

Dr. Amalia, S.T., M.T.

Dosen Fakultas Ilmu Komputer dan Teknologi Informasi

✉ amalia@usu.ac.id

🌐 fasilkom-ti.usu.ac.id/id/dosen/amalia

Ibu Amalia lahir di Banda Aceh pada tanggal 21 Desember 1978. Beliau memperoleh gelar sarjana di bidang Teknik Elektro dari Universitas Syiah Kuala. Beliau kemudian melanjutkan pendidikan pascasarjana di Departemen Teknik Elektro di Universitas Sumatera Utara dan beliau menyelesaikan pendidikan terakhirnya pada jenjang S3, program studi Ilmu Komputer, di Universitas Sumatera Utara.

Ibu Amalia menjabat sebagai Kepala Laboratorium Multimedia di Fakultas Ilmu Komputer dan Teknologi Informasi Universitas Sumatera Utara untuk periode 2017 - 2021. Beliau telah memiliki jabatan Lektor Kepala, dan saat ini menjabat sebagai Ketua Program Studi Ilmu Komputer di Fakultas Ilmu Komputer dan Teknologi Informasi Universitas Sumatera Utara.

Bidang penelitian Ibu Amalia adalah Natural Language Processing, beberapa karyanya di bidang penelitian ini telah dipublikasikan di jurnal-jurnal bereputasi baik nasional maupun internasional.

Jangan pernah berhenti belajar karena hidup tidak pernah berhenti mengajar adalah motto hidup yang selalu dipegang oleh Ibu Amalia.

Publications

2026

Jurnal internasional bereputasi

Sentiment and Emotion Analysis in Textual Data: A Recent Systematic Literature Review Method, Model and Application

AMALIA , Rabiah Abdul Kadir

2026

Book chapter internasional

A Review and Multi-Task Learning Approach for Emotion Identification in Cyber Sexual Harassment Using Large Language Models

AMALIA

2026

Jurnal internasional bereputasi

Domain-Aware Spatial-Temporal Selective Gated LSTM for Real-Time Driver Drowsiness Detection

AMALIA

2025

Jurnal internasional bereputasi

A Progressive Hedging-Based Two-Stage Stochastic Programming Model for Managing Seasonal Demand and Lead-Time Uncertainty in Patchwork MSMEs

AFNARIA , AMALIA , ARIFA PRATAMI

2025

Jurnal nasional terakreditasi

Segmentasi Nasabah Bank Pada Data Campuran Menggunakan K-Means Clustering

MOHAMMAD ANDRI BUDIMAN , AMALIA , JOCELINE SCHELLENBERG W, S.KOM

2025

Prosiding seminar internasional

Feature Selection Using Ensemble Lasso Regression, Random Forest and Recursive Feature Elimination Methods in Breast Cancer Classification

AMALIA , SUTARMAN

2025
Jurnal internasional bereputasi

Mitigating Bias and Assessment Inconsistencies with BERT-Based Automated Short Answer Grading for the Indonesian Language

AMALIA , FUZY YUSTIKA MANIK , DANI GUNAWAN , MAYA SILVI LYDIA , MUHAMMAD ANGGIA MUCHTAR

2025
Jurnal internasional bereputasi

Implementation of Tracking System Based on JT701 Smart Lock Technology on Goods Delivery Service Vehicles

FEBRIN AULIA BATUBARA , BAKTI VIYATA SUNDAWA , AMALIA , MORLAN PARDEDE , TUTI ADI TAMA NASUTION

2024
Prosiding seminar internasional

A Transformer-Based Approach with OpenNMT for Indonesian to Gayo Language Translation

AMALIA , MOHAMMAD ANDRI BUDIMAN

2024
Prosiding seminar internasional

Sentiment Analysis Multi-Label of Toxic Comments using BERT-BiLSTM Methods

AMALIA , TAUFIK FUADI ABIDIN , SYARIFAH KEMALA PUTRI

2024
Prosiding seminar internasional

Sentiment Analysis Multi-Label of Toxic Comments using BERT-BiLSTM Methods

AMALIA , TAUFIK FUADI ABIDIN , SYARIFAH KEMALA PUTRI

2024
Jurnal nasional

Implementasi Sistem Informasi Pengelolaan Aset Desa Berbasis Web pada Desa Tingkeum, Kabupaten Aceh Besar

YUNIDAR , AMALIA , MUHAMMAD IRHAMSYAH

2024
Prosiding seminar internasional

Sorting of Hazardous and Toxic Solid Waste (B3) Using Ensemble Learning Techniques with VGG-16 and DenseNet-121 Architecture

