

Prof. Dr. Ir. Fahmi, S.T., M.Sc., IPU

Lecturer of Undergraduate Program in Electrical Engineering Study Program
Faculty of Engineering
Universitas Sumatera Utara

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🏢 USU Faculty of Engineering

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Prof. Dr. Ir. Fahmi, S.T., M.Sc., IPM is the Dean of the Faculty of Engineering and also serves as a professor in Electrical Engineering at Universitas Sumatera Utara. He completed his Bachelor's degree in Electrical Engineering from 1998 to 2002, then pursued a Master's degree in Sensor System Technology at FH Karlsruhe, Germany, from 2003 to 2005. After completing his studies, he worked in the medical device industry, reaching the position of product manager at a private company before transitioning to academia in 2007. He was also actively involved in the development of USU Hospital in Medan.

He earned his Ph.D. in Biomedical Engineering from Universiteit van Amsterdam, the Netherlands, from 2010 to 2015. Throughout his academic career, he has held several leadership roles, including Head of the Electrical Engineering Study Program, member of the Academic Senate, and member of the Board of Trustees at USU. Currently, he serves as the Dean of the Faculty of Engineering at USU, in addition to his primary role as a lecturer and researcher in Electrical and Biomedical Engineering.

Publications

2024

Prosiding seminar internasional

Design and Implementation of Photovoltaic Monitoring System Using Arduino UNO R4

FAHMI

2026

Prosiding seminar internasional

Analysis of Handover Rate Improvement by Applying Hysteresis Threshold- Locally Optimal Models and Variation Number of BTS on CDMA System

FAHMI

2020

Prosiding seminar internasional

Analysis of Handover Rate Improvement by Applying Hysteresis Threshold- Locally Optimal Models and Variation Number of BTS on CDMA System

FAHMI

2024

Buku referensi

PERKEMBANGAN TEKNOLOGI DIGITAL UNTUK BERBAGAI BIDANG KEHIDUPAN (DIGITAL TECHNOLOGY FOR HUMANITY)

FAHMI

2024

Jurnal internasional bereputasi

Alcoholic EEG Signal Feature Extraction Based on Relative Wavelet Bispectrum and Bispectrum-Gaussian Using CNN and ANN Classifier

FAHMI

2024

Prosiding seminar internasional

Alcoholic EEG Signal Feature Extraction Based on Relative Wavelet

Bispectrum and Bispectrum-Gaussian Using CNN and ANN Classifier

FAHMI

2025

Jurnal internasional bereputasi

Enhancing Electric Vehicle Charging Stations through Internet of Things Technology for Optimizing Photovoltaic and Battery Storage Integration

FAHMI

2012

Jurnal internasional bereputasi

Differences in CT Perfusion Summary Maps for Patients with Acute Ischemic Stroke Generated by 2 Software Packages

FAHMI

2020

Prosiding seminar internasional

Analysis of Handover Rate Improvement by Applying Hysteresis Threshold- Locally Optimal Models and Variation Number of BTS on CDMA System

FAHMI

2024

Prosiding seminar internasional

Electrical Properties of Vanadium-doped $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$ as Cathode Materials for High Voltage for Lithium- ion Batteries

FAHMI

2017

Artikel ilmiah

Image Based Automated ASPFCT Score for Acute Ischemic Stroke Patients

FAHMI

2018

Jurnal internasional bereputasi

Nearby Search Indekos Based Android Using A Star (A) Algorithm

FAHMI

2026

Prosiding seminar internasional

Big Brain in a Nano Tank: Deep Policy Learning for Micro-Ecosystem Control

FAHMI

2024

Prosiding seminar internasional

Cataract Detection Using Deep Learning in Teleophthalmology Systems

FAHMI

2025

Jurnal internasional bereputasi

Recognition of EEG Features in Autism Disorder Using SWT and Fisher Linear Discriminant Analysis

MELINDA , FAHMI , PRIMA DEWI PURNAMASARI

2015

Buku lainnya

CT perfusion for acute ischemic stroke: Vendor-specific summary maps, motion correction and application of time invariant CTA

FAHMI

2019

Jurnal internasional

Analysis of DICOM Image Compression Alternative Using Huffman Coding

FAHMI

2025

PENERAPAN SISTEM IDENTIFIKASI EKSPRESI WAJAH ANAK PENYANDANG AUTISME BERBASISKAN CITRA TERMAL PADA SEKOLAH BERKEBUTUHAN KHUSUS DI BANDA ACEH

MISBAHUDDIN , YUNIDAR , MUHARRATUL MINA RIZKY , YUWALDI AWAY , FAHMI , MELINDA , HENDRIK LEO , MUHAMMAD IRHAMSYAH , CUT DEWI

