

Prof.Dr. SAFFET AYASUN

Kişisel Bilgiler

E-posta: saffetayasun@gazi.edu.tr
Web: <https://avesis.gazi.edu.tr/saffetayasun>

Uluslararası Araştırmacı ID'leri

ORCID: 0000-0002-6785-3775
Yoksis Araştırmacı ID: 42597

Eğitim Bilgileri

Doktora, Drexel University, Elektrik-Bilgisayar Mühendisliği, Amerika Birleşik Devletleri 1997 - 2002
Yüksek Lisans, Drexel University, Mühendislik Fakültesi Elektrik Mühendisliği, Amerika Birleşik Devletleri 1995 - 1998
Lisans, Gazi Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, Türkiye 1984 - 1989

Yabancı Diller

İngilizce, C1 İleri

Yaptığı Tezler

Doktora, Singularity analysis of differential-algebraic power system models, Drexel University, Elektrik-Bilgisayar Mühendisliği, 2002
Yüksek Lisans, INVESTIGATION OF INTER-AREA AVAILABLE TRANSFER CAPABILITY, Drexel University, Mühendislik Fakültesi Elektrik Mühendisliği, 1998

Araştırma Alanları

Güç Sistemlerinin Analizi , Enerji İletimi ve Dağıtımları , Yenilenebilir Enerji

Akademik Unvanlar / Görevler

Prof.Dr., Gazi Üniversitesi, Mühendislik Fakültesi, Elektrik - Elektronik Mühendisliği, 2019 - Devam Ediyor
Prof.Dr., Niğde Ömer Halisdemir Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2014 - 2019
Doç.Dr., Niğde Ömer Halisdemir Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2009 - 2014
Yrd.Doç.Dr., Niğde Ömer Halisdemir Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2004 - 2009
Araştırma Görevlisi, Niğde Ömer Halisdemir Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 1994 - 2004

Akademik İdari Deneyim

Niğde Ömer Halisdemir Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2018 - 2019
Niğde Ömer Halisdemir Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2009 - 2019
Niğde Ömer Halisdemir Üniversitesi, Yabancı Diller Yüksekokulu, 2014 - 2018
Niğde Ömer Halisdemir Üniversitesi, Yabancı Diller Yüksekokulu, 2011 - 2014

Verdiği Dersler

Control Systems I, Lisans, 2021 - 2022
Kontrol Sistemleri I, Lisans, 2020 - 2021
Devre Teorisi I, Lisans, 2020 - 2021
Mühendislikte Doğrusal Sistem Teorisi, Doktora, 2020 - 2021

Yönetilen Tezler

AYASUN S., Elektrikli Araçlar Ve Dinamik Talep Kontrolü İçeren İki Bölgeli Yük Frekans Kontrol Sisteminin Zaman Gecikmesine Bağlı Kararlılık Analizi, Yüksek Lisans, B.TEK(Öğrenci), 2021
AYASUN S., Kesir dereceli PI kontrolör içeren zaman gecikmeli jeneratör uyarma kontrol sisteminin kararlılık analizi, Yüksek Lisans, K.GÖKBULUT(Öğrenci), 2019
AYASUN S., Doğru akım motor hız kontrolü için kesirli dereceli PI denetleyici tasarımları ve zaman gecikmesine bağlı kararlılık analizi, Yüksek Lisans, R.BOLAT(Öğrenci), 2019
AYASUN S., Ağ üzerinden kontrol edilen haberleşme zaman gecikmeli güç elektroniği çevircilerinin kararlılık analizi, Yüksek Lisans, A.SARI(Öğrenci), 2018
AYASUN S., deneme, Yüksek Lisans, H.GÜNDÜZ(Öğrenci), 2018
AYASUN S., Kesirli dereceli kontrolör içeren zaman gecikmeli yük frekans kontrol sistemlerinin kararlılık analizi, Yüksek Lisans, S.HORZUM(Öğrenci), 2018
AYASUN S., Zaman gecikmeli mikro şebekelerin kazanç ve faz payı tabanlı kararlılık analizi, Yüksek Lisans, H.GÜNDÜZ(Öğrenci), 2017
AYASUN S., Zaman gecikmeli elektrik güç sistemlerinin kararlılık analizi, Doktora, Ş.SÖNMEZ(Öğrenci), 2017
AYASUN S., Yenilenebilir enerji kaynakları içeren zaman gecikmeli yük frekans kontrol sisteminin kararlılık analizi, Yüksek Lisans, H.SEZER(Öğrenci), 2016
AYASUN S., Zaman gecikmeli büyük güçlü rüzgâr türbinleri kanat açı kontrol sisteminin kararlılık analizi, Yüksek Lisans, Ö.TÜRKSÖY(Öğrenci), 2016
AYASUN S., Haberleşme gecikmesi içeren yük frekans kontrol sistemlerinin kararlı olacağı maksimum zaman gecikme değerlerinin hesaplanması, Yüksek Lisans, Ş.SÖNMEZ(Öğrenci), 2013
AYASUN S., Haberleşme gecikmelerinin jeneratör uyarma kontrol sistem kararlılığına olan etkilerinin üstel terimlerin yok edilmesi yöntemi ile araştırılması, Yüksek Lisans, A.DOĞAN(Öğrenci), 2012
AYASUN S., Niğde ili merkezinde bulunan dağıtım trafolarının enerji kalitesinin araştırılması, Yüksek Lisans, M.BİTİM(Öğrenci), 2012
AYASUN S., Haberleşme gecikmelerinin yük frekans ve jeneratör uyarma kontrol sistemlerinin kararlılığına olan etkilerinin araştırılması, Yüksek Lisans, H.YILDIZ(Öğrenci), 2011
AYASUN S., Nevşehir bölgesi elektrik dağıtım şebekesinin güvenilirlik analizi, Yüksek Lisans, E.ÜÇKARDEŞ(Öğrenci), 2010
AYASUN S., Elektrik cihazlarının testi için geliştirilen benzetim uyartım arayüzünün modellenmesi ve kararlılık analizi, Yüksek Lisans, D.ÇADIRLI(Öğrenci), 2006
AYASUN S., Elektrik makineleri deneylerinin bilgisayar modellerinin matlab/simulink kullanılarak gerçekleştirilmesi, Yüksek Lisans, G.KARBEYAZ(Öğrenci), 2006