AMALIA , SUTARMAN , REZA MUSTHOFA MUFTHI

2024
Prosiding seminar internasional

Automated Indonesian Essay Scoring and Holistic Feedback Using Bidirectional Encoder Representations for Transformers

AMALIA , MAYA SILVI LYDIA

2024
Prosiding seminar internasional

Sentiment Analysis Using K-NN Algorithm Through Random Search Cross Validation Approach

AMALIA , OPIM SALIM SITOMPUL , TITO AFWI SENDA

2024
Prosiding seminar internasional

Sentiment Analysis Using K-NN Algorithm Through Random Search Cross Validation Approach

TITO AFWI SENDA , AMALIA , OPIM SALIM SITOMPUL

2024
Prosiding seminar internasional

Performance of Term Frequency - Inverse Document Frequency and K-Means in Government Service Identification

AMALIA , MAHYUDDIN

2024
Prosiding seminar internasional

Performance of Term Frequency - Inverse Document Frequency and K-Means in Government Service Identification

AMALIA , MAHYUDDIN

2024
Prosiding seminar internasional

Performance Analysis of KNN and C.45 Algorithms With Kappa Measure Evaluation

AMALIA , DINA MARIANA SIBORO

2024
Prosiding seminar internasional

Implementation of Sustainable Development Goals through Literaku Application Based on Google Cloud APIs to Improve Literacy for Blind People

AMALIA , FARHAN DOLI FADHIIL SIAGIAN

2024
Prosiding seminar internasional

Sentiment analysis of multi-social media platform about medical services using support machine vector

AMALIA , AMER SHARIF , MAYA SILVI LYDIA

2024
Prosiding seminar internasional

Implementation of Sustainable Development Goals through Literaku Application Based on Google Cloud APIs to Improve Literacy for Blind People

AMALIA , FARHAN DOLI FADHIIL SIAGIAN , MUHAMMAD GHOZALI

2024
Prosiding seminar internasional

Implementation of Sustainable Development Goals through Literaku Application Based on Google Cloud APIs to Improve Literacy for Blind People

FARHAN DOLI FADHIIL SIAGIAN , MUHAMMAD GHOZALI , AMALIA

2023
Prosiding seminar internasional

Impact of Image Enhancement for Osteoporosis Detection Based on Deep Learning Algorithm

KAHLIL , ROSLIDAR , AMALIA , ALFATIRTA MUFTI

2021
Prosiding seminar internasional

Abnormal Object Detection in Thoracic X-Ray Using You only Look Once (YOLO)

HERRIYANCE , AMALIA

2021
Prosiding seminar internasional

Sentiment Analysis For Movie Review In Bahasa Indonesia Using BERT

T.HENNY FEBRIANA HARUMY , AMALIA

2021
Prosiding seminar internasional

Multilabeling Indonesian Toxic Comments Classification Using the Bidirectional Encoder Representations of Transformers Model

AMALIA , DANI GUNAWAN

2021
Prosiding seminar internasional

Application Prototype for Scientific Paper Layout Inspection

DANI GUNAWAN , AMALIA , FANINDIA PURNAMASARI

2021
Jurnal internasional bereputasi

Morpheme Embedding for Bahasa Indonesia Using Modified Byte Pair Encoding

AMALIA , ERNA BUDHIARTI NABABAN , OPIM SALIM SITOMPUL

2021

Prosiding seminar internasional

Analysis of Maximal Shift Algorithm and Rabin- Karp Algorithm in Graphic Design Dictionary

DIAN RACHMAWATI , AMALIA

2021

Prosiding seminar internasional

A relevant document search system model using word2vec approaches

MOHAMMAD ANDRI BUDIMAN , AMALIA

2021

Prosiding seminar internasional

Bahasa Indonesia pre-trained word vector generation using word2vec for computer and information technology field

ERNA BUDHIARTI NABABAN , AMALIA , OPIM SALIM SITOMPUL

2021

Prosiding seminar internasional

Sentiment analysis of GO-JEK services quality using Multi-Label Classification

AMALIA , DANI GUNAWAN , KHAIRUDDIN NASUTION

2020

Jurnal internasional bereputasi

A comparison study of document clustering using DOC2VEC versus TFIDF combined with LSA for small corpora

OPIM SALIM SITOMPUL , ERNA BUDHIARTI NABABAN , AMALIA

2020

Prosiding seminar internasional

The Identification of Negative Content in Websites by Using Machine Learning Approaches

AMALIA , MAYA SILVI LYDIA , DANI GUNAWAN

2020

Jurnal internasional bereputasi

An implementation of Rabin cryptography and Fibonacci codes algorithm in image files security and compression

