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International Researcher IDs

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Publons / Web Of Science ResearcherID: F-4983-2018

ScopusID: 25927201400

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Education Information

2008 - 2012	Doctorate, Kocaeli University, Fen Bilimleri Enstitüsü, Elektronik Ve Haberleşme Mühendisliği Anabilim Dalı, Turkey
2005 - 2008	Postgraduate, Kocaeli University, Fen Bilimleri Enstitüsü, Mekatronik Mühendisliği Anabilim Dalı, Turkey
2000 - 2005	Undergraduate, Kocaeli University, Teknik Eğitim Fakültesi, Elektronik Ve Bilgisayar Eğitimi Bölümü, Turkey

Foreign Languages

English, B2 Upper Intermediate

Dissertations

2012	Medikal amaçlı haptik güdümlü empedans kuvvet kontrollü stewart platformunun geliştirilmesi ve kontrolü, Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, Elektronik Ve Haberleşme Mühendisliği Anabilim Dalı, Doctorate
2008	Doğrusal olmayan ters sarkaç sisteminin tasarımı ve kontrolü, Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, Mekatronik Mühendisliği Anabilim Dalı, Postgraduate

Research Areas

Information Systems, Communication and Control Engineering, Control and System Engineering, Simulation, Modelling and Identification, Controllers, Industrial automation, Actuating and Final Control Devices, Communication Control Systems, Stability, Discrete Time Systems and Computer Control, Control Systems and Instrumentation, System Diagnostics, Adaptive Systems, Electrical and Electronics Engineering, Electronic, Electronic Circuits, Mechanical Engineering, Machine Theory and Dynamics, System Dynamics and Control, Robotics, Mechatronics, Engineering and Technology

Academic Titles / Tasks

2021 - Continues	Associate Professor, Kocaeli University, Mühendislik Fakültesi, Mekatronik Mühendisliği
2018 - 2021	Assistant Professor, Kocaeli University, Mühendislik Fakültesi, Mekatronik Mühendisliği
2013 - 2018	Assistant Professor, Kocaeli University, Mühendislik Fakültesi, Mekatronik Mühendisliği
2005 - 2012	Research Assistant, Kocaeli University, Mühendislik Fakültesi, Mekatronik Mühendisliği

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Efficiency assessment of SOA-based computed torque control: A comparative analysis with NE-based approach**
Yaren T., KİZİR S.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART I-JOURNAL OF SYSTEMS AND CONTROL ENGINEERING, 2024 (SCI-Expanded)
- II. **A novel tool path planning and feedrate scheduling algorithm for point to point linear and circular motions of CNC-milling machines**
Kelekci E., KİZİR S.
Journal of Manufacturing Processes, vol.95, pp.53-67, 2023 (SCI-Expanded)
- III. **Design of optimized interval type-2 fuzzy logic controller based on the continuity, monotonicity, and smoothness properties for a cart-pole inverted pendulum system**
Kelekci E., YAREN T., KİZİR S.
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, vol.44, no.12, pp.2291-2307, 2022 (SCI-Expanded)
- IV. **Development of jerk/acceleration limited tool path planning algorithm for circular and helical motions of CNC machining tools**
Kelekci E., KİZİR S.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.37, no.3, pp.1293-1308, 2022 (SCI-Expanded)
- V. **Position-Based Fractional-Order Impedance Control of a 2 DOF Serial Manipulator**
KİZİR S., Elsavi A.
ROBOTICA, vol.39, no.9, pp.1560-1574, 2021 (SCI-Expanded)
- VI. **Power-based modelling and control: experimental results on a cart-pole double inverted pendulum**
YAREN T., KİZİR S.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.29, no.3, pp.1736-1750, 2021 (SCI-Expanded)
- VII. **Trajectory and vibration control of a flexible joint manipulator using interval type-2 fuzzy logic**
Kelekci E., Kizir S.
ISA Transactions, vol.94, pp.218-233, 2019 (SCI-Expanded)
- VIII. **Design and development of a Stewart platform assisted and navigated transsphenoidal surgery**
Kizir S., Bingül Z.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.27, pp.961-972, 2019 (SCI-Expanded)
- IX. **Trajectory and Vibration Control of a Single-Link Flexible-Joint Manipulator Using a Distributed Higher-Order Differential Feedback Controller**
Agee J. T., Bingül Z., Kizir S.
JOURNAL OF DYNAMIC SYSTEMS MEASUREMENT AND CONTROL-TRANSACTIONS OF THE ASME, vol.139, 2017 (SCI-Expanded)
- X. **Intelligent proportional-integral (iPI) control of a single link flexible joint manipulator**
Agee J. T., Kizir S., Bingül Z.
JOURNAL OF VIBRATION AND CONTROL, vol.21, pp.2273-2288, 2015 (SCI-Expanded)
- XI. **Higher-order differential feedback control of a flexible-joint manipulator**
AGEE J. T., BİNGÜL Z., KİZİR S.
JOURNAL OF VIBRATION AND CONTROL, vol.21, no.10, pp.1976-1986, 2015 (SCI-Expanded)
- XII. **A Haptic Guided Robotic System for Endoscope Positioning and Holding**
ÇABUK B., CEYLAN S., ANIK İ., Tugasaygi M., KİZİR S.
TURKISH NEUROSURGERY, vol.25, no.4, pp.601-607, 2015 (SCI-Expanded)
- XIII. **Tip trajectory control of a flexible-link manipulator using an intelligent proportional integral (iPI) controller**
AGEE J. T., BİNGÜL Z., KİZİR S.

TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, vol.36, no.5, pp.673-682, 2014 (SCI-Expanded)

XIV. Fuzzy impedance and force control of a Stewart platform

Kizir S., Bingül Z.

TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.22, pp.924-939, 2014 (SCI-Expanded)

XV. TIME DELAY COMPENSATED VISION BASED STABILIZATION CONTROL OF AN INVERTED PENDULUM

KİZİR S., OCAK H., BİNGÜL Z., OYSU C.

INTERNATIONAL JOURNAL OF INNOVATIVE COMPUTING INFORMATION AND CONTROL, vol.8, no.12, pp.8133-8145, 2012 (SCI-Expanded)

XVI. Cascade fuzzy logic control of a single-link flexible-joint manipulator

AKYUZ I. H., BİNGÜL Z., KİZİR S.

TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.20, no.5, pp.713-726, 2012 (SCI-Expanded)

XVII. Fuzzy control of a real time inverted pendulum system

Kizir S., Bingül Z., Oysu C.

JOURNAL OF INTELLIGENT & FUZZY SYSTEMS, vol.21, pp.121-133, 2010 (SCI-Expanded)

Articles Published in Other Journals

I. Model Reference Adaptive PID Controller Design and Analysis of the Impact of Controller Parameters on System Behavior: DC Motor Position Control

Yaren T., Kizir S.

Konya Journal of Engineering Sciences, vol.11, no.3, pp.730-747, 2023 (Peer-Reviewed Journal)

II. Floating Mini Robot Design Driven by Piezo Actuator

Karagoz N. N., Atici S., Yaman B. F., Topacik B., KİZİR S.

JOURNAL OF POLYTECHNIC-POLITEKNİK DERGİSİ, no.2, pp.519-527, 2023 (ESCI)

III. Kendinden Ayarlamalı Denetleyici ile DA Motor Hız Kontrolü

Yaren T., Kizir S.

JOURNAL OF POLYTECHNIC-POLITEKNİK DERGİSİ, vol.25, no.2, pp.757-765, 2022 (ESCI)

IV. DC Motor Position Control with Model Predictive Control

YAREN T., KİZİR S.

