

Assoc. Prof. MURAT GÖL

Personal Information

Email: mgol@metu.edu.tr

Education Information

Doctorate, Northeastern University, Electrical And Computer Engineering, United States Of America 2010 - 2014

Post Graduate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Elektrik Ve Elektronik Mühendisliği (YI) (Tezli), Turkey 2007 - 2009

Under Graduate, Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, Turkey 2003 - 2007

Dissertations

Doctorate, Incorporation of pmus in power system state estimation, Northeastern University, Electrical And Computer Engineering, 2014

Post Graduate, A new field-data based EAF (electric arc furnace) model applied to power quality studies, Middle East Technical University, Graduate School of Natural and Applied Sciences, Elektrik Ve Elektronik Mühendisliği (YI) (Tezli), 2009

Research Areas

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

Academic Titles / Tasks

Associate Professor, Middle East Technical University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering, 2019 - Continues

Assistant Professor, Middle East Technical University, Faculty Of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, 2018 - 2019

Assistant Professor, Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, 2014 - 2018

Professional Experience

Deputy Head of Department, Middle East Technical University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering, 2019 - Continues

Advising Theses

GÖL M., Optimal maintenance scheduling for transmission lines, Post Graduate, E.BERK(Student), 2018

GÖL M., Incorporation of DSSC in real time congestion management, Post Graduate, R.GÜNAY(Student), 2018

GÖL M., A generalized mathematical model of DC catenary lines, Post Graduate, M.ERDEM(Student), 2018

GÖL M., Very short term load forecasting aided hybrid state estimator with optimally placed pseudo-measurements, Post Graduate, B.ÖZSOY(Student), 2018

GÖL M., Evaluation of photovoltaic systems for voltage quality, Post Graduate, D.ŞENGÜL(Student), 2018

GÖL M., Optimal phasor measurement unit (PMU) placement for the power systems with existing SCADA measurements, Post Graduate, B.ERTÜRK(Student), 2017

GÖL M., Two new indices for the assessment of regional transmission connection capacities, Post Graduate, A.HAYDAR(Student), 2017

GÖL M., State estimation based fault location using pmu measurements, Post Graduate, A.ÖNER(Student), 2016

GÖL M., Güç sistemlerinde durum kestirimi kullanılarak ortak bağlantı noktalarındaki harmonik akım katkılarının incelenmesi, Post Graduate, E.SEZGİN(Student), 2015

GÖL M., A local parameter estimator based on robust lav estimation, Post Graduate, V.ÖZDEMİR(Student), 2015

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

- **Harmony Search Algorithm Based Management of Distributed Energy Resources and Storage Systems in Microgrids**
Ceylan O., SEZGİN M. E. , GÖL M., Verga M., Lazzari R., Kwaye M. P. , Sandroni C.
APPLIED SCIENCES-BASEL, vol.10, 2020 (Journal Indexed in SCI)
- **A Model Predictive Control for Microgrids Considering Battery Aging**
Yılmaz U. C. , SEZGİN M. E. , GÖL M.
JOURNAL OF MODERN POWER SYSTEMS AND CLEAN ENERGY, vol.8, pp.296-304, 2020 (Journal Indexed in SCI)
- **Assessment of regional transmission connection capacity based on two novel indices**
GÜVERCİNCİ A. H. , GÖL M.
IET GENERATION TRANSMISSION & DISTRIBUTION, vol.12, pp.3470-3476, 2018 (Journal Indexed in SCI)
- **Hydro-Optimization-Based Medium-Term Price Forecasting Considering Demand and Supply Uncertainty**
İLSEVEN E., GÖL M.
IEEE TRANSACTIONS ON POWER SYSTEMS, vol.33, pp.4074-4083, 2018 (Journal Indexed in SCI)
- **A Decentralization Method for Hybrid State Estimators**
GÖL M.
IEEE TRANSACTIONS ON POWER SYSTEMS, vol.33, pp.2070-2077, 2018 (Journal Indexed in SCI)
- **Determination of harmonic current contributions based on robust state estimation**
Sezgin E., GÖL M., Salor O.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.26, pp.307-318, 2018 (Journal Indexed in SCI)
- **State-Estimation-Based Determination of Harmonic Current Contributions of Iron and Steel Plants Supplied from PCC**
Sezgin E., GÖL M., Salor O.
IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, vol.52, pp.2654-2663, 2016 (Journal Indexed in SCI)
- **A Fast Decoupled State Estimator for Systems Measured by PMUs**
Goel M., Abur A.
IEEE TRANSACTIONS ON POWER SYSTEMS, vol.30, pp.2766-2771, 2015 (Journal Indexed in SCI)
- **A Hybrid State Estimator For Systems With Limited Number of PMUs**
Goel M., Abur A.
IEEE TRANSACTIONS ON POWER SYSTEMS, vol.30, pp.1511-1517, 2015 (Journal Indexed in SCI)
- **A Robust PMU Based Three-Phase State Estimator Using Modal Decoupling**
Goel M., Abur A.
IEEE TRANSACTIONS ON POWER SYSTEMS, vol.29, pp.2292-2299, 2014 (Journal Indexed in SCI)
- **LAV Based Robust State Estimation for Systems Measured by PMUs**
Goel M., Abur A.
IEEE TRANSACTIONS ON SMART GRID, vol.5, pp.1808-1814, 2014 (Journal Indexed in SCI)
- **Observability and Criticality Analyses for Power Systems Measured by Phasor Measurements**
Goel M., Abur A.
IEEE TRANSACTIONS ON POWER SYSTEMS, vol.28, pp.3319-3326, 2013 (Journal Indexed in SCI)
- **Metrics for Success Performance Metrics for Power System State Estimators and Measurement Designs**

