

Prof. Ir. Yulianta Siregar, S.T., M.T., Ph.D.Eng., IPM

Lecturer of Undergraduate Program in Electrical Engineering Study Program
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Yulianta Siregar was born on July 9, 1978, in Medan, North Sumatra, Indonesia. He completed his undergraduate studies at the Universitas Sumatera Utara in Medan, North Sumatra, Indonesia, and received a Bachelor of Engineering degree in 2004. After a while, he worked for a private company. He continued his education by taking a Master's Program in Electrical Engineering at Institut Teknologi Sepuluh Nopember, Surabaya, West Java, Indonesia, from 2007-2009. He took a Ph.D. program at Kanazawa University, Japan, from 2016 to 2019. He is currently a lecturer at the Universitas Sumatera Utara.

Publications

2026

Prosiding seminar internasional

Design of a Wind Power Generation Turbine for Low-to-Medium Wind Speeds in Medan

YULIANTA SIREGAR , MAKSUM PINEM , MUHAMMAD RIZKI SYAHPUTRA

2026

Prosiding seminar internasional

Monitoring and Control System for Solar Trackers Based on the Internet of Things

YULIANTA SIREGAR , MAKSUM PINEM , OFEBER TAFONAO

2026

Prosiding seminar internasional

Comparative Analysis of The Effect of Epoxy Silicone Rubber Resin with Silica Sand/TiO₂ and Silica Sand/MgO Fillers on The Mechanical and Electrical Characteristics of Insulators

YULIANTA SIREGAR , RUT DANIELA GINTING , Issarachai Ngamroo

2025

Jurnal internasional bereputasi

Analysis of voltage drop using transformer tap changer and placement of capacitor bank with genetic algorithm

YULIANTA SIREGAR , AGUS KIVANDER SARAGI , Issarachai Ngamroo

2025

Jurnal internasional bereputasi

Design and analysis of hybrid filters for harmonic reduction in three-phase nonlinear rectifier loads

YULIANTA SIREGAR , DEDET CANDRA RIAWAN , MULDI YUHENDRI , Daniel Julian Sinaga , Nur Nabila Mohamed

2025

Prosiding seminar internasional

Analysis of the Utilization of Gypsum Powder Composition and Fly Ash for Improving Grounding Resistance at Variations in Electrode Depth

YULIANTA SIREGAR , TOGA PRAJA MANURUNG , Hans Siregar , Rikardo Simanjuntak , Flesensius Agam Fradiska , Muhammad Iqbal

2025
Jurnal internasional bereputasi

Vector Control of Three Phase Squirrel Cage Induction Motor based on Internet of Things

YULIANTA SIREGAR , MULDI YUHENDRI , DEDET CANDRA RIAWAN , Nur Nabila Mohamed

2025
Jurnal internasional bereputasi

Comparative analysis of active filters, inductor-capacitor and inductor-capacitor-inductor passive filters in reducing harmonics

YULIANTA SIREGAR , NAOMI AZHARI , Nur Nabila Mohamed

2025
Jurnal internasional bereputasi

Vector Control of Three Phase Squirrel Cage Induction Motor based on Internet of Things

DEDET CANDRA RIAWAN , MULDI YUHENDRI , TA ALI , YULIANTA SIREGAR , Nur Nabila Mohamed

2025
Jurnal internasional bereputasi

Design of micro-scale wind power plant with vertical axis wind turbine darrieus type-H

YULIANTA SIREGAR , ARY PRAYOGO , Nur Nabila Mohamed , Issarachai Ngamroo

2025
Prosiding seminar internasional

Performance Comparison of Ant Colony Optimization and Symbiotic Organism Search In Smart Home Energy Management Systems

MAKSUM PINEM , YULIANTA SIREGAR , SANDY ARMANDO SAPUTRA

2025
Prosiding seminar internasional

Design and Construction of a Pico Hydro Power Plant Using a Turgo Turbine on the Bah-Biak Waterfall Flow

YULIANTA SIREGAR , DANIEL ORTEGA MANIK

2025
Prosiding seminar internasional

Monitoring System for Pico Hydropower Plants on Pelton Turbines Based on the Internet of Things

YULIANTA SIREGAR , Edy Saputra Marbun , Nur Nabila Mohamed

2025
Jurnal internasional bereputasi

Design of starting a three phase induction motor using direct on-line, variable frequency drive, soft starting, and auto transformer methods

DEDET CANDRA RIAWAN , Nur Nabila Mohamed , YULIANTA SIREGAR , MULDI YUHENDRI

2025
Jurnal internasional bereputasi

Generator analysis and comparison of working fluids in the organic Rankine cycle for biomass power plants using Aspen Plus software

