

## **Prof. Mustafa Bağrıyanık**

### **Personal Information**

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**Address:** İTÜ Elektrik-Elektronik Fakültesi, Elektrik Mühendisliği Bölümü, 34469 MAslak-İstanbul

### **International Researcher IDs**

ScholarID: OG1aQG4AAAAJ

ORCID: 0000-0001-6258-8645

Publons / Web Of Science ResearcherID: ABE-8078-2020

ScopusID: 6505967419

Yoksis Researcher ID: 149505

### **Education Information**

Doctorate, İstanbul Technical University, Fen Bilimleri Enstitüsü, Elektrik Mühendisliği (Dr), Turkey 1989 - 1997

Postgraduate, İstanbul Technical University, Elektrik-Elektronik Fakültesi, Elektrik Mühendisliği Bölümü, Turkey 1985 - 1989

Undergraduate, İstanbul Technical University, Elektrik-Elektronik Fakültesi, Elektrik Mühendisliği Bölümü, Turkey 1981 - 1985

### **Foreign Languages**

English, B2 Upper Intermediate

### **Research Areas**

Technical Sciences, Electrical and Electronics Engineering, Energy, Lighting Technology, Power System Analysis, Electric Power Transmission, Distribution and Protection, Protection Systems, Renewable energy

### **Academic Titles / Tasks**

Professor, İstanbul Technical University, Elektrik-Elektronik, Elektrik Mühendisliği, 2013 - Continues

Associate Professor, İstanbul Technical University, Elektrik-Elektronik, Elektrik Mühendisliği, 2000 - 2013

Assistant Professor, İstanbul Technical University, Elektrik-Elektronik, Elektrik Mühendisliği, 2000 - 2000

Research Assistant, İstanbul Technical University, Elektrik-Elektronik, Elektrik Mühendisliği, 1986 - 2000

### **Academic and Administrative Experience**

İstanbul Teknik Üniversitesi, Elektrik-Elektronik Fakültesi, Elektrik Mühendisliği Bölümü, 2011 - 2013

## Courses

- Elektrik Mühendisliği Projesi, Undergraduate, 2021 - 2022  
Raylı Ulaşım Sistem Elektroteknigi, Postgraduate, 2017 - 2018  
Enerji Sistemlerinde Geçici Olaylar, Doctorate, 2017 - 2018  
Distribution of Electrical Energy, Undergraduate, 2017 - 2018  
Flexible Control Of Distribution Systems, Postgraduate, 2017 - 2018  
Elektrik Mühendisliği Projesi, Undergraduate, 2017 - 2018

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

- I. **The impact of mutual interaction between electric and water distribution systems via demand response**  
Bağrıyanık F. G., Sönmez M. A., Bağrıyanık M.  
Sustainable Energy, Grids and Networks, vol.34, 2023 (SCI-Expanded)
- II. **A Preventive Control Approach for Power System Vulnerability Assessment and Predictive Stability Evaluation**  
Akdeniz E., Bağrıyanık M.  
Sustainability (Switzerland), vol.15, no.8, 2023 (SCI-Expanded)
- III. **OBTAINING THE RESIDENTIAL MANAGEABLE CARBON DIOXIDE EMISSION CAPACITY BY ACTIVITY-BASED POWER MODELS**  
Sönmez M. A., Bağrıyanık M.  
ENVIRONMENTAL ENGINEERING AND MANAGEMENT JOURNAL, vol.21, no.5, pp.891-902, 2022 (SCI-Expanded)
- IV. **A Novel Priority-Based Load Management Method that Improves Comfort in Residential Demand Response**  
Sönmez M. Ş., Bağrıyanık M.  
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.47, no.3, pp.2763-2779, 2022 (SCI-Expanded)
- V. **Disrupting the power grid via EV charging: The impact of the SMS Phishing attacks**  
Soykan E. U., Bağrıyanık M., Soykan G.  
SUSTAINABLE ENERGY GRIDS & NETWORKS, vol.26, 2021 (SCI-Expanded)
- VI. **Generating Manageable Electricity Demand Capacity for Residential Demand Response Studies by Activity-based Load Models**  
Sönmez M. Ş., Bağrıyanık M.  
ADVANCES IN ELECTRICAL AND COMPUTER ENGINEERING, vol.21, no.1, pp.99-108, 2021 (SCI-Expanded)
- VII. **A topological overview of microgrids: from maturity to the future**  
ERENOĞLU A. K., Sancar S., ERDİNÇ O., Bağrıyanık M.  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.29, no.3, pp.1308-1353, 2021 (SCI-Expanded)
- VIII. **The Effect of SMiShing Attack on Security of Demand Response Programs**  
Soykan E. U., Bağrıyanık M.  
ENERGIES, vol.13, no.17, 2020 (SCI-Expanded)
- IX. **Reconfiguration of Distribution Network for Transformer Life Extension Using Quasi-static Time-Series Analysis**  
Uçar B., Bağrıyanık M.  
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.45, no.3, pp.1703-1713, 2020 (SCI-Expanded)
- X. **Development and Field Demonstration of a Gamified Residential Demand Management Platform Compatible with Smart Meters and Building Automation Systems**  
Zehir M. A., Ortac K. B., Gul H., Batman A., Aydin Z., Portela J. C., Soares F. J., Bağrıyanık M., Kucuk U., Özdemir A.  
ENERGIES, vol.12, no.5, 2019 (SCI-Expanded)
- XI. **Impacts of microgrids with renewables on secondary distribution networks**  
Zehir M. A., BATMAN A., SONMEZ M. A., Font A., TSIAMITROS D., STIMONIARIS D., KOLLATOU T., Bağrıyanık M., Özdemir A., Dialynas E.

