



Sultan, S.T., M.T

Power System Engineering

Bachelor's degree (Electrical Engineering) Hasanuddin University 1994

Master's degree (Electrical Engineering) Gadjah Mada University, Yogyakarta 2004

Employment

Lecturer Undergraduate's program in Electrical Engineering, Engineering Faculty University of Mataram, Indonesia 1997

Research and development projects over the last 5 years

1. Improved Efficiency of PLTS on Grid System Using MPPT Algorithm with Additional Controller Based on ANFIS (Internal Funds - 2022)
2. Type-2 Fuzzy-Based PSS Design for Dynamic Stability Improvement of Integrated Electric Power Systems of NRE Generators (Internal Funds – 2021)
3. Improvement of Stability of Integrated Power System of NRE Generator Using ANFIS-Based PSS (Internal Funds – 2020)
4. Automatic Control of Excitation System and Prime Mover Generator for Synchronization Based on Arduino Mega 2560 (As Advanced AC Machine Practicum Module) (internal funds – 2019)
5. Improvement of 12-pulse Rectifier/Inverter Performance with Firing Angle Adjustment Using ANFIS-Based Controller in High Voltage Direct Current Transmission (Dikti funds – 2018-2019)
6. Effect of Renewable Energy Generation on Three-Phase Distribution System(internal funds – 2018)

Industry collaborations / Community Services over the last 5 years

1. Training on Planning and Installation of Safe Electrical Installations Based on PUIL 2011 (SNI 0225:2011) for Buildings for the Community of Jelantik Village, Jonggat District, Central Lombok Regency (2022)
2. Mentoring SMA Negeri 1 Mataram Students Through Arduino Connection Training to Measure Air Pollution Levels and Body Temperature Wirelessly Via Bluetooth (2022)
3. Community Empowerment of Tumpak Village, Pujut District, Central Lombok Through Counseling on Anticipation of Cellular Phone Radiation, Feasibility Test of Electrical Installations and Measurement of Electrical Energy Vampires (2022)
4. Arduino Connection Training with Bluetooth to Measure Air Pollution Levels and Body Temperature and Socialization of the Department of Electrical Engineering Unram at SMAN 3 Mataram (2021)

5. Electrical Installation Feasibility Test Training and Power Quality Measurement at SMKN 1 Lingsar, Lingsar District, West Lombok Regency (2021)
6. Socialization of Electrical Installation Standards Based on PUIL 2011 (SNI 0225:2011) Perina Village, Jonggat District, Central Lombok Regency (2020)
7. Counseling on Electrical Installation Maintenance and Efficient Use of Electrical Energy in Banyumulek Village, Kediri District, West Lombok Regency (2020)
8. Socialization of Anticipation of Cellular Phone Radiation, Electrical Installation and Measurement of Vampire Energy Electrical Equipment in Perampuan Village, Labuapi District, West Lombok Regency (2019)
9. Socialization of the Utilization of the Electric Network for Data Communication between the Customer's kWh meter and the Electricity Provider at SMKN 1 Lingsar, Lingsar District, West Lombok Regency (2019)
10. Electrical Installation Techniques and Measurement of Ground Resistance for Touch Voltage Safety for the Community of Semparu Village, Kopang District, Central Lombok Regency (2019)
11. Electrical Installation and Grounding Planning Training in accordance with SNI 0225:2011 (PUIL 2011) For Buildings, For Residents of West Batulayar Village, District (2018)
12. Home Electrical Installation Safety Training and Efforts to Save Electrical Energy for Communities in Bentek Village, Gangga District, North Lombok Regency (2018)

Patents and
proprietary rights

- -

Important publications
over the last 5 years

1. Interval Fuzzy-PSS Using Gauss-2 Membership Function to Enhance Small-signal Stability, The First Mandalika International Multi-Conference on Science and Engineering (2022)
2. ANFIS based MPPT Design for Rooftop Solar Panels Connected to Single Phase Power Grid, The First Mandalika International Multi-Conference on Science and Engineering (2022)
3. Additional control based on ANFIS algorithm to improve transient current of converter-side in HVDC transmission system, Proceedings of the International e-Conference on Intelligent Systems and Signal Processing, 10.1007/978-981-16-2123-9_29 (2022)
4. Application of Fuzzy Type-2 PSS to Improve Dynamic Stability of Micro Hydro and Diesel Power Plants, <https://doi.org/10.29303/jstl.v7i2.272> (2021)
5. Improvement of Dynamic Stability of Integrated Power Systems for Micro Hydro and Diesel Power Plants Using ANFIS-Based PSS, <https://doi.org/10.29303/jstl.v6i2.197> (2020)
6. Transient response improvement of direct current using supplementary control based on ANFIS for rectifier in HVDC, <http://doi.org/10.11591/ijpeds.v11.i4.pp2107-2115> (2020)
7. Simulation of ANFIS Controller to Line Commutation Based on Current Source Converter High Voltage Direct Current System, The 2019 IEEE Conference on Energy Conversion (CENCON 2019)

Activities in specialist
bodies over the last 5
years