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Yapay Zeka Ve Makine Öğrenmesi Anabilim Dalı

### Uluslararası Araştırmacı ID'leri

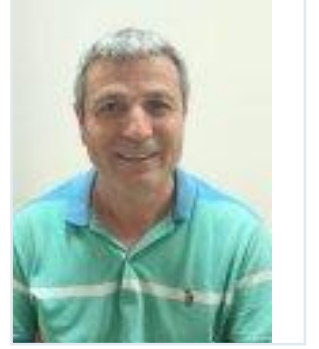
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ScopusID: 58826043600

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YÖKSİS Araştırmacı ID: 53903



### Eğitim Bilgileri

- I. DÜZCE ÜNİVERSİTESİ · Doktora · Yurt İçi · 2020–2025 · FEN BİLİMLERİ ENSTİTÜSÜ · ELEKTRİK VE ELEKTRONİK MÜHENDİSLİĞİ (DR) · Elektrik makinalarının geliştirilmiş sezgisel algoritma ile tasarımı (2020–2025)
- II. DÜZCE ÜNİVERSİTESİ · Doktora · Yurt İçi · 2019–? · FEN BİLİMLERİ ENSTİTÜSÜ · ELEKTRİK-ELEKTRONİK VE BİLGİSAYAR MÜHENDİSLİĞİ (DR) (2019–)
- III. GAZİ ÜNİVERSİTESİ · Yüksek Lisans · Yurt İçi · 2003–2006 · FEN BİLİMLERİ ENSTİTÜSÜ · ELEKTRİK EĞİTİMİ (YL) (TEZLİ) · Yürüyen dalga ultasonik motorun mikrodenetleyici ile hız kontrolü (2003–2006)
- IV. ONDOKUZ MAYIS ÜNİVERSİTESİ · Lisans · Yurt İçi · 1993–1997 · MÜHENDİSLİK FAKÜLTESİ · ELEKTRİK-ELEKTRONİK MÜHENDİSLİĞİ BÖLÜMÜ (1993–1997)

### Araştırma Alanları

Mühendislik Temel Alanı · Elektrik-Elektronik ve Haberleşme Mühendisliği · Yapay Zeka ; Elektrik Makineleri ve Enerji Dönüşümü ; Elektrik Enerjisi ve Güç Sistemleri

### Makaleler

- I. Physics-guided attention neural network for interpretable and robust photovoltaic fault classification with strict external validation (2026)  
ALPSALAZ FEYYAZ,ÖZÜPAK YILDIRIM,ASLAN EMRAH,UZEL HASAN,Bereznynchenko Viktoria
- II. A reproducible evaluation framework for benchmarking machine learning and hybrid ensemble models in power system anomaly detection (2026)  
ÖZÜPAK YILDIRIM,ALPSALAZ FEYYAZ,ASLAN EMRAH,UZEL HASAN,Zaitsev Ievgen,Lemeshko Andriy
- III. Comparing Explainable Artificial Intelligence and Deep Learning Models for MRI-Based Brain Tumor Diagnosis (2026)  
UZEL HASAN,ALPSALAZ FEYYAZ,ÖZÜPAK YILDIRIM,ASLAN EMRAH
- IV. An Interpretable Multi-Level Stacking Framework for Photovoltaic Power Prediction and Fault Analysis (2026)  
ÖZÜPAK YILDIRIM,ALPSALAZ FEYYAZ,ASLAN EMRAH,UZEL HASAN
- V. Pareto-based multi-objective whale optimization algorithm for economic-environmental optimal power flow (2026)  
UZEL HASAN,YAVRU CELAL ALP,PEKGÖZ İSMAİL,ŞAHİN SUAT,OKUR AYDIN
- VI. Explainable DL Based Classification for Power Quality Disturbances in Renewable-Energy-Integrated Distribution Networks (2026)  
ALTUN BEKİR EMRE,ALPSALAZ FEYYAZ,UZEL HASAN,TÜRKAY YAVUZ
- VII. SCADA-Based AC Power Forecasting in a Utility-Scale PV Plant: Explainable HistGradientBoosting and Thermal Derating Quantification (2026)  
UZEL HASAN
- VIII. An explainable hybrid deep learning approach for power quality disturbance classification (2026)  
UZEL HASAN
- IX. High Accuracy Dissolved Oxygen Prediction in Water Quality Analysis with A-XG-Q Hybrid Model (2026)  
ÖZÜPAK YILDIRIM,ALPSALAZ FEYYAZ,ASLAN EMRAH,UZEL HASAN