Düzce Üniversitesi Bilim ve Teknoloji Dergisi, vol.10, no.3, pp.1151-1164, 2022 (Peer-Reviewed Journal)

V. Kök Yer Eğrisi ve Bode Diyagramı ile Gerçek Zamanlı DC Motor Konum Kontrolü İçin Faz İlerlemeli-Gerilemeli Denetleyici Tasarımı

Özdağ M., Yaren T., Kizir S.

Journal of the Institute of Science and Technology, vol.11, no.3, pp.1874-1886, 2021 (Peer-Reviewed Journal)

VI. Gerçek Zamanlı DC Motor Konum-Hız ve Konum-Hız-Tork Kaskad PID Denetleyici Performanslarının Karşılaştırılması

Koç H., Berzener B. S., Yaren T., Kizir S.

Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, vol.21, no.4, pp.985-995, 2021 (Peer-Reviewed Journal)

VII. DESIGN OF A MODEL REFERENCE ADAPTIVE PID CONTROLLER FOR DC MOTOR POSITION CONTROL: COMPARED WITH PID AND FUZZY CONTROLLERS

Çakar Y., Orman Y., Kizir S.

Mugla Journal of Science and Technology, vol.6, no.0, pp.25, 2020 (Peer-Reviewed Journal)

VIII. LQR Kontrolcü Parametrelerinin Sistem Davranışına Etki Analizi: Çift Çubuklu Ters Sarkaç Sistemi

YAREN T., KİZİR S.

Konya Mühendislik Bilimleri Dergisi, vol.8, no.1, pp.175-191, 2020 (Peer-Reviewed Journal)

IX. Real Time Full State Feedback Control of a Seesaw System Based on LQR

Kızır S.

JOURNAL OF POLYTECHNIC-POLITEKNİK DERGİSİ, vol.22, no.4, pp.1023-1030, 2019 (ESCI)

- X. **CAN Bus Based Firmware Update System for Distributed Embedded Systems Consisting of ARM Cortex-M0 Series Microcontrollers**

Kızır S., Kindan A. B.

Kocaeli Journal of Science and Engineering, vol.2, no.1, pp.1-6, 2019 (Peer-Reviewed Journal)

- XI. **Development and control of a high precision stewart platform**

KİZİR S., BİNGÜL Z., KÜÇÜK S., OYSU C.

SDU International Journal of Technologic Sciences, 2011 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Matlab Simulink Destekli Gerçek Zamanlı Kontrol Teori ve Mühendislik Uygulamaları**

Kızır S., Kelekçi E., Yaren T.

Seçkin Yayıncılık, Ankara, 2019

- II. **Position Control and Trajectory Tracking of the Stewart Platform**

KİZİR S., BİNGÜL Z.

in: Serial and Parallel Robot Manipulators Kinematics Dynamics Control and Optimization, Küçük Serdar, Editor, InTech, 2012

Refereed Congress / Symposium Publications in Proceedings

- I. **TRAJECTORY CONTROL OF A TWO-LINK ROBOT ARM WITH COMPUTED TORQUE METHOD**

YAREN T., KİZİR S.

10th International Marmara Sciences Congress, Kocaeli, Turkey, 09 June 2023, pp.13

- II. **PID PARAMETRELERİNİN OTOMATİK AYARLAMA YÖNTEMİ İLE KESTİRİMİ: DC MOTOR KONUM KONTROLÜ**

Türkoğlu E. C., Tunç Y., YAREN T., KİZİR S.

10th International Marmara Sciences Congress, Kocaeli, Turkey, 09 June 2023

- III. **Investigation of Torque Control in Wide Speed Range of IPMSM Motors under DC Bus Voltages Variations**

Atsız O., Kızır S.

Uluslararası Mühendislik ve Doğa Bilimleri Çalışmaları Kongresi, Ankara, Turkey, 7 - 09 May 2021, pp.564-575

- IV. **PID VE KAYMA KİPLİ KONTROL YÖNTEMLERİ İLE GERÇEK ZAMANDA DC MOTOR HIZ KONTROLÜ**

KÖSE F., KİZİR S., ERTUNÇ H. M.

