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Personal Information

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Post Address: Yıldız Teknik Üniversitesi, Makina Fakültesi, Mekatronik Müh. Böl. A 309 Yıldız Beşiktaş İSTANBUL 34349

Biography

He got his electrical engineering B.Sc. degree from the Yıldız Technical University in 2004. Next, he was awarded M.Sc. and Ph.D degrees in control and automation engineering by The Istanbul Technical University in 2007 and 2013, respectively. He worked as a chief senior researcher at the Energy Institute of TUBITAK Marmara Research Center between 2007 and 2018. He currently works as an associate professor at the Mechatronics Engineering Department of the Yıldız Technical University since October 2018.

Education Information

Doctorate, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Kontrol Ve Otomasyon Mühendisliği, Turkey 2007 - 2013

Post Graduate, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Kontrol Ve Otomasyon Mühendisliği, Turkey 2004 - 2006

Under Graduate, Yıldız Teknik Üniversitesi, Faculty of Electrical & Electronics, Elektrik Mühendisliği, Turkey 1999 - 2004

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Granüler tip-2 bulanık yapılar kullanılarak sistemlerin modellenmesi ve kontrolü, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Kontrol Ve Otomasyon Mühendisliği, 2013

Post Graduate, Bulanık kontrolörlerde dilsel biçimlendiricilerin optimal ayarlanmasına dayalı tasarım yöntemi, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Kontrol Ve Otomasyon Mühendisliği, 2006

Research Areas

Information Systems, Communication and Control Engineering, Control and System Engineering, Controllers, Industrial automation, Robotics and Mechatronics Systems, Field and Service Robots, Mechatronic Systems, Computer Sciences, algorithms, Simulation and Modelling, Artificial Intelligence, Computer Learning and Pattern Recognition, Fuzzy Sets and Systems, Electrical and Electronics Engineering, Energy, Renewable energy, Power Electronics, Electrical Machine Theory and Design, Mechanical Engineering, Machine Theory and Dynamics, Robotics, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Yıldız Teknik Üniversitesi, Faculty of Mechanical Engineering, Department of Mechatronics Engineering, 2018 - Continues

Professional Experience

Courses

Electrical Drive Systems, Under Graduate, 2018 - 2019, 2019 - 2020

Special Topics in Mechatronics Engineering, Doctorate, 2019 - 2020

Industrial Automation, Under Graduate, 2018 - 2019

Electromechanical Energy Conversion Systems, Under Graduate, 2018 - 2019

Advising Theses

ULU C., Uzaktan Kontrollü Sualtı Aracı İçin Kumanda Konsolu Geliştirilmesi ve Açık Çevrim Motor Kontrol Uygulaması, Post Graduate, S.YAYLA(Student), 2017

ULU C., Bulanık Zaman Serisi Modellerinde Farklı Üyelik Fonksiyonlarının Başarıma Etkisi, Post Graduate, A.İhsan(Student), 2014

Jury Memberships

Competition, SSM ROBOİK İnsansız Su Altı Araçları Prototip Yarışması, Savunma Sanayii Müsteşarlığı, October, 2018

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

- **Electrical design and testing of a 500 kW doubly fed induction generator for wind power applications**
Ulu C., Komurgoz G.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.25, pp.1278-1290, 2017 (Journal Indexed in SCI)
- **Exact analytical inversion of interval type-2 TSK fuzzy logic systems with closed form inference methods**
Ulu C.
APPLIED SOFT COMPUTING, vol.37, pp.60-70, 2015 (Journal Indexed in SCI)
- **Exact analytical inverse mapping of decomposable TS fuzzy systems with singleton and linear consequents**
Ulu C.
APPLIED SOFT COMPUTING, vol.23, pp.202-214, 2014 (Journal Indexed in SCI)
- **Exact analytical inversion of TSK fuzzy systems with singleton and linear consequents**
Ulu C., Güzelkaya M., Eksin İ.
INTERNATIONAL JOURNAL OF APPROXIMATE REASONING, vol.55, pp.1357-1368, 2014 (Journal Indexed in SCI)
- **A closed form type reduction method for piecewise linear interval type-2 fuzzy sets**
Ulu C., Güzelkaya M., Eksin İ.
INTERNATIONAL JOURNAL OF APPROXIMATE REASONING, vol.54, pp.1421-1433, 2013 (Journal Indexed in SCI)
- **Granular type-2 membership functions: A new approach to formation of footprint of uncertainty in type-2 fuzzy sets**
Ulu C., Güzelkaya M., Eksin İ.
APPLIED SOFT COMPUTING, vol.13, pp.3713-3728, 2013 (Journal Indexed in SCI)

