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Publications

2026

Prosiding seminar internasional

Smart Tourism Planning of Tanjung Aan by Considering the Mandalika Circuit Based on Dynamic Modeling

I PUTU HARIYADI , HUSAIN , HERMAN MAWENGKANG , BAMBANG KRISMONO TRIWIJOYO , ELYAKIM NOVA SUPRIYEDI
PATTY , HEROE SANTOSO , YUDI SUTARYANA

2026

Prosiding seminar internasional

Form-Centric Interaction (FCI): A Conceptual Model for Extracting Database Schema Elements from GUI Forms

MAHYUDDIN , HERMAN MAWENGKANG , JUANDA HAKIM LUBIS , ELVIAWATY MUISA ZAMZAMI

2025

Prosiding seminar internasional

Application of Infrastructure as Code (IaC) in Multi-Cloud Network Infrastructure Management Using Terraform and Aviatrix on AWS and Azure

ADE CANDRA , HERMAN MAWENGKANG , AKHYAR LUBIS , ELVIAWATY MUISA ZAMZAMI

2025

Jurnal internasional bereputasi

A Data-Driven Mixed Integer Nonlinear Programming Model for Cost-Optimal Scheduling of Perishable Production and Workforce

MIMMY SARI SYAH PUTRI , HERMAN MAWENGKANG , SAIB SUWILO , TULUS

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Jurnal internasional bereputasi

RESILIENCE MODEL DEVELOPMENT FOR MULTI-DEPOT VEHICLE ROUTING PROBLEMS WITH PROBABILITY CONSTRAINTS UNDER DISTURBANCE CONDITIONS

MUHAMMAD ROMI SYAHPUTRA , HERMAN MAWENGKANG , INTAN SYAHRINI , SUTARMAN

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Jurnal nasional terakreditasi

Evaluating the Impact of Model Complexity on the Accuracy of ID3 and Modified ID3: A Case Study of the Max_Depth Parameter

HERMAN MAWENGKANG , POLTAK SIHOMBING , MAHYUDDIN , ASRIANDA

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Prosiding seminar nasional

MODEL OPTIMASI RANTAI PASOK ELEKTRONIK DENGAN BLOCKCHAIN

AFIF BADAWI , SYAHRIL EFENDI , HERMAN MAWENGKANG

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Makalah ilmiah

Generating Synthetic Anomaly Graph Network Dataset For Anti Money Laundering Prediction Using Generative Adversarial Network

MAHYUDDIN , MAYA SILVI LYDIA , HERMAN MAWENGKANG

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Jurnal internasional bereputasi

Development of an Optimization Model for Dynamic Multi-Depot Vehicle Routing With Capacity Limits and Time-Dependent Demands

ZAINAL AZIS , TUA HALOMOAN HARAHAHAP , MULIAWAN FIRDAUS , HERMAN MAWENGKANG

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Jurnal internasional bereputasi

Optimization model of vehicle routing problem with heterogenous time windows

SUTARMAN , HERMAN MAWENGKANG , MUHAMMAD ROMI SYAHPUTRA

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Optimization model of vehicle routing problem with heterogenous time windows

MUHAMMAD ROMI SYAHPUTRA , HERMAN MAWENGKANG , SUTARMAN , Gerhard Wilhelm Weber

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Jurnal internasional bereputasi

Modelling an Integrated Approach to Optimize the Disposal of Industrial Hazardous Waste While Prioritizing Sustainability

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Jurnal internasional bereputasi

Development of distance formulation for high-dimensional data visualization in multidimensional scaling

PASKA MARTO HASUGIAN , HERMAN MAWENGKANG , POLTAK SIHOMBING

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Jurnal internasional bereputasi

Discrete optimization model for multi-product multi-supplier vehicle routing problem with relaxed time window

MULIAWAN FIRDAUS , HERMAN MAWENGKANG , TULUS

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Optimization Model of Multi Criteria Decision Analysis for Smart and Sustainable Sport Tourism Planning Development Problem

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Long Short Term Memory (LSTM) Improvement Accuracy Using FastText and Glove for Language Translation Batak - Indonesian