YULIANTA SIREGAR , Wahyu Franciscus Sihotang , Nur Nabila Mohamed

2024
Jurnal internasional bereputasi

Modelling the Hybrid Security Approach for Secure Data Exchange: A Proof of Concept

YULIANTA SIREGAR , Nur Nabila Mohamed , Nur Arzilawati MD YUNUS , Fazlina MOHD ALI

2024
Prosiding seminar internasional

Atmospheric Pressure Plasma Jet (APPJ) Generation using Industrial Frequency Alternative Power Source

Van Nhan Truong , Hoa Thi Truong , Trinh Le Pham , Cong Trinh Pham , YULIANTA SIREGAR

2024
Jurnal internasional bereputasi

Comparative design of harmonic current reduction in variable speed drive using space vector pulse width modulation and hybrid pulse width modulation

Nur Nabila Mohamed , FAREL SITUMEANG , YULIANTA SIREGAR

2024
Prosiding seminar internasional

Analysis Of Feeder Switch Relocation To Minimize Saidi And Saifi In The 20 Kv Distribution Network Of Rengat City

EDITHA YULY MARIA SIHALOHO , YULIANTA SIREGAR

2024
Prosiding seminar internasional

Recloser Optimization To Increase Network Reliability Using The Particle Swarm Optimization Algorithm

YULIANTA SIREGAR

2024
Prosiding seminar internasional

Energy Audit Using Solar Tracking System and Without Solar Tracking on Monocrystalline Solar

FERRY RAHMAT ASTIANTA BUKIT , FAHMI , YULIANTA SIREGAR , MUHAMMAD AMAR MARUF

2024
Jurnal internasional bereputasi

Distribution network reconfiguration utilizing the particle swarm optimization algorithm and exhaustive search methods

YULIANTA SIREGAR , SIHAR P PANJAITAN , KASMIR TANDJUNG , SYISKA YANA , TOMI SAPUTRA JAYA TAMBUN

2024
Prosiding seminar internasional

Smart Energy Meter Design with Notifications and Over-Electric Energy Consumption Cut-off with ESP32 MCU Node Using the Blynk IOT Application

Yohanes Rinaldy Putra Manurung , YULIANTA SIREGAR

2024
Prosiding seminar internasional

Monitoring System Design And Controlling Smart Home Features With The Blynk App

ELHANSDRO TANDRY , YULIANTA SIREGAR

2024
Prosiding seminar internasional

Design of DC Voltage, Humidity, Temperature, and Dust Density Monitoring Tools on Solar Panels Based on the Thingier IO Platform in Real Time

Edinanta Efrata Limbong , YULIANTA SIREGAR

2023
Prosiding seminar internasional

Effect Variation of Grading Electrode and Stub Position on Polluted Chain Isolator

DRESS BOBYAN GINTING , YULIANTA SIREGAR , HENDRA ZULKARNAIN

2023
Prosiding seminar internasional

The effect of grading ring electrodes and stub positions on the voltage distribution of glass chain insulators in polluted conditions

HENDRA ZULKARNAIN , MARIANI PURBA , YULIANTA SIREGAR

2023
Jurnal nasional terakreditasi

PERBANDINGAN METODA DIFFERENTIAL EVOLUTIONARY ALGORITHM DENGAN LAGRANGE MULTIPLIER PADA OPTIMISASI ECONOMIC DISPATCH

YULIANTA SIREGAR , RISWAN DINZI , MELINDA ZUBARA SIREGAR

2023
Jurnal internasional bereputasi

Numerical analysis in Ar-H₂ coupled-coil inductively coupled thermal plasma with Si feedstock for stable operation

YULIANTA SIREGAR

2023
Jurnal internasional bereputasi

Analysis of interference methods on transformers based on the results of dissolved gas analysis tests

YULIANTA SIREGAR

2023
Prosiding seminar internasional

The Effect of Installation Angle and Rain Intensity on Partial Discharge Arising on The Cap Insulator Polluted and Wet Porcelain Plate

DANIEL ADRIANTO HUTAGALUNG , YULIANTA SIREGAR , HENDRA ZULKARNAIN

2023
Prosiding seminar internasional

Air cleaner design using multiplier voltage application

DANU ALIF TARA , HENDRA ZULKARNAIN , YULIANTA SIREGAR

2023
Prosiding seminar internasional

Effect of Changes in Resistive, Inductive, and Excitation Capacitance on Voltage and Frequency of Induction Generators

