

Asst. Prof. Bahadır ÇATALBAŞ

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: ABH-0379-2022

ScopusID: 56247072200

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Education Information

Doctorate, Ihsan Dogramaci Bilkent University, Graduate School of Engineering and Science, Department of Electrical and Electronics Engineering, Turkey 2015 - 2022

Postgraduate, Ihsan Dogramaci Bilkent University, Graduate School of Engineering and Science, Department of Electrical and Electronics Engineering, Turkey 2013 - 2015

Undergraduate, Ihsan Dogramaci Bilkent University, Engineering Faculty, Department of Electrical and Electronics Engineering, Turkey 2008 - 2013

Research Areas

Control and System Engineering, Humanoid Robots, Artificial Intelligence, Computer Learning and Pattern Recognition

Academic Titles / Tasks

Assistant Professor, Yildiz Technical University, Faculty Of Electrical & Electronics, Control And Automation Engineering, 2023 - Continues

Courses

KOM2722 Numerical Analysis, Undergraduate, 2022 - 2023

KOM3722 Microcontroller And Industrial Applications 1, Undergraduate, 2022 - 2023

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Two-Legged Robot Motion Control With Recurrent Neural Networks**
Çatalbaş B., Morgül Ö.
Journal of Intelligent and Robotic Systems: Theory and Applications, vol.104, no.4, 2022 (SCI-Expanded)
- II. **A low-cost feedback control systems laboratory setup via Arduino-Simulink interface**
Uyanik I., ÇATALBAŞ B.

Articles Published in Other Journals

- I. **A Low-cost Laboratory Experiment Setup for Frequency Domain Analysis for a Feedback Control Systems Course**
ÇATALBAŞ B., Uyanık İ.
IFAC-PapersOnLine, vol.50, no.1, pp.15704-15709, 2017 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

- I. **İki Bacaklı Robot Hareket Kontrolünde Yapay Sinir Ağlarının Kullanımı / The Use of Artificial Neural Networks in Bipedal Robot Motion Control**
ÇATALBAŞ B., ÇATALBAŞ B., MORGÜL Ö.
24. Otomatik Kontrol Ulusal Toplantısı TOK 2023, İstanbul, Turkey, 14 - 16 September 2023
- II. **Identification and Control of a Linear Time-Periodic Test Bench Using Harmonic Transfer Functions and LQR Controllers**
Sert B., Çatalbaş B., Uyanık I.
2023 9th International Conference on Control, Decision and Information Technologies (CoDIT), Rome, Italy, 03 July 2023, pp.2366-2371
- III. **Tracking the Nodal Point of Weakly Electric Fish Using Artificial Neural Networks Zayıf Elektrik Balıklarının Düğüm Noktasının Yapay Sinir Ağları Kullanılarak Takip Edilmesi**
Çatalbaş B., Elikuru D., Aydın E. Y., Uyanık İ.
31st IEEE Conference on Signal Processing and Communications Applications, SIU 2023, İstanbul, Turkey, 5 - 08 July 2023
- IV. **Zayıf elektrik balıklarında derin öğrenme kullanımıyla anal yüzgeç ve düğüm noktası takibi**
ELİKURU M. D., AYDIN E. Y., GÜRLER N., ÇATALBAŞ B., UYANIK İ.
20. ULUSAL SİNİRBİLİM KONGRESİ, İstanbul, Turkey, 19 - 23 October 2022
- V. **Two-Legged Robot System Identification with Artificial Neural Networks Yapay Sinir Ağları ile İki Ayaklı Robot Sistem Tanılaması**
Çatalbaş B., Catalbas B., Morgul O.
28th Signal Processing and Communications Applications Conference, SIU 2020, Gaziantep, Turkey, 5 - 07 October 2020
- VI. **Tekrarlayan Sinir Ağları ile İki Ayaklı Robot Hareket Kontrolü / Two-Legged Robot Motion Control With Recurrent Neural Networks**
ÇATALBAŞ B., MORGÜL Ö.
Otomatik Kontrol Ulusal Toplantısı TOK 2019, Muğla, Turkey, 11 - 14 September 2019
- VII. **A new initialization method for artificial neural networks: Laplacian Yapay sinir ağlarında yeni bir ön değer atama yöntemi: Laplasyen**
Çatalbas B., Çatalbaş B., Morgul Ö.
26th IEEE Signal Processing and Communications Applications Conference, SIU 2018, İzmir, Turkey, 2 - 05 May 2018, pp.1-4
- VIII. **Human activity recognition with different artificial neural network based classifiers Farklı Yapay Sinir Ağı Temelli Sınıflandırıcılar ile İnsan Hareketi Tanımlama**
Catalbas B., Çatalbaş B., Morgul O.
25th Signal Processing and Communications Applications Conference, SIU 2017, Antalya, Turkey, 15 - 18 May 2017
- IX. **A comparative study of classification methods for fall detection Düşme tespiti için sınıflandırma yöntemlerinin karşılaştırılması**
Çatalbaş B., Yucesoy B., Secer G., Aslan M.

Supported Projects

Çatalbaş B., TUBITAK Project, Discovery of Motion Principles of Rover Robots on Sloping and Granular Terrain and Optimization of Locomotion by Machine Learning, 2024 - 2025

Çatalbaş B., Uyanık İ., TUBITAK Project, Identification of Behavioral and Neural Expressions of Sensorimotor Controller via Machine Learning Techniques, 2022 - 2023

TUBITAK Project, Artificial Neural Network Based Controller Design and Implementation for Two-Legged Robots, 2020 - 2023