- X. Explainability-Aligned Reliability-Weighted Fuzzy Ensemble for Automated Cervical Cancer Classification (2026)**  
DEMİRTAŞ ALPSALAZ SÜHEYLA,ÖZÜPAK YILDIRIM,ASLAN EMRAH,ALPSALAZ FEYYAZ,UZEL HASAN,Zaitsev Ievgen
- XI. A hybrid machine learning approach for reliably predicting surface roughness in CNC turning operations (2026)**  
YURTKURAN HAKAN,DEMİRTAŞ GÜVEN,ALPSALAZ FEYYAZ,UZEL HASAN
- XII. Accurate Short-Horizon Multi-Target Prediction of PMSM Operational Parameters via Residual Dilated 1D Convolutional Neural Networks (2026)**  
ASLAN EMRAH,ÖZÜPAK YILDIRIM,ALPSALAZ FEYYAZ,UZEL HASAN
- XIII. Hybrid Machine Learning Approach for Enhanced Fault Detection and Power Estimation in Photovoltaic Systems (2026)**  
ALPSALAZ FEYYAZ,ÖZÜPAK YILDIRIM,ASLAN EMRAH,UZEL HASAN
- XIV. Optimized ANN–RF hybrid model with optuna for fault detection and classification in power transmission systems (2026)**  
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- XV. Acoustic-based fault diagnosis of electric motors using Mel spectrograms and convolutional neural networks (2026)**  
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- XVI. A Machine Learning Approach to Performance–Emission Analysis in Dual-Fuel Internal Combustion Engines (2026)**  
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- XVII. Optimizing Electricity Demand Forecasting Using ARIMA, SARIMA, and GRU with Weather and Calendar Variables (2026)**  
ASLAN EMRAH,ÖZÜPAK YILDIRIM,ALPSALAZ FEYYAZ,UZEL HASAN
- XVIII. Explainable machine learning framework for dynamic line rating forecasting with adversarial robustness evaluation (2026)**  
ALPSALAZ FEYYAZ,UZEL HASAN,ÖZÜPAK YILDIRIM,ASLAN EMRAH,Bereznichenko Viktoria
- XIX. Fuzzy-Based Fitness–Distance Balance Snow Ablation Optimizer Algorithm for Optimal Generation Planning in Power Systems (2025)**  
DEMİRBAŞ MUHAMMET,DUMAN SERHAT,ÖZKAYA BURÇIN,BALCI YUNUS,ERSOY DENİZ,DÖŞOĞLU MEHMET KENAN,GÜVENÇ UĞUR,ALTUN BEKİR EMRE,UZEL HASAN,KAYMAZ ENES
- XX. PMSM Tasarım Probleminin Tazmanyacı Canavarı Optimizasyon Algoritması ile Çözümü (2025)**  
UZEL HASAN,HINISLIOĞLU YUNUS,DALCALI ADEM,GÜVENÇ UĞUR
- XXI. Classification of maize leaf diseases with deep learning: Performance evaluation of the proposed model and use of explicable artificial intelligence (2025)**  
ALPSALAZ FEYYAZ,ÖZÜPAK YILDIRIM,ASLAN EMRAH,UZEL HASAN
- XXII. Fuzzy Fitness Distance Balance Gradient-Based Optimization Algorithm (fFDBGBO): An Application to Design and Performance Optimization of PMSM (2025)**  
UZEL HASAN,HINISLIOĞLU YUNUS,DALCALI ADEM,GÜVENÇ UĞUR
- XXIII. A COMPREHENSIVE BENCHMARK OF LINEAR AND ENSEMBLE MACHINE LEARNING MODELS FOR GLOBAL CO<sub>2</sub> EMISSION FORECASTING (2025)**  
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- XXIV. Alzheimer’s Classification with a MaxViT-Based Deep Learning Model Using Magnetic Resonance Imaging (2025)**  
DEMİRTAŞ ALPSALAZ SÜHEYLA,ASLAN EMRAH,ÖZÜPAK YILDIRIM,ALPSALAZ FEYYAZ,UZEL HASAN
- XXV. Hybrid deep learning model for maize leaf disease classification with explainable AI (2025)**  
ÖZÜPAK YILDIRIM,ALPSALAZ FEYYAZ,ASLAN EMRAH,UZEL HASAN
- XXVI. Hybrid deep learning with attention fusion for enhanced colon cancer detection (2025)**  
DEMİRTAŞ ALPSALAZ SÜHEYLA,ASLAN EMRAH,ÖZÜPAK YILDIRIM,ALPSALAZ FEYYAZ,UZEL HASAN,Bereznichenko Viktoria
- XXVII. Uygunluk-Mesafe Dengesi Tabanlı Dev Armadillo Optimizasyon Algoritması (2025)**  
UZEL HASAN,HINISLIOĞLU YUNUS,DALCALI ADEM,GÜVENÇ UĞUR
- XXVIII. Forecasting Photovoltaic AC Power from Plant Telemetry: A Practical Comparison of Machine Learning Regressors (2025)**  
UZEL HASAN,ALTUN BEKİR EMRE
- XXIX. Microcontroller based digitally controlled ultrasonic motor drive system (2008)**  
BAL GÜNGÖR,BEKİROĞLU ERDAL,BAYINDIR RAMAZAN,UZEL HASAN

