

Prof. MEHMET ÖNDER EFE

Personal Information

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Education Information

Doctorate, Boğaziçi Üniversitesi, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Mühendisliği, Turkey 1996 - 2000

Postgraduate, Boğaziçi Üniversitesi, Fen Bilimleri Enstitüsü, Sistem Ve Kontrol Mühendisliği, Turkey 1993 - 1996

Undergraduate, İstanbul Teknik Üniversitesi, Elektrik Elektronik Fakültesi, Elektronik Ve Haberleşme Mühendisliği, Turkey 1989 - 1993

Research Areas

Mechanical Engineering, Machine Theory and Dynamics, System Dynamics and Control, Robotics, Mechatronics, Aeronautical and Space Engineering, Aeronautical Engineering , Aircraft System Technologies, Flight Control Systems, Engineering and Technology

Academic Titles / Tasks

Professor, Hacettepe Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2013 - Continues

Professor, Türk Hava Kurumu Üniversitesi, Hava Ulaştırma Fakültesi, Pilotaj Bölümü, 2011 - 2013

Professor, Tobb Ekonomi Ve Teknoloji Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2009 - 2010

Associate Professor, Tobb Ekonomi Ve Teknoloji Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2004 - 2009

Assistant Professor, Atılım Üniversitesi, Mühendislik Fakültesi, Mekatronik Mühendisliği Bölümü, 2003 - 2004

Research Assistant, The Ohio State University, Department Of Electrical Engineering, 2002 - 2003

Research Assistant, Carnegie Mellon University, Department Of Electrical And Computer Engineering, 2001 - 2001

Research Assistant, Boğaziçi Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 1996 - 2000

Academic and Administrative Experience

Hacettepe Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2015 - Continues

Hacettepe Üniversitesi, Bilişim Enstitüsü, Sayısal İletişim Sistemleri Ve Bilgisayar Ağları Anabilim Dalı, 2014 - Continues

Hacettepe Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2013 - Continues

Türk Hava Kurumu Üniversitesi, Hava Ulaştırma Fakültesi, 2011 - 2013

Türk Hava Kurumu Üniversitesi, Hava Ulaştırma Fakültesi, Pilotaj Bölümü, 2011 - 2013

Tobb Ekonomi Ve Teknoloji Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2008 - 2010

Tobb Ekonomi Ve Teknoloji Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2007 - 2008

Tobb Ekonomi Ve Teknoloji Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2004 - 2007

Advising Theses

- EFE M. Ö. , Dönerkanat tipinde bir insansız hava aracıyla video tabanlı üst düzey işlevlerin tasarlanması, Postgraduate, N.İMAMOĞLU(Student), 2010
- EFE M. Ö. , Dönerkanat tipinde bir insansız hava aracının tasarımı, modellenmesi ve kontrolü, Postgraduate, M.ÖNKOL(Student), 2010
- EFE M. Ö. , Dönerkanat tipinde bir insansız hava aracının görüntü tabanlı kontrolü, Postgraduate, A.ERESEN(Student), 2010
- EFE M. Ö. , İki eksenli bir helikopterin kontrolü, Postgraduate, Y.BUĞDAY(Student), 2010
- EFE M. Ö. , İşlemcilerde düşük güç tüketimine yönelik yöntemler, Postgraduate, Y.SİNAN(Student), 2007

