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Publications

2026

Prosiding seminar internasional

Development of an IoT-based Automatic Watering and Monitoring System Using the MQTT Protocol for Oil Palm Nurseries

RYANDIKA AFDILA , UMMU HANDASAH , ARMAN SANI , YOHANSEN PRADANA PARDEDE

2023

Prosiding seminar internasional

Design and Implementation of Energy Harvesting System from Slides

ARMAN SANI , UMMU HANDASAH , RYANDIKA AFDILA

2024

Prosiding seminar internasional

Weather Variations Influence on NRZ and RZ Modulation in Free Space Optical Systems

RYANDIKA AFDILA , NAEMAH MUBARAKAH

2023

Artikel ilmiah

Implementation Fuzzy Mamdani Based Grading System for Laboratory Course in Politeknik Negeri Medan

HABIB MUHARRY YUSDARTONO , RYANDIKA AFDILA , MUHAMMAD SUKRI HABIBI DAULAY , UMMU HANDASAH

2023

Jurnal nasional terakreditasi

Implementation Fuzzy Mamdani Based Grading System for Laboratory Course in Politeknik Negeri Medan

HABIB MUHARRY YUSDARTONO , RYANDIKA AFDILA , MUHAMMAD SUKRI HABIBI DAULAY , UMMU HANDASAH

2021

Prosiding seminar internasional

The Influence of Rotor Shape and Air Gap Position on the Characteristics of the Three-phase Axial Flux Permanent Magnet Generator

SHEYLIN WIMORA LUMBAN TOBING , RYANDIKA AFDILA , ARMAN SANI

2025

Artikel ilmiah

Comparative Analysis of Fiber Optical Network Security Using Optical Steganography and Encryption Method

NAEMAH MUBARAKAH , RYANDIKA AFDILA , SOEHARWINTO , RIKA WAHYUNI ARSIANTI

2024

Artikel ilmiah

Effect of Quadrature Amplitude Modulation Variation on EDFA-Based Radio

Over Fiber Performance

RYANDIKA AFDILA , NAEMAH MUBARAKAH , UMMU HANDASAH , ADITYA FAHMI

2024

Prosiding seminar internasional

IoT and Data Management System-Based Smart Incubator to Reduce Neonatal Mortality Rate

MUHAMMAD FARRAS AL-KHAIRY , KURNIAWAN SIDDIQ , RIZKY DWI FAUZAN SAT , RIDHO SETIAWAN , LAILANI SABRINA , RYANDIKA AFDILA , SOEHARWINTO

2026

Jurnal nasional terakreditasi

Sistem Pemantauan dan Kontrol Kualitas Air Akuarium Berbasis IoT Menggunakan Sensor Turbidity

MUTIARA WIDASARI SITOPU , MUHAMMAD SUKRI HABIBI DAULAY , UMMU HANDASAH , CHARLA TRI SELDA MANIK , MICHAEL STEVANO SINURAT , RYANDIKA AFDILA

2025

Jurnal nasional terakreditasi

Development of a Two-Layer Secure IoT Locker System Using e-KTP RFID and Mobile OTP via Blynk Platform

RYANDIKA AFDILA , UMMU HANDASAH , ARMAN SANI , MUHAMMADIN HAMID

2022

Artikel ilmiah

Design and Implementation of Energy Harvesting System from Slides

ARMAN SANI , RYANDIKA AFDILA

2023

Makalah ilmiah

Development of An Intelligent Alert System for Ensuring Social Distancing in Public Waiting Spaces

ARMAN SANI , RYANDIKA AFDILA , MUHAMMAD RAZALI , UMMU HANDASAH

2024

Artikel ilmiah

Development of An Intelligent Alert System for Ensuring Social Distancing in Public Waiting Spaces

MUHAMMAD RAZALI , RYANDIKA AFDILA , ARMAN SANI , UMMU HANDASAH

2025

Jurnal nasional terakreditasi

Liquid Fertilizer Solution Stirring Tool Using Arduino Uno Microcontroller

MUHAMMADIN HAMID , RYANDIKA AFDILA

2024

Artikel ilmiah

Accuracy Comparison of Long Short-Term Memory and Linear Regression Methods for Welding Robots Predictive Maintenance