2024

Prosiding seminar internasional

Densenet-121 Analysis for Classification of Tomato Leaf Diseases

FAHMI

2020

Jurnal internasional bereputasi

Analysis of the use of CMUcam5 Pixy camera in wheeled soccer robots

FAHMI

2012

Jurnal internasional bereputasi

Differences in CT perfusion summary maps for patients with acute ischemic stroke generated by 2 soft

FAHMI

2019

Jurnal internasional bereputasi

Short-course primaquine for the radical cure of Plasmodium vivax malaria: a multicentre, randomised, placebo-controlled non-inferiority trial

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2020

Jurnal internasional bereputasi

Automatic Detection of Brain Tumor on Computed Tomography Images for Patients in the Intensive Care Unit

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2013

Jurnal internasional bereputasi

Automatic detection of CT perfusion datasets unsuitable for analysis due to head movement of acute ischemic stroke patients

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2019

Jurnal internasional bereputasi

Remaining life assessment 150/20 kV trafo with isolation degradation method

FAHMI

2022

Prosiding seminar internasional

An Analysis Air Traffic Prediction During a Pandemic

FAHMI

2021

Jurnal internasional bereputasi

Development of electromyography signal function to control robot arm working adaptively in the reverse direction of the human arm movement

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2026

Prosiding seminar internasional

Electrical Properties of Vanadium-doped LiNi_{0.5}Mn_{1.5}O₄ as Cathode Materials for High Voltage for Lithium-ion Batteries

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2018

Jurnal internasional bereputasi

Power meter monitoring for home appliances based on mobile data

communication

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2018

Jurnal internasional bereputasi

High Voltage Distribution System (HVDS) as a better system compared to Low Voltage Distribution Syst

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2015

Book chapter internasional

Automatic ASPECTS Analysis in Time-Invariant CTA of Acute Ischemic Stroke Patients

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2025

Jurnal internasional bereputasi

Challenges and opportunities of tropical disease management in North Sumatra

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Prosiding seminar internasional

Person's multiple intelligence classification based on tweet post using SentiStrength and processed on the Apache Spark framework

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2013

Jurnal nasional

PENINGKATAN UNJUK KERJA VERIFIKASI CITRA SIDIK JARI BERMINYAK BERDASARKAN MINUTIAE DENGAN METODE GABOR FILTER

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2023

Prosiding seminar internasional

Design of 8 Elements Aperture-Coupled Rectangular Microstrip Patch Antenna Linier Array for S-Band Applications

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2024

Prosiding seminar internasional

An Evaluation of LoRaWAN and WLAN for IoT-based Photovoltaic Microgrid Monitoring

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2015

Book chapter internasional

SOURCE (OR PART OF THE FOLLOWING SOURCE): Type PhD thesis Title CT perfusion for acute ischemic stroke: Vendor-specific summary maps, motion correcti...

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2023

Jurnal internasional bereputasi

Smart Card-based Access Control System using Isolated Many-to-Many Authentication Scheme for Electric Vehicle Charging Stations

MUHAMMAD YAZID , FAHMI , WERVYAN SHALANNANDA , Prof. Dr. Eng Muhammad Aziz , ERWIN SUTANTO

2024

Prosiding seminar internasional

Harmonic Analysis of PV Inverter-Based EV Charging Station Activity on the Utility Grid

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2024

Prosiding seminar internasional

Optimizing K-Nearest Neighbor Values Using The Elbow Method

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2021

Jurnal internasional bereputasi

Development of a person's facial expression recognition system using a convolutional neural network

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2020

Jurnal internasional bereputasi

Lecturer and employees presence system based on GPS using a fingerprint on mobile devices

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2024

Prosiding seminar internasional

Performance Analysis of Support Vector Machine (SVM) Model Through Parameter Optimization with Genetic Algorithm (GA) in Chronic Kidney Disease Classification

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2019

Prosiding seminar internasional

Brain Tumour Image Classification Using Learning Vector Quantization Based Zoning Method

SUHERMAN , FAHMI

2025

Jurnal internasional bereputasi

DENSENET DEVELOPMENT WITH SQUEEZE-AND-EXCITATION BLOCK FOR TOMATO PLANT DISEASE CLASSIFICATION

FAHMI

2019

Jurnal internasional bereputasi

Prediction system of carbon monoxide toxic gas monitoring using double moving average method

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2022

Prosiding seminar internasional

Blockchain-based e-Government: Exploring Stakeholders Perspectives and Expectations

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Prosiding seminar internasional

Estimation of Electrical Energy Needs Using Backpropagation Neural Network

FAHMI

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Jurnal internasional bereputasi

Electrical signal recording on leg muscle for footwear ergonomic analysis

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Jurnal internasional bereputasi

