

CURRICULUM VITAE

Arief Marwanto, ST., M.Eng., Ph.D



A. Personal Information

Item	Details
Full Name	Arief Marwanto, ST., M.Eng., Ph.D
Place and Date of Birth	28 September 1975
NIP	-
NIDN	0628097501
Rank and Grade	-
Academic Position	Assistant Professor (Lektor)
Institution	Universitas Islam Sultan Agung
Home Address	-
Mobile Phone	-
Email	arief@unissula.ac.id
Area of Expertise	Electrical Engineering; Informatics; Nursing Information Systems
Sinta ID	42
Scopus ID	-
Google Scholar ID	-
Courses Taught	1. Advanced Nursing Information Systems

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B. Educational Background

	S-1/Bachelor	S-2/Master	S-3/Doctor
Institution	Universitas Muhammadiyah Yogyakarta	Universiti Teknologi Malaysia	Universiti Teknologi Malaysia
Field of Study	Electrical Engineering	Electrical Engineering	Electrical Engineering
Graduation Year	1998	2008	2016
Thesis/Dissertation Title	Direct Sequence Spread Spectrum CDMA	SCM/WDM for Radio over Fiber Communication Link	Adaptive Quantization for Mobile Cognitive Radio Networks

C. Professional Experience

Y e a r	Position	Institution / Role
-	Lecturer / Academic Staff	Universitas Islam Sultan Agung
-	-	-
-	-	-

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D. Publication

Y e a r	Position	Journal
2025	Optimasi Keandalan Proteksi Relai Distance	Setrum : Sistem Kendali-Tenaga-
2025	1BENCHMARKING OF OFDM SPECTRUM	Indonesian Journal of Electrical
2025	Effect Incoming Support Cable Berbahan Ferro Magnetic on Healthy Index Cable Medium Voltage Transformator I 150/20KV 60 MVA Gardu Induk.	Jurnal CYCLOTRON, Universitas Muhammadiyah Surabaya
2024	DETERMINATION OF LFG QUALITY FOR OPTIMIZING PRODUCTION WASTE POWER PLANT USING FUZZY ANALYTICAL HIERARCHY PROCESS	Journal of Theoretical and Applied Information Technology
2024	A Fuzzy Logic Approach to Enhance GPS Accuracy for Blood Cooler Box Tracking	Indonesian Journal of Electronic Electromedical and Medical Informatic (IJEEMI)
2023	Valve control system on a venturi to control FiO2 a portable ventilator with fuzzy logic method based on microcontroller	IAES International Journal of Artificial Intelligence (IJ-AI)
2023	Smart System Side Slip Tester Results Accuracy Improvement Using Exponential Filter	Indonesian Journal of Electrical Engineering and Informatics (IJEI) Journal
2022	VOLTAGE SAG MITIGATION WITH PRE- SAG BASED DYNAMIC VOLTAGE RESTORER METHOD	Journal of Theoretical and Applied Information Technology 31st December 2022 --
2022	Enhancement Drip Dose Infusion Accuracy Based on Optocoupler and Microcontroller Sensor	International Journal of Advanced Health Science and Technology (IAHST) Published by: Forum Ilmiah Teknologi dan Ilmu Kesehatan Journal Website
2022	Potential Solar and Wind Energy Forecasting for Capital City Using Neural network	International Journal of Innovative Science, Engineering and Technology (IJSET)

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Y e a r	Position	Journal
2022	DECISION SUPPORT SYSTEM FOR ELECTRICAL OSH INSPECTION AND TESTING BASED ON FUZZY LOGIC	Journal of Theoretical and Applied Information Technology
2022	Optimization of ground plane antenna gain by increasing the inductance of loading coil based on silver material	Indonesian Journal of Electrical Engineering and Computer Science (IJECS) The Indonesian Journal of Electrical Engineering and Computer Science (p-
2022	Optimizing of the installed capacity of hybrid renewable energy with a modified MPPT model	International Journal of Electrical and Computer Engineering (IJECE
2021	Analysis of Energy Saving Opportunity on Forced Draft Fan and Primary Air Fan Systems in Tanjung Jati B Power Plant using Variable Frequency Drive Method	The International Journal of Power Electronics and Drive Systems (IJPEDS), a
2022	Improved ship position stability on offshore- based dynamic position maintenance with the PID method	Technium Romanian Journal of Applied Sciences and Technology (
2022	A Two Level of Leakage Detection Monitoring System of Hi-Pump Water Pipeline Based on IoT	Cyclotron, Jurnal Teknik Elektro (
2022	Development of Watermelon Plant Growth Monitoring and Control System Using IOT Based TCS230 sensor	Cyclotron Journal (
2022	FORECASTING POTENTIAL PV POWER PLANT AND WIND POWER PLANT USING ARTIFICIAL NEURAL NETWORK	Elektronika and Komputer Journal (ELKOM) (
2022	FUZZY LOGIC-BASED INFUS AUTOMATION DESIGN	Elektronika and Komputer Journal (ELKOM) (
2021	Analysis of IPv6 Jumbo-gram Packages Transmission Using Jumbo Frame in Mirotic- Based Tunneling	Indonesian Journal of Electrical Engineering and Computer Science (IJECS) The Indonesian Journal of Electrical Engineering and Computer Science (p-
2020	Adaptive quantization for spectrum exchange information in mobile cognitive radio networks	International Journal of Electrical and Computer Engineering (IJECE
2020	Fuzzy Logic Applications for Data Acquisition Systems of Practical Measurement	International Journal of Electrical and Computer Engineering (IJECE

