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*Dr. Mardiningsih, M.Si. was born in Medan on April 5, 1963. She is a lecturer in Mathematics at Universitas Sumatera Utara. She completed a Doctoral Program in Mathematics at Universitas Sumatera Utara in 2013.*

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## Publications

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2022

Prosiding seminar internasional

### **Implementation of the greedy algorithm on graph coloring**

MARDININGSIH , PARAPAT GULTOM , SAIB SUWILO

2026

Jurnal nasional

### **Pemanfaatan Algoritma One Time Pad untuk Peningkatan Keamanan pada Bit Plane**

MARDININGSIH

2022

Jurnal internasional bereputasi

### **A COMBINATION K-MEANS CLUSTERING AND 2-OPT ALGORITHM FOR SOLVING THE TWO ECHELON E-COMMERCE LOGISTIC DISTRIBUTION**

M KHAHFI ZUHANDA , MARDININGSIH , SAIB SUWILO , OPIM SALIM SITOMPUL

2026

Jurnal internasional

### **Fleet Size from Split Delivery in Vehicle Routing Problems**

MARDININGSIH

2026

Jurnal nasional

### **Hamming index of thorn and double graphs**

MARDININGSIH

2023

Prosiding seminar internasional

### **Comparison of completion of VAM, TCOM-SUM Transportation problems with Stepping Stone to Determine optimal solutions**

MARDININGSIH

2026

Jurnal internasional

### **Network Performance Optimization using Dynamic Enhanced Interior Routing Protocols Gateway Routing Protocol for IPv6 (EIGRPv6) and IPv6 Access Control List**

MARDININGSIH

2026

Jurnal internasional

### **A Slack-Based Measures for Improving the Efficiency Performance of**

2016

Jurnal internasional bereputasi

**Local exponents of Two Coloured Bi-Cycles whose Lenghts Differ by 1**

MARDININGSIH

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2026

Prosiding seminar internasional

**Analysis of classification and Naïve Bayes algorithm k-nearest neighbor in data mining**

MARDININGSIH

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2019

Prosiding seminar internasional

**Hamming Index for Several Graph Classes Produced by an Side-Node Incidence Matrix**

MARDININGSIH , SAIB SUWILO

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2024

Jurnal nasional terakreditasi

**Kajian Metode Analytical Hierarchy Process (AHP) Dan Technique For Order Preference By Similarity To Ideal Solution (TOPSIS) Serta Penerapannya**

DITA FITRIA , MARDININGSIH

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2026

Jurnal nasional

**Analysis of braycurtis, canberra and euclidean distance in knn algorithm**

MARDININGSIH

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2026

Jurnal internasional

**On Solving a class of stochastic multiobjective integer linear programming problems with Interactive Based Approach**

MARDININGSIH

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2026

Prosiding seminar internasional

**Improving the accuracy of old and young face detection in the template matching method with Fuzzy Associative Memory (FAM)**

MARDININGSIH

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2020

Jurnal nasional terakreditasi

**Existence of Polynomial Combinatorics Graph Solution**

MARDININGSIH , SAIB SUWILO

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2026

Jurnal internasional

**Optimization Model for a Location-Allocation-Routing in a Periodic Distribution Network**

MARDININGSIH

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2026

Jurnal internasional

**A Research Framework for Supervised Image Classification For Tornado Chaos Phenomena**

MARDININGSIH

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2022

Jurnal nasional terakreditasi

**STABILITY ANALYSIS OF EQUALITY POINT MATHEMATICS MODEL OF INFLUENZA VIRUS IN THE HUMAN BODY WITH HERBAL TREATMENT THERAPY**