MATHEMATICAL MODEL FOR OPTIMIZATION IN AIR TRAFFIC SCHEDULING MANAGEMENT DURING THE COVID-19 PANDEMIC

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2019

Jurnal internasional

Relationship between Water Availability and Power Plant Performance Using Water Balance Method: Case of PT. INALUM Asahan

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2016

Hasil penelitian/pemikiran yang tidak dipublikasikan

STANDAR OPERASIONAL PROSEDUR (S O P) TENTANG PENGELOLAAN, PENGENDALIAN DAN PENGAWASAN WARUNG INTERNET KABUPATEN CIREBON

FAHMI , KHALID ISKANDAR , KOSIM , HARLIANA , WIKE PERTIWI , OTONG SAEPUL BACHRI

2016

Artikel ilmiah

Sequential - Storage of Differences Approach in Medical Image Data Compression for Brain Image Dataset

FAHMI

2020

Jurnal internasional bereputasi

The Extended Internet of Thing Node Impact to Data Collection Performances

FAHMI

2020

Jurnal internasional bereputasi

Android based position tracking for car condition monitoring

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Jurnal internasional bereputasi

3D anatomy learning system using Virtual Reality and VR Controller

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Jurnal internasional bereputasi

Tuition Single Classification using Decision Tree Method and C4.5

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Jurnal internasional bereputasi

A comprehensive EEG dataset and performance assessment for Autism Spectrum Disorder

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2007

Jurnal nasional

Pemisahan Bagian Iris Pada Citra Mata menggunakan Operasi Morfologi

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2014

Jurnal internasional bereputasi

Automatic Detection of CT Perfusion Datasets Unsuitable for Analysis due to Head Movement of Acute I

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2019

Jurnal internasional bereputasi

Khatib and Immam Scheduling System Using Genetic Algorithm

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Smart Nation Initiative: Strategy and Implementation

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SOURCE (OR PART OF THE FOLLOWING SOURCE): Type PhD thesis Title CT perfusion for acute ischemic stroke: Vendor-specific summary maps, motion correction and application of time invariant CTA

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2018

Prosiding seminar internasional

Presence System and Lecture Planning using QR Code with Mobile Devices

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Prosiding seminar internasional

Designing an IoT system for monitoring and controlling temperature and humidity in mushroom cultivation fields

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Book chapter nasional

Natural Resources, Environment, and Food and Energy Security Updates in North Sumatra

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Prosiding seminar internasional

Efficient design on the substation grounding grid: A case study at 2x500MVA galang

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The effect of head movement on CT perfusion summary maps: Simulations with CT hybrid phantom data

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Simulation and Control of Clean Water Supply on Campus Toilets Using Passive Infrared Receiver Sensor Technology and Flow Liquid Meter

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The molecular interaction of six singlestranded DNA aptamers to cardiac troponin I revealed by docking and molecular dynamics simulation

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Simple Detection of Epilepsy from EEG Signal Using Local Binary Pattern Transition Histogram

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Implementation of Closing Eyes Detection with Ear Sensor of Muse EEG Headband using Support Vector Machine Learning

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The Extended Internet of Thing Node Impact to Data Collection Performances

FAHMI , SUHERMAN

2020

Jurnal internasional bereputasi

User Experience in Excavator Simulator using Leap Motion Controller in Virtual Reality Environment

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Jurnal internasional bereputasi

Comparison of the performance of the CareStart Malaria Pf/Pan Combo test and field microscopy in the diagnosis of Plasmodium vivax malaria in North Sumatera

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Jurnal nasional terakreditasi

Pemanfaatan Metode AHP dalam Pemilihan Proyek Infrastruktur

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Feature-Based EEG Classification: A Comparative Study of EMD and EWT With EEGNet and Shallow FBCSP ConvNet

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Comparison of the performance of the CareStart Malaria Pf/Pan Combo test and field microscopy in the diagnosis of Plasmodium vivax malaria in North Sumatera ...

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Jurnal nasional

Perancangan Algoritma Pengolahan Citra Mata Menjadi Citra Polar Iris Sebagai Bentuk Antara Sistem Biometrik

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2016
Jurnal internasional bereputasi

Integrated pollution monitoring system for smart city

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2016
Jurnal internasional bereputasi

Anatomy learning system on human skeleton using Leap Motion Controller In Computer and Information Sciences (ICCOINS)

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Jurnal nasional

PEMANFAATAN WEB SERVICES PADA APLIKASI TELEMEDICINE

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Jurnal internasional bereputasi

Short-course primaquine for the radical cure of Plasmodium vivax malaria: a multicentre, randomised, placebo-controlled non-inferiority trial

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Book chapter internasional

D3. 1-State of Art reports on Image Processing Services

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Jurnal internasional bereputasi

Mapping a volcano hazard area of mount sinabung using drone: Preliminary results

FAHMI , AHMAD PERWIRA MULIA TARIGAN

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Jurnal nasional terakreditasi