Articles Published in Other Journals

- **Electromagnetic and thermal analysis/design of an induction motor for electric vehicles**
ULU C., Korman O., Kömürgöz G.
International Journal of Mechanical Engineering and Robotics Research, vol.7, pp.617-623, 2018 (Refereed Journals of Other Institutions)

Refereed Congress / Symposium Publications in Proceedings

- **Rüzgar Türbini Uygulamaları İçin Çift Beslemeli Asenkron Generatör Tasarımı, Modellenmesi ve Kontrolü**
ULU C., OZAN A., AKÇİL L., KÖMÜRGÖZ KIRIŞ G.
Anadolu Enerji Sempozyumu, Edirne, Turkey, 18 - 20 April 2018, pp.2135-2145
- **Development of the MarmaROV remotely operated underwater vehicle system**
Ulu C., CANBAK O., Altunkaya M. U. , TAŞKIN H., YAYLA S.
2017 International Artificial Intelligence and Data Processing Symposium, IDAP 2017, Malatya, Turkey, 16 - 17 September 2017
- **Electromagnetic and thermal analysis/design of an induction motor for electric vehicles**
Ulu C., Korman O., Kömürgöz G.
8th International Conference on Mechanical and Aerospace Engineering, ICMAE 2017, Prague, Czech Republic, 22 - 25 July 2017, pp.6-10
- **Design of 75 kW asynchronous motor for electric vehicle applications Elektrikli araç uygulamaları için 75 kW asenkron motor tasarımı**
Ulu C., Komurgoz G.
2016 National Conference on Electrical, Electronics and Biomedical Engineering, ELECO 2016, Bursa, Turkey, 1 - 03 December 2016, pp.286-290
- **Elektrikli Araç Uygulamaları için 75 kW Asenkron Motor Tasarımı**
ULU C., KÖMÜRGÖZ KIRIŞ G.
Elektrik-Elektronik ve Bilgisayar Mühendisliği Sempozyumu, Bursa, Turkey, 1 - 03 December 2016, pp.286-290
- **MarmaROV Uzaktan Kontrollü İnsansız Sualtı Aracı için Softplc Temelli Kontrol ve Kullanıcı Arayüzü Yazılımı Tasarımı**
TAŞKIN H., ULU C., CANBAK O., ALTUNKAYA M. U. , YAYLA S., BALIKÇI A.
Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı, Eskişehir, Turkey, 29 September - 01 October 2016, pp.705-710
- **MarmaROV Uzaktan Kontrollü Sualtı Aracı Sistemi**
ULU C., CANBAK O., ALTUNKAYA M. U. , TAŞKIN H., YAYLA S.
Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı, Eskişehir, Turkey, 29 September - 01 October 2016, pp.698-704
- **Design of an integer order PID controller for single fractional order pole model**
Yumuk E., Güzelkaya M., Eksin İ., Ulu C.
IEEE Conference on System, Process and Control, ICSPC 2015, Bandar Sunway, Malaysia, 19 - 20 December 2015, pp.85-90
- **Gözlem Amaçlı Uzaktan Kontrollü İnsansız Sualtı Aracı Tasarımı**
ULU C., HANCIOĞLU İ., GENÇ E. U. , ALTUNKAYA M. U. , CANBAK O., ÖZSU E.
Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı (TOK 2014), Kocaeli, Turkey, 11 - 13 September 2014, pp.721-726
- **Bulanık Zaman Serisi Modellerinde Üyelik Fonksiyonlarının Belirlenmesine Yönelik Yeni Bir Yaklaşım**
BAŞYİĞİT A. İ. , ULU C., GÜZELKAYA M.
Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı (TOK 2014), Kocaeli, Turkey, 11 - 13 September 2014, pp.600-606
- **A New Fuzzy Time Series Model Using Triangular and Trapezoidal Membership Functions**
BAŞYİĞİT A. İ. , ULU C., GÜZELKAYA M.
International work-conference on Time Series (ITISE 2014), Granada, Spain, 25 - 27 June 2014, pp.634-644
- **Design of a 500 kW Doubly Fed Induction Generator for Wind Turbine Applications**
ULU C., KÖMÜRGÖZ KIRIŞ G.
Power and Energy / 807: Intelligent Systems and Control / 808: Technology for Education and Learning, Marina del Rey, USA, 11 - 13 November 2013, pp.98-103
- **Sınırlandırılmış tip 2 bulanık kümelerin tanımlanmasına yönelik yeni bir yaklaşım**
ULU C.
Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı (TOK 2013), Malatya, Turkey, 26 - 28 September 2013, pp.248-254
- **Üç insansız sualtı aracı tasarımının karşılaştırılması**