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **A frequency domain comparison of disturbance observer based control schemes**
BAYRAK A., EFE M. Ö.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART I-JOURNAL OF SYSTEMS AND CONTROL ENGINEERING, 2021 (Journal Indexed in SCI)
- II. **A non-fragile robust observer design for uncertain time-delay fractional Ito stochastic systems with input nonlinearity: An SMC approach**
Khandani K., Parvizian M., EFE M. Ö.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART I-JOURNAL OF SYSTEMS AND CONTROL ENGINEERING, 2021 (Journal Indexed in SCI)
- III. **A nonlinear disturbance observer scheme for discrete time control systems**
EFE M. Ö. , KASNAKOĞLU C.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.29, no.2, pp.1044-1060, 2021 (Journal Indexed in SCI)
- IV. **An enhanced bandwidth disturbance observer based control- S-filter approach**
EFE M. Ö. , KASNAKOĞLU C.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.29, no.4, pp.2170-2185, 2021 (Journal Indexed in SCI)
- V. **H-2/H-infinity-Neural-Based FOPID Controller Applied for Radar-Guided Missile**
Yaghi M., EFE M. Ö.
IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, vol.67, no.6, pp.4806-4814, 2020 (Journal Indexed in SCI)
- VI. **Online path planning of mobile robot using grasshopper algorithm in a dynamic and unknown environment**
Elmi Z., EFE M. Ö.
JOURNAL OF EXPERIMENTAL & THEORETICAL ARTIFICIAL INTELLIGENCE, 2020 (Journal Indexed in SCI)
- VII. **Disturbance/Uncertainty Estimator Based Integral Sliding-Mode Control**
Kurkcu B., KASNAKOĞLU C., EFE M. Ö.
IEEE TRANSACTIONS ON AUTOMATIC CONTROL, vol.63, no.11, pp.3940-3947, 2018 (Journal Indexed in SCI)
- VIII. **Disturbance/Uncertainty Estimator Based Robust Control of Nonminimum Phase Systems**
Kurkcu B., KASNAKOĞLU C., EFE M. Ö.
IEEE-ASME TRANSACTIONS ON MECHATRONICS, vol.23, no.4, pp.1941-1951, 2018 (Journal Indexed in SCI)
- IX. **Measurement and Control**
EFE M. Ö.
MEASUREMENT & CONTROL, vol.51, pp.3, 2018 (Journal Indexed in SCI)
- X. **Dual boundary conditional integral backstepping control of a twin rotor MIMO system**
Haruna A., Mohamed Z., EFE M. Ö. , Basri M. A. M.
JOURNAL OF THE FRANKLIN INSTITUTE-ENGINEERING AND APPLIED MATHEMATICS, vol.354, no.15, pp.6831-6854, 2017 (Journal Indexed in SCI)

- XI. **A novel robust fuzzy control of an uncertain system**
BAYRAK A., GÜRSOY H., EFE M. Ö.
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, vol.39, no.3, pp.324-333, 2017 (Journal Indexed in SCI)
- XII. **Feedback control strategies for quadrotor-type aerial robots: a survey**
Ozbek N. S. , Onkol M., EFE M. Ö.
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, vol.38, no.5, pp.529-554, 2016 (Journal Indexed in SCI)
- XIII. **Advances in Control Theory and Applications: Selected papers from TOK 2013**
HAMAMCI S. E. , TAN N., EFE M. Ö. , Söylemez M. T.
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, vol.37, no.5, pp.579-581, 2015 (Journal Indexed in SCI)
- XIV. **Recent Advances in Sliding Modes: From Control to Intelligent Mechatronics Preface**
Yu X., EFE M. Ö.
RECENT ADVANCES IN SLIDING MODES: FROM CONTROL TO INTELLIGENT MECHATRONICS, vol.24, 2015 (Journal Indexed in SCI)
- XV. **Sliding Mode Control for Unmanned Aerial Vehicles Research**
EFE M. Ö.
RECENT ADVANCES IN SLIDING MODES: FROM CONTROL TO INTELLIGENT MECHATRONICS, vol.24, pp.239-255, 2015 (Journal Indexed in SCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **Recognition of Traffic Signs with Artificial Neural Networks: A Novel Dataset and Algorithm**
Kerim A., EFE M. Ö.
3rd International Conference on Artificial Intelligence in Information and Communication (IEEE ICAIIC), South Korea, 13 - 16 April 2021, pp.171-176
- II. **Modelling of Atmospheric Parameters Using Artificial Neural Networks**
Demirtas O., EFE M. Ö.
9th International Conference on Recent Advances in Space Technologies (RAST), İstanbul, Turkey, 11 - 14 June 2019, pp.571-577
- III. **Forecasting BIST100 Index with Neural Network Ensembles**
Beyaz K., EFE M. Ö.
11th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 28 - 30 November 2019, pp.940-944
- IV. **Multiple Model Kalman and Particle Filters and Applications: A Survey**
Akca A., EFE M. Ö.
15th International-Federation-of-Automatic-Control (IFAC) Symposium on Large Scale Complex Systems (IFAC LSS), Delft, Netherlands, 26 - 28 May 2019, vol.52, pp.73-78
- V. **Detection of Smart Phone Position on User using Artificial Neural Network Classifier**
Bayar V., EFE M. Ö.
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- VI. **Path Planning using Model Predictive Controller based on Potential Field for Autonomous Vehicles**
Elmi Z., EFE M. Ö.
44th Annual Conference of the IEEE Industrial-Electronics-Society (IECON), Washington, Kiribati, 20 - 23 October 2018, pp.2613-2618
- VII. **Fractional Order PID Control of a Radar Guided Missile Under Disturbances**
Yaghi M., EFE M. Ö.
9th International Conference on Information and Communication Systems (ICICS), Irbid, Jordan, 3 - 05 April 2018, pp.238-242