RYANDIKA AFDILA , ARMAN SANI , MUHAMMAD RAZALI , ARIE RAFIKA DEWI

2023

Jurnal internasional bereputasi

Distributed formation control for groups of mobile robots using consensus algorithm

ARMAN SANI , FAHMI , RYANDIKA AFDILA

2025

Prosiding seminar internasional

Accuracy Comparison of Long Short-Term Memory and Linear Regression Methods for Welding Robots Predictive Maintenance

RYANDIKA AFDILA , MUHAMMAD RAZALI , ARIE RAFIKA DEWI , ARMAN SANI

Researches

2021

Penelitian Dana Lokal Perguruan Tinggi

Sistem Kontrol Formasi Robot Majemuk Terdistribusi pada Lingkungan Dinamis dengan Menggunakan Algoritma Consensus

RYANDIKA AFDILA , FAHMI

2023

Analisis Pengaruh Variasi Cuaca Terhadap Penggunaan Teknik Modulasi NRZ dan RZ Pada Sistem Free Space Optic

RYANDIKA AFDILA , NAEMAH MUBARAKAH

2024

Penelitian Fundamental

Pengembangan Sistem Informasi Perdagangan Karbon Untuk Sektor Transportasi

SOEHARWINTO , RYANDIKA AFDILA , EMERSON PASCAWIRA SINULINGGA , RIDHO SETIAWAN

2024

Penelitian Fundamental

Pengembangan Sistem Informasi Perdagangan Karbon Untuk Sektor Transportasi

RYANDIKA AFDILA , EMERSON PASCAWIRA SINULINGGA

2025

Penelitian Fundamental

Sistem Keamanan Dua Tingkat Untuk Mencegah Pencurian Sepeda Motor Berbasis Artificial Intelligence Internet of Things (AIoT) dan Teknologi Geofencing

MUHAMMAD ZULFIN , RYANDIKA AFDILA , NAEMAH MUBARAKAH

2022

Penelitian Dosen Pemula

OPTIMALISASI PENCAHAYAAN ALAMI DENGAN KINETIC SHADING Studi Pada Perumahan Masyarakat Berpenghasilan Rendah di Kabupaten Deli Serdang

DICKY ANDREA SEMBIRING , AYA MAHARANI , RYANDIKA AFDILA

2022

Penelitian Dosen Pemula

TRANSFORMASI ABC KE DQ UNTUK DESAIN INVERTER TIGA FASA SEBAGAI KONTROL KECEPATAN PENGGERAK MULA PADA SISTEM MICROGRID

SHEYLIN WIMORA LUMBAN TOBING , RYANDIKA AFDILA

Community Services

2022

PELATIHAN PENGELOLAAN REFERENSI TULISAN ILMIAH DENGAN MENGGUNAKAN SOFTWARE MENDELEY

RISWAN DINZI , NISMAH PANJAITAN , MAKSUM PINEM , ALI HANAFIAH RAMBE , RYANDIKA AFDILA , HASDARI HELMI RANGKUTI , SYAFRUDDIN HS , RAHMAD FAUZI , FAHMI , NAEMAH MUBARAKAH

2023

Pelatihan Pembuatan Aplikasi Kecerdasan Buatan Menggunakan MIT APP Inventor di SMA Negeri 1 Sidikalang

NISMAH PANJAITAN , SHEYLIN WIMORA LUMBAN TOBING , RYANDIKA AFDILA

2025

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

YULIANTA SIREGAR , SOEHARWINTO , RYANDIKA AFDILA , FAHMI

2023

PELATIHAN PEMROGRAMAN ANDROID MENGGUNAKAN MIT APP INVENTOR DI PESANTREN DARULARAFAH RAYA

SOEHARWINTO , RYANDIKA AFDILA , HASDARI HELMI RANGKUTI , KASMIR TANDJUNG , NAEMAH MUBARAKAH

2025

Inovasi dengan Arduino: Meningkatkan Keterampilan Siswa SMA dalam Bidang STEM

SOEHARWINTO , TIGOR HAMONANGAN NASUTION , RYANDIKA AFDILA , EMERSON PASCAWIRA SINULINGGA , NAEMAH MUBARAKAH