## Bildiriler

- I. SENKRON MAKİNEDE ALAN AKIMININ POLYNOMİAL REGRESYON İLE TAHMİNİ (2026)**  
UZEL HASAN,ALPSALAZ FEYYAZ,ALTUN BEKİR EMRE
- II. RESNET-RS-50 KULLANILARAK GÜNEŞ FOTOVOLTAİK PANELLERİNDE DERİN ÖĞRENME TABANLI TOZ**

## TESPİTİ (2026)

UZEL HASAN,ALTUN BEKİR EMRE,ALPSALAZ FEYYAZ

## III. OPTIMAL POWER FLOW ANALYSIS OF 22-BUS 380 KV TURKISH POWER SYSTEM USING PSO, WOA, SSA, AND MFO ALGORITHMS (2026)

ALTUN BEKİR EMRE,UZEL HASAN,ALPSALAZ FEYYAZ

## IV. MULTI-OBJECTIVE OPTIMAL POWER FLOW IN IEEE 33-BUS DISTRIBUTION SYSTEM USING MODIFIED SUBTRACTION-AVERAGE BASED OPTIMIZER WITH HIERARCHICAL OPPOSITION LEARNING (MSHO) (2026)

ALTUN BEKİR EMRE,ALPSALAZ FEYYAZ,UZEL HASAN

## V. Weather Classification Based On Meteorological Parameters: A Comparative Study Of Ensemble Learning (2026)

ALPSALAZ FEYYAZ,UZEL HASAN,ALTUN BEKİR EMRE

## VI. Prediction Of Superconducting Critical Temperature Using Machine Learning Methods (2026)

UZEL HASAN,ALPSALAZ FEYYAZ,ALTUN BEKİR EMRE

## VII. Machine Learning Based Predictive Maintenance: Comparative Evaluation of Fault Prediction Models (2026)

ÖZÜPAK YILDIRIM,ALPSALAZ FEYYAZ,UZEL HASAN,ASLAN EMRAH,Zaitsev Levgen

## VIII. PREDICTION OF BATTERY RUL USING LightGBM WITH FEATURE CLEANING AND HYPERPARAMETER OPTIMIZATION VIA OPTUNA (2025)

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## IX. MAKİNE ÖĞRENMESİ İLE DEPREM KAYNAKLI TSUNAMİ POTANSİYELİNİN TAHMİNİ: RANDOM FOREST VE LIGHTGBM MODELLERİNİN KARŞILAŞTIRMALI PERFORMANS ANALİZİ (2025)

UZEL HASAN

## X. Electricity Demand Prediction Using SARIMA A Framework for System Failure Management and Grid Stability (2025)

Iatsyshyn Andrii,UZEL HASAN,ALPSALAZ FEYYAZ,ÖZÜPAK YILDIRIM,ASLAN EMRAH

## XI. COMPARING CATBOOST AND GRADIENT BOOSTING FOR SOLAR POWER PRODUCTION FORECASTING: A MACHINE LEARNING APPROACH (2025)

