

# Prof. SERDAR ETHEM HAMAMCI

## Personal Information

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## Education Information

Doctorate, Firat University, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Mühendisliği Anabilim Dalı, Turkey 1998 - 2002

Post Graduate, Firat University, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Mühendisliği Anabilim Dalı, Turkey 1994 - 1997

Under Graduate, Erciyes University, Mühendislik Fakültesi, Elektronik Mühendisliği Bölümü, Turkey 1988 - 1992

## Foreign Languages

English, B2 Upper Intermediate

## Certificates, Courses and Trainings

Education Management and Planning, TETRAPAK Technical Training Course, MEYSU Meyve Suları AŞ, 1993

## Dissertations

Doctorate, Katsayı Diyagram Metodu'nun Özel Durumlara ve ÇGÇÇ (MIMO) Sistemlere Uygulanması, Inonu University, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Mühendisliği Anabilim Dalı, 2002

Post Graduate, Elektrik Filtreleri Tasarım Programı, Firat University, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Mühendisliği Anabilim Dalı, 1997

## Research Areas

Electrical and Electronics Engineering, Engineering and Technology

## Academic Titles / Tasks

Professor, Inonu University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2015 - Continues

Associate Professor, Inonu University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2009 - 2015

Research Assistant PhD, Inonu University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2002 - 2009

Research Assistant, Inonu University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 1993 - 2002

## Professional Experience

## Advising Theses

HAMAMCI S. E. , Apriori algoritması ile müşteri bazlı market sepet analizi ve ürün satış tahmini, Post Graduate, F.ÖZTEMİZ(Student), 2017

HAMAMCI S. E. , Durum zaman gecikmeli sistemler için kontrol sistem tasarımı, Post Graduate, H.KAYAN(Student), 2014

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

- I. **Application and Modeling of a Novel 4D Memristive Chaotic System for Communication Systems**  
Sahin M. E. , Taskiran Z. G. C. , Guler H., HAMAMCI S. E.  
CIRCUITS SYSTEMS AND SIGNAL PROCESSING, vol.39, pp.3320-3349, 2020 (Journal Indexed in SCI)
- II. **Simulation and implementation of memristive chaotic system and its application for communication systems**  
Sahin M. E. , Taskiran Z. G. C. , Guler H., HAMAMCI S. E.  
SENSORS AND ACTUATORS A-PHYSICAL, vol.290, pp.107-118, 2019 (Journal Indexed in SCI)
- III. **Stability region analysis in Smith predictor configurations using a PI controller**  
DENİZ F. N. , TAN N., HAMAMCI S. E. , Kaya I.  
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, vol.37, pp.606-614, 2015 (Journal Indexed in SCI)
- IV. **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, pp.579-581, 2015 (Journal Indexed in SCI)
- V. **PI and PID stabilization of neutral and retarded systems with time delay**  
Hamamci S. E.  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.20, pp.1189-1205, 2012 (Journal Indexed in SCI)
- VI. **Calculation of all stabilizing fractional-order PD controllers for integrating time delay systems**  
HAMAMCI S. E. , Koksall M.  
COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.59, pp.1621-1629, 2010 (Journal Indexed in SCI)
- VII. **Stabilization using fractional-order PI and PID controllers**  
Hamamci S. E.  
NONLINEAR DYNAMICS, vol.51, pp.329-343, 2008 (Journal Indexed in SCI)
- VIII. **An algorithm for stabilization of fractional-order time delay systems using fractional-order PID controllers**  
Hamamci S. E.  
IEEE TRANSACTIONS ON AUTOMATIC CONTROL, vol.52, pp.1964-1969, 2007 (Journal Indexed in SCI)
- IX. **Design of PI controllers for achieving time and frequency domain specifications simultaneously**  
Hamamci S. E. , Tan N.  
ISA TRANSACTIONS, vol.45, pp.529-543, 2006 (Journal Indexed in SCI)
- X. **A robust polynomial-based control for stable processes with time delay**  
Hamamci S. E.  
ELECTRICAL ENGINEERING, vol.87, pp.163-172, 2005 (Journal Indexed in SCI)
- XI. **A program for the design of linear time invariant control systems: CDMCAD**  
KOKSAL M., Hamamci S. E.  
COMPUTER APPLICATIONS IN ENGINEERING EDUCATION, vol.12, pp.165-174, 2004 (Journal Indexed in SCI)
- XII. **Combined kinetic charging of particles on the precipitating electrode in a corona field**  
ALISOY H., ALISOY G., HAMAMCI S. E. , Koseoglu M.  
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.37, pp.1459-1466, 2004 (Journal Indexed in SCI)
- XIII. **A robust model-based control for uncertain systems**  
Hamamci S. E. , UCAR A.

