Etki Acilan
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OBJECTIVE

Graduate student looking for summer research internships on Power System State & Parameter Estimation research fields.

SUMMARY

I am a master's student studying under the supervision of Dr. Murat Gol at Middle East Technical University with a major in Electrical Engineering. I am also a Research and Teaching Assistant at the same department. My main research area is Power System State & Parameter Estimation. I have experience in Kalman Filters, other estimators and optimization methods on MATLAB and Python. I have been the teaching assistant for Power System Analysis courses. I have worked on industrial projects where I implemented well-known state estimation tools.

RESEARCH INTERESTS

Power System Static State Estimation, Power System Dynamic State Estimation, Parameter Estimation

EDUCATION

Middle East Technical University Ankara, Turkey
MSc. Electrical and Electronics Engineering, Power Systems GPA: 3.86/4 September 2019 – July 2022 (Expected)
Supervisor: Dr. Murat Gol

Middle East Technical University Ankara, Turkey
BSc. Electrical and Electronics Engineering, Power Systems GPA: 3.35/4 September 2015 – June 2019

WORK EXPERIENCE

Middle East Technical University Ankara, Turkey
Teaching Assistant, Department of Electrical and Electronics Engineering February 2020 – Present
- Power System Analysis I
- Power System Analysis II
- High Voltage Techniques I & II

Middle East Technical University Ankara, Turkey
Research Assistant, Power System Analysis Laboratory June 2019 – Present
- Participated in projects mentioned in Projects section.

Ulusoy Electric Ankara, Turkey
Intern, Production and Quality Control September 2018 – October 2018
- Observed the production line of MV equipment.

AF-Mercados EMI Ankara, Turkey
Intern, Distribution Network Planning June 2018 – September 2018
- Worked at Master Plan of Firat DISCO.
- Modeled distribution networks of four cities on DigSilent Power Factory

PROJECTS

Implementation of Power Systems SE Algorithms *ASELSAN* January 2020 – April 2021 (Expected)
- Implemented traditional WLS-SE, Transformer Tap Estimator, Observability Analysis, and Bad Data Analysis tools on MATLAB considering sparse nature of the matrices.
- Implemented a Very Short-Term Load Forecast Aided WLS Hybrid-SE.
- Wrote technical reports of Topology Processor and Hybrid-SE.

Power Plant Parameter Calibration Tool October 2020 – Present
- Implemented Ensemble Kalman Filter based Power Plant Parameter Calibration Algorithm using PSS/E API and analytical models on Python.
- Presented algorithms on technical meetings.

ALGORITHMS

- Weighted Least Squares, Kalman Filter, Extended Kalman Filter, Unscented Kalman Filter, Ensemble Kalman Filter, Newton-Raphson Method, Depth-First Search, and other common optimization algorithms such as line search methods.

SKILLS

Programming Language: Python, MATLAB
Simulation and Analysis Software: PSS/E (including psspy), DigSilent PowerFactory

COURSES

- Power System Stability and Dynamics
- Power System Real-Time Monitoring and Control
- System Identification
- Optimization
- Power System Analysis I & II
- Distribution Systems
- Electrical Power Quality Monitoring and Improvement
- Nonlinear Control Systems
- Feedback Systems
- Economic Operation of Power System
- Linear Systems Theory

HONORS

National Academic Personnel and Postgraduate Education Entrance Exam (GRE Equivalent Exam in Turkey)
Ranked 313rd among 119000 participants
Dean's Honor Roll *Achieved High Honor Roll 5 times in 8 terms*
National University Entrance Exam *Ranked 1665th among 2 million participants*

LANGUAGES

English *Professional working proficiency*
Turkish *Native*