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A Non-Linear Optimization Model for the Multi-Depot Multi-Supplier Vehicle Routing Problem with Relaxed Time Windows

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Comparing LSTM Algorithm with Word Embedding: FastText and Word2Vec in Bahasa Batak-English Translation has

HERMAN MAWENGKANG , NUR AMALIA NASUTION , ERNA BUDHIARTI NABABAN

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INDCOMP: A Shiny App for Open Data Repository of the Performance of an Indonesian Company Listed at the Indonesia Stock Exchange

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Optimization model for vehicle routing and scheduling with forward and reverse logistics

ELLY ROSMAINI , HERMAN MAWENGKANG , LADY ICHWANA RESTI

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Sustainable local seafood production planning with uncertainty in demand

HIRMAN RACHMAN , HERMAN MAWENGKANG , SAIB SUWILO , SUTARMAN

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The Effect of Segmentation and CNN Architecture in Determining Accuracy Convolutional Neural Network

MANUTUR PANDAPOTAN SIREGAR , HERMAN MAWENGKANG , SUYANTO

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Development and Evaluation of a Portable ECG Monitoring System for Automated Classification of Normal and Abnormal ECG Signal Using Random Forest with XGBoost

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Combination of Local Outlier Factor and Winsorization for Clustering Outlier in Medical Records

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Water Distribution Network Optimization Model with Reliability Considerations in Water Flow (Debit)

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Developing an Enhanced Algorithms to Solve Mixed Integer Non-Linear Programming Problems Based on a Feasible Neighborhood Search Strategy

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Optimization Model of Integrated Sustainable Forest Management Planning for Hydropower Power Plant

HERMAN MAWENGKANG , MAHYUDDIN , JULI ANTASARI SINAGA , TULUS

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Multi-objective optimization model supply chain network design by considering supply uncertainty

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HERMAN MAWENGKANG , TULUS , OPIM SALIM SITOMPUL

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A mixed-integer model for aircraft fleet assignment and manpower planning problems under uncertainty

HERMAN MAWENGKANG , SAIB SUWILO , RIANITA SIMAMORA

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Development of heuristic method for scenario formation of stochastic program problems

HERMAN MAWENGKANG , MIMMY SARI SYAH PUTRI , SAIB SUWILO , TULUS

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Logistics Distribution Supply Chain Optimization Model with VRP in The Context of E-Commerce

OPIM SALIM SITOMPUL , HERMAN MAWENGKANG , SAIB SUWILO , MARDININGSIH

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Artikel ilmiah

Perencanaan Produksi Makanan Laut Dengan Pertimbangan Permintaan dan Kapasitas

HIRMAN RACHMAN , HERMAN MAWENGKANG

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Model of Phytoplankton Diversity in Belawan River, North Sumatera, Indonesia

TERNALA ALEXANDER BARUS , MISWAR BUDI MULYA , HERMAN MAWENGKANG , MAYANG SARI YEANNY

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State of human tiger conflict around Gunung Leuser National Park in Langkat Landscape, North Sumatra, Indonesia

HERMAN MAWENGKANG , HADI S ALIKODRA , R. HAMDANI HARAHAP

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Jurnal internasional bereputasi

Model Classification of Fire Weather Index using the SVM-FF Method on Forest Fire in North Sumatra, Indonesia

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Improved Benders decomposition approach to complete robust optimization in box-interval

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Jurnal internasional

Developing An Integrated Model For Analyzing and Sumatra Province (Pemerintah Provinsi Sumatera Utara, 2013). Predicting Deli River Water Quality Located In Medan City, Indonesia

SAID MUZAMBIQ , HERMAN MAWENGKANG

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Predicting rainfall from weather observations using SVM approach for identify the parameter of fuel moisture code as fire weather index

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Rumour propagation: an operational research approach by computational and information theory

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Feature Selection on K-Nearest Neighbor Algorithm Using Similarity Measure

RATIH PUSPADINI , HERMAN MAWENGKANG , SYAHRIL EFENDI

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Jurnal internasional bereputasi

Neighbourhood Based Search Approach for Solving A Large Scale of NonConvex Mixed-Integer Non Linear Programming Problems

JONI WILSON SITOPU , HERMAN MAWENGKANG , SAIB SUWILO , Muhammad Zarlis

2020

Artikel ilmiah

A Decision Model for Integrated Hospital Capability Management Problem.