- I. Impact of virtual inertia and damping control on stability delay margins of load frequency control systems with renewable energy sources
Hasen S. A., AYDIN Ö., AYASUN S., Sönmez \$.
ELECTRICAL ENGINEERING, cilt.106, sa.1, ss.323-341, 2024 (SCI-Expanded)
- II. Robust stability region analysis of time-delayed load frequency control systems with EVs aggregator using Kharitonov theorem
Naveed A., Sönmez \$., AYASUN S., Iqbal S., Zeinoddini-Meymand H., Kamel S.
IET Generation, Transmission and Distribution, cilt.17, sa.19, ss.4386-4398, 2023 (SCI-Expanded)
- III. Delay-Dependent Stability Analysis of Multi Area LFC-EVs System
Sari A., Sonmez S., AYASUN S., Kabalci Y.
IEEE Transactions on Smart Grid, cilt.14, sa.3, ss.2178-2188, 2023 (SCI-Expanded)
- IV. Enhancement of Stability Region by Virtual Inertia and Damping Control for Micro-Grids with Communication Time Delay
Hasen S. A., SÖNMEZ \$., AYASUN S.
IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY-TRANSACTIONS OF ELECTRICAL ENGINEERING, cilt.47, sa.1, ss.177-191, 2023 (SCI-Expanded)
- V. Stability delay margin computation of multi-area load frequency control system with electric vehicle using critical eigenvalue tracing method
AYDIN Ö., Sönmez \$., AYASUN S.
Transactions of the Institute of Measurement and Control, cilt.45, sa.5, ss.874-885, 2023 (SCI-Expanded)
- VI. Computation of stability regions for time-delayed two-area load frequency control system including dynamic demand response Dinamik talep cevabı içeren zaman gecikmeli iki bölgeli yük frekans kontrol sistemlerinin kararlılık bölgelerinin hesaplanması
Katipoğlu D., Sönmez \$., AYASUN S.
Journal of the Faculty of Engineering and Architecture of Gazi University, cilt.39, sa.1, ss.431-442, 2023 (SCI-Expanded)
- VII. The Effect of Virtual Inertia and Damping Control on the Stability Region of Load Frequency Control Systems with Time Delays
Hasen S., AYDIN Ö., AYASUN S., Sönmez \$.
Electric Power Components and Systems, cilt.51, sa.5, ss.438-451, 2023 (SCI-Expanded)
- VIII. Determination of stability delay margins for multi-area load frequency control systems with incommensurate time delays through eigenvalue tracing method
AYDIN Ö., SÖNMEZ \$., AYASUN S.
INTERNATIONAL JOURNAL OF ELECTRICAL POWER & ENERGY SYSTEMS, cilt.137, 2022 (SCI-Expanded)
- IX. Identification of gain and phase margins based robust stability regions for a time-delayed micro-grid system including fractional-order controller in presence of renewable power generation
Gunduz H., SÖNMEZ \$., AYASUN S.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, cilt.30, sa.3, ss.1097-1115, 2022 (SCI-Expanded)
- X. Inserting of heuristic techniques into the stability regions for multiarea load frequency control systems with time delays
SAKA M., SÖNMEZ \$., EKE İ., Gozde H., TAPLAMACIOĞLU M. C., AYASUN S.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, cilt.30, sa.6, ss.2286-2305, 2022 (SCI-Expanded)
- XI. Stability regions in time delayed two-area LFC system enhanced by EVs
Naveed A., Sonmez S., AYASUN S.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, cilt.30, sa.1, ss.249-263, 2022 (SCI-Expanded)
- XII. Impact of participation ratios on the stability delay margins computed by direct method for multiple-area load frequency control systems with demand response
KATİPOĞLU D., Sonmez S., AYASUN S., Naveed A.