Goel M., Abur A., Galvan F.

IEEE POWER & ENERGY MAGAZINE, vol.10, pp.50-57, 2012 (Journal Indexed in SCI)

- **A New Field-Data-Based EAF Model for Power Quality Studies**

Gol M., Salor O., ALBOYACI B., Mutluer B., ÇADIRCI I., ERMİŞ M.

IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, vol.46, pp.1230-1242, 2010 (Journal Indexed in SCI)

Articles Published in Other Journals

- **Enerji Depolama Sistemlerinin Farklı Kullanım Zamanlarının Elektrik Sistemine Olan Etkisi**

SEZGİN M. E. , GÜDELEK M. U. , ARIN E., ÇIRAK C. R. , GÖL M.

Firat Üniversitesi Mühendislik Bilimleri Dergisi, vol.30, pp.7-14, 2018 (Other Refereed National Journals)

- **Robust local parameter estimator based on least absolute value estimator**

ÖZDEMİR V., GÖL M.

Turkish Journal Of Electrical Engineering And Computer Sciences, vol.25, pp.3143-3151, 2017 (Other Refereed National Journals)

Book & Book Chapters

- **METU Smart Campus Project (iEAST)**

ERTEKİN BOLELLİ Ş., KEYSAN O., GÖL M., Bayazit H., Yıldız T., Marr A., Ganji M., Teimourzadeh S., Tör O. B. , Özkavaf S.

in: New Technologies, Development and Application II, Isak Karabegović, Editor, Springer, pp.287-297, 2019

Refereed Congress / Symposium Publications in Proceedings

- **METU Smart Campus Project (iEAST)**

ERTEKİN BOLELLİ Ş., KEYSAN O., GÖL M., beyazit h., YILDIZ T., Marr A., Ganji M., Teimourzadeh S., Tör O. B. , Özkavaf S.

International Conference on New Technologies, Development and Application, Sarajevo, Bosnia And Herzegovina, 27 - 29 June 2019, vol.76, pp.287-297

- **A Hybrid State Estimation Strategy With Optimal Use of Pseudo-Measurement**

ÖZSOY b., GÖL M.

ISGT-Europe 2018, 21 - 25 October 2018

- **Evaluation of Photovoltaic Systems For Reactive Power Compensation In Low Voltage Power Systems**

Uğur M., Duymaz E., Göl M., Keysan O.

ISGT Europe 2018, Sarajevo, Bosnia And Herzegovina, 21 - 25 October 2018

- **A New Index for Voltage Quality Assessment at Distribution Systems**

KARACELEBİ m., ERCİN ö., GÖL M.

UPEC 2018, 4 - 07 September 2018

- **A Strategy to Evaluate Solar Power Generation Capability Based on Historical Data**

ŞENGÜL d., GÖL M.

UPEC 2018, 4 - 07 September 2018

- **Load and PV Generation Forecast Based Cost Optimization for Nanogrids with PV and Battery**

Gudelek M. U. , Cirak C. R. , ARIN E., SEZGİN M. E. , Ozbayoglu A. M. , Gol M.

53rd International Universities Power Engineering Conference, UPEC 2018, Glasgow, United Kingdom, 4 - 07 September 2018

- **DC Catenary Line Modeling of Subway Systems**

SEZGİN M. E. , GÖL M.