Leveraging LRFM Analysis and Synthetic Data for Customer Segmentation Using K-Means Clustering

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2017

Jurnal nasional

Implementasi Learning Vector Quantification Dan K-Nearest Neighbor Untuk Aplikasi Pemilahan Buah

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Prosiding seminar internasional

Shelf-Life Prediction of Oil Palm Fresh Fruit Bunches Using Artificial Neural Networks

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Improved Decision Tree Accuracy (C4. 5) with Attribute Reduction Using Forward Selection in Data Classification

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Jurnal internasional bereputasi

User Experience in using VIVE Controller as a Controller in Anatomy Learning System in Virtual Reality Environment

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Prosiding seminar internasional

Identification and Sorting of Waste using Artificial Intelligence Based on Convolutional Neural Network

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2019

Prosiding seminar internasional

Monitoring of Toxic Gas and Dust from Motorized Vehicles on the Highway Using Internet of Things and Blob Detection

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Book chapter internasional

CT Perfusion for Acute Ischemic Stroke: Vendor Specific Summary Maps, Motion Correction and Application of Time Invariant CTA

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Prosiding seminar internasional

Construction of a Self-Balancing Cube With Embedded Reaction Wheel Drive and Preliminary Investigation of Simple Harmonic Motion Patterns

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Brain Tumour Image Classification Using Learning Vector Quantization Based Zoning Method

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Jurnal nasional

Rancangan Penghitung Benih Ikan Portable Berbasis Arduino

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Innovative Portable Quantitative EEG Data Acquisition Based Cyton

Biosensing Board using PSD Analysis

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Development of a person's facial expression recognition system using a convolutional neural network

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Energy cost unit of street and park lighting system with solar technology for a more friendly city

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Prosiding seminar internasional

Implementation of the hardware module of IoT-based infant incubator monitoring system

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2025

Jurnal internasional bereputasi

Recognition of EEG Features in Autism Disorder Using SWT and Fisher Linear Discriminant Analysis

ELIZAR , MELINDA , FAHMI , PRIMA DEWI PURNAMASARI , AUFA RAFIKI

2020

Jurnal internasional bereputasi

Cry Recognition for Infant Incubator Monitoring System Based on Internet of Things using Machine Learning

FAHMI

2023

Jurnal internasional bereputasi

Smart Card-based Access Control System using Isolated Many-to-Many Authentication Scheme for Electric Vehicle Charging Stations

FAHMI , WERVYAN SHALANNANDA , ERWIN SUTANTO , MUHAMMAD IMRAN HAMID

2020

Prosiding seminar internasional

Design of efficient electric motorcycle using brushless DC motor

FAHMI

2019

Jurnal internasional bereputasi

Selection of Tourism Object Route in Lake Toba Area using Algorithm L-Deque

FAHMI

2022

Jurnal internasional bereputasi

Comparison of the performance of the CareStart Malaria Pf/Pan Combo test and field microscopy in the diagnosis of Plasmodium vivax malaria in North Sumatera, Indonesia

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2017

Jurnal internasional bereputasi

Fire extinguisher robot using ultrasonic camera and wi-fi network controlled with android smartphone

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Prosiding seminar internasional

Comparison of Principal Component Analysis and Multiscale Principal Component Analysis Performance on Autism Electroencephalography Signals

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2020

Jurnal internasional bereputasi

The Use of Virtual Reality Controllers and Comparison between Vive, Leap Motion and Senso Gloves Applied in the Anatomy Learning System

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2023

Jurnal internasional bereputasi

Efficacy of dihydroartemisinin-piperaquine plus primaquine treatment on vivax malaria in North Sumatera, Indonesia: a prospective observational study

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2020

Prosiding seminar internasional

The Use of Meteorology Data in Short-Term Prediction of Wind Speed for Wind Turbine Using Elman Recurrent Neural Network

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2023

Prosiding seminar internasional

Initial Design For Utilizing Machine Learning In Identifying Diseases In Palm Oil Plant

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2018

Jurnal internasional bereputasi

Integrated Smart Plug Design

FAHMI

2018

Jurnal internasional bereputasi

Analysis of temperature changes on three-phase synchronous generator using infrared: comparison between balanced and unbalanced load

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2023

Jurnal internasional bereputasi

Lithium-Ion Battery State-of-Charge Estimation from the Voltage Discharge Profile Using Gradient Vector and Support Vector Machine

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Prosiding seminar internasional

Analysis of Handover Rate Improvement by Applying Hysteresis Threshold- Locally Optimal Models and Variation Number of BTS on CDMA System

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2020

Jurnal internasional bereputasi

Design of Interactive Virtual Reality for Erection Steel Construction Simulator System Using Senso Gloves

FAHMI

2021

Jurnal internasional bereputasi

Securing sensor data transmission with ethernet elliptic curve cryptography secure socket layer on STM32F103 device