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Y e a r	Position	Journal
2020	Analysis of Driver Position Control on Electronic Power Steering (EPS) Using PID	Journal of Telematics and Informatics (
2020	A Prediction Method of Rice Harvesting Using Artificial Neural Network	Journal of Telematics and Informatics (
2019	Vital Sign Monitoring in ICU Patients Based on MEWS (Modified Early Warning Score) with IOT (Internet of Things)	Journal of Telematics and Informatics (
2019	Efficiency of Electrical Energy in Building Base on DSM with AHP Method	Journal of Telematics and Informatics (
2019	CONSTRUCT DESIGN DEVELOPMENT OF ROBOTIC HAND ACTUATOR FOR AFTER STROKE PATIENT REHABILITATION	Journal of Telematics and Informatics (
2019	PROTOTYPE OF LPG GAS LEAKAGE DETECTOR SYSTEM BASED ON FUZZY LOGIC	Journal of Telematics and Informatics (
2019	Fuzzy Logic Based Incubator Temp And Humid Level Controller Prototype	Journal of Telematics and Informatics (
2019	STATCOM Application for Reactive Power Compensation on Distribution of PLTMH Muncar Waterfall	Journal of Telematics and Informatics (
2019	Automatic Irrigation System Based on Fuzzy Logic	Journal of Telematics and Informatics (
2019	Telemetry Temperature Measurement Based on FM Radio Frequency	Journal of Telematics and Informatics (
2019	MONITORING THE USAGE OF MARINE FUEL OIL ABOARD PASSANGER SHIP BASED ON INTERNET OF THINGS	Journal of Telematics and Informatics (
2018	EFFICIENCY ANALYSIS OF TANKER SHIP FUEL USAGE BY APPLYING EXHAUST GAS BOILER AND TURBO GENERATOR POWER PLANT ON MT. GAMSUNORO	Journal of Telematics and Informatics (
2018	PID Tuning on Cascade Control Level Deaerator Steam Power Plant	Journal of Telematics and Informatics (
2018	EMG Signal Recognition of Gait Pattern Using Back Propagation Neural Network For Stroke Disease Rehabilitation	Journal of Telematics and Informatics (

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Y e a r	Position	Journal
2018	Fuzzy Based Controlling for Accurate Temperature in Poultry Machinery	Journal of Telematics and Informatics (
2018	Control Of Air-Cooling System Based On Fuzzy Logic	Journal of Telematics and Informatics (
2018	Color Detector Tool Using TCS3200 And Arduino Uno for Blind and Child	Journal of Telematics and Informatics (
2018	Temperature and Humidity Monitoring on IoT Based Shipment Tracking	Journal of Telematics and Informatics (
2018	Coal Dust Controller on Indramayu Power Plants Conveyor Lane Based IOT	Journal of Telematics and Informatics (
2018	Low-Cost Solar Energy Efficiency For Desalination System Using Simulation Matlab	Journal of Telematics and Informatics (
2017	Monitoring Of Water Treatment Plant Employing Internet Of Things	Journal of Telematics and Informatics (
2017	Safety Design for Residential using Indonesian ID-Card based on RFID Technology	Journal of Telematics and Informatics (
2018	DESIGN AND DEVELOPMENT OF PROTOTYPES OF MONITORING AND CONTROL OF SINGLE-PHASE LOAD CONTROL BASED ON IOT (INTERNET OF THINGS)	TRANSMISI JOURNAL
2025	Enhancing Stroke Detection Accuracy on Imbalanced Datasets Using SMOTE and Optimized SVM	25 – 26 September 2025, published in IEEE Xplore in progress
2024	An Improvement of Apple Leaf Diseases Detection Using Convolutional Neural Network Methods Based on Mobile Systems	27 – 28 September 2024
2022	Optimizing Detection Using Multiple Threshold to Combat Low SNR Regime in CRN	5-6 October 2022
2021	The AC-DC-AC Converter Design for Parallel Asynchronous Generator Based Micro hydro Power Plants	20-21 October 2021
2021	Experimental Analysis IPv6 Tunneling of Jumbo Frame Transmission using Mirotic Routers	20-21 October 2021