- AUTOMATIKA, cilt.63, sa.1, ss.185-197, 2022 (SCI-Expanded)
- XIII. **Enhancement of stability delay margins by virtual inertia control for microgrids with time delay**
Hasen S. A., SÖNMEZ S., AYASUN S.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, cilt.30, sa.6, ss.2221-2238, 2022
(SCI-Expanded)
- XIV. **Impact of electric vehicles aggregators with communication delays on stability delay margins of two-area load frequency control system**
Naveed A., Sonmez S., AYASUN S.
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, cilt.43, sa.12, ss.2860-2871, 2021 (SCI-Expanded)
- XV. **Impact of Electric Vehicle Aggregator with Communication Time Delay on Stability Regions and Stability Delay Margins in Load Frequency Control System**
Naveed A., Sonmez S., Ayasun S.
JOURNAL OF MODERN POWER SYSTEMS AND CLEAN ENERGY, cilt.9, sa.3, ss.595-601, 2021 (SCI-Expanded)
- XVI. **Impact of load sharing schemes on the stability delay margins computed by Rekasius substitution method in load frequency control system with electric vehicles aggregator**
Naveed A., Sonmez S., AYASUN S.
INTERNATIONAL TRANSACTIONS ON ELECTRICAL ENERGY SYSTEMS, cilt.31, sa.5, 2021 (SCI-Expanded)
- XVII. **GAIN-PHASE MARGINS BASED STABILITY ANALYSIS OF TIME DELAYED HYBRID LOAD FREQUENCY CONTROL SYSTEM**
EROL H., AYASUN S.
REVUE ROUMAINE DES SCIENCES TECHNIQUES-SERIE ELECTROTECHNIQUE ET ENERGETIQUE, cilt.66, sa.2, ss.119-124, 2021 (SCI-Expanded)
- XVIII. **The effect of demand response control on stability delay margins of load frequency control systems with communication time-delays**
Katipoglu D., Sonmez S., AYASUN S., Naveed A.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, cilt.29, sa.3, ss.1383-1401, 2021
(SCI-Expanded)
- XIX. **Computation of Robust PI-Based Pitch Controller Parameters for Large Wind Turbines**
Turksoy O., Ayasun S., Hames Y., Sonmez S.
CANADIAN JOURNAL OF ELECTRICAL AND COMPUTER ENGINEERING-REVUE CANADIENNE DE GENIE ELECTRIQUE ET INFORMATIQUE, cilt.43, sa.1, ss.57-63, 2020 (SCI-Expanded)
- XX. **Gain-phase margins-based delay-dependent stability analysis of pitch control system of large wind turbines**
Turksoy O., Ayasun S., Hames Y., Sonmez S.
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, cilt.41, sa.13, ss.3626-3636, 2019 (SCI-Expanded)
- XXI. **Gain and phase margins-based delay margin computation of load frequency control systems using Rekasius substitution**
Sonmez S., Ayasun S.
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, cilt.41, sa.12, ss.3385-3395, 2019 (SCI-Expanded)
- XXII. **Gain and phase margins based stability analysis of micro grid systems with time delay by using Rekasius substitution**
Gunduz H., Ayasun S., Sonmez S.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, cilt.34, sa.1, ss.553-567, 2019 (SCI-Expanded)
- XXIII. **Gain and phase margin based stability analysis of time delayed single area load frequency control system with fractional order PI controller**
Sonmez S., Ayasun S.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, cilt.34, sa.2, ss.946-959,