FAHMI

2024

Prosiding seminar internasional

Identification of Mangrove Leaf Disease in Deep Convolutional Neural Network Approach

FAHMI

2020

Prosiding seminar internasional

Planning of Garbage Power Plant (PLTSA): Case in Medan City

FAHMI

2019

Jurnal nasional

Energy Consumption Optimization by Increasing The Processor Speed of Moving Communication Devices in Transport Layer Protocol

FAHMI

2022

Jurnal internasional bereputasi

Simple Authentication Method for Vehicle Monitoring IoT Device with Verifiable Data Integrity

MUHAMMAD YAZID , RACHMAD SETIAWAN , ERWIN SUTANTO , FAHMI , ARIPRIHARTA , Prof. Dr. Eng Muhammad Aziz

2022

Prosiding seminar internasional

Floating power plant applications for electric battery using thermoelectric generators (TEG) on solar panels

FAHMI

2022

Jurnal internasional bereputasi

Simple authentication method for vehicle monitoring IoT device with verifiable data integrity

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2022

Jurnal internasional bereputasi

Prospective observational study of dihydroartemisinin-piperaquine treatment of vivax malaria in North Sumatera, Indonesia

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2014

Jurnal internasional bereputasi

3D movement correction of CT brain perfusion image data of patients with acute ischemic stroke

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2019

Jurnal internasional bereputasi

Advances in Applications of Metal Oxide Nanomaterials as Imaging Contrast Agents

FAHMI

2020

Jurnal internasional bereputasi

Design of hardware module of iot-based infant incubator monitoring system

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2019

Prosiding seminar internasional

Tuition Single Classification using Decision Tree Method and C4. 5

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2024

Prosiding seminar internasional

Improving Object Distance Measurement Based on Mono Camera Using Magnification and Yolo Methods

FAHMI

2026

Jurnal internasional bereputasi

Analysis of EEG Features in Normal and ASD Conditions Based on SWT Using

Fisher Linear Discriminant Analysis

FAHMI

2026

Jurnal internasional bereputasi

Spatial analysis to evaluate risk of malaria in Northern Sumatera, Indonesia

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2020

Jurnal internasional bereputasi

Stroke therapy using an interactive game with accelerometer and gyroscope sensor device

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2024

Prosiding seminar internasional

Design and economic analysis of integrated power systems with solar cell-diesel-battery-micro hydro off-grid (a case study of Pinal Village Samosir District)

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2017

Jurnal internasional bereputasi

Mobile application to differentiate flesh meat between beef and pork

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2019

Jurnal internasional bereputasi

RFID Wristband for Motorbikes Real-Time Security System

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Jurnal internasional bereputasi

Design of an IoT-based smart incubator that listens to the baby

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Jurnal internasional

IMPLEMENTASI LEARNING VECTOR QUANTIFICATION DAN K-NEAREST NEIGHBOR UNTUK APLIKASI

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2014

Jurnal internasional bereputasi

Automatic selection of CT perfusion datasets unsuitable for CTP analysis due to head movement

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2020

Jurnal internasional bereputasi

INTEGRATED CAR TELEMETRY SYSTEM BASED on INTERNET of THINGS: APPLICATION and CHALLENGES

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Prosiding seminar internasional

Electrical Properties of Vanadium-doped $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$ as Cathode Materials for High Voltage for Lithium-ion Batteries

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Prosiding seminar internasional

Harmonic Analysis of PV Inverter-Based EV Charging Station Activity on the Utility Grid

SYAFII , AULIA , KRISMADINATA , FAHMI

2020
Prosiding seminar internasional

Cashless payment system using RFID with NRF24L01 communication

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2024
Jurnal internasional bereputasi

Bioinformatics design of peptide binding to the human cardiac troponin I (cTnI) in biosensor development for myocardial infarction diagnosis

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Jurnal internasional bereputasi

Contactless Infant Height Measurement for Enhanced Early Detection of Stunting Using Computer Vision Techniques

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2020
Jurnal internasional bereputasi

Comparison study of user experience between virtual reality controllers, leap motion controllers, and senso glove for anatomy learning systems in a virtual reality environment

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Jurnal internasional bereputasi

Gated Recurrent Unit in Malaria Forecasting with Meteorological and Clinical Data

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Prosiding seminar internasional

Oil palm fresh fruit bunch ripeness classification using back propagation and learning vector quantization

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2014
Jurnal nasional

Perancangan Sistem Pengenal Digit Angka Meter Air Menggunakan Jaringan Syaraf Tiruan Kohonen

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Jurnal internasional bereputasi

Design of Virtual Automotive Showroom with Augmented Reality Technology Using the Smartphone