International Marmara Sciences Congress (Imascon 2020 – Autumn), Kocaeli, Turkey, 04 December 2020, pp.451-456

- V. **Ethercat Based Trajectory Tracking Control of an Ac Servo Motor**

KELEKÇİ E., KİZİR S.

IMASCON-International Marmara Sciences Congress, Kocaeli, Turkey, 1 - 03 November 2019, pp.1173-1178

- VI. **MODEL BASED PID CONTROLLER DESIGN OF A DC MOTOR USING BLACK BOX SYSTEM IDENTIFICATION**

Kelekçi E., Yaren T., Kızır S.

10th International Conference on Image Processing, Wavelet and Applications (IWW2019), Kocaeli, Turkey, 18 - 20 October 2019, pp.1

- VII. **Model Based PID Controller Design of a Dc Motor Using Black Box System Identification**

KELEKÇİ E., YAREN T., KİZİR S.

10th International Conference on Image Processing, Wavelet and Applications (IWW2019), 18 - 20 October 2019

- VIII. **Tool Path Planning Control of the 3-Axis CNC Machining with High Accuracy Step Motor**

Pulse/Direction Command

KELEKÇİ E., KİZİR S.

10th International Conference on Image Processing, Wavelet and Applications (IWW2019), 18 - 20 October 2019

- IX. **Tool Path Planning Control of the 3-Axis CNC Machining with High Accuracy Step Motor Pulse/Direction Command**
Kizir S., Kelekçi E.
10th International Conference on Image Processing, Wavelet and Applications (IWW2019), Kocaeli, Turkey, 18 - 20 October 2019, pp.1
- X. **DC Motor Konum Kontrolü için Model Referans Uyarlamalı PID Denetleyici Tasarımı ve Gerçek Zamanlı Uygulanması**
Çakar Y., Orman Y., Kizir S.
Türkiye Otomatik Kontrol TOK19, Muğla, Turkey, 11 - 14 September 2019, pp.1
- XI. **A Comprehensive Loss Analysis of Half-Bridge LLC Resonant Converter used in LED Street Lights**
Suel V., KİZİR S.
1st IEEE Global Power, Energy and Communication Conference, GPECOM 2019, Nevşehir, Turkey, 12 - 15 June 2019, pp.146-151
- XII. **Electrical Equivalent Circuit Based Analysis of Double Pendulum System**
YAREN T., KİZİR S., YILDIZ A. B.
IEEE 6th International Conference on Electrical and Electronics Engineering (ICEEE), Istanbul, Turkey, 16 - 17 April 2019
- XIII. **Design and Development of a Stewart Platform Based Robotic System for Transsphenoidal Surgery**
KİZİR S., BİNGÜL Z.
6th International Conference on Control Engineering Information Technology, 25 - 27 October 2018
- XIV. **Stabilization Control of Triple Pendulum on a Cart**
YAREN T., KİZİR S.
IEEE 6th International Conference on Control Engineering Information Technology, 25 - 27 October 2018
- XV. **Real Time Control of a Flexible Joint Manipulator Using Interval Type-2 Fuzzy Logic Controller**
KELEKÇİ E., KİZİR S.
5th International Conference of Control, Dynamic Systems, and Robotics, 6 - 07 June 2018
- XVI. **Impedance Control of 2dof Serial Robot Manipulator**
ALİ A., KİZİR S.
International Conference on Advanced Technologies, Computer Engineering , 2018, 11 - 13 May 2018
- XVII. **Endüstri 4.0 Kapsamında CAN Haberleşmesi Uygulamalarının İncelenmesi**
GÜÇLÜ ö., KİZİR S.
İletişim Teknolojileri Sempozyumu EEMKON, Turkey, 16 - 18 November 2017
- XVIII. **İki Serbestlik Dereceli Dört Rotor Sisteminin Tasarımı, Modellenmesi ve Kontrolü**
KELEKÇİ E., KİZİR S., BİNGÜL Z.
5th International Symposium on Innovative Technologies in Engineering and Science, 29 - 30 September 2017
- XIX. **Arabalı Üç Çubuklu Ters Sarkaç Sisteminin Modellenmesi ve Kontrolü**
YAREN T., KİZİR S.
Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı, TOK2017, Turkey, 21 - 23 September 2017
- XX. **DC Motor Hızının Bir ve İki Serbestlik Dereceli PID ile Denetimi**
KİZİR S., KABAKULAK f., YILDIRIM m., KAÇAR e.
Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı, TOK2016, Turkey, 29 September - 01 October 2016
- XXI. **Matlab GUI ile Tip 2 Bulanık Mantık Editör Tasarımı**
KELEKÇİ E., KİZİR S.
TOK'2015, Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı, Turkey, 10 September 2015 - 12 January 2016
- XXII. **STM32F4 Kiti ile Simulink Tabanlı Kontrol Eğitimi Uygulamaları Geliştirme**
YAREN T., KİZİR S., Süel V., Yeniaydın Y., Sakacı B.
Otomatik Kontrol Ulusal Toplantısı, Kocaeli, Turkey, 11 September 2014
- XXIII. **DC Motor Hız Kontrolü için Model Referans Uyarlamalı PID Denetleyici Tasarımı**

