

# Prof. Köksal ERENTÜRK

## Personal Information

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## International Researcher IDs

ScholarID: WKWAQVYAAAAJ

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Yoksis Researcher ID: 119083

## Education Information

Doctorate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Turkey 1997 - 2002

## Foreign Languages

English, C1 Advanced

## Dissertations

Doctorate, GÜÇ SİSTEMLERİNİN KORUNMASI İÇİN AKILLI BİR KORUMA RÖLESİNİN TASARIMI, Karadeniz Technical University, Fen Bilimleri Enstitüsü, 2002

## Research Areas

Electrical and Electronics Engineering, Energy, Electric Power Transmission, Distribution and Protection, Power Electronics, Electrical Machine Theory and Design, Engineering and Technology

## Academic Titles / Tasks

Professor, Ataturk University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2018 - Continues

Professor, Ataturk University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği, 2014 - 2018

## Courses

Elektronik Devreler, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020

Mekatroniğe Giriş, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020

Sinyaller ve Sistemler, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020

Sinyaller ve Sistemler, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020

Mekatroniğe Giriş, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020

Elektronik Devreler, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020

Bilgisayar Mühendisliği Seçmeli Tasarım II, Undergraduate, 2020 - 2021  
Bilgisayar Mühendisliğinde Akıllı Kontrol Sistem Tasarımı, Doctorate, 2020 - 2021  
Sayısal Tasarım, Undergraduate, 2021 - 2022  
Bitirme Projesi II, Undergraduate, 2020 - 2021  
Otomasyon Sistem Tasarımı, Undergraduate, 2021 - 2022, 2020 - 2021  
Danışmanlık, Doctorate, 2020 - 2021  
Design of Industrial Electronic Systems and Their Applications on Mechatronics, Postgraduate, 2020 - 2021  
Bilgisayar Mühendisliği Seçmeli Tasarım II, Undergraduate, 2020 - 2021  
Bitirme Projesi II, Undergraduate, 2020 - 2021  
Uzmanlık Alan Dersi (Yabancı Uyruklu) I, Postgraduate, 2020 - 2021  
Introduction to Computer Engineering, Undergraduate, 2020 - 2021, 2019 - 2020  
Bilgisayar Mühendisliği Seçmeli Tasarım I, Undergraduate, 2020 - 2021  
Bilgisayar Mühendisliğinde Akıllı Kontrol Sistem Tasarımı, Doctorate, 2020 - 2021, 2019 - 2020  
Sayısal Tasarım, Undergraduate, 2020 - 2021, 2019 - 2020  
Bitirme Projesi I, Undergraduate, 2020 - 2021  
Introduction to Computer Engineering, Undergraduate, 2020 - 2021, 2019 - 2020  
Otomasyon Sistem Tasarımı, Undergraduate, 2020 - 2021, 2019 - 2020  
Bilgisayar Mühendisliği Seçmeli Tasarım I, Undergraduate, 2020 - 2021  
Bitirme Projesi I, Undergraduate, 2020 - 2021

## **Published journal articles indexed by SCI, SSCI, and AHCI**

- I. **Enhanced fractional-order PI $\lambda$ D $\mu$  control for a forced circulation evaporator system via advanced disturbance observer**  
Erentürk K., Erentürk S.  
ISA Transactions, vol.131, pp.167-177, 2022 (SCI-Expanded)
- II. **Design and Comparison of Different Types of Synergetic Controllers for Islanded DC Microgrids**  
Erentürk K., Draou A., Alkassam A.  
SUSTAINABILITY, vol.14, no.14, 2022 (SCI-Expanded)
- III. **Fractional order calculus approach for drying modeling of eggplants**  
Erentürk K., Kose B., Erentürk S.  
FOOD SCIENCE AND TECHNOLOGY INTERNATIONAL, vol.26, pp.379-387, 2020 (SCI-Expanded)
- IV. **Comparisons of novel modeling techniques to analyze thermal performance of unglazed transpired solar collectors**  
ERENTÜRK S., ERENTÜRK K.  
MEASUREMENT, vol.116, pp.412-421, 2018 (SCI-Expanded)
- V. **A comparative study of two model-based control techniques for the industrial manipulator**  
DUMLU A., ERENTÜRK K., Kaleli A., AYTEN K. K.  
ROBOTICA, vol.35, no.10, pp.2036-2055, 2017 (SCI-Expanded)
- VI. **Passive Fault Tolerant Control of Induction Motors Using Nonlinear Block Control**  
TOHİDİ H., ERENTÜRK K., Shoja-Majidabad S.  
CONTROL ENGINEERING AND APPLIED INFORMATICS, vol.19, no.1, pp.49-58, 2017 (SCI-Expanded)
- VII. **Trajectory Tracking Control and Contouring Performance of Three-Dimensional CNC**  
ÇORAPSIZ M. F., ERENTÜRK K.  
IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, vol.63, no.4, pp.2212-2220, 2016 (SCI-Expanded)
- VIII. **Controlling spark timing for consecutive cycles to reduce the cyclic variations of SI engines**  
KALELİ A., CEVİZ M. A., ERENTÜRK K.  
APPLIED THERMAL ENGINEERING, vol.87, pp.624-632, 2015 (SCI-Expanded)
- IX. **Trajectory Tracking Control for a 3-DOF Parallel Manipulator Using Fractional-Order (PID  $\mu$ )-D-lambda Control**