- 2019 (SCI-Expanded)
- XXIV. **Gain and phase margins based delay-dependent stability analysis of single-area load frequency control system with constant communication time delay**
Sonmez S., Ayasun S.
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, cilt.40, sa.5, ss.1701-1710, 2018 (SCI-Expanded)
- XXV. **Computation of PI Controllers Ensuring Desired Gain and Phase Margins for Two-Area Load Frequency Control System with Communication Time Delays**
Sonmez S., Ayasun S.
ELECTRIC POWER COMPONENTS AND SYSTEMS, cilt.46, sa.8, ss.938-947, 2018 (SCI-Expanded)
- XXVI. **Comprehensive gain and phase margins based stability analysis of micro-grid frequency control system with constant communication time delays**
Guenduez H., Soenmez S., Ayasun S.
IET GENERATION TRANSMISSION & DISTRIBUTION, cilt.11, sa.3, ss.719-729, 2017 (SCI-Expanded)
- XXVII. **An Exact Method for Computing Delay Margin for Stability of Load Frequency Control Systems With Constant Communication Delays**
Sonmez S., Ayasun S., Nwankpa C. O.
IEEE TRANSACTIONS ON POWER SYSTEMS, cilt.31, sa.1, ss.370-377, 2016 (SCI-Expanded)
- XXVIII. **Stability Region in the Parameter Space of PI Controller for a Single-Area Load Frequency Control System With Time Delay**
Sonmez S., Ayasun S.
IEEE TRANSACTIONS ON POWER SYSTEMS, cilt.31, sa.1, ss.829-830, 2016 (SCI-Expanded)
- XXIX. **Effect of load increase and power system stabilizer on stability delay margin of a generator excitation control system**
Sonmez S., Ayasun S.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, cilt.24, sa.6, ss.5183-5195, 2016 (SCI-Expanded)
- XXX. **Modeling and Design Optimization of Variable-Speed Wind Turbine Systems**
Eminoglu U., Ayasun S.
ENERGIES, cilt.7, sa.1, ss.402-419, 2014 (SCI-Expanded)
- XXXI. **Computation of Stability Delay Margin of Time-Delayed Generator Excitation Control System with a Stabilizing Transformer**
Ayasun S., Eminoglu U., Sonmez S.
MATHEMATICAL PROBLEMS IN ENGINEERING, cilt.2014, 2014 (SCI-Expanded)
- XXXII. **Stability analysis of time-delayed DC motor speed control system**
Ayasun S.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, cilt.21, sa.2, ss.381-393, 2013 (SCI-Expanded)
- XXXIII. **A Comprehensive Review and Adequacy Evaluation of Voltage Stability Indices for Modern Distribution Systems**
Eminoglu U., Hocaoglu M. H., Ayasun S.
INTERNATIONAL REVIEW OF ELECTRICAL ENGINEERING-IREE, cilt.5, sa.2, ss.698-708, 2010 (SCI-Expanded)
- XXXIV. **Probabilistic Evaluation of Small-Signal Stability of Power Systems with Time Delays**
Ayasun S., Nwankpa C. O.
INTERNATIONAL REVIEW OF ELECTRICAL ENGINEERING-IREE, cilt.5, sa.1, ss.205-216, 2010 (SCI-Expanded)
- XXXV. **Stability analysis of a generator excitation control system with time delays**
Ayasun S., Gelen A.
ELECTRICAL ENGINEERING, cilt.91, sa.6, ss.347-355, 2010 (SCI-Expanded)
- XXXVI. **Computation of time delay margin for power system small-signal stability**
Ayasun S.
EUROPEAN TRANSACTIONS ON ELECTRICAL POWER, cilt.19, sa.7, ss.949-968, 2009 (SCI-Expanded)

- XXXVII. **Realization of Power Electronic Converter Based DC Motor Speed Control Methods Using MATLAB/Simulink**
 Gelen A., Ayasun S.
 INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION, cilt.25, sa.1, ss.33-41, 2009 (SCI-Expanded)
- XXXVIII. **Effects of algebraic singularities on the voltage dynamics of differential-algebraic power system model**
 Ayasun S.
 EUROPEAN TRANSACTIONS ON ELECTRICAL POWER, cilt.18, sa.6, ss.547-561, 2008 (SCI-Expanded)
- XXXIX. **DC motor speed control methods using MATLAB/Simulink and their integration into undergraduate electric machinery courses**
 Ayasun S., Karbeyaz G.
 COMPUTER APPLICATIONS IN ENGINEERING EDUCATION, cilt.15, sa.4, ss.347-354, 2008 (SCI-Expanded)
- XL. **Modeling and stability analysis of a simulation-stimulation interface for hardware-in-the-loop applications**
 Ayasun S., Fischl R., Vallieu S., Braun J., Cadirli D.
 SIMULATION MODELLING PRACTICE AND THEORY, cilt.15, sa.6, ss.734-746, 2007 (SCI-Expanded)
- XLI. **Voltage stability toolbox for power system education and research**
 Ayasun S., Nwankpa C. O., Kwatny H. G.
 IEEE TRANSACTIONS ON EDUCATION, cilt.49, sa.4, ss.432-442, 2006 (SCI-Expanded)
- XLII. **Transformer tests using MATLAB/Simulink and their integration into undergraduate electric machinery courses**
 Ayasun S., Nwankpa C. O.
 COMPUTER APPLICATIONS IN ENGINEERING EDUCATION, cilt.14, sa.2, ss.142-150, 2006 (SCI-Expanded)
- XLIII. **A sensitivity approach for computation of the probability density function of critical clearing time and probability of stability in power system transient stability analysis**
 Ayasun S., Liang Y., Nwankpa C. O.
 APPLIED MATHEMATICS AND COMPUTATION, cilt.176, sa.2, ss.563-576, 2006 (SCI-Expanded)
- XLIV. **An efficient method to compute singularity induced bifurcations of decoupled parameter-dependent differential-algebraic power system model**
 Ayasun S., Nwankpa C., Kwatny H.
 APPLIED MATHEMATICS AND COMPUTATION, cilt.167, sa.1, ss.435-453, 2005 (SCI-Expanded)
- XLV. **Induction motor tests using MATLAB/Simplink and their integration into undergraduate electric machinery courses**
 Ayasun S., Nwankpa C.
 IEEE TRANSACTIONS ON EDUCATION, cilt.48, sa.1, ss.37-46, 2005 (SCI-Expanded)
- XLVI. **Computation of singular and singularity induced bifurcation points of differential-algebraic power system model**
 Ayasun S., Nwankpa C., Kwatny H.
 IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS I-REGULAR PAPERS, cilt.51, sa.8, ss.1525-1538, 2004 (SCI-Expanded)