- YAREN T., KİZİR S., Süel V., Yeniaydın Y., Sakacı B.
Otomatik Kontrol Ulusal Toplantısı, Kocaeli, Turkey, 11 September 2014
- XXIV. **STM32F4 Kiti ile Simulink Tabanlı Kontrol Eğitimi Uygulamaları Geliştirme**
YAREN T., SÜEL v., YENİAYDIN y., SAKACI b., KİZİR S.
Otomatik Kontrol Ulusal Toplantısı, TOK2016, Turkey, 11 - 13 September 2014
- XXV. **DC Motor Hız Kontrolü için Model Referans Uyarlamalı PID Denetleyici Tasarımı**
KİZİR S., YENİAYDIN y., SAKACI b., YAREN T., SÜEL v.
Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı, TOK2014, Turkey, 11 - 13 September 2014
- XXVI. **Haptik Kontrollü Stewart Platformu ile Endoskop Konumlama**
KİZİR S., BİNGÜL Z.
Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı, TOK2012, Turkey, 11 - 13 October 2012
- XXVII. **Stewart Platformunun Konum ve Bulanık Empedans-Kuvvet Kontrolü**
KİZİR S., BİNGÜL Z.
Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı, TOK2012, Turkey, 11 - 13 October 2012
- XXVIII. **Çift Eksenli Ters Sarkaç Sisteminde Parametrelerin Parçacık Sürü Optimizasyon Tekniğiyle Belirlenmesi**
YÜKSEL a., KİZİR S., BİNGÜL Z.
Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı, TOK2012, Turkey, 11 - 13 October 2012
- XXIX. **Inverted Pendulum System: a Laboratory Tool for Control Education**
KİZİR S., BİNGÜL Z., OYSU C.
9th International Conference on Electronics Computer and Computation (ICECCO 2012), Ankara, Turkey, 1 - 03 November 2012, pp.61-64
- XXX. **Ters Sarkaç Sisteminin Görme Tabanlı Gecikme Telafili Kontrolü**
KİZİR S., OCAK H., BİNGÜL Z., OYSU C.
TOK 2011, Otomatik Kontrol Ulusal Toplantısı, Turkey, 14 - 16 September 2011
- XXXI. **Fuzzy Logic Control of Single-Link Flexible Joint Manipulator**
AKYUZ I. H., KİZİR S., BİNGÜL Z.
IEEE International Conference on Industrial Technology (ICIT), Alabama, United States Of America, 14 - 16 March 2011
- XXXII. **Yüksek Hassasiyetli Stewart Platformunun Kesir Dereceli PID Yöntemiyle Konum Kontrolü ve Yörünge Takibi**
Karahana O., Kizir S., Bingül Z.
TOK2010, İstanbul, Turkey, 21 - 23 September 2010
- XXXIII. **Yüksek Hassasiyetli Stewart Platformunun Kayma Kipli Konum Kontrolü ve Yörünge Takibi**
KİZİR S., BİNGÜL Z.
TOK2010, Turkey, 21 - 23 September 2010
- XXXIV. **Tek Eklemlili Esnek Robot Kolunun Modellenmesi, Tasarımı ve Bulanık Mantık ile Kontrolü**
KİZİR S., BİNGÜL Z., AKYUZ İ. H.
TOK09, Turkey, 13 - 16 October 2009
- XXXV. **Yüksek Hassasiyetli Stewart Platformunun Tasarımı ve PID ile Kontrolü**
KİZİR S., BİNGÜL Z., OYSU C., KÜÇÜK S.
TOK2009, Turkey, 01 September 2009
- XXXVI. **Development and Control of a High Precision Stewart Platform**
Kizir S., Bingül Z., Oysu C., Küçük S.
IJRCS09 - 2th International Joint Robotics Competition and Symposium, Isparta, Turkey, 01 May 2009
- XXXVII. **Ters Sarkaç Sisteminde Yükseltme Problemi**
KİZİR S., BİNGÜL Z., OYSU C.
TOK2008, Turkey, 01 September 2008
- XXXVIII. **Gerçek Zamanlı Ters Sarkaç Sisteminin Bulanık Mantık ile Kontrolü**
KİZİR S., BİNGÜL Z., OYSU C.
TOK 2008, Turkey, 01 September 2008