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2018
Jurnal nasional

Analisis Quality of Service Menggunakan Delay, Packet Loss, Jitter dan Mean Opinon Score pada Voice Over IP

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Prosiding seminar internasional

Soil Moisture Control Algorithm Using MQTT and Fuzzy Logic for Enhancing Agricultural Productivity

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2012
Jurnal internasional

IschÃfÃmischer Schlaganfall: Vergleich der Infarktausdehnungsanalyse verschiedener Softwareanbieter

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Jurnal internasional bereputasi

Design and characteristics assessment of wireless vibration sensor for buildings and houses

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Analysis of handover rate improvement by applying hysteresis threshold - Locally optimal models and variation number of BTS on CDMA system

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Jurnal nasional

The Analysis of Water Availability and Power Plant Performance Relation Using Water Balance Method: Case of PT. INALUM Asahan

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2026
Prosiding seminar internasional

The Impact of Varying Batch Sizes on the Deep Neural Network Algorithms Performance

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Jurnal internasional bereputasi

Oil palm fresh fruit bunch ripeness classification using back propagation and learning vector quanti

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Jurnal internasional bereputasi

Analysis of dicom image compression alternative using huffman coding

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Prosiding seminar internasional

Analysis of Handover Rate Improvement by Applying Hysteresis Threshold; Locally Optimal Models and Variation Number of BTS on CDMA System

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2019
Jurnal internasional bereputasi

3D Modelling Intestine Anatomy with Augmented Reality for Interactive Medical Learning

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2013
Jurnal internasional bereputasi

Head movement during CT brain perfusion acquisition of patients with suspected acute ischemic stroke

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2013
Jurnal nasional

Deteksi Fitur Wajah Manusia tanpa Marker Aktif Menggunakan Metode Principal Component Analysis (PCA)

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2026
Jurnal internasional bereputasi

The effect of cation ordering on the structure, electrical and electronic properties of cubic spinel LiNi_{0.5}Mn_{1.5}O₄.

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2018
Jurnal internasional bereputasi

Image Based Automated ASPECT Score for Acute Ischemic Stroke Patients

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Prosiding seminar internasional

Voice Identification Using Neural Network And Mel Frequency Cepstrum Coefficients

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Jurnal internasional bereputasi

Recognition of EEG Features in Autism Disorder Using SWT and Fisher Linear Discriminant Analysis

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2021
Jurnal internasional bereputasi

Evaluation of antibiotic prescriptions for sepsis in the neonatal intensive care unit in a tertiary hospital in north sumatera, indonesia

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2013
Jurnal nasional

Pengenalan Tingkat Kematangan Buah Pepaya Paya Rabo Menggunakan Pengolahan Citra Berdasarkan Warna RGB dengan K-Means Clustering

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2025
Jurnal internasional bereputasi

SAVITZKY-GOLAY AND WIENER FILTERING PERFORMANCE ANALYSIS IN ELECTROENCEPHALOGRAPHY SIGNAL PROCESSING OF AUTISTIC CHILDREN

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2019
Jurnal internasional bereputasi

Efficiency analysis of electric energy use in palm oil processing (case study Bandar Pulau)

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Jurnal internasional bereputasi

Design of Hardware Module for the Vehicle Condition Monitoring System Based on the Internet of Things

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2026
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Comparison of the performance of the CareStart Malaria Pf/Pan Combo test and field microscopy in the diagnosis of Plasmodium vivax malaria in North Sumatera

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2025
Jurnal internasional bereputasi

Design and Implementation of Photovoltaic Emulator for Testing of Photovoltaic Energy Conversion System

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2023
Prosiding seminar internasional

Design Of Teleophthalmology

FAHMI

2018

Prosiding seminar internasional

Automatic coffee roaster design using Arduino

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2024

Prosiding seminar internasional

Improving Prediction Accuracy in IoT Network Security Against DDoS Attacks by Combining RIPPER and KNN Algorithms

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2013

Jurnal internasional

D3. 1State of Art reports on Image Processing Services

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2021

Prosiding seminar internasional

Person's multiple intelligence classification based on tweet post using SentiStrength and processed on the Apache Spark framework

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2022

Prosiding seminar internasional

Design and Development of Posture Detection System Using Load Sensor

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Jurnal internasional bereputasi

The effect of cation ordering on the structure, electrical and electronic properties of cubic spinel LiNi_{0.5}Mn_{1.5}O₄

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Prosiding seminar internasional

UDP Checksum Field Usage for Sensor Data

FAHMI , SUHERMAN

2020

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UDP Checksum Field Usage for Sensor Data

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2025

Jurnal internasional bereputasi

Feature-Based EEG Classification: A Comparative Study of EMD and EWT With EEGNet and Shallow FBCSP ConvNet

PRIMA DEWI PURNAMASARI , MELINDA , YUWALDI AWAY , FAHMI

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Prosiding seminar internasional