DUMLU A., ERENTÜRK K.

IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, vol.61, no.7, pp.3417-3426, 2014 (SCI-Expanded)

- X. **Modeling and trajectory tracking control of 6-DOF RSS type parallel manipulator**  
Dumlu A., ERENTÜRK K.  
ROBOTICA, vol.32, no.4, pp.643-657, 2014 (SCI-Expanded)
- XI. **Fractional-Order (PID  $\mu$ )-D- $\lambda$  and Active Disturbance Rejection Control of Nonlinear Two-Mass Drive System**  
Erenturk K.  
IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, vol.60, no.9, pp.3806-3813, 2013 (SCI-Expanded)
- XII. **Gray-fuzzy control of a nonlinear two-mass system**  
Erenturk K.  
JOURNAL OF THE FRANKLIN INSTITUTE-ENGINEERING AND APPLIED MATHEMATICS, vol.347, no.7, pp.1171-1185, 2010 (SCI-Expanded)
- XIII. **Adaptive-Network-Based Fuzzy Inference System Application to Estimate the Flashover Voltage on Insulator**  
Erenturk K.  
INSTRUMENTATION SCIENCE & TECHNOLOGY, vol.37, no.4, pp.446-461, 2009 (SCI-Expanded)
- XIV. **ANFIS-Based Compensation Algorithm for Current-Transformer Saturation Effects**  
Erenturk K.  
IEEE TRANSACTIONS ON POWER DELIVERY, vol.24, no.1, pp.195-201, 2009 (SCI-Expanded)
- XV. **Nonlinear two-mass system control with sliding-mode and optimised proportional-integral derivative controller combined with a grey estimator**  
Erenturk K.  
IET CONTROL THEORY AND APPLICATIONS, vol.2, no.7, pp.635-642, 2008 (SCI-Expanded)
- XVI. **Dynamic characterization of a UV fluorescent lamp**  
Erenturk K.  
IEEE TRANSACTIONS ON PLASMA SCIENCE, vol.36, no.2, pp.519-523, 2008 (SCI-Expanded)
- XVII. **Hybrid control of a mechatronic system: Fuzzy logic and grey system modeling approach**  
ERENTÜRK K.  
IEEE-ASME TRANSACTIONS ON MECHATRONICS, vol.12, no.6, pp.703-710, 2007 (SCI-Expanded)
- XVIII. **Comparison of genetic algorithm and neural network approaches for the drying process of carrot**  
Erenturk S., Erenturk K.  
JOURNAL OF FOOD ENGINEERING, vol.78, no.3, pp.905-912, 2007 (SCI-Expanded)
- XIX. **MATLAB-based GUIs for fuzzy logic controller design and applications to PMDC motor and AVR control**  
Erenturk K.  
COMPUTER APPLICATIONS IN ENGINEERING EDUCATION, vol.13, no.1, pp.10-25, 2005 (SCI-Expanded)
- XX. **Fuzzy control of a dc motor driven four-bar mechanism**  
GÜNDOĞDU Ö., ERENTÜRK K.  
Mechatronics, vol.15, no.4, pp.423-438, 2005 (SCI-Expanded)
- XXI. **Application of fuzzy logic to a leakage current relay**  
ERENTÜRK K.  
IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY TRANSACTION A-SCIENCE, vol.29, pp.305-317, 2005 (SCI-Expanded)
- XXII. **A new digital protective relay based on fuzzy logic and value estimation**  
ERENTÜRK K.  
IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY TRANSACTION A-SCIENCE, vol.29, pp.267-276, 2005 (SCI-Expanded)
- XXIII. **A comparative study for the estimation of dynamical drying behavior of Echinacea angustifolia: regression analysis and neural network**  
Erenturk K., Erenturk S., TABIL L. G.