- XXXIX. **SWING-UP AND STABILIZATION OF THE INVERTED PENDULUM PROBLEM WITH PID AND FULL STATE FEEDBACK CONTROL METHODS**
KİZİR S., BİNGÜL Z., OYSU C.
9th International Workshop on Research and Education in Mechatronics 2008, 01 September 2008
- XL. **DESIGN AND IMPLEMENTATION OF A SINGLE AXIS MAGNETIC LEVITATION SYSTEM**
KİZİR S., BİNGÜL Z., OYSU C.
9th International Workshop on Research and Education in Mechatronics, 01 September 2008
- XLI. **Fuzzy control of a real time inverted pendulum system**
KİZİR S., BİNGÜL Z., OYSU C.
12th International Conference on Knowledge-Based Intelligent Information and Engineering Systems, Zagreb, Croatia, 3 - 05 September 2008, vol.5177, pp.674-681
- XLII. **Ters Sarkaç Probleminin PID ve Tam Durum Geri-Besleme Yöntemleri ile Kontrolü**
KİZİR S., BİNGÜL Z., OYSU C.
TOK 2007, Turkey, 01 September 2007
- XLIII. **Manyetik Süspansiyon Sisteminin Gerçeklenmesi ve Kontrolü**
ÖZTÜRK s., KİZİR S., BİNGÜL Z., OYSU C.
TOK 2007, Turkey, 01 September 2007
- XLIV. **Mikro Kontrolör Tabanlı PID Kontrol Sistemi Eğitim Seti**
KİZİR S., ERTUNÇ H. M.
TOK2006, Turkey, 01 September 2006
- XLV. **İkili ve Renkli Logo ile Sayısal Damgalama**
KİZİR S., ERTUNÇ H. M., OCAK H.
ELECO2006, Turkey, 01 September 2006

Supported Projects

2018 - 2019	YENİ BİR PCB PROTOTİPLEME YÖNTEMİ, Project Supported by Higher Education Institutions
2016 - 2017	DİNAMİK VE STATİK ORTAMLARDAN OTONOM GEZİNİM GERÇEKLEŞTİREN MOBİL ROBOT UYGULAMASI, Project Supported by Higher Education Institutions

Metrics

Publication: 77
Citation (WoS): 167
Citation (Scopus): 237
H-Index (WoS): 9
H-Index (Scopus): 11

Non Academic Experience

2005 - 2005	MEB
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