Development of Smart and Green University Towards a Sustainable and Environmentally Friendly Campus: Case Study at Universitas Sumatra Utara

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Klasifikasi dan Peningkatan Kualitas Citra Sidik Jari Menggunakan FFT (Fast Fourier Transform)

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Image based water gauge reading developed with ANN Kohonen

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Design of contactless hand biometric system with relative geometric parameters

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A Comprehensive Study of Sea Wave Tidal Power Plant (PLTPS)

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User experience study on crane operator erection simulator using senso glove in a virtual reality environment

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Image Processing for Iridology

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Jurnal internasional bereputasi

Waste power plant: Waste to energy study in Medan city area

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Development of a person's facial expression recognition system using a convolutional neural network

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A Lightweight Deep Learning Pipeline for Real-Time Identification of Mosquito Larvae on Mobile Devices

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PENINGKATAN KUALITAS CITRA SIDIK JARI MENGGUNAKAN FFT (FAST FOURIER TRANSFORM)

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Initial Design of Wearable EEG Device for Epilepsy Patient Using Machine Learning and Mobile Application

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The molecular interaction of six single-stranded DNA aptamers to cardiac troponin I revealed by docking and molecular dynamics simulation

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Synthetic Sound to Improve Safety Aspect of Electric Motorcycles

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Lithium-Ion Battery State-of-Charge Estimation from the Voltage Discharge Profile Using Gradient Vector and Support Vector Machine

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Smart cloud system with image processing server in diagnosing brain diseases dedicated for hospitals

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Contactless and Cashless Smart Vending Machine Integrated with Mobile Device

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Identification of Retinoblastoma Using Backpropagation Neural Network

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Jurnal internasional bereputasi

The effect of cation ordering on the structure, electrical and electronic properties of cubic spinel $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$

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Buku referensi

CT perfusion for acute ischemic stroke: Vendor-specific summary maps, motion correction and application of time invariant CTA

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Jurnal internasional bereputasi

Automatic control model of water filling system with Allen Bradley Micrologix 1400 PLC

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SENSING OF VEGETATION STATUS USING ORTOPHOTOS IMAGE GENERATED WITH UAV

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Wearable Microstrip Patch Antenna to Develop Wireless Body Area Network for Electroencephalogram (EEG) Application

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Microgrid Monitoring for Patient Safety in Hospital Using Distributed Residual Current

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Speech Recognition with Hidden Markov Model and Multisensory Methods in Learning Applications Intended to Help Dyslexic Children

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Feasibility study of ocean wave energy for wave power plant at Sibolga-Tapanuli Tengah

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Sensor based versus server based image detection sensor using the 433 Mhz radio link

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Smart Card-based Access Control System using Isolated Many-to-Many Authentication Scheme for Electric Vehicle Charging Stations

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Security Device for Motorcycle Using Smartphone Android with Promini

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D3. 1âState of Art reports on Image Processing Services

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Spatio-temporal patterns of dengue incidence in Medan City, North Sumatera, Indonesia

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SAVITZKY-GOLAY AND WIENER FILTERING PERFORMANCE ANALYSIS IN ELECTROENCEPHALOGRAPHY SIGNAL PROCESSING OF AUTISTIC CHILDREN

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Jurnal internasional bereputasi

Automated Midline Setting for Brain Image Analysis to Detect Intracerebral Hemorrhage

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Penelitian Dana Lokal Perguruan Tinggi

Pengembangan VR untuk simulasi ereksi konstruksi sipil

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Penelitian Dana Lokal Perguruan Tinggi

Pemanfaatan Teknologi Drone Untuk Pemetaan Kawasan Rawan Bencana Sinabung

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Penelitian Dana Lokal Perguruan Tinggi

Sistem Rehabilitasi Pasca Stroke Menggunakan Virtual Reality, Emotiv EEG, dan Senso Haptic Glove

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Penelitian Dana Lokal Perguruan Tinggi

Sistem Penghitung Benih Ikan Portabel Berbasis Arduino

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Penelitian Dana Lokal Perguruan Tinggi

Simulator Pembelajaran Kerangka Tubuh Manusia di Lingkungan Virtual Reality

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Kerjasama Luar Negeri dan Publikasi Internasional

Fighting Tuberculosis in Indonesia Using AI and Automated-Microscope

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Penelitian Dana Lokal Perguruan Tinggi

Simulator Pengendalian Excavator Menggunakan Leap Motion Controller pada Lingkungan Virtual Reality

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Penelitian Dana Lokal Perguruan Tinggi

Komparasai VR Controller antara VIVE, Leap Motion dan Senso Gloves

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Penelitian Unggulan Strategis Nasional

Peningkatan Produksi Biogas Sebagai Bahan Bakar Pembangkit Listrik Melalui Sistem Terintegrasi Sapi “ Sawit

