

# Erna Budhiarti Nababan

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*Dr. Erna Budhiarti Nababan is an accomplished lecturer in the Master's Program in Data Science and Artificial Intelligence at Universitas Sumatera Utara. Born in Bandung on October 26, 1962, she brings a wealth of knowledge and experience to her students. Her academic journey includes a Bachelor's degree in Electrical Engineering from IKIP Bandung, a Master's in Industrial Computing from Universiti Kebangsaan Malaysia, and a Doctorate in Science and Management Systems from the same institution. With her expertise in Artificial Intelligence, Machine Learning, and Optimization, Dr. Erna is committed to fostering a dynamic learning environment that encourages students to explore innovative solutions in data science.*

*In her teaching, Dr. Erna emphasizes the integration of theoretical concepts with practical applications, preparing her students to tackle real-world challenges in the field of technology. Her dedication to education extends beyond the classroom, as she actively participates in research projects and collaborates with industry partners. By instilling a strong foundation in AI and machine learning, she aims to equip her students with the skills necessary to excel in a rapidly evolving technological landscape.*

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## Publications

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2025

Jurnal nasional terakreditasi

### **Finding Random Integer Ideal Flow Network Signature Algorithms**

INDRIATI NJOTO BISONO , ERNA BUDHIARTI NABABAN , RESMANA LIM , Kardi Teknomo

2025

Jurnal internasional bereputasi

### **A Multi-View Clustering Approach And Exploratory Data Analysis For Dominant Demographic Knowledge Discovering On The Cause Behind The Pandemic**

WILLIAM RAMDHAN , OPIM SALIM SITOMPUL , ERNA BUDHIARTI NABABAN

2025

Jurnal internasional bereputasi

### **A MULTI-VIEW CLUSTERING APPROACH AND EXPLORATORY DATA ANALYSIS FOR DOMINANT DEMOGRAPHIC KNOWLEDGE DISCOVERING ON THE CAUSE BEHIND THE PANDEMIC**

OPIM SALIM SITOMPUL , ERNA BUDHIARTI NABABAN , SAWALUDDIN , WILLIAM RAMDHAN

2025

Jurnal internasional bereputasi

### **A MULTI-VIEW CLUSTERING APPROACH AND EXPLORATORY DATA ANALYSIS FOR DOMINANT DEMOGRAPHIC KNOWLEDGE DISCOVERING ON THE CAUSE BEHIND THE PANDEMIC**

WILLIAM RAMDHAN , OPIM SALIM SITOMPUL , ERNA BUDHIARTI NABABAN

2024

Prosiding seminar internasional

### **Twitter Data Extraction for Food and Beverage Business Analytics**

OPIM SALIM SITOMPUL , ERNA BUDHIARTI NABABAN

2024

Prosiding seminar internasional

### **Customer Churn Prediction using Confident Learning and XGBoost**

ERNA BUDHIARTI NABABAN , OPIM SALIM SITOMPUL

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2024

Prosiding seminar internasional

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

ERNA BUDHIARTI NABABAN , HERMAN MAWENGGANG , ATIKAH RAHAYU MANDASARI

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2024

Prosiding seminar internasional

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

HERMAN MAWENGGANG , NUR AMALIA NASUTION , ERNA BUDHIARTI NABABAN

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2024

Prosiding seminar internasional

## **Indonesian Dynamic Sign Language Recognition for Individuals with Sensory Disabilities using LSTM**

ERNA BUDHIARTI NABABAN , RENI YUNITA

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2024

Prosiding seminar internasional

## **Reduction of Microarray Data Dimensions to Enhance Performance of Naïve Bayes in Classification**

ERNA BUDHIARTI NABABAN , PUTRI TSATSABILA RAMADHANI

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2024

Artikel ilmiah

## **Convolutional Neural Network Activation Function Performance on Image Recognition of The Batak Script**

ERNA BUDHIARTI NABABAN , ELVIAWATY MUISA ZAMZAMI , ABDUL MUIS

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2023

Prosiding seminar internasional

## **Implementation of N-Gram Method For Automating News Ticker Generation Based on Indonesian Language**

FELIPE , INDRA AULIA , ERNA BUDHIARTI NABABAN

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2023

Prosiding seminar internasional

## **Long Short-Term Memory and Word Embedding For Sentiment Analysis of User Review**

ERNA BUDHIARTI NABABAN

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2023

Prosiding seminar internasional

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

HERMAN MAWENGGANG , ERNA BUDHIARTI NABABAN

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2022

Jurnal nasional terakreditasi

## **PENINGKATAN SDM PROMOSI DINAS PARIWISATA SAMOSIR MELALUI PELATIHAN WEBSITE MENGGUNAKAN CMS WORDPRESS**

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ERNA BUDHIARTI NABABAN , AKHYAR LUBIS , SRI WAHYUNI

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2021

Prosiding seminar internasional

## **A Framework for Dominant Factors Revelation of the Outbreak's Cause**

WILLIAM RAMDHAN , OPIM SALIM SITOMPUL , ERNA BUDHIARTI NABABAN

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2021

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## **A Framework for Dominant Factors Revelation of the Outbreak's Cause**

OPIM SALIM SITOMPUL , ERNA BUDHIARTI NABABAN , SAWALUDDIN

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2021

Jurnal internasional bereputasi

## **Morpheme Embedding for Bahasa Indonesia Using Modified Byte Pair Encoding**

OPIM SALIM SITOMPUL , ERNA BUDHIARTI NABABAN

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2020

Jurnal internasional bereputasi

## **Multi-LSB and Modified Vernam Cipher to Enhance Document File Security**

OPIM SALIM SITOMPUL , ERNA BUDHIARTI NABABAN

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2020

Jurnal internasional bereputasi

## **Knowledge acceleration estimator (KAE) model to customer behavior using business metrics**

ERNA BUDHIARTI NABABAN

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2020

Jurnal internasional bereputasi

## **Multi-LSB and Modified Vernam Cipher to Enhance Document File Security**

ERNA BUDHIARTI NABABAN , OPIM SALIM SITOMPUL

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2019

Prosiding seminar internasional

## **Application of the Alcohol Sensor MQ-303A to Detect Alcohol Levels on Car Driver**

LILI TANTI , IWAN FITRIANTO RAHMAD , ERNA BUDHIARTI NABABAN , BUDI TRIANDI , EVRI EKADIANSYAH , VIDY AGUNG FRAGASTIA

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## **Researches**

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2022

## **KINERJA KOMBINASI FEATURES FROM ACCELERATED SEGMENT TEST (FAST) DAN LONG SHORT-TERM MEMORI (LSTM) UNTUK MACHINE IMAGE EXTRACTION AND TRANSLATION BAHASA BATAK-INDONESIA**

ERNA BUDHIARTI NABABAN

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2019

Penelitian Fundamental

## **Identifikasi Penyakit Padi melalui DNA menggunakan Rough Set dan Genetik Algorithm**

ERNA BUDHIARTI NABABAN

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## **Intellectual Property Rights**

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2019  
Paten nasional

## **Integrated Blood Interpretation**

ERNA BUDHIARTI NABABAN , OPIM SALIM SITOMPUL

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2019  
Paten nasional

## **CBCI System: Complete Blood Count Interpreter System In Bahasa Indonesian Language**

ERNA BUDHIARTI NABABAN , OPIM SALIM SITOMPUL

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