

Asst. Prof. BANU AYYILDIZ

Personal Information

Office Phone: [+90 262 303 3393](tel:+902623033393)

Email: banu.ayyildiz@kocaeli.edu.tr

Web: <https://avesis.kocaeli.edu.tr/banu.ayyildiz>

Education Information

Doctorate, Anadolu University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering (English), Turkey 1998 - 2005

Postgraduate, Anadolu University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering (English), Turkey 1994 - 1998

Undergraduate, Anadolu University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering (English), Turkey 1990 - 1994

Foreign Languages

English, C1 Advanced

Research Areas

Electrical and Electronics Engineering, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Kocaeli University, Mühendislik Fakültesi, Elektronik Ve Haberleşme Mühendisliği, 2013 - Continues

Assistant Professor, Yıldız Technical University, Faculty Of Electrical & Electronics, Electronics And Communication Engineering, 2005 - 2013

Research Assistant, Anadolu University, Faculty Of Engineering-Architecture, Department Of Electrical And Electronic Engineering, 1994 - 2005

Advising Theses

Ayyıldız B., Seri hibrit elektrikli araçların modellenmesi ve kontrolü, Postgraduate, A.ÖNDER(Student), 2009

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

I. Robust flow control in data-communication networks with multiple time-delays

Unal H. U. , Ataslar-Ayyildiz B., Iftar A., Ozbay H.

INTERNATIONAL JOURNAL OF ROBUST AND NONLINEAR CONTROL, vol.20, no.13, pp.1529-1548, 2010 (Journal Indexed in SCI)

II. Rate-based flow controllers for communication networks in the presence of uncertain time-varying

multiple time-delays

Quet P., Ataslar B., Iftar A., Ozbay H., Kalyanaraman S., Kang T.
AUTOMATICA, vol.38, no.6, pp.917-928, 2002 (Journal Indexed in SCI)

III. Decentralized routing controller design using overlapping decompositions

Ataslar B., Iftar A.

INTERNATIONAL JOURNAL OF CONTROL, vol.72, no.13, pp.1175-1192, 1999 (Journal Indexed in SCI)

Articles Published in Other Journals

I. CONTROLLER TUNING APPROACH WITH TLBO ALGORITHM FOR THE AUTOMATIC VOLTAGE REGULATOR SYSTEM

Ayyıldız B., Karahan O.

Eskişehir Technical University Journal of Science and Technology A - Applied Sciences and Engineering, vol.21, no.1, pp.128-146, 2020 (National Refereed University Journal)

II. Design of a MAGLEV System with PID Based Fuzzy Control Using CS Algorithm

Ataslar-Ayyıldız B., Karahan O.

CYBERNETICS AND INFORMATION TECHNOLOGIES, vol.20, no.5, pp.5-19, 2020 (Journal Indexed in ESCI)

III. APPLICATION OF MULTI-OBJECTIVE CONTROLLER TO OPTIMAL TUNING OF PID PARAMETERS FOR DIFFERENT PROCESS SYSTEMS USING CUCKOO SEARCH ALGORITHM

Karahan O., Ayyıldız B.

Anadolu University Journal of Science and Technology-A Applied Sciences and Engineering, vol.20, pp.1-16, 2019 (Other Refereed National Journals)

IV. Birden fazla zaman gecikmesine sahip veri iletişim ağlarında akış kontrolü için μ kontrolör tasarımı

AYYILDIZ B.

Anadolu Üniversitesi Bilim ve Teknoloji Dergisi, 2004 (Other Refereed National Journals)

Books & Book Chapters

I. Optimized PID Based Controllers for Improving Transient and Steady State Response of Maglev System

Karahan O., Ayyıldız B.

in: Advances in Engineering Research, Victoria M. Petrova, Editor, Nova Science Publishers, New-York, pp.149-185, 2020

Refereed Congress / Symposium Publications in Proceedings

I. Design and Control of the Two-wheeled Self-Balancing Robot Using Microcontroller

Özcan B. C. , Karahan O., Ayyıldız B.

Proceedings of 10th International Symposium on Intelligent Manufacturing and Service Systems, Sakarya, Turkey, 9 - 11 September 2019, pp.897-904

II. Robust Control of Inverted Pendulum System Using μ -Synthesis Approach

KANLIKAYA Ö., AYYILDIZ B.

