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Personal Information

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Education Information

Doctorate, Yıldız Teknik Üniversitesi, Graduate School of Natural and Applied Sciences, Elektrik Mühendisliği, Turkey
2002 - 2008

Post Graduate, Yıldız Teknik Üniversitesi, Graduate School of Natural and Applied Sciences, Elektrik Mühendisliği,
Turkey 1998 - 2001

Under Graduate, Yıldız Teknik Üniversitesi, Faculty of Electrical & Electronics, Elektrik Mühendisliği, Turkey 1994 - 1998

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, HARMONİK İCEREN GÜÇ SİSTEMLERİNİN GERİLİM KARARLILIĞININ YÜK MODELLEMELERİ VE FACTS
ELEMANLARI BAKIMINDAN İNCELENMESİ, Yıldız Teknik Üniversitesi, Graduate School of Natural and Applied
Sciences, Elektrik Mühendisliği, 2008

Post Graduate, PWM DC-DC DÖNÜŞTÜRÜCÜLERDE PASİF BASTIRMA DEVRELERİ, Yıldız Teknik Üniversitesi,
Graduate School of Natural and Applied Sciences, Elektrik Mühendisliği, 2001

Research Areas

Electrical and Electronics Engineering, Energy, Power System Analysis, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Yıldız Technical University, Faculty of Electrical & Electronics, 2009 - Continues

Research Assistant, Yıldız Technical University, Faculty of Electrical & Electronics, 2000 - 2009

Advising Theses

Baysal M., Comparison of Flywheel and Li-ION Battery Energy Storage Systems and Performance Analysis of Hybrid
Energy Storage System On Different Load Profiles, Post Graduate, İ.Cem(Student), 2019

Baysal M., Smart Distribution Protection without Voltage Transformer, Post Graduate, F.ALPASLAN(Student), 2019

Baysal M., SHORT-TERM LOAD FORECASTING FOR MICROGRIDS BASED ON FUZZY LOGIC, Post Graduate,
J.Tapiwa(Student), 2018

Baysal M., Power management strategy of stand-alone microgrid with hydrogen fuel cell and renewable sources, Post
Graduate, J.MA(Student), 2018

Baysal M., DEVELOPING MULTI AGENT CONTROL METHODS FOR IMPROVED OPERATIONAL CONDITIONS IN SMART DISTRIBUTION NETWORKS, Doctorate, G.ŞEN(Student), 2018

Baysal M., DESIGN AND IMPLEMENTATION OF A DIGITAL SIGNAL PROCESSOR CONTROLLED STATIC (SMART) SWITCH FOR MICROGRID SYSTEMS, Post Graduate, T.ÖZER(Student), 2018

BAYSAL M., Analysis and Assesment the Reliability of Distribution Power Systems, Doctorate, M.WADİ(Student), 2017

Baysal M., A New Protection Philosophy For Medium Voltage Smart Distribution Network, Doctorate, A.SHOBOLE(Student), 2017

BAYSAL M., Akıllı şebekeler altyapısına uygun bir orta gerilim trafo merkezinin tasarımı ve ekonomik analizi, Post Graduate, Y.Berkay(Student), 2016

BAYSAL M., Mikroşebeke gerilim yapısına uygun 3 fazlı inverterin labview ile kontrol edilmesi ve geliştirilmesi, Post Graduate, C.AKTAŞ(Student), 2016

BAYSAL M., Harmonic analysis of dimmable power leds for street lighting, Post Graduate, H.Fayek(Student), 2015

BAYSAL M., Mikroşebeke yapısına uygun üç fazlı inverterin simülasyon modelinin geliştirilmesi ve analizi, Post Graduate, F.ÜLKER(Student), 2015

BAYSAL M., Active and reactive power sharing of parallel inverters in microgrid by using droop control, Post Graduate, A.ISMAIL(Student), 2014

BAYSAL M., Pv, rüzgar türbini ve batarya içeren hibrid enerji sistemlerinde iyileştirilmiş optimal ölçeklendirme, Post Graduate, G.GÜRİSOY(Student), 2014