Diğer Dergilerde Yayınlanan Makaleler

- I. **Online Parameter Identification of a Simplified Composite Load Model by Voltage Sag Events**
 Karadeniz M., Aydemir M. T., Ayasun S., , ,
 Turkish Journal of Electrical Power and Energy Systems, cilt.2, sa.1, ss.21-31, 2022 (Hakemli Dergi)
- II. **Zaman Gecikmeli Elektrik Güç Sistemlerinin Gecikmeye Bağlı Kararlılık Bölgelerinin Hesaplanması**
 Sönmez Ş., Ayasun S.
 JOURNAL OF POLYTECHNIC-POLITEKNIK DERGİSİ, cilt.26, sa.2, ss.581-592, 2022 (Hakemli Dergi)
- III. **Time delay margins computation for stability of load frequency control in hybrid renewable energy**

- power generation/storage system**
Erol H., Ayasun S.
El-Cezeri Fen ve Mühendislik Dergisi, cilt.9, sa.2, ss.382-393, 2021 (Scopus)
- IV. Delay-dependent Stability Analysis Considering Dynamic Demand Response and Electric Vehicle Aggregator Integration in Two-Area Load Frequency Control Systems**
SÖNMEZ Ş., AYASUN S.
Turkish Journal of Electrical Power and Energy Systems, cilt.1, sa.1, ss.20-25, 2021 (Hakemli Dergi)
- V. Time Delay Margins Computation for Stability of Hybrid Power Systems**
Erol H., Ayasun S.
JOURNAL OF POLYTECHNIC-POLITEKNIK DERGİSİ, cilt.23, sa.4, ss.1131-1139, 2020 (ESCI)
- VI. REKASİUS YÖNTEMİ KULLANILARAK ZAMAN GECİKMELİ JENERATÖR UYARMA KONTROL SİSTEMİNİN MAKSİMUM ZAMAN GECİKMESİNİN HESAPLANMASI**
SÖNMEZ Ş., AYASUN S.
Ömer Halisdemir Üniversitesi Mühendislik Bilimleri Dergisi, cilt.8, sa.2, ss.783-795, 2019 (Hakemli Dergi)
- VII. Ağ Üzerinden Kontrol Edilen Yükselten DA-DA Dönüşürücünün Zaman Gecikmesine Bağlı Kararlılık Analizi**
SARI A., SÖNMEZ Ş., AYASUN S.
EMO BİLİMSEL DERGİ, cilt.8, sa.1, ss.5-11, 2018 (Hakemli Dergi)
- VIII. Stability Region of Fractional-Order PI Controller for a Single-Area Load Frequency Control System with Communication Time Delay**
SÖNMEZ Ş., AYASUN S.
Journal of Multidisciplinary Engineering Science and Technology, cilt.4, sa.7, ss.7705-7709, 2017 (Hakemli Dergi)
- IX. Stability regions in controller parameter space of DC motor speed control system with communication delays**
SÖNMEZ Ş., AYASUN S.
International Journal of Scientific Engineering and Applied Science (IJSEAS), cilt.2, sa.6, ss.86-93, 2016 (Hakemli Dergi)
- X. IMPACT OF GAIN PHASE MARGINS ON THE DELAYMARGIN FOR STABILITY OF DC MOTOR SPEEDCONTROL SYSTEM WITH TIME DELAYS**
GÜNDÜZ H., AYASUN S.
Journal of Basic and Applied Research International, cilt.17, sa.4, ss.302-311, 2016 (Hakemli Dergi)
- XI. An exact Method to Compute Time Delay Margin for Stability of Time Delayed Generator Excitation Control System**
SÖNMEZ Ş., Ulaş E., AYASUN S.
International Research Journal of Engineering and Technology (IRJET), cilt.2, sa.8, ss.276-283, 2015 (Hakemli Dergi)
- XII. Computation of Time Delay Margins for Stability of a Single Area Load Frequency Control System with Communication Delays**
SÖNMEZ Ş., AYASUN S., Ulaş E.
WSEAS TRANSACTIONS on POWER SYSTEMS, cilt.9, ss.67-76, 2014 (Scopus)
- XIII. Computation of Time Delay Margin for DC Motor Speed Control System with Time Delays**
AYASUN S.
International Review of Automatic Control (IREACO), cilt.3, sa.5, ss.485-491, 2010 (Hakemli Dergi)
- XIV. Zaman Gecikmeli Analog Benzetim Uyartım Arayüzünün DC Motor Kontrolüne Uygulanması ve Kararlılık Analizi**
Dilek Ç., AYASUN S.
Otomasyon, cilt.182, sa.8, ss.124-132, 2007 (Hakemli Dergi)
- XV. Bir Tekstil Fabrikasının Harmonik Analizi**
Ayetül K., Ceylan Y., AYASUN S., YALÇINÖZ T.
3e Electrotech, cilt.142, sa.4, ss.118-122, 2006 (Hakemli Dergi)