Proceedings of 10th International Symposium on Intelligent Manufacturing and Service Systems, 9 - 11 September 2019

III. Trajectory Tracking for The Magnetic Ball Levitation System via Fuzzy PID Control Based on CS Algorithm

AYYILDIZ B., KARAHAN O.

International Symposium on INnovations in Intelligent SyTems and Applications, INISTA 2019, 3 - 05 July 2019

- IV. **Optimal Design of Fuzzy PID Controller with CS Algorithm for Trajectory Tracking Control**
Karahan O., Ayyildiz B.
Science and Information Conference SAI 2018: Intelligent Computing, London, United Kingdom, 10 - 12 July 2018, vol.858, pp.174-188
- V. **Tuning of Fractional Order PID Controller using CS Algorithm for Trajectory Tracking Control**
Ayyildiz B., Karahan O.
6th International Conference on Control Engineering Information Technology - CEIT 2018, İstanbul, Turkey, 25 - 27 October 2018, pp.251-256
- VI. **Parçacık Sürüsü Optimizasyonu Kullanılarak Ters Sarkaç Sisteminin Kesir Dereceli PID ile Kontrolü**
AYYILDIZ B.
Akıllı Sistemler Dergisi, Akıllı Sistemlerde Yenilikler ve Uygulamaları (ASYU-2017), Turkey, 5 - 07 October 2017
- VII. **Parçacık Sürüsü Optimizasyonu Kullanılarak Dönel Ters Sarkaç Sisteminin Bulanık Mantık Tabanlı PID Kontrolü**
KARAHAN O., AYYILDIZ B.
OTOMATİK KONTROL ULUSAL TOPLANTISI, Turkey, 21 - 23 September 2017
- VIII. **Kalman Filtresi İle PID Denetleyicinin Yüz Takibi Sistemine Uygulanması**
KARAHAN O., AYYILDIZ B.
OTOMATİK KONTROL ULUSAL TOPLANTISI, Turkey, 21 - 23 September 2017
- IX. **Çoklu zaman gecikmeli veri iletişim ağları için gürbüz denetleyici tasarımı**
ÜNAL H. U. , AYYILDIZ B., İFTAR A., ÖZBAY H.
Otomatik Kontrol Ulusal Toplantısı Bildirileri (TOK'06), Turkey, 6 - 08 October 2006
- X. **Robust controller design for multiple time-delay systems: The case of data-communication networks**
ÜNAL H. U. , AYYILDIZ B., İFTAR A., ÖZBAY H.
17th International Symposium on Mathematical Theory of Networks and Systems, 24 - 28 July 2006
- XI. **Robust rate-based flow controllers for high-speed networks: The case of uncertain time-varying multiple time-delays**
AYYILDIZ B., İFTAR A., ÖZBAY H.
American Control Conference, 28 - 30 June 2001
- XII. **Comparison of H_∞ and μ -synthesis based flow controllers for high-speed networks with multiple time-delays**
AYYILDIZ B.
American Control Conference, 25 - 27 June 2001
- XIII. **A decentralized control approach for transportation Networks**
AYYILDIZ B., İFTAR A.
8th IFAC Symposium on Large Scale Systems, 15 - 18 June 1998
- XIV. **Ulaşım ağları için bir dış merkezli yönlendirme kontrolü algoritması**
AYYILDIZ B., İFTAR A.
7. Ulusal Elektrik-Elektronik-Bilgisayar Mühendisliği, Turkey, 31 August - 02 September 1997
- XV. **Decentralized routing controller design for networks with more than two overlapping subnetworks**
AYYILDIZ B., İFTAR A.
IEEE International Conference on Systems, Man, and Cybernetics, 22 - 25 October 1995
- XVI. **İkiden fazla altağa sahip bilgisayar ağlarında yönlendirme kontrolü simülasyon programı**
AYYILDIZ B., İFTAR A.
6. Ulusal Elektrik Mühendisliği Konferansı, Turkey, 11 - 17 September 1995

Citations

Total Citations (WOS):107

h-index (WOS):3

Scholarships

TÜBİTAK Münir Bırsel Vakfı Bursu, TÜBİTAK, 2001 - 2001