarımlı Hesaplama, Postgraduate, 2023 - 2024, 2022 - 2023

Kablosuz Ağlayıcı Ağlar, Postgraduate, 2021 - 2022, 2020 - 2021

Optik Algılayıcılar ve Uygulamaları, Postgraduate, 2018 - 2019

Seminer Dersi, Postgraduate, 2018 - 2019

Uzmanlık Alan Dersi, Postgraduate, 2019 - 2020

Undergraduate

Algılayıcılar ve Aktüatörler, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

Bilgisayar Mimarisi, Undergraduate, 2023 - 2024, 2022 - 2023, 2020 - 2021, 2019 - 2020

Bilgisayar Programlamaya Giriş, Undergraduate, 2023 - 2024

Sayısal Görüntü İşleme, Undergraduate, 2019 - 2020

Paralel Programlama, Undergraduate, 2018 - 2019

Bilgisayar Ağları, Undergraduate, 2018 - 2019

Bilgisayar Mimarisi, Undergraduate, 2019 - 2020

Bilgisayar Ağları, Undergraduate, 2018 - 2019

Paralel Programlama, Undergraduate, 2018 - 2019

Sistem Dinamiği ve Denetimi, Undergraduate, 2018 - 2019

Sistem Dinamiği ve Denetimi, Undergraduate, 2018 - 2019

Sayısal Görüntü İşleme, Undergraduate, 2019 - 2020

Algılayıcılar ve Aktüatörler, Undergraduate, 2019 - 2020

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A Multi-Criteria Forest Fire Danger Assessment System on GIS Using Literature-Based Model and Analytical Hierarchy Process Model for Mediterranean Coast of Manavgat, Türkiye**
Ersoy İ., Ünsal E., Gürsoy Ö.
SUSTAINABILITY, vol.17, no.5, pp.1971, 2025 (SCI-Expanded)
- II. **Development of an Internet of Things-Based Ultra-Pure Water Quality Monitoring System**
Öztürk M. A., Ünsal E., Yelkuvan A. F.
SENSORS, vol.25, no.4, pp.1186-1207, 2025 (SCI-Expanded)
- III. **Thermoluminescence properties of annealed natural quartz after beta irradiation**
YÜKSEL M., DOĞAN T., Ünsal E., Portakal Z. G., Akca S., YEĞİNGİL Z., TOPAKSU M.
LUMINESCENCE, vol.31, no.8, pp.1513-1518, 2016 (SCI-Expanded)
- IV. **Omni-directional vision system with fibre grating device for obstacle detection**
Gurkahraman K., Ünsal E., Çebi Y.
IET COMPUTER VISION, vol.5, no.5, pp.267-281, 2011 (SCI-Expanded)

Articles Published in Other Journals

- I. **Orman Yangını Risk Haritalarının Coğrafi Bilgi Sistemleri Ortamında Hazırlanması**
Ersoy İ., Gürsoy Ö., Ünsal E.
Sivas Cumhuriyet Üniversitesi Mühendislik Fakültesi Dergisi, vol.2, no.1, pp.29-34, 2024 (Peer-Reviewed Journal)
- II. **Evrişimli sinir ağları kullanılarak ince kesit görüntülerden hidrotermal alterasyon tespiti**
Çenet R., ÜNSAL E., CANBAZ O.
ENGINEERING SCIENCES, vol.13, no.2, pp.528-539, 2024 (Peer-Reviewed Journal)

- III. **Missing IoT Data Prediction with Machine Learning Techniques Kayıp IoT Verilerinin Makine Öğrenmesi Teknikleri ile Tahmini**
AZİZOĞLU F., ÜNSAL E.
El-Cezeri Journal of Science and Engineering, vol.9, no.4, pp.1388-1397, 2022 (Scopus)
- IV. **Recognition of Human Activities Using Machine Learning Methods on Smart Sensor Data**
Asarkaya S., Ünsal E.
Sivas Cumhuriyet Üniversitesi Bilim ve Teknoloji Dergisi, vol.1, no.1, pp.9-14, 2022 (Peer-Reviewed Journal)
- V. **A Matching Model to Measure Compliance between Department and Student**
TAKCI H., GÜRKAHRAMAN K., ÜNSAL E., YELKUVAN A. F.
Cumhuriyet Science Journal, vol.41, no.2, pp.467-471, 2020 (Peer-Reviewed Journal)
- VI. **Creating Ontology Based Concept Maps which can be Queried in Computer Environment**
MİLLİ M., ÜNSAL E., AKTAŞ Ö.
The Online Journal of Science and Technology, vol.6, no.2, pp.30-37, 2016 (Peer-Reviewed Journal)
- VII. **Low Cost Wireless Sensor Networks for Environment Monitoring**
ÜNSAL E., MİLLİ M., ÇEBİ Y.
The Online Journal of Science and Technology, vol.6, no.2, pp.61-67, 2016 (Peer-Reviewed Journal)