UZEL HASAN,ÖZÜPAK YILDIRIM,ALPSALAZ FEYYAZ,ASLAN EMRAH

## XII. PREDICTING AC POWER PRODUCTION IN SOLAR PLANTS USING CATBOOST AND LIGHTGBM: A COMPARATIVE ANALYSIS (2025)

UZEL HASAN,ÖZÜPAK YILDIRIM,ALPSALAZ FEYYAZ,ASLAN EMRAH

## XIII. RENEWABLE POWER ENERGY PRODUCTION FORECASTING USING A GRU-BASED DEEP LEARNING MODEL (2025)

ALPSALAZ FEYYAZ,ÖZÜPAK YILDIRIM,ASLAN EMRAH,UZEL HASAN

## XIV. EFFICIENTNET-B7 İLE MEME KANSERİ HİSTOPATOLOJİK GÖRÜNTÜLERİNİN SINIFLANDIRILMASI (2025)

DEMİRTAŞ ALPSALAZ SÜHEYLA,ALPSALAZ FEYYAZ,UZEL HASAN,ASLAN EMRAH,ÖZÜPAK YILDIRIM

## XV. MAKİNE ÖĞRENMESİ YAKLAŞIMLARIYLA POLİKİSTİK OVER SENDROMUNUN TANISAL SINIFLANDIRILMASI (2025)

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## XVI. SENSOR-BASED PREDICTION OF REMAINING USEFUL LIFE (RUL) IN AIRCRAFT ENGINES: A COMPARATIVE EVALUATION OF MACHINE LEARNING MODELS (2025)

ÖZÜPAK YILDIRIM,ASLAN EMRAH,ALPSALAZ FEYYAZ,UZEL HASAN

## XVII. MAKİNE ÖĞRENMESİ YÖNTEMLERİ İLE UÇAK MENZİLİNİN TAHMİN (2025)

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## XVIII. Güneş, Rüzgar ve Hidroelektrik Üzerinden Türkiye'nin Sürdürülebilir Enerji Dönüşümü (2025)

ALPSALAZ FEYYAZ,UZEL HASAN,ASLAN EMRAH,ÖZÜPAK YILDIRIM

## XIX. GENİŞ BANT GÜÇ SAYAÇLARINDA ÖLÇÜM HATALARININ SINIFLANDIRILMASI İÇİN MAKİNE ÖĞRENMESİ TABANLI BİR YAKLAŞIM (2025)

ALPSALAZ FEYYAZ,UZEL HASAN,ÖZÜPAK YILDIRIM

## XX. KABLO SAĞLIK DURUMLARININ MAKİNE ÖĞRENMESİ YÖNTEMLERİ İLE ÇOK SINIFLI OLARAK SINIFLANDIRILMASI (2025)

ALPSALAZ FEYYAZ,UZEL HASAN

## XXI. High-Fidelity Photovoltaic Power Forecasting Using a Skip-Fusion DNN with GELU Activation and AdamW Optimization (2025)

Zaitsev levgen,UZEL HASAN,ALPSALAZ FEYYAZ,ÖZÜPAK YILDIRIM,ASLAN EMRAH

## XXII. AMASYALI MERKEZ İLÇESİNDE BUĞDAY ÜRETİMİ VERİMİNİN BULANIK MANTIK İLE TAHMİN ANALİZİ (2019)

PEKGÖZ İSMAİL,ALTUN BEKİR EMRE,UZEL HASAN,YÜCEDAĞ İBRAHİM

## XXIII. Microcontroller Based Digitally Controlled Ultrasonic Motor Drive System (2006)

BAL GÜNGÖR,BEKİROĞLU ERDAL,BAYINDIR RAMAZAN,UZEL HASAN

## XXIV. Simplified Speed Control Application For An Ultrasonic Motor With Pic Microcontroller (2006)

BAL GÜNGÖR,BEKİROĞLU ERDAL,BAYINDIR RAMAZAN,UZEL HASAN

## Kitaplar

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- I. Advances in Power Systems, Renewable Energy Integration and Electrical Machine Design (2026)  
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- II. Data-Driven Modeling and Explainable Machine Learning in Energy and Engine Systems (2026)  
ALPSALAZ FEYYAZ,UZEL HASAN,ALTUN BEKİR EMRE
- III. Elektrik-Elektronik ve Haberleşme Mühendisliğinde Güncel Araştırmalar ve Değerlendirmeler I (2025)  
UZEL HASAN