YULIANTA SIREGAR

2023
Prosiding seminar internasional

Optimizing the Design of the Solar Cell Roof at Universitas Sumatra Utara by PVsyst

YULIANTA SIREGAR

2022
Prosiding seminar internasional

Person Segmentation in Human Height Measurement Using Bodypix

YULIANTA SIREGAR , FAHMI

2022
Jurnal internasional bereputasi

Study of Hybrid Transmission HVAC/HVDC by Particle Swarm Optimization (PSO)

YULIANTA SIREGAR

2022
Jurnal nasional terakreditasi

Optimization Placement and Sizing of Static Synchronous Compensator

ZULKARNAEN PANE , YULIANTA SIREGAR

2022
Prosiding seminar internasional

Dielectric Strength of SF₆-N₂ and SF₆-CO₂ due to Temperature and Pollutants

YULIANTA SIREGAR , HENDRA ZULKARNAIN

2022
Prosiding seminar internasional

Optimization of Location, Capacity, and Number of UPFC in the 150 kV SUMBAGUT Transmission System by Using Particle Swarm Optimization

YULIANTA SIREGAR

2022
Jurnal internasional bereputasi

Design of solar cell using mirror, cooling, double axis, and solar tracking

2022

Prosiding seminar internasional

The Dielectric Power of Mixed Gas Insulation of SF6-CO2 and SF6-N2

HENDRA ZULKARNAIN , YULIANTA SIREGAR

2022

Prosiding seminar internasional

Effect Temperature on Dielectric Strength of Transformer Oil With Nanoparticle SiO2 and CCl4

HENDRA ZULKARNAIN , YULIANTA SIREGAR

2022

Jurnal internasional bereputasi

Study of harmonic distortion from variable speed drive and energy saving lamps

ZULKARNAEN PANE , SUHERMAN , YULIANTA SIREGAR

2022

Prosiding seminar internasional

Analysis of Resistivity, Dielectric Strength and Tensibility of Insulator Materials of A Mixture of Epoxy Resin, Silicone Rubber, and Coal Ash

YULIANTA SIREGAR , HENDRA ZULKARNAIN

2022

Prosiding seminar internasional

Design of Transformer Oil Purification Equipment

HENDRA ZULKARNAIN , YULIANTA SIREGAR

2022

Prosiding seminar internasional

Optimization Placement of SVC and TCSC in Power Transmission Network 150 kV SUMBAGUT using Artificial Bee Colony Algorithm

ZULKARNAEN PANE , YULIANTA SIREGAR

2021

Prosiding seminar internasional

Design of Detectors on Automatic Trolley Using Ultrasonic Distance Sensors at Airports

YULIANTA SIREGAR

2021

Prosiding seminar internasional

Network Reconfiguration of Distributed Generation for Reduced Power Loss and Increasing Voltage Profile by Using Artificial Bee Colony

YULIANTA SIREGAR , FERRY RAHMAT ASTIANTA BUKIT , ZULKARNAEN PANE

2021

Prosiding seminar internasional

Analysis Reliability of Distribution Network Interconnected with Distributed Generation

YULIANTA SIREGAR , ZULKARNAEN PANE

2021

Prosiding seminar internasional

Coordination Optimization of Directive Current Release Due To Added Electricity in The Distribution Network Using ANFIS

ZULKARNAEN PANE , YULIANTA SIREGAR

2021

Prosiding seminar internasional

Optimization of Overcurrent Relay Coordination using Artificial Bee Colony

ZULKARNAEN PANE , YULIANTA SIREGAR

2021

Prosiding seminar internasional

Optimization of Distributed Generating Power Placement And Capacity On The Distribution Network For Voltage Stability Improvemen

YULIANTA SIREGAR , ZULKARNAEN PANE

2021

Prosiding seminar internasional

Design of Geothermal and Solar Hybrid Renewable Energy in Sipoholon Village, North Tapanuli Regency, North Sumatera

EMERSON PASCAWIRA SINULINGGA , SUHERMAN , YULIANTA SIREGAR

2021

Prosiding seminar internasional

Optimization of Hydro Turbine Governor in a Stand-Alone Hydro Plant using PID Control

SHEYLIN WIMORA LUMBAN TOBING , ZULKARNAEN PANE , YULIANTA SIREGAR

2021

Prosiding seminar internasional

Grounding Systems in High Voltage Substation by Analysis Optimization Design (Case Study : 150kV Tapak Tuan Substation)

SUHERMAN , YULIANTA SIREGAR , EMERSON PASCAWIRA SINULINGGA

2021

Prosiding seminar internasional

Analysis of Electrical Protection Coordination at Biogas Power Generation Plant from Palm Oil Mill Effluent