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

- **Optimal operational scheduling of reconfigurable microgrids in presence of renewable energy sources**
YAPRAKDAL F., BAYSAL M., Anvari-Moghaddam A.
Energies, vol.12, 2019 (Journal Indexed in SCI)
- **Design and Implementation of an Interactive Interface for Demand Response and Home Energy Management Applications**
YENER B., Tascikaraoglu A., ERDİNÇ O., BAYSAL M., Catalao J. P. S.
APPLIED SCIENCES-BASEL, vol.7, 2017 (Journal Indexed in SCI)
- **Islanding Detection in Microgrids Using Harmonic Signatures**
Merino J., Mendoza-Araya P., Venkataramanan G., BAYSAL M.
IEEE TRANSACTIONS ON POWER DELIVERY, vol.30, pp.2102-2109, 2015 (Journal Indexed in SCI)
- **Survey of power quality in Turkish national transmission network**
Kocatepe C., Kekezoğlu B., Bozkurt A., Yumurtacı R., İnan A., Arıkan O., Baysal M., Akkaya Y.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.21, pp.1880-1892, 2013 (Journal Indexed in SCI)
- **Assessment of power quality terms on energy distribution systems: a case study of Istanbul**
KEKEZOĞLU B., BOZKURT A., ARIKAN O., KOCATEPE C., YUMURTACI R., BAYSAL M.
PRZEGLAD ELEKTROTECHNICZNY, vol.88, 2012 (Journal Indexed in SCI)
- **Power quality assessment of grid-connected wind farms considering regulations in turkey**
Kocatepe C., İnan A., ARIKAN O., YUMURTACI R., KEKEZOĞLU B., BAYSAL M., BOZKURT A., Akkaya Y.
RENEWABLE & SUSTAINABLE ENERGY REVIEWS, vol.13, pp.2553-2561, 2009 (Journal Indexed in SCI)
- **A detailed analytical analysis of a passive resonant snubber cell perfectly constructed for a pulse width modulated d.c.-d.c. buck converter**
Bodur H., Bakan A., Baysal M.
ELECTRICAL ENGINEERING, vol.85, pp.45-52, 2003 (Journal Indexed in SCI)

Articles Published in Other Journals

- **Online Energy Management Strategy Based on Adaptive Model Predictive Control for Microgrid with Hydrogen Storage**
MA J., BAYSAL M.
INTERNATIONAL JOURNAL OF RENEWABLE ENERGY RESEARCH, vol.8, pp.861-870, 2018 (Refereed)

Journals of Other Institutions)

- **Effects of Distributed Generations' Integration to the Distribution Networks Case Study of Solar Power Plant**

Shobole A., BAYSAL M., Wadi M., TÜR M. R.

INTERNATIONAL JOURNAL of RENEWABLE ENERGY RESEARCH, vol.7, 2018 (Refereed Journals of Other Institutions)

- **RELIABILITY ASSESSMENT OF RADIAL NETWORKS VIA MODIFIED RBD ANALYTICAL TECHNIQUE**

WADI M. J. , BAYSAL M.

SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, vol.35, pp.717-726, 2017 (Journal Indexed in ESCI)

- **Elektrikli Ofis Cihazlarında Güç Faktörü ve cos ϕ 'nin İncelenmesi**

KEKEZOĞLU B., ARIKAN O., KOCATEPE C., YUMURTACI R., BAYSAL M., BOZKURT A.

3e Electrotech, 2008 (National Non-Refereed Journal)

- **Elektrikli Ofis Donanımlarının Harmonik Etkilerinin İncelenmesi**

KEKEZOĞLU B., ARIKAN O., KOCATEPE C., YUMURTACI R., BAYSAL M., BOZKURT A.

3e Electrotech, 2008 (National Non-Refereed Journal)

Book & Book Chapters

- **Harmonic Effects of Power System Loads: An Experimental Study**

YUMURTACI R., Arıkan O., Baysal M., Kekezoğlu B., Bozkurt A., Kumru C. F.