COMPUTERS AND ELECTRONICS IN AGRICULTURE, vol.45, pp.71-90, 2004 (SCI-Expanded)

XXIV. **Fault identification in a radial power system using fuzzy logic**

Erenturk K., ALTAŞ İ. H.

INSTRUMENTATION SCIENCE & TECHNOLOGY, vol.32, no.6, pp.641-653, 2004 (SCI-Expanded)

### Articles Published in Other Journals

I. **Design and Application of Grey Predictor for Unglazed Transpired Solar Collector**

ERENTÜRK S., ERENTÜRK K.

International Journal of Engineering and Applied Sciences, 2018 (Peer-Reviewed Journal)

II. **Design of “Deep Learning Controller”**

ERENTÜRK K.

International Journal of Engineering and Applied Sciences, 2018 (Peer-Reviewed Journal)

### Books & Book Chapters

I. **Yangın Algılama Ve Uyarı Sistemleri**

ERENTÜRK K.

in: Yanma ve Yangın, , Editor, Atatürk Üniversitesi Açıköğretim Fakültesi, 2018

II. **Elektrik Sistemlerinde Yangın Güvenliği**

ERENTÜRK K.

in: Yanma ve Yangın, , Editor, Atatürk Üniversitesi Açıköğretim Fakültesi, Erzurum, 2018

### Refereed Congress / Symposium Publications in Proceedings

I. **A RESEARCH ABOUT THE CONTENT AND USAGE AREAS OF THE MEDLAR PLANT (MESPILUS GERMANICA L.)**

Erentürk S., Erentürk K.

International Antalya Scientific Research and Innovative Studies Congress , Antalya, Turkey, 18 - 21 December 2021, pp.272-279

II. **MATHEMATICAL MODELING OF THE MICROWAVE DRYING OF EGGPLANT (SOLANOM MELONGENA)**

Erentürk S., Köse B., Erentürk K.

Uluslararası Antalya Bilimsel Araştırmalar ve Yenilikçi Çalışmalar Kongresi, Antalya, Turkey, 18 - 21 December 2021, pp.267-271

III. **GÜNEŞ PANELİ BULUNAN MİKRO ŞEBEKE ENERJİ DEPOLAMA SİSTEMLERİNİN TERMİNAL SİNERJİK DENETLEYİCİ İLE KONTROLÜ**

Erentürk K., Erentürk S.

8.ULUSLARARASI MÜHENDİSLİK MİMARLIK VE TASARIM KONGRESİ, İstanbul, Turkey, 6 - 07 December 2021, pp.109-115

IV. **MİKRO SEBEKE UYGULAMALARI İÇİN SİNERJİK DENETLEYİCİ TASARIMI**

Erentürk K., Erentürk S.

8.Uluslararası Mühendislik Mimarlık ve Tasarım Kongresi, İstanbul, Turkey, 6 - 07 December 2021, pp.213-217

V. **Comparison of Control Methods Approaches in Microgrid Architectures**

Bağır A., Erentürk K.

4th International Symposium on Innovative Approaches in Engineering and Natural Sciences, Samsun, Turkey, 22 - 24 November 2019, vol.4, no.6, pp.253-257

VI. **Design of Droop Controller in Microgrid Architectures**

Bağır A., Erentürk K.

4th International Symposium on Innovative Approaches in Engineering and Natural Sciences, Samsun, Turkey, 21 - 24 November 2019, vol.4, no.6, pp.258-261

VII. **Controller Design for an Islanded Microgrid Energy System with ESS**

ERENTÜRK K., ERENTÜRK S.

2nd International Symposium on Multidisciplinary Studies and Innovative Technologies, 19 - 21 October 2018

VIII. **Application of Artificial Intelligent Approaches in Drying Phenomena**

ERENTÜRK S., ERENTÜRK K.