YULIANTA SIREGAR , FAHMI

2021

Prosiding seminar internasional

Delay distributions on encrypted real-time traffics

YULIANTA SIREGAR , SUHERMAN

2021

Prosiding seminar internasional

Event Based Surveillance using WiMAX

SUHERMAN , YULIANTA SIREGAR

2021

Prosiding seminar internasional

Intermittent versus continuous social media exposure for energy consumption and human eye health

SUHERMAN , YULIANTA SIREGAR

2020

Prosiding seminar internasional

Location misplacement analysis on global positioning system

MAKSUM PINEM , YULIANTA SIREGAR , SUHERMAN

2020

Prosiding seminar internasional

Analysis of biobriquette from rice husk for biomass power plants: A review

YULIANTA SIREGAR , SUHERMAN

2020

Prosiding seminar internasional

Study of Comparison between Covered Lagoon Method and Anaerobic Digester for POME Processing in Biogas Renewable Energy: A Review

SUHERMAN , YULIANTA SIREGAR

2020

Prosiding seminar internasional

Study of Hybrid System Between Solar Cell and State Electric Company (PT.PLN) in Indonesia with Arduino System

YULIANTA SIREGAR , SUHERMAN

2020
Prosiding seminar internasional

Study of comparison between covered lagoon method and anaerobic digester for POME processing in biogas renewable energy: A review

SUHERMAN , YULIANTA SIREGAR

2020
Prosiding seminar internasional

Optimization design and simulating solar PV system using PVSyst software

SUHERMAN , YULIANTA SIREGAR

2020
Prosiding seminar internasional

Study of hybrid system between solar cell and state electric company (PT.PLN) in Indonesia with arduino system

YULIANTA SIREGAR , SUHERMAN

2020
Prosiding seminar internasional

Analysis of Biobriquette from Rice Husk for Biomass Power Plants: A Review

YULIANTA SIREGAR , SUHERMAN

2020
Prosiding seminar internasional

Optimization Design and Simulating Solar PV System Using PVSyst Software

YULIANTA SIREGAR , SUHERMAN

2020
Prosiding seminar internasional

Load current, dropped voltage and size considerations in LDR based light control system

SUHERMAN , YULIANTA SIREGAR

2020
Prosiding seminar internasional

Video streaming application with post-decoding concealment technique

SUHERMAN , YULIANTA SIREGAR

2020
Prosiding seminar internasional

The LCL filter design for three phase DC-AC voltage converter

YULIANTA SIREGAR , SUHERMAN

2016
Jurnal nasional

PENENTUAN LOKASI SWING BUS DI JARINGAN LISTRIK SUMATERA bagian UTARA 150 KV

YULIANTA SIREGAR

2015
Jurnal nasional

Daya Output Optimal pada Jenis Solar Cell Monocrystalline dan Polycrystalline

YULIANTA SIREGAR , HASDARI HELMI RANGKUTI

2015
Jurnal nasional

Daya Output Optimal Pada Jenis Sollar Cell Monocrystalline dan Polycrystalline

YULIANTA SIREGAR

2011
Prosiding seminar nasional

Newthon-Raphson Paralel Load Flow di Sistem Jaringan Jawa Timur 150 KV

YULIANTA SIREGAR

Researches

2025

Penelitian Kerjasama Antar Perguruan Tinggi

Desain Optimasi Dynamic Voltage Restorer (DVR) dan Manajemen Energi pada Kontrol Daya Maksimum Pembangkit Hybrid Wind Photovoltaic dan Battery Energy Storage System (BESS) di Smart Grid dengan Menggunakan Artificial Neural Network

YULIANTA SIREGAR , HAFIZH PRIHTIADI , MULDI YUHENDRI , Mohd Najib bin Mohd Hussain

2024

Impact Starting, Smart control, dan Integrating wireless sensor network pada Pengasutan Motor Induksi 3 Fasa dengan Metode Direct On-Line, Variable Frequency Drive, Soft Starting, dan Auto Transformer dengan ada weak grid dan berbasis IoT

YULIANTA SIREGAR , DEDET CANDRA RIAWAN , MULDI YUHENDRI , Nur Nabila binti Mohamed

2020

Penelitian Fundamental

Minimalisasi Rugi Daya Pada Jaringan Distribusi Dengan Melakukan Rekonfigurasi Jaringan Distribusi Yang Terhubung Distributed Generation Menggunakan Metode Ant Colony Optimization (ACO)