MARDININGSIH

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2026

Jurnal internasional

## **Strategic Analysis of Sustainable Forest Management with Graph Model for Conflict Resolution**

MARDININGSIH

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2026

Jurnal nasional

## **Feature extraction method GLCM and LVQ in digital image-based face recognition**

MARDININGSIH

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2026

Jurnal nasional

## **OPTIMIZATION MODEL FOR A DELIVERY FACILITY WITH CHOSEN ROUTE**

MARDININGSIH

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2026

Prosiding seminar internasional

## **Improve BIRCH algorithm for big data clustering**

MARDININGSIH

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2020

Prosiding seminar internasional

## **Additively weighted Hamming index of graphs**

MARDININGSIH , SAIB SUWILO

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2023

Jurnal internasional bereputasi

## **Optimization of Vehicle Routing Problem in the Context of E-commerce Logistics Distribution**

MARDININGSIH , SAIB SUWILO , OPIM SALIM SITOMPUL

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2026

Jurnal internasional

## **Algorithm Advanced Control Chaos and Stabilization Measurement Error**

MARDININGSIH

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2026

Prosiding seminar internasional

## **The design of electronic monitoring process model and evaluation of development in the government (case study: Pakpak Bharat District)**

MARDININGSIH

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2026

Jurnal internasional

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

MARDININGSIH

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2023

Jurnal nasional terakreditasi

## **A Class of Primitive Two-Colored Digraph with Large Competition Index**

MARDININGSIH , SAIB SUWILO

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2026

Jurnal internasional

## **A Slack-Based Measures for Improving the Efficiency Performance of Departments in Universitas Malikussaleh**

MARDININGSIH

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2026

Jurnal internasional

## **A research framework for data envelopment analysis with upper bound on output to measure efficiency performance of higher learning institution in Aceh province**

MARDININGSIH

2026

Jurnal nasional

## **SOLVING MIXED INTEGER PROGRAMS WITH BRANCH AND BOUND METHOD**

MARDININGSIH

2026

Jurnal internasional

## **Vernam Cipher with Complement Method and Optimization Key with Genetic Algorithm**

MARDININGSIH

2019

Prosiding seminar internasional

## **On Hamming index generated by adjacency matrix of graphs**

MARDININGSIH , SAIB SUWILO

2016

Jurnal internasional bereputasi

## **Local Exponents of Two-coloured Bi-cycles whose Lengths Differ by 1**

SAIB SUWILO , MARDININGSIH

2026

Jurnal nasional

## **OPTIMIZATION OF TRACEABILITY FOR FOOD PRODUCTION PLANNING**

MARDININGSIH

2026

Jurnal internasional

## **Modified affinity propagation**

MARDININGSIH

## **Researches**

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2016

Penelitian Hibah Bersaing

## **METODE PENYELESAIAN MODEL MATEMATIKA BERBENTUK POLINOMIAL KOMBINATORIK**

MARDININGSIH

## **Community Services**

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2024

## **KEPUTUSAN REKTOR UNIVERSITAS SUMATERA UTARA**

MARDININGSIH

2024

## **Penetapan Pengurus Himpunan Matematika Indonesia (The Indonesian Mathematical Society / IndoMS) Wilayah Aceh dan Sumatera Utara Periode 2023 - 2024**

MARDININGSIH

2014

Penelitian Fundamental

## **KEBERADAAN SOLUSI MODEL MATEMATIKA BERBENTUK POLINOMIAL KOMBINATORIK**

2022

Ipteks Bagi Masyarakat

**PENERAPAN ILMU FISIKA DENGAN MEMAHAMI MATEMATIKA PADA SMP NEGERI 3 GALANG DALAM MENINGKATKAN KEEFEKTIFAN PEMBELAJARAN DENGAN COLLABORATIVE LEARNING**

MARDININGSIH , SURYATI SITEPU , CITRA DEWI HASIBUAN

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2022

**PENERAPAN ILMU FISIKA DENGAN MEMAHAMI MATEMATIKA PADA SMP NEGERI 3 GALANG DALAM MENINGKATKAN KEEFEKTIFAN PEMBELAJARAN DENGAN COLLABORATIVE LEARNING**

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