Kitap & Kitap Bölümleri

- I. **IMPACT OF VIRTUAL INERTIA AND DEMAND RESPONSE CONTROLS ON STABILITY DELAY MARGINS IN LOAD FREQUENCY CONTROL SYSTEM**
Naveed A., Aydin Ö., SÖNMEZ Ş., AYASUN S.
Research and Reviews in Engineering-I, Nergis Banu, Bardak Selahattin, Kayar Mahmut, Mendi Furkan, Editör, Gece Kitaplığı, Ankara, ss.122-142, 2021
- II. **Havai Hat İletkenleri ve Yer altı Kabloları**
AYASUN S.
Elektrik Enerjisi İletimi ve Dağıtımları, Prof. Dr. Süleyman Demir, Editör, Anadolu Üniversitesi Açıköğretim Fakültesi Yayınları, Eskişehir, ss.86-117, 2017

Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. **Robust Stability Region for Time-Delayed Single-Area LFC-EV System**
AYDIN Ö., Hasen S. A., AYASUN S.
5th IEEE Global Power, Energy and Communication Conference, GPECOM 2023, Cappadocia, Türkiye, 14 - 16 Haziran 2023, ss.317-322
- II. **Design of an Optimal PI Controller for Time-Delayed Two-Area LFC-VID System**
Hasen S. A., AYDIN Ö., AYASUN S.
5th IEEE Global Power, Energy and Communication Conference, GPECOM 2023, Cappadocia, Türkiye, 14 - 16 Haziran 2023, ss.288-293
- III. **The Impact of the EV Aggregator on the Stability Regions of the Time-Delayed LFC-EV with FOPI Controller**
Sari A., Sonmez S., AYASUN S., Kabalci Y.
4th IEEE Global Power, Energy and Communication Conference, GPECOM 2022, Cappadocia, Türkiye, 14 - 17 Haziran 2022, ss.311-315
- IV. **Impact of Virtual Inertia on Stability Delay Margins of Micro grids with Communication Time Delay**
Hasen S. A., Sonmez S., AYASUN S.
4th IEEE Global Power, Energy and Communication Conference, GPECOM 2022, Cappadocia, Türkiye, 14 - 17 Haziran 2022, ss.250-255
- V. **Adaptive Notch Filter Design for Flexible Modes of Guided Munitions**
Eser A. O., KÜRKÜ B., AYASUN S.
13th IEEE International Conference on Mechanical and Intelligent Manufacturing Technologies, ICMIMT 2022, Virtual, Online, Güney Afrika, 25 - 27 Mayıs 2022, ss.275-280
- VI. **Delay Margin Computation of Generator Excitation Control System with Incommensurate Time Delays Using Critical Eigenvalue Tracing Method**
AYDIN Ö., Sonmez S., AYASUN S.
4th IEEE Global Power, Energy and Communication Conference, GPECOM 2022, Cappadocia, Türkiye, 14 - 17 Haziran 2022, ss.244-249
- VII. **Switching Based MIMO Robust Autopilot Design: A Munition Example**
Albayrak M., KÜRKÜ B., AYASUN S.
13th IEEE International Conference on Mechanical and Intelligent Manufacturing Technologies, ICMIMT 2022, Virtual, Online, Güney Afrika, 25 - 27 Mayıs 2022, ss.302-307
- VIII. **Delay-Dependent Stability Analysis of a Single-Area Load Frequency Control System Enhanced by Electric Vehicles Aggregator and Demand Response Control**
KHAN A. N., KATİPOĞLU D., SÖNMEZ Ş., AYASUN S.
International Turkic World Congress on Science and Engineering, Niğde, Türkiye, 14 - 15 Kasım 2020, ss.546-554
- IX. **Tuning of Controller Parameters for Time-Delayed Micro-Grid System Including Electric Vehicle**
GÜNDÜZ H., SÖNMEZ Ş., AYASUN S.