Intech, 2013

- **in: Power Quality Issues**

KOCATEPE C., YUMURTACI R., ARIKAN O., BAYSAL M., KEKEZOĞLU B., BOZKURT A., KUMRU C. F.

Harmonic Effects of Power System Loads: An Experimental Study, Zoba A., Editor, Intech, Rijeka, pp.175-200, 2013

Refereed Congress / Symposium Publications in Proceedings

- **COMPARISON OF FLYWHEEL AND LI-ION BATTERY ENERGY STORAGE SYSTEMS AND PERFORMANCE ANALYSIS OF HYBRID ENERGY STORAGE SYSTEM ON DIFFERENT LOAD PROFILES**

AÇIKGÖZ İ. C. , BAYSAL M.

4th International Conference on Computational Mathematics and Engineering Sciences, Antalya, Turkey, 20 Nisan 2019, pp.252

- **Smart Distribution Protection with no Voltage Transformer**

ALPASLAN F., BAYSAL M.

First International Symposium on Graduate Research in Science Focus on Entrepreneurship and Innovation (ISGRS 2018), 4 - 06 Ekim 2018

- **Multi agent-based decentralized control for improving the efficiency and voltage regulation in smart microgrid**

Sen G., BAYSAL M.

2018 International Conference on Smart Energy Systems and Technologies, SEST 2018, Sevilla, Spain, 10 - 12 Eylül 2018

- **Smart hybrid wind-solar street lighting system fuzzy based approach: Case study Istanbul-Turkey**

Wadi M., Shobole A., TUR M. R. , BAYSAL M.

6th International Istanbul Smart Grids and Cities Congress and Fair, ICSG 2018, İstanbul, Turkey, 25 - 26 Nisan 2018, pp.71-75

- **Multi agent-based control techniques to reduce losses for smart grid connected microgrids**

Sen G., BAYSAL M.

6th International Istanbul Smart Grids and Cities Congress and Fair, ICSG 2018, İstanbul, Turkey, 25 - 26 Nisan 2018, pp.173-177

- **Smart Hybrid Wind-Solar Street Lighting System Fuzzy Based Approach: Case Study**

Wadi M., Shobole A., TÜR M. R. , BAYSAL M.

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- **Reliability Evaluation in Smart Grids via Modified Monte Carlo Simulation Method**

Wadi M., BAYSAL M., Shobole A., Tur M. R.

7th International Conference on Renewable Energy Research and Applications (ICRERA), Paris, France, 14 - 17 Ekim 2018, pp.841-845

- **Protection Coordination Practices for Industrial Ring Distribution Network Case Study of Organized Industrial Zone (GEBZE, Turkey)**

Shobole A., BAYSAL M., Wadi M., Tur M. R.

7th International Conference on Renewable Energy Research and Applications (ICRERA), Paris, France, 14 - 17 Ekim 2018, pp.1027-1031

- **Short Term Load Forecasting for Microgrids Based On Fuzzy Logic**

MUTSENA J. T. , BAYSAL M.

International Conference on Engineering Technologies, 7 - 09 Aralık 2017, pp.434-439

- **Design and Simulation of A Three-Phase Static Smart Switch for Microgrid**

ÖZER T., BAYSAL M.

8th International Advanced Technologies Symposium, 19 Ekim 2017 - 22 Ekim 2017, pp.3557-3564

- **Real time active power control in smart grid**

SHOBOLE A., WADIM., TÜR M. R. , BAYSAL M.

2017 IEEE 6th International Conference on Renewable Energy Research and Applications, 5 - 08 Kasım 2017, pp.585-590

- **On-Line energy management strategy for hybrid electric vehicles based on AMPC**

Jun M., Shah A., Baysal M., İlhan H.

The 10th International Conference on Electrical and Electronics Engineering (IEEE ELECO2017), Bursa, Turkey, 30 Kasım - 02 Aralık 2017, pp.1-5

- **Modeling And Simulation Of Split Shaft Micro Turbine Generation Systems Based On Fuel Consumption**

ÇELİK Ş., KEKEZOĞLU B., BAYSAL M.