ULU C., HANCIOĞLU İ., GENÇ E. U. , ALTUNKAYA M. U. , CANBAK O., ÖZSU E.

Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı (TOK 2013), Malatya, Turkey, 26 - 28 September 2013, pp.582-588

• **A new approach to an exact inversion of TSK fuzzy systems**

Ulu C., Güzelkaya M., Eksin İ.

2013 International Conference on Technological Advances in Electrical, Electronics and Computer Engineering, TAECE 2013, Konya, Turkey, 9 - 11 May 2013, pp.262-265

• **Design of an Inspection Robot for Search and Rescue Operations in Mines**

ULU C., EL KAHLOUT Y., HANCIOĞLU İ., CANBAK O., GENÇ E. U. , MEHMET BAHAR D.

23rd International Mining Congress and Exhibition of Turkey (IMCET 2013), 16 - 19 April 2013, pp.1913-1921

• **Exact inversion of TSK fuzzy systems with linear consequents**

Ulu C., Güzelkaya M., Eksin İ.

2013 24th International Conference on Information, Communication and Automation Technologies, ICAT 2013, Sarajevo, Bosnia And Herzegovina, 30 October - 01 November 2013

• **A New Type Reduction Method for Piecewise Linear Interval Type 2 Fuzzy Sets**

ULU C., GÜZELKAYA M., EKSİN İ.

2nd World Conference on Soft Computing, Baku, Azerbaijan, 3 - 05 December 2012, pp.494-498

• **Rüzgar Türbini Uygulamaları için 500 kW Çift Beslemeli Asenkron Generatör Tasarımı**

ULU C., KÖMÜRĞÖZ KIRIŞ G.

Elektrik-Elektronik ve Bilgisayar Mühendisliği Sempozyumu (ELECO 2012), Bursa, Turkey, 29 November - 01 December 2012, pp.46-50

• **Madenlerde Kullanılan Arama ve Kurtarma Robotu Tasarımı**

ULU C., EL KAHLOUT Y., HANCIOĞLU İ., CANBAK O., GENÇ E. U. , BAHAR D. M.

Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı (TOK 2012), Niğde, Turkey, 11 - 13 October 2012, pp.590-596

• **Granular interval type-2 membership functions and modeling application on a nonlinear system**

Ulu C., Güzelkaya M., Eksin İ.

12th IEEE International Symposium on Computational Intelligence and Informatics, CINTI 2011, Budapest, Hungary, 21 - 22 November 2011, pp.397-402

• **MOSA Modüler İnsansız Sualtı Aracı**

ULU C., GENÇ E. U. , HANCIOĞLU İ., ALTUNKAYA M. U. , CANBAK O., ÖZSU E.

Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı (TOK 2011), İzmir, Turkey, 14 - 16 September 2011, pp.537-543

• **A dynamic defuzzification method for interval Type-2 Fuzzy Logic Controllers**

Ulu C., Güzelkaya M., Eksin İ.

2011 IEEE International Conference on Mechatronics, ICM 2011, İstanbul, Turkey, 13 - 15 April 2011, pp.318-323

• **Bulanık Kontrolör Tasarımında Üyelik Fonksiyonlarının Dilsel Biçimlendiricilerle Çevrimiçi Ayarlanması**

ULU C., EKSİN İ., GÜZELKAYA M.

Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı (TOK 2008), İstanbul, Turkey, 13 - 15 November 2008, pp.376-381

Supported Projects

ULU C., Project Supported by Other Official Institutions, 12"-16" Doğalgaz Dağıtım Boru Hatları İçin Boru İçi Denetleme Robotu Sistemi Geliştirilmesi, 2017 - Continues

ULU C., Project Supported by Other Official Institutions, Kuvvetli Yer Hareketleri İzleme, Kayıt ve Kumanda Sistemi – 2, 2016 - 2018

ULU C., TUBİTAK Project, Elektrikli Araçlar için Elektronik Kontrol Ünitesi, Elektrik Tahrik Sistemi ve Batarya Grubu Geliştirilmesi Projesi, 2013 - 2016

ULU C., Project Supported by Other Official Institutions, MAM-RV TÜBİTAK Marmara Araştırma Gemisi Sualtı Araştırma Altyapısının Geliştirilmesi Projesi, 2013 - 2016

ULU C., Project Supported by Other Official Institutions, RV TÜBİTAK Marmara için ROV Sistemi Geliştirilmesi Projesi,

2013 - 2015

ULU C., TUBITAK Project, Milli Rüzgar Enerjisi Sistemleri Geliştirilmesi (MİLRES), 2011 - 2014

ULU C., Project Supported by Other Official Institutions, Uzaktan Kontrollü Maden Robotu, 2011 - 2013

ULU C., TUBITAK Project, Milli PAP(ROV) Cihazı Geliştirilmesi, 2006 - 2013

ULU C., Project Supported by Other Official Institutions, Modüler Sualtı Aracı (MOSA) Geliştirilmesi, 2009 - 2009

Scientific Refereeing

INTERNATIONAL CONFERENCE on ELECTRICAL and ELECTRONICS ENGINEERING, Conference Paper (Full Text), July 2019

TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, SCI Journal, May 2019

TUBITAK Project, 1003 - Priority Areas R&D Projects Support Program, TÜBİTAK, Turkey, November 2018

TUBITAK Project, 1003 - Priority Areas R&D Projects Support Program, TÜBİTAK, Turkey, November 2018

TUBITAK Project, 1003 - Priority Areas R&D Projects Support Program, TÜBİTAK, Turkey, November 2018

TUBITAK Project, 1003 - Priority Areas R&D Projects Support Program, TÜBİTAK, Turkey, November 2018

CEIT 2018, Conference Paper (Full Text), July 2018

Technopark, MARTEK, Turkey, June 2018

Technopark, MARTEK, Turkey, March 2018

INTERNATIONAL JOURNAL OF APPROXIMATE REASONING, National Scientific Refreed Journal, July 2017

EXPERT SYSTEMS WITH APPLICATIONS, National Scientific Refreed Journal, June 2017

IEEE TRANSACTIONS ON CYBERNETICS, SCI Journal, May 2017

TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, SCI Journal, May 2017

IEEE TRANSACTIONS ON FUZZY SYSTEMS, SCI Journal, April 2017

IEEE International Conference on Mechatronics, Conference Paper (Full Text), May 2011

Citations

Total Citations (WOS):47

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