HERMAN MAWENGKANG , SURYATI SITEPU

2019

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Mathematical fallacies and applications of graph theory in electrical engineering

HERDI RAMON , ZAHEDI , MAHRIZAL MASRI , HERMAN MAWENGKANG

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Modeling the Transmission of Infectious Disease in a Dynamic Network

MARDININGSIH , HERMAN MAWENGKANG , SAIB SUWILO

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Developing an Exact Method for Solving Non Linear Integer Goal Programming Problems

JONI WILSON SITOPU , HERMAN MAWENGKANG , SAIB SUWILO

2018

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Modification of A priori Algorithm focused on confidence value to association rules

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2018

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An improved search approach for solving non-convex mixed-integer non linear programming problems

JONI WILSON SITOPU , HERMAN MAWENGKANG , RIRI SYAFITRI LUBIS

2018

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An Optimization Model For Strategy Decision Support to Select Kind of CPO's Ship

ESTHER SORTA MAULI NABABAN , HERMAN MAWENGKANG

2017

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The role of information and communication technology in developing smart education

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Developing a feasible neighbourhood search for solving hub location problem in a communication network

FIBRI RAKHMAWATI , HERMAN MAWENGKANG , MARDININGSIH

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Pengembangan Pendekatan Matriks Hubungan Untuk Pengukuran Similaritas

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2016

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Discrete Optimization Model for Production Scheduling and Distribution Planning Problem of Perishable Fish Processed Products

INTAN SYAHRINI , HERMAN MAWENGKANG

2016

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A MIXED INTEGER NONLINEAR PROGRAMMING MODEL FOR PRODUCT POSITIONING PROBLEM

HERMAN MAWENGKANG

2014

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An Improved Method for Sensitivity Analysis in Minimum Cost Flow Problem

MAHDALENA , HERMAN MAWENGKANG

Researches

2024

Penelitian Metode Algoritma Support Vector Machine (SVM) Linier Dalam Memprediksi Kelulusan Mahasiswa

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Ipteks Bagi Kewirausahaan

Routing Optimization Model for Delivering Multi Meal Prod-ucts with Time Dependent

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2022

Penelitian Tim Pasca Sarjana

Penelitian Metode Algoritma Support Vector Machine (SVM) Linier Dalam Memprediksi Kelulusan Mahasiswa

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Routing Optimization Model for Delivering Multi Meal Prod-ucts with Time Dependent

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A Decision Model for Integrated Hospital Capability Management Problem.

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Community Services

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Realitas Virtual Interaktif untuk Belajar Matematika Menyenangkan dengan Kedalaman Pemahaman di SMP Swasta Ar-Rahman Percut

HERMAN MAWENGKANG , SYAHRIL EFENDI , MULIAWAN FIRDAUS

2020

Ipteks Bagi Masyarakat

Penyuluhan Tentang Pemberdayaan Masyarakat Dalam Pencegahan Covid-19 Kepada Masyarakat Desa Laut Dendang Kecamatan Percut Sei Tuan Kabupaten Deli Serdang

HERMAN MAWENGKANG , MARDININGSIH , SUTARMAN , SAIB SUWILO , MARPONGAHTUN

2014

Penelitian Fundamental

METODE BERBASIS KENDALA AKTIF UNTUK MENYELESAIKAN PERSOALAN PROGRAM STOKASTIK CA

2014

Penelitian Tim Pasca Sarjana

EKSPONEN LOKAL MASUK DAN SCRAMBLING INDEX DARI DIGRAF DWIWARNA

2013

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EKSPONEN LOKAL MASUK DAN SCRAMBLING INDEX DARI DIGRAF DWIWARNA

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Paten nasional

Model Evakuasi Cerdas Dalam Mitigasi Bencana

M.SAFII , HERMAN MAWENGKANG