- VIII. **Multi-objective Grasshopper Optimization Algorithm for Robot Path Planning in Static Environments**
Elmi Z., EFE M. Ö.
19th IEEE International Conference on Industrial Technologies (ICIT), Lyon, France, 19 - 22 February 2018, pp.244-249
- IX. **Trajectory Tracking Control Performance Analysis of a Quadrotor in the Presence of External Disturbances**
Bayrak A., Demirezen M. U., EFE M. Ö.
2nd European Conference on Electrical Engineering and Computer Science (EECS), Bern, Switzerland, 20 - 22 December 2018, pp.335-341
- X. **Intelligent mixed H-2/H-infinity FOPID controller optimized for radar guided missile**
Yaghi M., EFE M. Ö.
6th International Conference on Control Engineering and Information Technology (CEIT), İstanbul, Turkey, 25 - 27 October 2018
- XI. **Adaptive Neural FOPID Controller Applied for Missile Guidance System**
Yaghi M., EFE M. Ö.
43rd Annual Conference of the IEEE-Industrial-Electronics-Society (IECON), Beijing, China, 29 October - 01 November 2017, pp.2955-2960
- XII. **Air Combat Learning from F-16 Flight Information**
Karli M., EFE M. Ö., SEVER H.
IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), Naples, Italy, 9 - 12 July 2017
- XIII. **Nominal Model Based Switching Control of a Twin Rotor System**
EFE M. Ö.
42nd Annual Conference of the IEEE-Industrial-Electronics-Society (IECON), Florence, Italy, 24 - 27 October 2016, pp.241-246
- XIV. **Technopolises, SMEs, Funding Agencies and IT-Roles in Engineering Education**
EFE M. Ö.
15th International Conference on Information Technology Based Higher Education and Training (ITHET), İstanbul, Turkey, 8 - 10 September 2016
- XV. **FPGA Based Offline 3D UAV Local Path Planner Using Evolutionary Algorithms for Unknown Environments**
BAYRAK A., EFE M. Ö.
42nd Annual Conference of the IEEE-Industrial-Electronics-Society (IECON), Florence, Italy, 24 - 27 October 2016, pp.4778-4783
- XVI. **CONTROL SYSTEM IMPLEMENTATION ON AN FPGA PLATFORM**
GÜRSOY H., EFE M. Ö.
14th IFAC Conference on Programmable Devices and Embedded Systems (PDES), Brno, Czech Republic, 5 - 07 October 2016, vol.49, pp.425-430
- XVII. **MATLAB/Simulink Based Restructuring of the First Automatic Control Course in Engineering Curricula**
EFE M. Ö.
15th International Conference on Information Technology Based Higher Education and Training (ITHET), İstanbul, Turkey, 8 - 10 September 2016
- XVIII. **An Augmented PID Control Scheme for Robust Control**
EFE M. Ö.
International Workshop on Recent Advances in Sliding Modes, İstanbul, Turkey, 9 - 11 April 2015
- XIX. **A Novel Unmanned Aerial Surveillance Scheme**
Imamoglu N., Eresen A., EFE M. Ö., Kaynak O.
International Conference on Mechatronics and Control (ICMC), Jinzhou, China, 3 - 05 July 2014, pp.26-31

Supported Projects

EFE M. Ö. , TUBITAK Project, Visual Serving of Mobile Systems Mapping and Implementation of FPGA, 2015 - Continues
EFE M. Ö. , Project Supported by Other Private Institutions, Büyük Veri NoSQL Ailesinden Olan Çizge (Graph)
Veritabanlarının Davranış, Fonksiyon ve Algoritmalarının İlişkisel Veritabanında Geliştirilmesi, 2016 - 2017

Citations

Total Citations (WOS):78

h-index (WOS):4