2nd International Symposium on Multidisciplinary Studies and Innovative Technologies, 19 - 21 October 2018

IX. **Determination of Effective Moisture Diffusivities of Sliced Bananas in Different Drying Systems**

ERENTÜRK S., ERENTÜRK K.

2nd International Symposium on Multidisciplinary Studies and Innovative Technologies, 19 - 21 October 2018

X. **Smart Grid: An Interdisciplinary Engineering Application**

ERENTÜRK K.

The 12th International Conference Interdisciplinarity in Engineering INTER-ENG 2018, 4 - 05 October 2018

XI. **Innovative Trends on Smart Grids**

ERENTÜRK K.

1st International Symposium on Innovative Approaches in Scientific Studies, 11 - 13 April 2018

XII. **DESIGN AND IMPLEMENTATION OF PRIMARY CONTROLLERS FOR MICROGRIDS**

ERENTÜRK K., Draou A.

INTERNATIONAL ADVANCED RESEARCHENGINEERING CONGRESS 2017 (IAREC 2017), Osmaniye, Turkey, 16 - 18 November 2017, pp.953-956

XIII. **Designing and Mathematical Modeling of Unglazed Transpired Solar Collector Experimental Setup**

ERENTÜRK S., ERENTÜRK K.

2nd International Conference on Advanced Engineering Technologies, Bayburt, Turkey, 21 - 23 September 2017

XIV. **Deep Learning and Its Applications in Engineering Applications**

ERENTÜRK K., ERENTÜRK S.

2nd International Conference on Advanced Engineering Technologies (ICADET'xx17), Bayburt, Turkey, 21 - 23 September 2017

XV. **SMART ENERGY-SYSTEMS FOR LARGE-SCALE INTEGRATION OF RENEWABLE ELECTRICAL ENERGY**

ERENTÜRK K.

1st International Conference on Smart Grid Technologies, 11 - 12 September 2017

XVI. **Model-based sliding mode control technique for the stewart platform mechanism**

DUMLU A., KALELİ A., ERENTÜRK K., AYTEN K. K.

The International Conference onEngineering Technology, Antalya, Turkey, 21 - 23 August 2017

XVII. **Fractional Order Modeling and Control of Smart Grid Connected Photovoltaic PV Energy Generation System**

ERENTÜRK K.

ICONSETE 2016, Barcelona, Spain, 14 - 16 October 2016, pp.114-120

XVIII. **Application of Electric Springs in Smart Grids**

ERENTÜRK K.

2 INTERNATIONAL CONFERENCE ON SCIENCEECOLOGY AND TECHNOLOGY(ICONSETE'2016 ), 14 - 16 October 2016

XIX. **Modeling of drying process using fractional order calculus**

ERENTÜRK K., ERENTÜRK S.

1st International MediterraneanSCIENCE AND ENGINEERING CONGRESS, 26 - 28 October 2016

XX. **Fractional Order Modeling and Control of Renewable Energy Systems**

ERENTÜRK K., ERENTÜRK S.

KINETIC 2016, 3 - 04 April 2016

XXI. **Fractional Order Modeling and Control of Renewable Energy Systems**

ERENTÜRK K., ERENTÜRK S.

3rd Kuwait Industrial Exhibition & Technical Conference (KINETIC- 2016), 3 - 04 April 2016