Papers Published in Refereed Scientific Meetings

- I. **Artık ve Yoğun Bağlantı Tabanlı Derin Öğrenme Modelleri Kullanarak Görüntü Manipülasyonu Tespiti**
KARAKIŞ R., GÜRKAHRAMAN K., ÜNSAL E.
32. IEEE Sinyal İşleme ve İletişim Uygulamaları (SIU) Kurultayı (SIU-2024), MERSİN-TARSUS, Turkey, 15 May 2024
- II. **Kablosuz LoRa Sensör Ağları ile KBRN Tehditlerinin Uzaktan Algılanması ve İzlenmesi: LoRaWAN Teknolojisinin Etkin Kullanımı**
Akan M. C., Ünsal E.
3rd International Conference on Engineering, Natural and Social Sciences, Konya, Turkey, 16 - 17 May 2024, pp.242
- III. **GENERATING SYNTHETIC BRAIN MRI IMAGES WITH GENERATIVE ADVERSARIAL NETWORKS**
YILDIZ Ü., ÜNSAL E., KARAKIŞ R.
International Conference on Engineering Technologies (ICENTE'23), Konya, Turkey, 23 November 2023, pp.27
- IV. **Development of an Internet of Things Based Purified Water Quality Monitoring System**
Öztürk M. A., Yelkuvan A. F., Ünsal E.
5th International Conference on Applied Engineering and Natural Sciences , Konya, Turkey, 10 - 12 July 2023, pp.220
- V. **Hydrothermal Alteration Detection from Thin Section Images Using Convolutional Neural Networks**
Çenet R., ÜNSAL E., CANBAZ O.
5th International Conference on Applied Engineering and Natural Sciences, Konya, Turkey, 10 - 12 July 2023, pp.220
- VI. **Data Imputation on Lost IoT Data Kayıp IoT Verileri zerinde Veri Tamamlanması**
Kurtulmuşlu R., ÜNSAL E.
2023 Innovations in Intelligent Systems and Applications Conference, ASYU 2023, Sivas, Turkey, 11 - 13 October 2023
- VII. **FPGA TABANLI ÜÇ BOYUTLU LAZER TARAYICI TASARIMI**
Gedik M. İ., Karakış R., Ünsal E.
ULUSLARARASI 19 MAYIS YENİLİKÇİ BİLİMSEL YAKLAŞIMLAR KONGRESİ, Samsun, Turkey, 27 December 2019 - 29 December 2020, pp.797-805
- VIII. **Computer Assisted Sensory Transformation and Perception Extension System**
KOÇKANAT S., ÜNSAL E., Tütüncü P., Kopuz E., Esen S.
International Conference on Innovative Engineering Applications 2018, Sivas, Turkey, 20 - 22 September 2018
- IX. **IMPROVING SOFTWARE DEVELOPMENT PROCESSES USING SEMANTIC WEB TECHNOLOGIES**

Milli M., Ünsal E., Milli M., Aktaş Ö.

International conference on innovative engineering applications, Sivas, Turkey, 20 - 22 September 2018, pp.1017-1024

- X. **Ontological Representation of Heterogeneous Sensor Data**
Milli M., Aktaş Ö., Ünsal E., Gezgin D., Kahveci M., Baysarı K.
International conference on innovative engineering applications, Sivas, Turkey, 20 - 22 September 2018, pp.988-996
- XI. **Theoretical Analysis of Simulated First Order TL Glow Peaks**
YÜKSEL M., ÜNSAL E.
Second Congress on Radiation Protection, 23 - 25 November 2017, pp.46
- XII. **A MATCHING MODEL TO MEASURE COMPLIANCE BETWEEN DEPARTMENT ANDSTUDENT**
TAKCI H., GÜRKAHRAMAN K., USTA H. G., ÜNSAL E., YELKUVAN A. F.
3rd International Congress on Education Sciences and Learning Technology (ICESLT), 15 - 19 November 2017
- XIII. **SEEKING CORRELATIONS BETWEEN DEMOGRAPHIC DATA AND ACHIEVEMENTLEVELS OF COMPUTER ENGINEERING STUDENTS**
TAKCI H., GÜRKAHRAMAN K., ÜNSAL E., YELKUVAN A. F.
3rd International Congress on Education Sciences and Learning Technology (ICESLT), 15 - 19 November 2017
- XIV. **Development of a Thermoluminescence Parameter Calculator Program**
YÜKSEL M., ÜNSAL E.
4th International Conference on Advanced Technology & Sciences (ICAT'Rome), 23 - 25 November 2016
- XV. **Low cost Wireless Sensor Networks for Greenhouse Monitoring Applications**
ÜNSAL E., MİLLİ M., AKTAŞ Ö., ÇEBİ Y.
4th International Conference on Advanced Technology & Sciences(ICAT'Rome), 23 - 25 November 2016
- XVI. **A New Software for Evaluating Thermoluminescence Glow Peaks**
YÜKSEL M., ÜNSAL E.
10th International Conference on Luminescence and ESR Dosimetry (LumiDoz-10), 5 - 07 September 2016
- XVII. **Power management for Wireless Sensor Networks in underground mining**
ÜNSAL E., AKKAN T., AKKAN L. Ö., ÇEBİ Y.
2016 24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016
- XVIII. **An Initial Study of Developing a TL Glow Curve Deconvolution Application**
YÜKSEL M., ÜNSAL E., DOĞAN T., TOPAKSU M.
International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology (TESNAT2016), 28 - 30 April 2016
- XIX. **Thermoluminescence Glow Curve Properties of TLD-500 Dosimeter**
YÜKSEL M., PORTAKAL Z. G., DOĞAN T., TOPAKSU M., ÜNSAL E.
Third International Conference on Radiation and Applications in Various Fields of Research Conference (RAD2015), Budva, Montenegro, 8 - 12 June 2015, vol.3, pp.387-392