The 8th International Advanced Technologies Symposium (IATS 2017), Elazığ, Turkey, 19 - 21 Ekim 2017

- **Comparison between Open-Ring and Closed-Ring Grids Reliability**

WADIM., BAYSAL M., SHOBOLE A.

2017 4TH INTERNATIONAL CONFERENCE ON ELECTRICAL AND ELECTRONIC ENGINEERING (ICEEE 2017), Ankara, Turkey, 8 - 10 Nisan 2017, pp.290-294

- **Improving the Fault Ride through Capability and Stability of Wind Farms with DFIG Wind Turbine by using Statcom**

Abdulfetah S., Karakaş A., Selamoğulları U. S. , Baysal M.

17th International Conference on Electrical and Computer Systems Engineering, Paris, France, 27 - 28 Ağustos 2015

- **Improved Optimal Sizing of Hybrid PV/Wind/Battery Energy Systems**

Gursoy G., BAYSAL M.

3rd THE INTERNATIONAL CONFERENCE ON RENEWABLE ENERGY RESEARCH AND APPLICATIONS (ICRERA), Wisconsin, United States Of America, 19 - 22 Ekim 2014, pp.713-716

- **Energy management algorithm for smart home with renewable energy sources**

BOYNUEĞRİ A. R. , YAĞCITEKİN B., BAYSAL M., KARAKAŞ A., UZUNOĞLU M.

4th International Conference on Power Engineering, Energy and Electrical Drives, 13 - 17 Mayıs 2013

- **Investigation of Harmonic Effect in Turkey's Iron Steel Industry**

KEKEZOĞLU B., KOCATEPE C., YUMURTACI R., ARIKAN O., BAYSAL M., BOZKURT A., AKKAYA Y., Özdemirci E.

The 6th International Conference, 2008 Power Quality and Supply Reliability (PQ2008), Parnu, Estonia, 27 Ağustos 2008, pp.435-439

- **Dağıtım Sisteminde Kısa Devre Gücünün Harmonik Bozulmaya Etkisi**

KOCATEPE C., YUMURTACI R., BAYSAL M., ARIKAN O., BOZKURT A., KEKEZOĞLU B.

Enerji Verimliliği ve Kalitesi Sempozyumu (EVK 2007), Kocaeli, Turkey, 17 Mayıs 2007, pp.267-271

- **Harmoniklerin Kompanzasyon Tesisleri Üzerindeki Etkilerinin Rezonans Olayları Bakımından**

İncelenmesi

YUMURTACI R., ARIKAN O., BOZKURT A., KOCATEPE C., BAYSAL M., KEKEZOĞLU B.

Enerji Verimliliği ve Kalitesi Sempozyumu (EVK 2007), Kocaeli, Turkey, 17 Mayıs 2007, pp.272-277

- **Güç Sistemlerinde Araharmonikler Ve Etkileri**

KEKEZOĞLU B., KOCATEPE C., YUMURTACI R., BAYSAL M., ARIKAN O., BOZKURT A.

Enerji Verimliliği ve Kalitesi Sempozyumu (EVK 2007), Kocaeli, Turkey, 17 Mayıs 2005, pp.263-266

- **The State of Corona Discharge in High Voltage Transmission Line under Non Linear Conditions using ANN**

TANRIÖVEN M., ACARKAN B., BAYSAL M., KARAKAŞ A.

International Conference on Fuzzy Systems and Soft Computational Intelligence in Management and Industrial Engineering, FSSCIMIE 2002, İstanbul, Turkey, 29 - 31 Mayıs 2002, pp.31-36

- **Harmonikli Sistemlerde Filtre Uygulamasının Karşılaştırılması**

KOCATEPE C., BAYSAL M., ÇAKIR H.

1. ENERJİ VERİMLİLİĞİ VE KALİTESİ SEMPOZYUMU, pp.258-262

- **Güç Sistem Gerilim Kararlılığında Yük Modellemelerinin Önemi**

BAYSAL M., UZUNOĞLU M., KOCATEPE C.