FERRY RAHMAT ASTIANTA BUKIT , YULIANTA SIREGAR , ZULKARNAEN PANE

2015

Penelitian Hibah Bersaing

PENENTUAN LOKASI SWING BUS DI JARINGAN LISTRIK SUMATERA BAGIAN UTARA 150 KV

RAJA HARAHAP , YULIANTA SIREGAR

2014

Penelitian Hibah Bersaing

Simulasi Sitem Smart Grid di Jaringan Sumatera Utara Bagian Utara 150 kV

YULIANTA SIREGAR , SURYA TURMUZI KASIM

Community Services

2025

Pelatihan IOT Berbasis Mikrokontroler Untuk Meningkatkan Kompetensi Digital Siswa SMAN 2 Lhokseumawe

RISWAN DINZI , FERRY RAHMAT ASTIANTA BUKIT , YULIANTA SIREGAR , MUHAMMAD SAFRIL , FAHMI

2025

Sosialisasi Peluang Beasiswa Studi di Jepang Kepada Siswa/I SMA Negeri 1 Medan

HAMZON SITUMORANG , YULIANTA SIREGAR , ALIMANSYAR , RIKY STEPANUS SITUMORANG , DIMAS FRANANTA

2025

Peningkatan Keterampilan Pemrograman Mobile Menggunakan MIT App Inventor bagi Siswa di Sekolah

YULIANTA SIREGAR , SOEHARWINTO , RYANDIKA AFDILA , FAHMI

2024

MATA GARUDA LEMBAGA PENGELOLA DANA PENDIDIKAN PROVINSI SUMATERA UTARA

YULIANTA SIREGAR , NURMAN HASIBUAN

2023

Ipteks Bagi Masyarakat

Pelatihan Smart Energi Di Lingkungan Sekolah

2022

Ipteks

Pelatihan Pembuatan Radar Pendeteksi Objek Untuk Pintu Otomatis Dengan Menggunakan Arduino

FAKHRUDDIN RIZAL BATUBARA , RAJA HARAHAP , FERRY RAHMAT ASTIANTA BUKIT , SHEYLIN WIMORA LUMBAN TOBING , YULIANTA SIREGAR , SOEHARWINTO , MUHAMMAD ZULFIN , TIGOR HAMONANGAN NASUTION , MUHAMMAD SAFRIL , HENDRA ZULKARNAIN

2014

Ipteks

PENINGKATAN PRODUKTIVITAS DENGAN CARA MENGAUDIT DAN MEMPERBAIKI LOSES-LOSES YANG TERJADI PADA MESIN PRODUKSI KELOMPOK PENGRAJIN KERIPIK SINGKONG DI DESATUNTUNGAN II PANCUR BATU DAN DUSUN 1 SUKASARI PENGAJAHAN, DELISERDANG

BAIHAQI SIREGAR , YULIANTA SIREGAR , ALFIAN HAMSI

2013

Panitia Pengawasan Penyelenggaraan Ujian Nasional

YULIANTA SIREGAR

2013

Survey Integritas Layanan Publik di PT.PLN (persero) Wilayah Sumatera Utara, PT.PLN (persero) Wilayah aceh dan PT.PLN (persero) Wilayah Riau dan Kepri.

YULIANTA SIREGAR , SUHERMAN

Intellectual Property Rights

2025

Paten nasional

Panel surya pelacak sinar matahari

RISWAN DINZI , FERRY RAHMAT ASTIANTA BUKIT , YULIANTA SIREGAR , SAHRUDDIN RAMBE

2023

Paten nasional

RANCANG BANGUN PERANGKAT PENETAS TELUR DENGAN PEMANAS RESISTOR BERBASIS KONTROLER PID

YULIANTA SIREGAR

2022

Paten nasional

Alat Purifikasi Minyak Trafo

YULIANTA SIREGAR , HENDRA ZULKARNAIN

2022

Paten nasional

Alat Ukur Karbon Monoksida Untuk Kebocoran Kabin Mobil

YULIANTA SIREGAR

2021

Hak cipta nasional

Simulasi Artificial Bee Colony (ABC) Untuk Optimasi Penempatan Dan Kapasitas Static Synchronous Compensator (Statcom)

YULIANTA SIREGAR

2021

Hak cipta nasional

Simulasi Optimasi Static Var Compensator Dan Thyristor Controlled Series Capacitor Dengan Artificial Bee Colony

YULIANTA SIREGAR

2020

Aplikasi Simulasi Rekonfigurasi Jaringan Sistem Distribusi Dengan Artificial Bee Colony (ABC)

ZULKARNAEN PANE , YULIANTA SIREGAR