Supported Projects

Karakış R., Gürkahraman K., Çiğdem B., Ünsal E., Project Supported by Higher Education Institutions, A Deep Learning Framework for Early Detection of Alzheimer and Mild Cognitive Impairment Diseases Using Neuroimages: DeepBrain, 2023 - 2025

Ünsal E., Yelkuvan A. F., KOSGEB, Nesnelerin İnterneti Tabanlı Biyomedikal Cihaz Parametreleri Takip Sistemi, 2023 - 2024

Ünsal E., Technopark, Lorawan Isı Sayacı ve Enerji Hesabında Yapay Zekâ, 2022 - 2023

Yelkuvan A. F., Ünsal E., Gürkahraman K., KOSGEB, Inncreawatch Distilled Water Monitoring System, 2021 - 2023

Birdal A. C., Yelkuvan A. F., Ünsal E., Atun R., Project Supported by Higher Education Institutions, Bina Çatıları İçin Coğrafi Bilgi Sistemi Kullanılarak Güneş Enerjisi Üretimi Optimizasyonu (A Geographical Information System Based Optimization

of Solar Radiation Energy Production of Rooftops), 2018 - 2021

Ünsal E., Yüksel M., Doğan T., Topaksu M., Project Supported by Higher Education Institutions, Lüminesans Eğrilerinin Analizi İçin Kullanılan Bilgisayarla Işıma Eğrisi Ayrıştırma Programının Yazılması ve Geliştirilmesi, 2015 - 2017

Gürkahraman K., Ünsal E., Çebi Y., Project Supported by Higher Education Institutions, Izgara Desenli Lazer Görüntüsü Yardımı İle Bulunulan Ortamın Üç Boyutlu Yapısının Algılanması, 2009 - 2011

Gürkahraman K., Ünsal E., Çebi Y., TUBITAK Project, Eğrisel Ayna ve Matris Desenli Lazer Noktalar Kullanarak Çevrenin Üç Boyutlu Yapısını Oluşturan Tümyönlü Omni Directional Bir Görüntüleme Sisteminin Geliştirilmesi, 2008 - 2009

Activities in Scientific Journals

Sivas Cumhuriyet Üniversitesi Bilim ve Teknoloji Dergisi, Assistant Editor/Section Editor, 2022 - Continues

Peer Reviews in Scientific Publications

Batı Anadolu Eğitim Bilimleri Dergisi(BAEBD), National Scientific Refreed Journal, December 2023

Dokuz Eylül Üniversitesi Mühendislik Fakültesi Fen ve Mühendislik Dergisi, National Scientific Refreed Journal, August 2023

Dokuz Eylül Üniversitesi Mühendislik Fakültesi Fen ve Mühendislik Dergisi, National Scientific Refreed Journal, June 2022

International Journal of Innovative Engineering Applications, National Scientific Refreed Journal, June 2022

Eurasian Journal of Biological and Chemical Sciences, National Scientific Refreed Journal, January 2022

Journal of Naval Sciences and Engineering, National Scientific Refreed Journal, January 2022

International Journal of Innovative Engineering Applications, National Scientific Refreed Journal, January 2022

International Journal of Innovative Engineering Applications, National Scientific Refreed Journal, September 2021

Turkish Journal of Engineering, National Scientific Refreed Journal, September 2021

Uluborlu Mesleki Bilimler Dergisi, National Scientific Refreed Journal, August 2021

Celal Bayar Üniversitesi Fen Bilimleri Dergisi, National Scientific Refreed Journal, August 2021

Düzce Üniversitesi Bilim ve Teknoloji Dergisi, National Scientific Refreed Journal, April 2021

Dokuz Eylül Üniversitesi Mühendislik Fakültesi Fen ve Mühendislik Dergisi, National Scientific Refreed Journal, September 2020

Scientific Project Refereeing

TUBITAK Project, 1501 - Industry R & D Projects Support Program, May 2024

KOSGEB, August 2023

Metrics

Publication: 30

Citation (WoS): 11

Citation (Scopus): 18

H-Index (WoS): 2

H-Index (Scopus): 2