

## Asst. Prof. Bilal EROL

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAQ-9118-2020

ScopusID: 56938236300

Yoksis Researcher ID: 57672

### Education Information

Doctorate, Yıldız Technical University, Faculty Of Electrical & Electronics, Control And Automation Engineering, Turkey  
2015 - 2020

Postgraduate, Yıldız Technical University, Faculty Of Electrical & Electronics, Electronics And Communication Engineering, Turkey 2012 - 2015

Undergraduate, Dokuz Eylül, Mühendislik, Elektrik Elektronik Mühendisliği, Turkey 2007 - 2012

### Dissertations

Doctorate, Uyarlamalı Optik Sistemler için Sabit Dereceli H Sonsuz Alt Optimal Kontrolcü Geliştirilmesi, Yıldız Technical University, Faculty Of Electrical & Electronics, Control And Automation Engineering, 2020

Postgraduate, Çeyrek Taşit Aktif Süspansiyon Modeli Çıkarımı ve Kontrolü, Yıldız Technical University, Faculty of Electrical & Electronics, Electronics And Communication Engineering, 2015

### Research Areas

Electrical and Electronics Engineering, Mathematics, Optimization, Natural Sciences, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Yıldız Technical University, Faculty Of Applied Sciences, Aviation Electronics, 2020 - Continues

Research Assistant, Yıldız Technical University, Faculty Of Electrical & Electronics, Control And Automation Engineering, 2013 - 2020

### Academic and Administrative Experience

Sağlık, Kültür ve Spor Daire Başkanı, Yıldız Technical University, Rectorate, Rectorate, 2025 - Continues

Deputy Head of Department, Yıldız Technical University, Faculty Of Applied Sciences, Aviation Electronics, 2020 - 2023

## **Published journal articles indexed by SCI, SSCI, and AHCI**

- I. **Enhancing Dynamic Control and Stability Assessment of Cessna 172 Aircraft with a PID Controller for New Pilot Trainees**  
Dagal İ., Erol B., Harrison A., Mbasso W. F., Ibrahim W.  
INTERNATIONAL JOURNAL OF AERONAUTICAL AND SPACE SCIENCES, vol.1, no.1, pp.1, 2025 (SCI-Expanded)
- II. **Identification of Adaptive Optics System Model with Extended Data Set**  
Erol B., Altner B., Delibaşı A.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.0, no.0, 2024 (SCI-Expanded)
- III. **Optimal actuator placement in adaptive optics systems**  
Altner İ. B., Erol B., Delibaşı A.  
Journal Of Vibration And Control, vol.01, no.0, pp.1, 2021 (SCI-Expanded)
- IV. **Two-degree-of-freedom compensator design for disturbance attenuation problem via higher order sinusoidal input describing functions theory**  
Erol B., Öz M. A. N., Ucun L.  
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, vol.43, no.5, pp.1009-1018, 2021 (SCI-Expanded)
- V. **H<sub>oo</sub> Controller Design for the Mitigation of Atmospheric Effects on the Laser Beam Pointing**  
Subaşı Ö., Erol B., Altner B., Turan H., Bacı N.  
Transactions Of The Institute Of Measurement And Control, vol.0, no.0, 2020 (SCI-Expanded)
- VI. **Design of gain-scheduling PID controllers for Z-source inverter using iterative reduction-based heuristic algorithms**  
YILMAZ A. R., EROL B., DELİBAŞI A., ERKMEN B.  
SIMULATION MODELLING PRACTICE AND THEORY, vol.94, pp.162-176, 2019 (SCI-Expanded)
- VII. **H-infinity Suboptimal controller design for adaptive optic systems**  
EROL B., Altner B., Adalı E., DELİBAŞI A.  
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, vol.41, no.8, pp.2100-2113, 2019 (SCI-Expanded)
- VIII. **Fixed-order Script capital H-infinity controller design for MIMO systems via polynomial approach**  
Erol B., Delibasi A.  
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, vol.41, no.7, pp.1985-1992, 2019 (SCI-Expanded)
- IX. **Modeling and control of flexible link manipulators for unmodeled dynamics effect**  
Altner B., Delibaşı A., Erol B.  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART I-JOURNAL OF SYSTEMS AND CONTROL ENGINEERING, vol.233, pp.245-263, 2019 (SCI-Expanded)
- X. **Proportional-integral-derivative type H controller for quarter car active suspension system**  
EROL B., DELİBAŞI A.  
JOURNAL OF VIBRATION AND CONTROL, vol.24, no.10, pp.1951-1966, 2018 (SCI-Expanded)

## **Articles Published in Other Journals**

- I. **Controller-Based Potential Energy Gain Analysis for Vehicle Suspension Systems**  
Erol B.  
İstanbul Ticaret Üniversitesi Fen Bilimleri Dergisi, vol.23, no.45, pp.184-198, 2024 (Peer-Reviewed Journal)
- II. **Fractional Order based PID Controller Design with Genetic Algorithm (FOPID-GA) for Aircraft Landing Gear Shock Absorber Mechanism**  
Dagal İ., Erol B.  
İstanbul Ticaret Üniversitesi Fen Bilimleri Dergisi, vol.23, no.45, pp.169-183, 2024 (Peer-Reviewed Journal)

**III. A Comparative Study of Model Reduction Techniques for Specified Bandwidth on Aircraft**

Yılmaz O., Erol B.

