

Personal Information

Email: yavrucuk@metu.edu.tr

Education Information

Doctorate, Georgia Institute Of Technology, Aerospace Engineering, United States Of America 1998 - 2003
Under Graduate, Middle East Technical University, Faculty of Engineering, Department of Aerospace Engineering, Turkey 1990 - 1995

Dissertations

Doctorate, Adaptive Limit Detection and Limit Avoidance, Georgia Institute Of Technology, Aerospace Engineering, 2003

Academic Titles / Tasks

Associate Professor, Middle East Technical University, Faculty of Engineering, 2013 - 2017
Assistant Professor, Middle East Technical University, Faculty of Engineering, 2005 - 2013
Lecturer PhD, Georgia Institute Of Technology, Aerospace Engineering, 2003 - 2005
Research Assistant, Georgia Institute Of Technology, Aerospace Engineering, 1998 - 2003
Research Assistant, Middle East Technical University, Faculty of Engineering, 1995 - 1996

Advising Theses

YAVRUCUK İ., Investigation of the star tracker algorithms and kalman filter integration, Post Graduate, S.SARGIN(Student), 2019
YAVRUCUK İ., Surrogate model based system identification and control of gas turbine engines, Doctorate, S.EKİNCİ(Student), 2019
YAVRUCUK İ., Fault tolerant flight control applications for a fixed wing UAV using linear and nonlinear approaches, Post Graduate, B.ERGÖÇMEN(Student), 2019
YAVRUCUK İ., DYNAMIC MODELING, CONTROL AND ADAPTIVE ENVELOPE PROTECTION SYSTEM FOR HORIZONTAL AXIS WIND TURBINES, Doctorate, M.ŞAHİN(Student), 2018
YAVRUCUK İ., Comparison of rotor inflow models for flight simulation fidelity, Post Graduate, F.GÜNER(Student), 2016
YAVRUCUK İ., Direct adaptive flight envelope protection, Doctorate, G.GÜRSOY(Student), 2016
YAVRUCUK İ., Development of an intelligent model prediction controller for autonomous helicopters, Post Graduate, Ş.ESER(Student), 2016
YAVRUCUK İ., LEBLEBİCİOĞLU M. K. , Control and guidance of a multi-mode unmanned aerial vehicle for increased versatility, Doctorate, F.ÇAKICI(Student), 2016
YAVRUCUK İ., Dynamic modelling and simulation of a wind turbine, Post Graduate, A.HAZAL(Student), 2015
TEKİNALP O., YAVRUCUK İ., Developing an investment decision methodology for helicopter systems related to technology factor and base price, Post Graduate, G.KARA(Student), 2014
YAVRUCUK İ., Kalman filter based applications for helicopters, Post Graduate, M.OKATAN(Student), 2014
YAVRUCUK İ., A reactionary obstacle avoidance algorithm for autonomous vehicles, Post Graduate, G.YÜCEL(Student), 2012
TEKİNALP O., YAVRUCUK İ., Development of a UAV testbed, Post Graduate, Z.ÇAKIR(Student), 2011
YAVRUCUK İ., Controller design and simulation for a helicopter during target engagement, Post Graduate, S.AVÇIOĞLU(Student), 2011

YAVRUCUK İ., A probabilistic conceptual design and sizing approach for a helicopter, Post Graduate, S.SELVİ(Student), 2010

YAVRUCUK İ., Neural network based online estimation of maneuvering steady states and control limits, Post Graduate, G.GÜRSOY(Student), 2010

TEKİNALP O., YAVRUCUK İ., Development of control allocation methods for satellite attitude control, Post Graduate, T.ÇİĞDEM(Student), 2010

YAVRUCUK İ., Adaptive control of guided missiles, Doctorate, K.TİRYAKI(Student), 2010

YAVRUCUK İ., Adaptive neural network applications on missile controller design, Post Graduate, S.SAĞIROĞLU(Student), 2009

TEKİNALP O., YAVRUCUK İ., Multidisciplinary and multiobjective design optimization of an unmanned combat aerial vehicle (UCAV), Post Graduate, N.ÇAVUŞ(Student), 2009

YAVRUCUK İ., Adaptive controller applications for rotary wing aircraft models of varying simulation fidelity, Post Graduate, O.TARIMCI(Student), 2009

YAVRUCUK İ., Adaptation of a control system to varying missile configurations, Post Graduate, Ö.EKİNCİ(Student), 2009