12. ELEKTRİK-ELEKTRONİK-BİLGİSAYAR MÜHENDİSLİĞİ ULUSAL KONGRESİ, pp.321-325

- **Improving the Fout Ride through Capability and Stability of Wind Farms with DFIG Wind Turbine by Using Statcom**

KARAKAŞ A., SELAMOĞULLARI U. S. , BAYSAL M.

ICEC 2015 : 17th International Conference on Entertainment Computing

- **Tristör Kontrollü Seri Kompanzasyon Metotlarının Karşılaştırılması**

BAYSAL M., KOCATEPE C., UZUNOĞLU M.

ELEKTRİK-ELEKTRONİK-BİLGİSAYAR MÜHENDİSLİĞİ 11. ULUSAL KONGRESİ, vol.2, pp.425-428

- **Transient Analysis of Medium-Length Transmission Lines**

K C., BAYSAL M.

3RD INTERNATIONAL SYMPOSIUM ON ELECTRICAL, ELECTRONIC AND COMPUTER ENGINEERING, pp.209-213

- **The State Of Corona Discharge In High Voltage Transmission Line Under Non-Linear Conditions Using ANN**

TANRIÖVEN M., Baysal M., Küçüksarı S., Karakas A.

FSSCIMIE 2002

- **The Determination Of Calibration Values Of Spherical Electrode For High Voltage Measuring By Fuzzy Algorithms**

TANRIÖVEN M., Baysal M., Küçüksarı S., Karakas A.

FSSCIMIE (Int.Con. on Fuzzy S. and Soft Comp. Intell. in Man. and Ind. Eng.)

- **Long Transmission Line Calculation Having Nonlinear Load by Artificial Neural Network (ANN)**

KARAKAS A., KUCUKSARI S., BAYSAL M.

INTERNATIONAL CONFERENCE ON FUZZY SYSTEMS AND SOFT COMPUTATIONAL INTELLIGENCE IN MANAGEMENT AND INDUSTRIAL ENGINEERING

- **State-space Transient Analysis of Transmission Lines Using Eigenanalysis**

BAYSAL M., KOCATEPE C., KARAKAS A.

4th International Conference on Electrical and Power Engineering, pp.1325-1330

Supported Projects

Selamoğulları U. S. , Baysal M., TÜBİTAK International Bilateral Joint Cooperation Program Project, Formal Analysis of Protection Systems in Smart Grids using Probabilistic Model Checking, 2019 - 2021

BAYSAL M., TUBITAK Project, Güvenlik Kontrollü Akıllı Priz Tasarımı, 2017 - 2018

Baysal M., Şengör İ., Yaşa Y., TUBITAK Project, Mikroşebeke Yapısına Uygun Gerilim Beslemeli İnverter Geliştirilmesi, 2014 - 2017

BAYSAL M., Project Supported by Other Official Institutions, BEDAS, Orta Gerilim Şebekesinin Kapalı Ring İşletimi İçin Koruma/Kontrol Sisteminin Tasarımı, OG Şebekesinin Kapalı Ring İşletimi İçin Yeniden Yapılandırılması ve Pilot

Boğge Uygulaması, 2013 - 2016

Elma O., Baysal M., Uğur E., Selamoğulları U. S. , Boynueğri A. R. , Uzunoğlu M., Project Supported by Other Official Institutions, Enerji Verimliliğini Arttırmak ve Karbon Emisyonunu Azaltmak Amacıyla Akıllı Şebeke Altyapısına Uygun Bir Akıllı Evin Geliştirilmesi, 2012 - 2012

BAYSAL M., Other Supported Projects, Microgrid Application for Air Force Base Medical Treatment Facility, 2010 - 2012

BAYSAL M., KEKEZOĞLU B., TUBITAK Project, Türkiye Elektrik Sisteminde Güç Kalitesine Etki Eden Değişkenleri ve Güç Kalitesini İzleme, Problemlerin Tespiti, Değerlendirilmesi ve Karşı Önlemlerin Hayata Geçirilmesi, 2006 - 2009

Citations

Total Citations (WOS):70

h-index (WOS):5