AMALIA , DIAN RACHMAWATI

2020

Prosiding seminar internasional

Chatbot Implementation with Semantic Technology for Drugs Information Searching System

AMALIA , FANINDIA PURNAMASARI , ELVIWANI

2020

Prosiding seminar internasional

An Efficient Text Classification Using fastText for Bahasa Indonesia Documents Classification

ERNA BUDHIARTI NABABAN , OPIM SALIM SITOMPUL , AMALIA

2020

Jurnal internasional bereputasi

File cryptocompression by using H-rabin and golomb rice algorithm

AMALIA

2019

Jurnal internasional bereputasi

Bahasa Indonesia text corpus generation using web corpora approaches

MAYA SILVI LYDIA , AMALIA , OPIM SALIM SITOMPUL , ERNA BUDHIARTI NABABAN

2019
Jurnal internasional bereputasi

Bahasa Indonesia text corpus generation using web corpora approaches

AMALIA , MAYA SILVI LYDIA

2019
Jurnal internasional

Predictions of World Population Life Expectancy Using Cyclical Order Weight / Bias

AMALIA

2019
Jurnal internasional

Building the Application to Identify Incorrect Capital Letters Writing in Bahasa Indonesia

AMALIA , DANI GUNAWAN

2019
Prosiding seminar internasional

Automated Bahasa Indonesia essay evaluation with latent semantic analysis

INDRA AULIA , AMALIA , DANI GUNAWAN

2019
Jurnal internasional

North Sumatera tourism spots searching system based on semantic web

AMALIA

2019
Poster seminar internasional

The Identification of Negative Content in Websites by Using Machine Learning Approaches

AMALIA

2018
Prosiding seminar internasional

Review of the recent research on automatic text summarization in Bahasa Indonesia

AMALIA

2018
Prosiding seminar internasional

Meme opinion categorization by using optical character recognition (OCR) and naive bayes algorithm

AMER SHARIF , AMALIA

2018
Prosiding seminar internasional

Meme opinion categorization by using optical character recognition (OCR) and naïve bayes algorithm

AMALIA

2018
Jurnal nasional

Perbandingan Metode Klaster dan Preprocessing Untuk Dokumen Berbahasa Indonesia

AMALIA

2018
Prosiding seminar internasional

Resource Description Framework Generation for Tropical Disease Using Web Scraping

AMALIA

2018
Jurnal nasional terakreditasi

Perbandingan Metode Klaster dan Preprocessing untuk Dokumen Berbahasa

Indonesia

MAYA SILVI LYDIA , SITI DARA FADILLA , AMALIA

2018

Jurnal internasional

File text security using Hybrid Cryptosystem with Playfair Cipher Algorithm and Knapsack Naccache-Stern Algorithm

AMALIA

2018

Jurnal internasional

Determination of quality television programmes based on sentiment analysis on Twitter

AMALIA

2018

Jurnal internasional

An Implementation of RC4⁺ Algorithm and Zig-zag Algorithm in a Super Encryption Scheme for Text Security

AMALIA

2018

Jurnal internasional

Building automatic customer complaints filtering application based on Twitter in Bahasa Indonesia

AMALIA

2018

Jurnal internasional

The Observation of Bahasa Indonesia Official Computer Terms Implementation in Scientific Publication

AMALIA

2018

Jurnal internasional

Combination of Rivest-Shamir-Adleman Algorithm and End of File Method for Data Security

AMALIA

2018

Jurnal internasional

Implementation of Canny and Isotropic Operator with Power Law Transformation to Identify Cervical Cancer

AMALIA

2018

Jurnal internasional bereputasi

Identifying strengths and weaknesses of Quality Management Unit University of Sumatera Utara software using SCAMPI C

AMALIA

2018

Prosiding seminar internasional

Clustering articles in bahasa Indonesia using self-organizing map

AMALIA , DANI GUNAWAN

2018

Prosiding seminar internasional

Document Clustering Optimization with Synonym Dictionary Check Function

SITI DARA FADILLA , DANI GUNAWAN , AMALIA , MAYA SILVI LYDIA

2018

Prosiding seminar internasional

Identification of Bahasa Indonesia official computer terms in Indonesian government websites

TIGOR HAMONANGAN NASUTION , MAYA SILVI LYDIA , AMALIA , DANI GUNAWAN

2017

Jurnal nasional

Improving data collection on article clustering by using distributed focused crawler