- 2020 2nd Global Power, Energy and Communication Conference (GPECOM), 20 - 23 Ekim 2020
- X. **Damping Based Relative Stability Regions in Load Frequency Control System with Plug-in Electric Vehicles and Communication Delays**
KHAN A. N., SÖNMEZ Ş., AYASUN S.
2020 2nd Global Power, Energy and Communication Conference (GPECOM), Izmir, Turkey, 20 - 23 Ekim 2020
- XI. **Kesirli Dereceli PI Denetleyici İçeren Doğru Akım Motor Hız Kontrol Sisteminin Zaman Gecikmesine Bağlı Kararlılık Analizi**
Bolat R., SÖNMEZ Ş., AYASUN S.
EEMKON 2019, Türkiye, 14 - 16 Kasım 2019, ss.122-127
- XII. **Identification of Stability Delay Margin for Load Frequency Control System with Electric Vehicles Aggregator using Rekasius Substitution**
NAVEED A., SÖNMEZ Ş., AYASUN S.
2019 IEEE Milan PowerTech, Milan, Italy, 23 - 27 Haziran 2019
- XIII. **Stability Regions in the Parameter Space of PI Controller for LFC System with EVs Aggregator and Incommensurate Time Delays**
NAVEED A., SÖNMEZ Ş., AYASUN S.
2019 1st Global Power, Energy and Communication Conference (GPECOM), Nevşehir, Turkey, Türkiye, 12 - 15 Haziran 2019, ss.461-466
- XIV. **Stability Delay Margin Computation of Load Frequency Control System with Demand Response**
KATİPOĞLU D., SÖNMEZ Ş., AYASUN S.
2019 1st Global Power, Energy and Communication Conference (GPECOM), Nevşehir, Turkey, Türkiye, 12 - 15 Haziran 2019, ss.473-478
- XV. **Stability Analysis of a Single-Area Load Frequency Control System with Electric Vehicles Group and Communication Time Delays**
NAVEED A., SÖNMEZ Ş., AYASUN S.
INTERNATIONAL TURKIC WORLD CONGRESS ON SCIENCE AND ENGINEERING(UTUFEM), 17 - 18 Haziran 2019, ss.897-905
- XVI. **The Impact of Electric Vehicles Aggregator on the Stability Region of Micro-Grid System with Communication Time Delay**
GÜNDÜZ H., SÖNMEZ Ş., AYASUN S.
2019 IEEE Milan PowerTech, Milan, Italy, 23 - 27 Haziran 2019
- XVII. **Optimization of PI Controller Gains using Genetic Algorithm for Time-Delayed Load Frequency Control Systems with Electric Vehicles Aggregator**
Naveed A., Zerdali E., Sonmez S., AYASUN S.
11th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Türkiye, 28 - 30 Kasım 2019, ss.76-80
- XVIII. **Impact of Virtual Synchronous Generator on Stability Delay Margins of a Micro-Grid with Communication Time Delay**
Sonmczi S., Ayasun S.
11th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Türkiye, 28 - 30 Kasım 2019, ss.111-115
- XIX. **Kesir Dereceli PI Denetleyici İçeren Zaman Gecikmeli Jeneratör Uyarma Kontrol Sisteminin Kararlılık Analizi**
GÖKBULUT K., SÖNMEZ Ş., AYASUN S.
Elektrik-Elektronik ve Biyomedikal Mühendisliği Konferansı (ELECO), Bursa, Türkiye, 30 Kasım - 01 Aralık 2018, ss.217-221
- XX. **Yükselten DA-DA Dönüşürücünün Frekans Tarama Testi Kullanılarak Kararlılık Analizi**
SARI A., SÖNMEZ Ş., AYASUN S.
ELECO, Bursa, Türkiye, 30 - 01 Kasım 2018
- XXI. **Dinamik Talep Cevabı (DTC) İçeren Haberleşme Zaman Gecikmeli Mikro Şebeke Kararlılık Analizi**
GÜNDÜZ H., SÖNMEZ Ş., AYASUN S.