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Ipteks Bagi Kewirausahaan

Sistem Monitoring Trafo Listrik

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Merancang SOP Pengelolaan, Pengendalian, dan Pengawasan Warung Internet Kabupaten Cirebon

OTONG SAEPUL BACHRI , HARLIANA , KOSIM , KHALID ISKANDAR , FAHMI , WIKE PERTIWI

2017

Ipteks Bagi Inovasi Kreativitas Kampus

Penginderaan Vegetasi Hasil Data Citra Ortophotos Menggunakan UAV

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Penelitian Dana Lokal Perguruan Tinggi

Penerapan Virtual Reality Interaktif untuk Simulator Ereksi Konstruksi Baja Menggunakan Senso Glove

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Penelitian Unggulan Perguruan Tinggi

Model Pergerakan Robot Lengan Menggunakan Sinyal Electromyography

FAHMI , FITRA NURMAYADI

2016

Penelitian Hibah Bersaing

Desain dan pengembangan smart cloud sinyal dan citra medis untuk deteksi penyakit otak

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Penelitian Kerjasama Antar Perguruan Tinggi

Sistem Monitoring Microgrid Untuk Keselamatan dan Efisiensi Listrik

ERWIN SUTANTO , PRADINI PUSPITANINGAYU , FAHMI , Prof. Dr. Eng Muhammad Aziz

2019

Penelitian Dana Lokal Perguruan Tinggi

Analisis Virtual Reality Controller dan Komparasi VIVE Controller, Leap Motion dan Senso Glove dalam Sistem Pembelajaran Anatomi

FAHMI , KASMIR TANDJUNG

2019

Penelitian Kerjasama Antar Perguruan Tinggi

Sistem Monitoring Kondisi Kendaraan Mobil Berbasis Internet of Things

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Ipteks Bagi Kewirausahaan

Pengembangan Sistem Pembelajaran Anatomi Interaktif Anatouchmy

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Kerjasama Luar Negeri dan Publikasi Internasional

Pemodelan penyebaran penyakit malaria berbasis geographic information system dengan mobile application dan analisis big data sebagai alat bantu pendukung program eliminasi 2030

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2018

Penelitian Dana Lokal Perguruan Tinggi

Sistem Absensi dan Penjadwalan Kuliah Menggunakan Kode Untuk Perangkat Bergerak

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Penelitian Kerjasama Antar Perguruan Tinggi

Sistem Monitoring Inkubator Bayi Berbasis Internet of Things

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IoT dan Sistem Cerdas Bidang Kesehatan

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Penelitian Kerjasama Antar Perguruan Tinggi

Pengembangan Sistem Monitoring Baterai Kendaraan Listrik

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Sistem pengukuran Ketinggian Objek Berbasis Mikrokontroler

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Penelitian Kerjasama Antar Perguruan Tinggi

Pengembangan Alat Deteksi Epilepsi Wearable yang Berbasis IoT dan Machine Learning

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Produk Komersil Hasil Industri Kreatif Bebas Desain 3D

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Penelitian Unggulan Perguruan Tinggi

Penerapan Teknologi Kesehatan Pada Pengolahan Sinyal Citra Medis terintegrasi Dengan Kecerdasan Buatan Untuk Diagnosa Penyakit Otak dan Turunannya

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Community Services

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Dampak Media Sosial Bagi Kehidupan Remaja

KOSIM , FAHMI

2025

Rapat Kordinasi Calon Asesor Pemantauan SPBE Tahun 2025

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2025

Tim Penyusun Rencana Strategis Kementerian Pendidikan Tinggi, Sains, dan Teknologi Tahun 2025-2029

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2011

Workshop Pengenalan Pembuatan Aplikasi Pada Ponsel Berbasis Android

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2024

Rapat Evaluasi Kerja Forum Dekan Teknik Indonesia Wilayah Barat dan Pelaksanaan Program Kegiatan Bina Desa Tahun 2024

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Intellectual Property Rights

2020

Paten nasional

Kursi Roda Listrik yang Dikendalikan oleh Posisi Tubuh

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2020

Hak cipta nasional

Sistem Akuisisi Data EEG Menggunakan Cyton

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2020

Paten nasional

Metode Pengukuran Rongga Dada Untuk Menentukan Keparahan Tingkat Penyakit Paru Obstruktif Kronis

FAHMI

2020

Hak cipta nasional

THORMET APP: Aplikasi Mobile Untuk Menentukan Tingkat Keparahan Pasien Penyakit Paru Obstruktif Kronis (PPOK)

FAHMI

2020

Paten nasional

ALAT PENGHITUNG BIBIT BENIH IKAN PORTABEL MULTI VARIAN MENGUNAKAN PENGENDALI MIKRO ARDUINO

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