AMALIA

2017

Prosiding seminar internasional

Clustering Articles in Bahasa Indonesia Using Self-Organizing Map 2017 Int

AMALIA

2017

Prosiding seminar internasional

Document clustering optimization with synonym dictionary check function

AMALIA

2017

Prosiding seminar internasional

Identification of Bahasa Indonesia official computer terms in Indonesian government websites

AMALIA

2017

Prosiding seminar internasional

Focused crawler for the acquisition of health articles

DANI GUNAWAN , AMALIA , FATHIA MEIRINA

2017

Prosiding seminar internasional

The Implementation of open data in Indonesia

AMALIA

2017

Prosiding seminar internasional

Automatic extraction of multiword expression candidates for Indonesian language

AMALIA

2017

Jurnal internasional

Russian Character Recognition using Self-Organizing Map

AMALIA

2017

Jurnal internasional

Combination of Huffman Coding Compression Algorithm and Least Significant Bit Method for Image Hiding

AMALIA

2017

Jurnal internasional

The design of lexical database for Indonesian language

AMALIA

2017

Jurnal internasional

The usage evaluation of official computer terms in Bahasa Indonesia in Indonesian government official websites

AMALIA

2013

Prosiding seminar internasional

Performance Evaluation of Free Anti Plagiarism Software

AMALIA

2012

Jurnal nasional

Optimasi Pemberian ASI Eksklusif Ibu Bekerja kepada Bayinya di Kota Medan.

AMALIA

2026

Prosiding seminar internasional

OLCBot: Dissemination Of Interactive Information Related To Indonesia's Omnibus Law With The Implementation of Fuzzy String Matching Algorithm and Sastrawi Stemmer

AMALIA

2026

Prosiding seminar nasional

Predictions of World Population Life Expectancy Using Cyclical Order Weight/Bias

AMALIA

2026

Tulisan ilmiah

Sistem Terdistribusi Pencarian Kerja dan Tenaga Kerja dalam Sektor Informal Memanfaatkan Teknologi Ponsel

AMALIA

2026

Jurnal nasional

PEMBENTUKAN KOMITE SEKOLAH DI KB TANAH MERAH KECAMATAN GALANG MELALUI PENDEKATAN ANTROPOLINGUISTIK

AMALIA

Researches

2026

Penelitian Fundamental

Optimasi Produksi UMKM Berbasis Kain Perca dengan Two-Stage Stochastic Programming dan AI-Powered Demand Forecasting

AFNARIA , AMALIA , ARIFA PRATAMI , YUNDARI ARIMBI , ARBA ATIKAH

2025

Penelitian Fundamental

Optimasi Produksi UMKM Berbasis Kain Perca dengan Two-Stage Stochastic Programming dan AI-Powered Demand Forecasting

AFNARIA , AMALIA , ARIFA PRATAMI , YUNDARI ARIMBI , ARBA ATIKAH

2024

Penelitian Kerjasama Antar Perguruan Tinggi

Automated Essay Scoring Untuk Bahasa Indonesia Dan Melayu Dengan Umpan Balik Holistik Berbasis Deep Learning

AMALIA , MAYA SILVI LYDIA

2024

Ipteks Bagi Masyarakat

Penelitian Thesis Performance Analysis of KNN and C. 45 Algorithms With Kappa Measure Evaluation

SUYATNO , AMALIA , DINA MARIANA SIBORO

2023

Penelitian Fundamental

Penerapan Metode Rubrik Penilaian Bobot Soal dalam Sistem Automated Essay Scoring Bahasa Indonesia Berbasis BERT untuk Mengurangi Bias dan Kesalahan Penilaian

AMALIA , MAYA SILVI LYDIA , FUZY YUSTIKA MANIK , MUHAMMAD ANGGIA MUCHTAR , KEVIN LEONARDI , RIDHO STEVEN PAIAN PARDEDE

2023
Penelitian Dana Lokal Perguruan Tinggi

PENDEKATAN MULTIPLATFORM UNTUK DETEKSI PENYAKIT CELIAC DENGAN DEEP LEARNING DAN OVERSAMPLING SINTETIS

AMALIA , MAYA SILVI LYDIA , CHELIZA SRIAYU SIMARSOIT

2021
Penelitian Dana Lokal Perguruan Tinggi

Pendekatan Deep Learning pada Identifikasi Part of Speech Kata dalam Bahasa Indonesia

