

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

Postgraduate, Yildiz 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, Yildiz Technical  
University, Faculty Of Electrical & Electronics, Control And Automation Engineering, 2020

Postgraduate, Çeyrek Taşıt Aktif Süspansiyon Modeli Çıkarımı ve Kontrolü, Yildiz 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, Yildiz Technical University, Faculty Of Applied Sciences, Aviation Electronics, 2020 - Continues

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

### Academic and Administrative Experience

Deputy Head of Department, Yildiz Technical University, Faculty Of Applied Sciences, Aviation Electronics, 2020 -  
Continues

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

- I. **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)
- II. **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)
- III. **Two-degree-of-freedom compensator design for disturbance attenuation problem via higher order sinusoidal input describing functions theory**  
Erol B., Öz M. A. N., Uçun L.  
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, vol.43, no.5, pp.1009-1018, 2021 (SCI-Expanded)
- IV.  **$H_{\infty}$  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)
- V. **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)
- VI. **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)
- VII. **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)
- VIII. **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)
- IX. **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 I., 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)

## Refereed Congress / Symposium Publications in Proceedings

- 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 MATHEMATIC 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**  
Adah E., EROL B., DELİBAŞI A., Altner 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**  
Zoroglu 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 Cubuk Manipulasyonlarının 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., 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: 23

Citation (WoS): 38

Citation (Scopus): 72

H-Index (WoS): 3

H-Index (Scopus): 4