- APPLIED ENERGY, vol.201, pp.308-319, 2017 (SCI-Expanded)
- XII. **The Effect of the Types of Network Topologies on Nontechnical Losses in Secondary Electricity Distribution Systems**  
Yorukoglu S., NASIBOV F., Mungan M., Bağrıyanık M.  
IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, vol.52, no.5, pp.3631-3643, 2016 (SCI-Expanded)
- XIII. **Demand-side management by integrating bus communication technologies into smart grids**  
Stimoniaris D., KOLLATOU T., TSIAMITROS D., ZEHİR M. A., BATMAN A., Bağrıyanık M., Özdemir A., Dialinas E.  
ELECTRIC POWER SYSTEMS RESEARCH, vol.136, pp.251-261, 2016 (SCI-Expanded)
- XIV. **A knowledge based decision support algorithm for power transmission system vulnerability impact reduction**  
Akdeniz E., Bağrıyanık M.  
INTERNATIONAL JOURNAL OF ELECTRICAL POWER & ENERGY SYSTEMS, vol.78, pp.436-444, 2016 (SCI-Expanded)
- XV. **Demand Side Management by controlling refrigerators and its effects on consumers**  
Zehir M. A., Bağrıyanık M.  
ENERGY CONVERSION AND MANAGEMENT, vol.64, pp.238-244, 2012 (SCI-Expanded)
- XVI. **A feasibility study of grid-connected photovoltaic systems in Istanbul, Turkey**  
Batman A., Bağrıyanık F. G., AYGEN Z. E., GUL Ö., Bağrıyanık M.  
RENEWABLE & SUSTAINABLE ENERGY REVIEWS, vol.16, no.8, pp.5678-5686, 2012 (SCI-Expanded)
- XVII. **Characterization of transients in transformers using discrete wavelet transforms**  
Butler-Purry K., Bagriyanik M.  
IEEE TRANSACTIONS ON POWER SYSTEMS, vol.18, no.2, pp.648-656, 2003 (SCI-Expanded)
- XVIII. **Determination of location of series compensation devices using fuzzy decision making**  
Bağrıyanık M., DAĞ H.  
EUROPEAN TRANSACTIONS ON ELECTRICAL POWER, vol.11, no.4, pp.241-245, 2001 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Influence of PV Penetration on Distribution Transformer Aging**  
UÇAR B., BAĞRIYANIK M., KÖMÜRGÖZ KIRIŞ G.  
Journal of Clean Energy Technologies, vol.5, no.2, pp.131-134, 2017 (Peer-Reviewed Journal)
- II. **Ekolojik Yerleşme Planlaması ve Tasarımı: Eskişehir Kocakır Rezerv Yapı Alanı Örneği**  
Terzi F., Ocakçı M., Yılmaz A. Z., Türkoğlu H., Okumuş G., Erbaş Gürler E., Onuk Madanoğlu T., Tanık A. G., Güven H., Böke Y. E., et al.  
Kentli, vol.24, pp.79-82, 2016 (Peer-Reviewed Journal)
- III. **The effect of fault current limiters on distribution systems with wind turbine generators**  
Çakal G., BAĞRIYANIK F. G., BAĞRIYANIK M.  
INTERNATIONAL JOURNAL OF RENEWABLE ENERGY RESEARCH, vol.3, no.1, pp.149-154, 2013 (Scopus)

## Supported Projects

- Bağrıyanık M., Project Supported by Higher Education Institutions, Türkiyede Güneş paneli içeren sistemlerde Akıllı Sayaç için Güç Hattı Üzerinden Haberleşmede gürültü analizi, 2013 - 2018
- Bağrıyanık M., Project Supported by Higher Education Institutions, Elektrik Dağıtım Sistemlerinde Güç Hatları Üzerinden Haberleşmenin İncelenmesi, 2013 - 2018
- Bağrıyanık M., Project Supported by Higher Education Institutions, Akıllı Şebeke Termostatik Yükler için Yönetim Stratejilerinin Değerlendirilmesi, 2012 - 2018
- Bağrıyanık M., Project Supported by Higher Education Institutions, SC ve PST Kullanılarak Planlanmamış Akışların Kontrolü için Bulanık Genetik Algoritmaya Dayalı Bir Yaklaşık, 2011 - 2018

Bağrıyanık M., Project Supported by Higher Education Institutions, THE EFFECTS OF SELECTION STRATEGIES ON FUZZY-GENETIC ALGORİTHM BASED POWER FLOW CONTROL, 2009 - 2018

Bağrıyanık M., Project Supported by Higher Education Institutions, Dağıtım Sistemlerinde Yük Kontrolü, 2012 - 2013

Bağrıyanık M., Project Supported by Higher Education Institutions, Arıza Akım Sınırlayıcıların Dağıtım Sistemlerinde Etkilerinin İncelenmesi, 2011 - 2013

Bağrıyanık M., Project Supported by Higher Education Institutions, Gemi Elektrik Dağıtım sistemlerinde Arıza Yerinin Tespiti ve Analizinin Araştırılması, 2005 - 2005

Bağrıyanık M., Project Supported by Higher Education Institutions, Enerji İletim Sistemlerinde Hat Parametrelerin Kestiriminin Araştırılması, 2004 - 2005

Bağrıyanık M., Project Supported by Higher Education Institutions, Elektrik Güç Sistemlerinde Uygun Reaktif Güç Kullanılması, 1998 - 2000

## Metrics

Publication: 86

Citation (WoS): 381

Citation (Scopus): 546

H-Index (WoS): 10

H-Index (Scopus): 13

## Non Academic Experience

Af-MERCADOS EMI

Texas A&M University