- TOK 2018, Kayseri, Türkiye, 12 - 14 Eylül 2018, ss.183-188
- XXII. **Impact of Dynamic Demand Response on Stability Delay Margin of Single-Area Load Frequency Control System with CommunicationDelay**
AYASUN S., Nwankpa C. O.
International Congress on Engineering and Technology Sciences (ICETS 2017), 22 - 25 Aralık 2017
- XXIII. **Impact of Demand Response on Stability Region of Single-Area Load Frequency Control System with Communication Delay**
AYASUN S., Nwankpa C. O.
10th International Conference on Electrical and Electronics Engineering (ELECO 2017), 30 Kasım - 02 Aralık 2017
- XXIV. **Gain and Phase Margins Based Delay-Dependent Stability Analysis of Two-Area Load Frequency Control System with Communication Delay**
SÖNMEZ Ş., AYASUN S.
10th International Conference on Electrical and Electronics Engineering (ELECO 2017), 30 Kasım - 02 Aralık 2017
- XXV. **Zaman Gecikmeli Yükselten DA-DA Dönüştürülerin Kararlılık Analizi**
SARI A., SÖNMEZ Ş., AYASUN S.
Ulusal Elektrik Enerjisi Dönüşümü Kongresi (EL-EN), Elazığ, Türkiye, 21 - 22 Eylül 2017, ss.99-104
- XXVI. **Computation of all stabilizing PI controller parameters of hybrid load frequency control system with communication time delay**
EROL H., Sezer H., AYASUN S.
2017 5th International Istanbul Smart Grid and Cities Congress and Fair (ICSG), İstanbul, Turkey, 19 - 21 Nisan 2017
- XXVII. **Impact of Demand Response on Stability Region of Single-Area LFC System with Communication Delay**
Ayasun S., Nwankpa C. O.
10th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Türkiye, 30 Kasım - 02 Aralık 2017, ss.116-119
- XXVIII. **Gain and Phase Margins Based Delay- Dependent Stability Analysis of Two-Area LFC System with Communication Delays**
Sonmez S., Ayasun S.
10th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Türkiye, 30 Kasım - 02 Aralık 2017, ss.1409-1413
- XXIX. **Probability of small signal stability of power systems in the presence of communication delays**
AYASUN S., Nwankpa C.
Probability of small-signal stability of power systems in the presence of communication delays, 5 - 08 Kasım 2009
- XXX. **Effects of PWM Chopper Drive on the Torque-Speed Characteristic of DC Motor**
Gelen A., Ayasun S.
43rd International-Universities-Power-Engineering Conference, Padova, İtalya, 1 - 04 Eylül 2008, ss.1068-1071
- XXXI. **Investigation of Damping Effect of Power System Stabilizer in the Presence of Communication Delays**
Ayasun S., Gelen A.
43rd International-Universities-Power-Engineering Conference, Padova, İtalya, 1 - 04 Eylül 2008, ss.431-435
- XXXII. **Symbolic analysis and simulation for power system dynamic performance assessment**
Ayasun S., Dafis C., Nwankpa C. O., Kwatny H.
IEEE/PES Power Systems Conference and Exposition, Georgia, Amerika Birleşik Devletleri, 29 Ekim - 01 Kasım 2006, ss.374
- XXXIII. **Symbolic analysis and simulation for power system dynamic performance assessment**
Ayasun S., Dafis C., Nwankpa C., Kwatny H.
IEEE-Power-Engineering-Society General Meeting, San-Francisco, Kostarika, 12 - 16 Haziran 2005, ss.823-831
- XXXIV. **Electric machinery diagnostic testing system and power hardware in the loop studies**
AYASUN S., Vallieu S., Fischl R., Chmielewski T.
IEEE international symposium on diagnostics for electric machines, power electronics and drives, 24 - 26 Ağustos 2003

- XXXV. **Evaluation of static performance of simulation stimulation interface for Power hardware in the loop**
AYASUN S., Fischl R., Chmielewski T., Vallieu S., Miu K., Nwankpa C.
IEEE PowerTech Conference, 23 - 26 Haziran 2003
- XXXVI. **A novel method to compute singular points of differential-algebraic power system model**
Ayasun S., Nwankpa C., Kwatny H.
American Control Conference (ACC), Darlington, Birleşik Krallık, 25 - 27 Haziran 2001, ss.3563-3564
- XXXVII. **Singular points of the differential-algebraic power system model**
Ayasun S., Nwankpa C., Kwatny H.
IEEE Power-Engineering-Society Summer Meeting, Washington, Amerika Birleşik Devletleri, 16 - 20 Temmuz 2000, ss.1951-1956
- XXXVIII. **Enhanced visualization of power system stability limits imposed by singularity induced bifurcations**
Ayasun S., Nwankpa C., Kwatny H.
IEEE International Symposium on Circuits and Systems (ISCAS 2000), GENEVA, İsviçre, 28 - 31 Mayıs 2000, ss.229-232
- XXXIX. **Numerical issues in the location of singularity-induced bifurcation points**
Ayasun S., Nwankpa C., Kwatny H.
1999 IEEE Power-Engineering-Society Winter Meeting, New York, Amerika Birleşik Devletleri, 31 Ocak - 04 Şubat 1999, ss.707-712

Desteklenen Projeler

Ayasun S., TÜBİTAK Projesi, Elektrikli Araç Grupları ve Dinamik Talep Cevabı İçeren Yük Frekans Kontrol Sistemlerinin Zaman Gecikmesine Bağlı Kararlılık Analizi ve Gürbüz Denetleyici Tasarımı, 2019 - 2021

Metrikler

Yayın: 103
Atıf (WoS): 745
Atıf (Scopus): 1132
H-İndeks (WoS): 16
H-İndeks (Scopus): 17

Akademi Dışı Deneyim

Milli Savunma Bakanlığı