IEEE-Power-and-Energy-Society General Meeting (PESGM), Oregon, United States Of America, 5 - 10 August 2018

- **Medium-Term Electricity Demand Forecasting Based on MARS**

İLSEVEN e., GÖL M.

IEEE International Conference on Innovative Smart Grid Technologies IEEE ISGT Europe 2017, 26 - 29 September 2017

- **Voltage variation model for DC catenary line of a subway system**

SEZGİN M. E. , GÖL M.

2017 IEEE Manchester PowerTech, Powertech 2017, Manchester, United Kingdom, 18 - 22 June 2017

- **Identification of bad solar power generation data Hatalı Güneş Enerjisi Üretim Ölçümlerinin Tespit Edilmesi**

ŞENGÜL D., DUYSMAZ E., GÖL M.

25th Signal Processing and Communications Applications Conference, SIU 2017, Antalya, Turkey, 15 - 18 May 2017

- **Binary integer programming based PMU placement in the presence of conventional measurements**

Ertürk B., Göl M.

PES Innovative Smart Grid Technologies Conference Europe (ISGT-Europe), 2016 IEEE, Ljubljana, Slovenia, 9 - 12 October 2016

- **Evaluation of the effects of photovoltaic systems on voltage quality**

Şengül D., Göl M.

48th North American Power Symposium, NAPS 2016, Colorado, United States Of America, 18 - 20 September 2016

- **Fault location based on state estimation in PMU observable systems**

ÖNER A., GÖL M.

2016 IEEE Power and Energy Society Innovative Smart Grid Technologies Conference, ISGT 2016, Minnesota, United States Of America, 6 - 09 September 2016

- **State estimation based determination of harmonic current contributions of iron and steel plants supplied from PCC**

Sezgin E., GÖL M., Salor Ö.

51st Annual Meeting on IEEE Industry Application Society, IAS 2015, Texas, United States Of America, 11 - 22 October 2015

- **A Robust Parameter Estimation Method Based onLAV Estimator**

ÖZDEMİR V., GÖL M.

modern electric power systems 2015, Wroclaw, Poland, 6 - 09 July 2015

- **A Robust Parameter Estimation Method Based on LAV Estimator**

Ozdemir V., GÖL M.

INTERNATIONAL CONFERENCE, 15 MEPS MODERN ELECTRIC POWER SYSTEMS, Wroclaw, Poland, 6 - 09 July 2015

- **A modified Chi-Squares test for improved bad data detection**

GÖL M., ABUR A.

IEEE Eindhoven PowerTech, PowerTech 2015, Eindhoven, Netherlands, 29 June - 02 July 2015

- **Determination of Harmonic Current Contributions of Plants Supplied from PCC Based on State Estimation**

Sezgin E., GÖL M., Salor O.

23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015, pp.2062-2065

- **PMU based robust state estimation using scaling**

Göl M., ABUR A.

2012 North American Power Symposium, NAPS 2012, Champaign, IL, United States Of America, 9 - 11 September 2012

Supported Projects

GÖL M., TUBITAK Project, Alçak Gerilim Dağıtım Sistemi Verilerinin İzlenmesi Ve Kayıt Altına Alınması, 2016 - Continues
Göl M., TUBITAK Project, Depremde Zarar Görmüş Orta Gerilim Elektrik Dağıtım Şebekelerinde Ayağa Kaldırma İçin Karar Destek Yöntemlerinin Geliştirilmesi, 2018 - 2020

GÖL M., YILDIZ U., Project Supported by Higher Education Institutions, ALÇAK GERİLİM GÜNEŞ ENERJİSİ SİSTEMLERİNİN VARLIĞINDA YÜK TALEP TAHMİNİ YÖNTEMİ, 2018 - 2019

Göl M., TUBITAK Project, Mevcut Güç Akışı Ölçüm Cihazlarını Hesaba Katarak Belirlenmiş Artıklık Endeksine Göre Optimum Fazör Ölçüm Ünitesi Yerleştirme Metodu Geliştirilmesi, 2015 - 2017

GÖL M., ŞENGÜL D., Project Supported by Higher Education Institutions, MİLGES Projesi Kapsamında Kurulacak Olan Güneş Enerjisi Santralının Türkiye Elektrik Sistemine Etkilerinin İncelenmesi, 2016 - 2016

Activities in Scientific Journals

IEEE Transactions on Smart Grid, Editor, 2019 - Continues

Turkish Journal Of Electrical Engineering And Computer Sciences, Editor, 2018 - Continues

JOURNAL OF MODERN POWER SYSTEMS AND CLEAN ENERGY, Editor, 2018 - 2018

Citations

Total Citations (WOS):246

h-index (WOS):7