YAVRUCUK İ., Evaluation and comparison of helicopter simulation models with different fidelities, Post Graduate, D.YILMAZ(Student), 2008

YAVRUCUK İ., Mathematical model development of the anti torque system of a NOTAR helicopter, Post Graduate, H.MURAT(Student), 2008

YAVRUCUK İ., Design of an autonomous landing control algorithm for a fixed wing unmanned aerial vehicle (UAV), Post Graduate, V.KARGIN(Student), 2007

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

- **Fast engine model for FMU-less small turbojet engines**
Ekinci S., YAVRUCUK İ.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART G-JOURNAL OF AEROSPACE ENGINEERING, vol.234, pp.416-427, 2020 (Journal Indexed in SCI)
- **Direct Adaptive Limit and Control Margin Estimation with Concurrent Learning**
Gursoy G., YAVRUCUK İ.
JOURNAL OF GUIDANCE CONTROL AND DYNAMICS, vol.39, pp.1356-1373, 2016 (Journal Indexed in SCI)
- **Concurrent Learning Enabled Adaptive Limit Detection for Active Pilot Cueing**
Gursoy G., YAVRUCUK İ.
JOURNAL OF AEROSPACE INFORMATION SYSTEMS, vol.11, pp.542-550, 2014 (Journal Indexed in SCI)
- **Mathematical Modeling of the NOTAR Antitorque System for Flight Simulation**
YAVRUCUK İ., Bakir H. M. , UZOL O.
JOURNAL OF THE AMERICAN HELICOPTER SOCIETY, vol.58, 2013 (Journal Indexed in SCI)
- **Online Dynamic Trim and Control Limit Estimation**
YAVRUCUK İ., Prasad J. V. R.
JOURNAL OF GUIDANCE CONTROL AND DYNAMICS, vol.35, pp.1647-1656, 2012 (Journal Indexed in SCI)
- **A Low Cost Flight Simulator Using Virtual Reality Tools**
YAVRUCUK İ., Kubali E., Tarimci O.
IEEE AEROSPACE AND ELECTRONIC SYSTEMS MAGAZINE, vol.26, pp.10-14, 2011 (Journal Indexed in SCI)
- **Flight Evaluation of a Reactionary Envelope Protection System for UAVs**
Unnikrishnan S., Prasad J. V. R. , YAVRUCUK İ.
JOURNAL OF THE AMERICAN HELICOPTER SOCIETY, vol.56, 2011 (Journal Indexed in SCI)
- **Panel-Method-Based Path Planning and Collaborative Target Tracking for Swarming Micro Air Vehicles**
UZOL O., YAVRUCUK İ., SEZER UZOL N.
JOURNAL OF AIRCRAFT, vol.47, pp.544-550, 2010 (Journal Indexed in SCI)
- **Envelope Protection for Autonomous Unmanned Aerial Vehicles**
YAVRUCUK İ., Prasad J. V. R. , Unnikrishnan S.
JOURNAL OF GUIDANCE CONTROL AND DYNAMICS, vol.32, pp.248-261, 2009 (Journal Indexed in SCI)

Refereed Congress / Symposium Publications in Proceedings

- **Development of an Intelligent Least Squares Based Linear Controller for Autonomous Helicopters**
Kubali E., YAVRUCUK İ.
International Conference on Unmanned Aircraft Systems (ICUAS), Virginia, United States Of America, 7 - 10 June 2016, pp.242-251
- **APPLICATION OF A FUZZY LOGIC CONTROLLER FOR SPEED CONTROL ON A SMALL-SCALE TURBOJET ENGINE**
Usenmez S., Ekinci S., UZOL O., YAVRUCUK İ.
ASME Turbo Expo: Turbine Technical Conference and Exposition, Düsseldorf, Germany, 16 - 20 June 2014
- **Dynamic Inversion Based Control of a Missile with L1 Adaptive Control Augmentation**
Kutluay K. T. , YAVRUCUK İ.
IEEE International Conference on Control Applications Part of 2010 IEEE Multi-Conference on Systems and Control, Yokohama, Japan, 8 - 10 September 2010, pp.2374-2379
- **Gimbal Angle Restricted Control Moment Gyroscope Clusters**
TEKİNALP O., Elmas T., YAVRUCUK İ.
4th International Conference on Recent Advances in Space Technologies, İstanbul, Turkey, 11 - 13 June 2009, pp.585-590

Citations

Total Citations (WOS):51

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