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Y e a r	Position	Journal
2019	Economic Analysis of Residential Grid-connected Photovoltaic System with Lithium- Ion Battery Storage	16th – 17th October 2019
2019	Optimal Sizing of Hybrid Fuel Cell and PV System Employing Hybrid PSO-GA	16th – 17th October 2019
2019	Fuzzy Logic Implementation for Incubator Prototype With Temperature And Humidity Control	18th – 20th September 2019
2019	Spatial Diversity Impact in Mobile Quantization mapping for Cognitive Radio Networks	18th – 20th September 2019
2019	Data Acquisition in Determining Lab Work Assessment Ranking Using Fuzzy Analytic Hierarchy Process (FAHP)	21th – 22nd September 2019
2018	Co-channel Interference Monitoring based on Cognitive Radio Node Station	October 16th – 18th
2018	Monitoring The Usage of Marine Fuel Oil Aboard Ketapang Gilimanuk Ship	October 16th – 18th
2017	Study on the Number of Wavelengths in the Optical Burst Switching Core Node	September 19th – 21th
2017	Software Defined Radio Design for OFDM Based Spectrum Exchange Information Using Arduino UNO and X-Bee	September 19th – 21th
2019	Voltage Measurement Data Acquisition Tools with Internet of Things (IOT) Based Fuzzy Logic	Patent
2017	Politeknik Harapan Bersama Tegal	Tegal
2017	Study General of Electrical Engineering Study program, Muria University Kudus, Central Java, Indonesia	Kudus
2018	Universitas Muhammadiyah Surabaya	Surabaya
2021	Universitas Muhammadiyah Pekajangan Pekalongan	Pekalongan

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E. Research Project

Y e a r	Title / Focus of Research	Funding / Institution
2017	The Development of OFDM-Based Spectrum Exchange Information using Arduino UNO and X-Bee for Software Defined Radio (Lead of Research)	Universitas Islam Sultan Agung (UNISSULA) Semarang
2018	Development of Design Model for Data Acquisition System Based on Fuzzy Analytic Hierarchy Process (FAHP) for Validation of Practical Measurements (member)	National Strategic Research (STRANAS) The Ministry of Higher Education Indonesia (Kemenristek BRIN)
2018	World Class Professor (WCP) (Lead Program)	KEMENRISTEKDIKTI
2020	Indonesian Indexing of Publication Model (SINTA) (member)	LPDP, Ministry of Treasure Indonesia and Ministry of Higher Education Indonesia
2020	Monitoring Levels Alkohol Pengemudi Kendaraan Umum Based atmega328 and IoT (member)	Universitas Islam Sultan Agung (UNISSULA) Semarang
2021	Development Device Pengukur Tinggi and Berat Badan Manusia Based Pengolahan Citra Using Machine Learning (member)	Universitas Islam Sultan Agung (UNISSULA) Semarang
2023	Identifikasi Keunggulan Perguruan Tinggi and Program Study Using an otomatis Using TextRank (member)	Universitas Islam Sultan Agung (UNISSULA) Semarang

F. Community Service

Y e a r	Title	Funding / Institution
-	-	-
-	-	-
-	-	-
-	-	-

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Y e a r	Title	Funding / Institution
-	-	-

G. Recognition

Y e a r	Recognition	Document link (certificate/decrree)
-	Aplikasi Bestcare	Registered Intellectual Property
2025	Development, validation, and evaluation of a simple molecular malaria diagnostic assay using isothermal recombinase polymerase amplification and lateral flow testing (RPA-LFT)	Institute for Tropical Medicine and German Center for Infection Research (International)
2025	Malaria Control and Health Security Capacity Building in Indonesia (Southeast Asia) hosted by University of New South Wales, Australia	Australian Awards Fellowship, Australia (International)
2025	Malaria Control in Endemic Areas through Epidemiological, Biomolecular, and Artificial Intelligence Approaches	Kemenristekdikti RI (National)

H. Book

Y e a r	Book	Publisher
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Semarang, 22
Juli2026

Arief Marwanto,
ST., M.Eng., Ph.D
NIP. -

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