- XXII. **Modeling of Dynamical Industrial Systems Using Fractional Order Calculus**  
ERENTÜRK K.  
ICONSETE 2015, 25 - 28 August 2015
- XXIII. **Fractional Order Controller Design and Applications**  
ERENTÜRK K.  
ICONSETE 2015, 25 - 28 August 2015
- XXIV. **Design and Linear Quadratic Optimal Regulator LQR Control of 6 dof RSS Parallel Manipulator**  
DUMLU A., ERENTÜRK K.  
AMME 2015, 25 - 26 October 2015
- XXV. **Self Tuning Controller for Reducing Cycle to Cycle Variations in SI Engine**  
KALELİ A., CEVİZ M. A., ERENTÜRK K.  
International Conference on Sustainable Energy and Environmental Engineering (SEEE), Bangkok, Thailand, 25 - 26 October 2015, vol.14, pp.99-102
- XXVI. **3 Eksenli CNC İşlem Tezgâhı Tasarımı ve Kontrolü**  
Çorapsız M. F., Erentürk K.  
TOK 2014, Kocaeli, Turkey, 11 - 13 September 2014, pp.34-37
- XXVII. **Portal Tip Üç Eksenli CNC Freze Tezgâhının Tasarımı ve İmalatı**  
ÇORAPSIZ M. F., ERENTÜRK K.  
TOK 2014, Turkey, 11 - 13 September 2014
- XXVIII. **LPG Kullanan Buji Ateşlemeli Motorlarda LPG Yakıt Sıcaklığının Kontrolü**  
GÜNER E., CEVİZ M. A., KALELİ A., ÖNER İ. V., ERENTÜRK K.  
Otomotik Kontrol Ulusal Toplantısı (TOK 2014), Kocaeli, Turkey, 11 - 13 September 2014
- XXIX. **Portal Tip Üç Eksenli CNC Freze Tezgâhının Yörünge İzleme ve Kontur Kontrolü**  
Çorapsız M. F., Erentürk K.  
TOK 2014, Kocaeli, Turkey, 11 - 13 September 2014, pp.53-58
- XXX. **LPG Enjeksiyon Sistemlerinde LPG Yakıt Sıcaklığı ile Motor Performansı Arasındaki İlişkinin Araştırılması**  
CEVİZ M. A., ÖNER İ. V., KALELİ A., ERENTÜRK K.  
7. Otomotiv Teknolojileri Kongresi (OTEKON-14), Bursa, Turkey, 26 - 27 May 2014
- XXXI. **Robust Adaptive Fault Tolerant Controller Design, Applied to Three Phase Induction Motor**  
Tohidi H., ERENTÜRK K.  
16th International Power Electronics and Motion Control Conference and Exposition (PEMC), Antalya, Turkey, 21 - 24 September 2014, pp.299-304

## Expert Reports

- I. **Büyükbahçe Regülatörü ve HES ile Bağbaşı Regülatörü ve HES İşleri Bilirkişi Raporu 2013 87**  
AKBULUT S., ERENTÜRK K., KALKAN E., ÇAKICI F. Z., BİNGÖL A. F., KARAKAN M., AKSOY S.  
Tortum Asliye Hukuk Mahkemesi, vol.2013, pp.1-161, 2015 (Peer-Reviewed Journal)

## Supported Projects

- ÖZER S., ERENTÜRK K., Project Supported by Higher Education Institutions, Vücuttaki Antistatik Elektriği Uzun Süre Deşarj Etmeden Depolayan Alet, 2023 - 2024
- ERENTÜRK K., KARA B., Project Supported by Higher Education Institutions, DC MİKRO ŞEBEKENİN YENİ KONTROLÖR VE GÖZLEMÇİ KULLANILARAK TASARIMI, 2022 - 2024
- YAVUZ U., ERKAN F., ERKAN Z., ERENTÜRK K., Project Supported by Higher Education Institutions, Mesafe Kontrol ve Elektronik Ateşleme Destekli Fünye, 2020 - 2023
- ERENTÜRK K., BAŞÇI A., Project Supported by Higher Education Institutions, ENDÜSTRİYEL OTOMASYON VE GÜÇ

ELEKTRONİĞİ LABORATUVARI TASARIMI, 2015 - 2016

Çorapsız M. F., Erentürk K., Project Supported by Higher Education Institutions, Esnek Paralel Mekanizmalı Bir Elektrikli Aracın Hassas Denetimi ve Tasarımı, 2013 - 2014

ERENTÜRK K., Project Supported by Higher Education Institutions, ESNEK PARALEL MEKANİZMALI BİR ELEKTRİKLİ ARACIN HASSAS DENETİMİ VE TASARIMI, 2011 - 2013

ERENTÜRK K., Project Supported by Higher Education Institutions, BUJİ ATEŞLEMELİ MOTORLARDA ÇEVİRİMSEL FARKLAR ÜZERİNE ATEŞLEME AVANSININ ETKİLERİNİN VE KONTROL YÖNTEMLERİNİN İNCELENMESİ, 2011 - 2013

## **Metrics**

Publication: 66

Citation (WoS): 690

Citation (Scopus): 832

H-Index (WoS): 12

H-Index (Scopus): 12

## **Non Academic Experience**

Atatürk Üniversitesi