AMALIA , DANI GUNAWAN , ABIYU DZAKWAN KHAIRI , NIKITA ANANDA PUTRI MASALING

2021
Penelitian Dana Lokal Perguruan Tinggi

Purwarupa Pemeriksaan Format Penulisan Karya Ilmiah Berbasis Teknologi Cloud

AMALIA , DANI GUNAWAN , FANINDIA PURNAMASARI , NIKITA YOFANNY NAPITUPULU , CHARLIE , FAUZAN ZAMAN

2021
Penelitian Dana Lokal Perguruan Tinggi

Stemming dan Lematisasi Bahasa Indonesia dengan Pendekatan Supervised dan Unsupervised Learning

AMALIA , DANI GUNAWAN , MAYA SILVI LYDIA , WIRA ARDI KESUMA ADJI , RIVALDO

2020
Penelitian Dana Lokal Perguruan Tinggi

KETERATURAN LINGUISTIK PADA METODE WORD EMBEDDING UNTUK BAHASA INDONESIA

AMALIA , OPIM SALIM SITOMPUL , ERNA BUDHIARTI NABABAN , DWI FIMOZA , SELINA AMELIA SAVITTRI , SYARIFAH KEMALA PUTRI

2020
Penelitian Dana Lokal Perguruan Tinggi

Word vetor representation untuk natural language processing bahasa Indonesia dengan metode neural networks

AMALIA , OPIM SALIM SITOMPUL , ERNA BUDHIARTI NABABAN , AMALIA

2019
Penelitian Dana Lokal Perguruan Tinggi

Representasi Vektor untuk Teks Bahasa Indonesia dengan Pendekatan Word Embedding

AMALIA , OPIM SALIM SITOMPUL , ERNA BUDHIARTI NABABAN , SYARIFAH KEMALA PUTRI , SELINA AMELIA SAVITTRI , DWI FIMOZA

2018
Penelitian Unggulan Perguruan Tinggi

Teknologi Pendeteksi Konten Negatif Pada Internet

AMALIA , DANI GUNAWAN , MAYA SILVI LYDIA , WESLEY

2018
Penelitian Dana Lokal Perguruan Tinggi

Kakas Bantu NLP untuk Teks Bahasa Indonesia

AMALIA , DANI GUNAWAN , TEGUH SUBIYANTORO

2017
Penelitian Dana Lokal Perguruan Tinggi

Klasterisasi Dokumen Berbahasa Indonesia dengan Metode TF-IDF dan Latent Semantic Analysis

AMALIA , SITI DARA FADILLA , MAYA SILVI LYDIA , MUHAMMAD MIFTAHUL HUDA

Community Services

2023
Penelitian Dana Lokal Perguruan Tinggi

Peningkatan Kualitas Simulasi UTBK pada MA Al-Azhar Asy-Syarif Sumatera Utara Melalui Pengembangan Elearning Adaptif bagi Guru dan Siswa

FAHMI , AMALIA , MAYA SILVI LYDIA , MOHAMMAD FADLY SYAH PUTRA , ANDREW BENEDICTUS JAMESIE

2013
Ipteks Bagi Masyarakat

IbM Kader Posyandu Di Kecamatan Medan Amplas Kota Medan

2013
Penelitian Dosen Pemula

Penyebaran Informasi Dan Motivasi Pemberian ASI Eksklusif Kepada Para Ibu Meny

Intellectual Property Rights

2023
Hak cipta nasional

Aplikasi Automated Essay Scoring Berbasis BERT

MAYA SILVI LYDIA , MUHAMMAD ANGGIA MUCHTAR , AMALIA , FUZY YUSTIKA MANIK

2023
Hak cipta nasional

Aplikasi Automated Essay Scoring Berbasis BERT

FUZY YUSTIKA MANIK , MAYA SILVI LYDIA , MUHAMMAD ANGGIA MUCHTAR , AMALIA

2022
Hak cipta nasional

APLIKASI ASISTEN PENDIDIKAN LITERASI SECARA INKLUSIF BAGI TUNANETRA BERBASIS NATURAL LANGUAGE PROCESSING (NLP) BAHASA INDONESIA

AMALIA

2021
Hak cipta nasional

Sistem Pemeriksa Format Penulisan Skripsi

FANINDIA PURNAMASARI , AMALIA , DANI GUNAWAN

2019
Hak cipta nasional

Aplikasi Pendeteksi Website Konten Negatif

MAYA SILVI LYDIA , AMALIA , DANI GUNAWAN

2019
Hak cipta nasional

Kakas Batu NLTK Untuk Bahasa Indonesia

DANI GUNAWAN , AMALIA

2026
Hasil penelitian/pemikiran yang tidak dipublikasikan

Subword Embedding dengan Pendekatan Byte Pair Encoding dan Morfologi Bahasa Indonesia

AMALIA