El-Cezeri Journal of Science and Engineering, vol.7, no.2, pp.882-894, 2020 (Scopus)

## **Books**

**I. GÜVENLİK STRATEJİLERİNDE TAM OTONOM SAVAŞAN İNSANSIZ HAVA ARAÇLARI KULLANIMI**

Sakarya U., Emirler M. T., Erol B., Mahouti P.

in: Mühendislik Alanında Uluslararası Araştırmalar II, Servet Soygüder, Editor, Eğitim Kitabevi, Konya, pp.1-2, 2024

## **Papers Published in Refereed Scientific Meetings**

**I. LQI Controller Design for Quadrotor UAV under Different Wind Perturbation**

Canseven M. F., Demir D. G., Erol B.

OTOMATİK KONTROL TÜRK MİLLİ KOMİTESİ ULUSAL TOPLANTISI (TOK2023), İstanbul, Turkey, 14 - 16 September 2023

**II. QUANTUM COMPUTING AND SIMULATION OF MATERIALS**

Oduncuoğlu M., Erol B.

The 5th International Conference of Materials and Engineering Technology (TICMET'23), İstanbul, Turkey, 13 - 16 November 2022

**III. Energy Harvesting Analysis and Control of Regenerative Quarter Car Active Suspension System**

Erol B.

ICASEM 4th INTERNATIONAL CONGRESS ON APPLIED SCIENCES, ENGINEERING AND MATHEMATİC CONGRESS, Tekirdağ, Turkey, 22 - 23 October 2022

**IV. Controller Design for the Mitigation of Atmospheric Effects on the Laser Beam Pointing**

Subaşı Ö., Turan H., Baci N., Erol B., Delibaşı A.

OTOMATİK KONTROL TÜRK MİLLİ KOMİTESİ ULUSAL TOPLANTISI, Muğla, Turkey, 11 - 14 September 2019, pp.121-126

**V. HOSIDF-based Chebyshev Structured Compensator Design for Disturbance Attenuation Problem**

ÖZ M. A. N., EROL B., UCUN L.

6th International Conference on Control Engineering & Information Technology, İstanbul, Turkey, 25 October 2018, pp.189-194

**VI. Uyarlamalı Optik Sistemler için H\_sonsuz alt-Optimal Kontrolcü Geliştirilmesi**

Adalı E., EROL B., DELİBAŞI A., Altiner B.

Otomatik Kontrol Türk Milli Komitesi (TOK), İstanbul, Turkey, 21 September 2017, pp.183-188

**VII. Mobil Robotlarda Engelden Kaçınma Algoritmaları ve Optimal Rota Planlaması**

Zoroğlu C., Avşar E., Oynak F., EROL B., DELİBAŞI A.

Otomatik Kontrol Türk Milli Komitesi (TOK), İstanbul, Turkey, 21 September 2017, pp.410-415

**VIII. Model İndirgeme Yöntemlerinin Sonsuz Boyutlu Sistemlere Uygulanması ve Karşılaştırılması**

Yılmaz O., Mungan M. A., DELİBAŞI A., EROL B.

Otomatik Kontrol Türk Milli Komitesi (TOK), İstanbul, Turkey, 21 September 2017, pp.311-316

**IX. Esnek Çubuk Manipülasyonlarının Modellenmesi ve Kontrolü**

DELİBAŞI A., Erol B.

Otomatik Kontrol Türk Milli Komitesi (TOK), 01 September 2016

**X. Fixed order Hinf controller for quarter car active suspension system**

EROL B., DELİBAŞI A.

2015 23rd Mediterranean Conference on Control and Automation (MED), Torremolinos, Malaga, Spain, Spain, 16 - 19 June 2015

**XI. Aktif Süspansiyon Sistemi Modelinin Çıkarımı**

Erol B.

Otomatik Kontrol Türk Milli Komitesi (TOK), 01 September 2014

## Supported Projects

Erol B., Ucun L., Özçira Özkılıç S., Emirler M. T., Yıldırın U., Delibaşı A., TUBITAK Project, Pekistirmeli Ögrenme ile Eyleyici Doyumlu Adaptif Enerji Verimli Aktif Süspansiyon Sistemi Tasarımı, 2024 - 2027

Erol B., Kurt M., TUBITAK Project, Uyarlamalı Optik Sistemler için Sabit Dereceli H\_Sonsuz Alt-Optimal Kontrolcü Geliştirilmesi, 2018 - 2021

Delibaşı A., TUBITAK Project, Sabit Dereceli H\_Sonsuz Kontrolcü Tasarımındaki Tutuculuğun Azaltılması, 2015 - 2017

## Tasks In Event Organizations

Kaya Ayana E., EROL B., 6th International Conference on Control Engineering & Information Technology, Scientific Congress, İstanbul, Turkey, Ekim 2018

Kaya Ayana E., EROL B., OTOMATİK KONTROL TÜRK MİLLÎ KOMİTESİ ULUSAL TOPLANTISI (TOK 2017), Scientific Congress, İstanbul, Turkey, Eylül 2017

## Metrics

Publication: 25

Citation (WoS): 38

Citation (Scopus): 76

H-Index (WoS): 3

H-Index (Scopus): 4