## Articles Published in Other Journals

- I. **A New PID Tuning Method Based on Transient Response Control**  
HAMAMCI S. E.  
BALKAN JOURNAL OF ELECTRICAL AND COMPUTER ENGINEERING, vol.2, pp.132-138, 2014 (International Refereed University Journal)
- II. **Stabilization of Switched Systems Using only a Single Fractional Order PI Controller**  
HAMAMCI S. E. , IŞIK İ.  
BALKAN JOURNAL OF ELECTRICAL AND COMPUTER ENGINEERING, vol.2, pp.150-155, 2014 (International Refereed University Journal)
- III. **Simulation studies on stable PI controller parameters**  
KANTHABHABHA P., Somasundaram S., HAMAMCI S. E. , Karunanithi T.  
Chemical Engineering World, vol.41, pp.108-112, 2006 (Refereed Journals of Other Institutions)
- IV. **İntegratörlü Sistemler için Katsayı Diyagram Metodu ile Kontrolör Tasarımı**  
HAMAMCI S. E.  
İTÜ Dergisi/D Mühendislik, vol.3, pp.3-12, 2004 (National Refreed University Journal)
- V. **Simple Polynomial Controller Design by the Coefficient Diagram Method**  
HAMAMCI S. E.  
WSEAS Transactions on Circuits and Systems, vol.3, pp.951-956, 2004 (Refereed Journals of Other Institutions)
- VI. **Zaman Gecikmeli Kararsız Sistemler için Katsayı Diyagram Metodu ile Kontrolör Tasarımı**  
HAMAMCI S. E.  
Sakarya Üniversitesi Fen Bilimleri Dergisi, vol.6, pp.32-35, 2002 (National Refreed University Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Implementation of PID Type Fuzzy Logic Controller With Digital Signal Controller**  
ÖZGÜVEN Ö., CAN M. S. , HAMAMCI S. E.  
6th International Conference on Control Engineering and Information Technologies, Istanbul, Turkey, 25-27 October 2018, İstanbul, Turkey, 25 October 2019 - 27 October 2018, pp.134-139
- II. **Optimization of the FO[PI] Controller for MTDS using MAPO with Multi Objective Function**  
ATEŞ A., YEROĞLU C., YUAN J., CHEN Y., HAMAMCI S. E.  
The International Conference on Fractional Differentiation and its Applications, Amman, Jordan, 16 - 18 July 2018
- III. **The Performance Analysis of Data Mining Approach for Energy Cost Reduction in Smart Grids**  
ÖZTEMİZ F., KELEŞ C., HAMAMCI S. E. , KAYGUSUZ A.  
ENTECH '16 IV. International Energy Technologies Conference, İstanbul, Turkey, 15 - 16 December 2016, pp.82-93
- IV. **R Programlama Dili ve Apriori Algoritması Kullanılarak Market Sepet Analizi**  
Öztemiz F., HAMAMCI S. E.  
International Artificial Intelligence and Data Processing Symposium, Malatya, Turkey, 26 - 27 September 2016, pp.375-379
- V. **Bir Su Türbini Güç Sisteminin Yük Frekans Kontrolü**  
KELEŞ C., HAMAMCI S. E. , KAYGUSUZ A.  
Türk Otomatik Kontrol Ulusal Toplantısı, TOK 2015, Denizli, Turkey, 10 - 12 September 2015, pp.1-4
- VI. **Kaos Üretim Yöntemi ile Yeni bir Kaotik Sistem**  
HAMAMCI S. E. , gögebakan v., IŞIK İ.  
Sinyal İşleme ve İletişim Uygulamaları Kurultayı, Malatya, Turkey, 16 - 19 May 2015, pp.1-5
- VII. **A New Chaotic System with Chaos Entanglement**

HAMAMCI S. E. , GOGEBAKAN V., IŞIK İ.

23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015, pp.2597-2600

- VIII. **Obtaining of Time Response from Frequency Response of Fractional Order Systems**  
Avsar S. F. , HAMAMCI S. E.  
23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015, pp.2601-2604
- IX. **Bozucu Model Yöntemi ile Çok Girişli-Çok Çıkışlı Sistemlerin Kontrolü**  
IŞIK İ., HAMAMCI S. E. , gögebakan v., köksal m.  
Otomatik Kontrol Ulusal Toplantısı, Kocaeli, Turkey, 11 - 13 September 2014, pp.1-5
- X. **Eğitim Amaçlı SCADA Kontrollü Elektrik Dağıtım Otomasyonu**  
ERDEM E., KELEŞ C., HAMAMCI S. E. , TAN N.  
Otomatik Kontrol Ulusal Toplantısı, TOK2013, Malatya, Turkey, 26 - 28 September 2013, pp.50-55
- XI. **Anahtarlama Sistemleri Kararlı Yapan PI Kontrolör Setinin Hesabı**  
IŞIK İ., HAMAMCI S. E.  
Otomatik Kontrol Ulusal Toplantısı, Malatya, Turkey, 25 - 27 September 2013, pp.1-5
- XII. **A Practical PI Tuning Approach For Time Delay Systems**  
ONAT C., HAMAMCI S. E. , OBUZ S.  
Proceedings of the 10-th IFAC Workshop on Time Delay SystemsThe International Federation of Automatic Control, Boston, United States Of America, 20 - 22 June 2012, pp.102-107
- XIII. **PID Controller Synthesis for Fractional Order Systems**  
Avsar S. F. , HAMAMCI S. E. , Yeroglu C.  
5th IFAC Symposium on Fractional Differentiation and its Applications, Nanjing, China, 14 - 17 May 2012, pp.1-3
- XIV. **TRANSIENT RESPONSE CONTROL BY FRACTIONAL-ORDER PI CONTROLLERS**  
HAMAMCI S. E. , OBUZ S.  
ASME International Design Engineering Technical Conferences / Computers and Information in Engineering Conference (IDETC/CIE), Washington, Kiribati, 28 - 31 August 2011, pp.185-192
- XV. **Analysis of Four Element Chua Circuit Containing New Passive Component: Memristor**  
KOKSAL M., HAMAMCI S. E.  
NSC 2010 3rd Conf. on Nonlinear Science and Complexity, Ankara, Turkey, 28 - 31 July 2010, pp.1-6
- XVI. **Real Time Implementation of CDM Based PID Control Strategy in an AFTS**  
KANTHABHABHA P., Somasundaram S., HAMAMCI S. E.  
PSE ASIA 2010 5th Int. Symp. on Design, Operation and Control of Chemical Processes, Singapore, Singapore, 25 - 28 June 2010, pp.1-4
- XVII. **Computation of All Stabilizing First Order Controllers for Fractional-Order Systems**  
HAMAMCI S. E. , KANTHABHABHA P., VAITHIYANATHAN K.  
27th Chinese Control Conference, Kunming, China, 16 - 18 July 2008, pp.123-124
- XVIII. **Robust temperature control of MSF desalination plants with coefficient diagram method**  
KOKSAL M., Hamamci S. E.  
IEEE Conference on Control Applications, İstanbul, Turkey, 23 - 25 June 2003, pp.1437-1442
- XIX. **Robust controller design for TITO processes with coefficient diagram method**  
Hamamci S. E. , KOKSAL M.  
IEEE Conference on Control Applications, İstanbul, Turkey, 23 - 25 June 2003, pp.1431-1436
- XX. **A controller based on coefficient diagram method for the robotic manipulators**  
UCAR A., Hamamci S. E.  
7th IEEE International Conference on Electronics, Circuits and Systems, JOUNIEH, Lebanon, 17 - 19 December 2000, pp.777-780

## Supported Projects

ÖZGÜVEN Ö., CAN M. S. , HAMAMCI S. E. , Project Supported by Higher Education Institutions, FUZZY PID KONTROLÖRÜN SAYISAL İŞLEM DENETLEYİCİ İLE UYGULAMASI, 2018 - 2020  
YEROĞLU C., HAMAMCI S. E. , Project Supported by Higher Education Institutions, Çoklu Zaman Gecikmeli sistemlerin kontrolü için Kesir Derecel [PI] denetçi tasarımında Optimizasyon tekniklerinin araştırılması, 2018 - 2018  
HAMAMCI S. E. , TUBITAK Project, Kesirli Dereceli Sistemler ve Kontrolü Üzerine Son Gelişmelerin Paylaşımı, 2013 - 2013

## **Activities in Scientific Journals**

Transactions of the Institute of Measurement and Control, Assistant Editor, 2015 - Continues  
Transactions of the Institute of Measurement and Control, Special Issue Editor, 2014 - 2015

## **Citations**

Total Citations (WOS):539  
h-index (WOS):8