

Dr. Pauzi Ibrahim Nainggolan, S.Komp., M.Sc.

Lecturer of Undergraduate Program in Computer Science Study Program
Faculty of Computer Science and Information Technology
Universitas Sumatera Utara

✉ nainggolan@usu.ac.id

🏠 Gedung C Fasilkom-TI, Universitas Sumatera Utara, Jl. Alumni No.3, Padang Bulan, Kec. Medan Baru,
Medan City, North Sumatra 20155

🌐 fasilkom-ti.usu.ac.id/en/lecturer/pauzi-ibrahim-nainggolan

Pauzi Ibrahim Nainggolan, born on September 14, 1988, in Kajang, Malaysia, completed his undergraduate education in 2012 at Bogor Agricultural University, followed by a Master of Science education at Universiti Kebangsaan Malaysia. He is currently pursuing his Ph.D program at Universitas Sumatera Utara. Mr. Pauzi was called to join the 8th Taplai Lemhannas Ri in 2014.

In 2012, he became a Research Assistant at the Institute of Visual Informatics. Starting his career as a permanent lecturer at the University of North Sumatra from 2020, Mr. Pauzi was involved as an Expert for the Communication and Informatics Office of Medan City in 2021. Mr. Pauzi was once asked for an opinion as an IT expert in a land dispute case at the Sidikalang District Court.

Publications

2026

Jurnal nasional terakreditasi

KUTA-TRANSPARAN: Model Sistem Informasi Terintegrasi untuk Pencegahan Pungutan Liar pada Desa Wisata Berbasis Fraud Risk Management dan Akuntansi Digital

MUHAMMAD IRFAN SARIF , FAUZAN NURAHMADI , PAUZI IBRAHIM NAINGGOLAN , T.HENNY FEBRIANA HARUMY

2026

Jurnal internasional bereputasi

Explainable CNN-Based Multiclass Household Waste Classification Using Grad-CAM for Smart Waste Management

FUZY YUSTIKA MANIK , PAUZI IBRAHIM NAINGGOLAN , T.HENNY FEBRIANA HARUMY , DEWI SARTIKA BR GINTING

2026

Prosiding seminar internasional

A Combined Discrete Cosine Transform Algorithm and Downsampling Techniques for Data Compression and Transformation on IoT Sensors

HAYATUNNUFUS , PAUZI IBRAHIM NAINGGOLAN , ERNA BUDHIARTI NABABAN , ANDIKO EKARINA PINDONTA BANGUN

2026

Prosiding seminar internasional

Multi-Label Emotion Classification for Indonesian Text using IndoBERT Fine-Tuning

MAYA SILVI LYDIA , PAUZI IBRAHIM NAINGGOLAN , NURRAHMADAYENI , DEWI SARTIKA BR GINTING , AMALIA , SAMMYTHA BR SIAGIAN

2026

Prosiding seminar internasional

Classification of Aedes Mosquito Larvae Using Hybrid Convolutional Neural Network and Long Short-Term Memory

HAYATUNNUFUS , SYAHRIL EFENDI , MAYA SILVI LYDIA , MOHAMMAD ANDRI BUDIMAN , DHANI SYAHPUTRA BUKIT , ARYA DWIHARSYA , Riza Sulaiman , Ledy Afrida Sinaga , PAUZI IBRAHIM NAINGGOLAN

2026

Prosiding seminar internasional

Application for the Real-Time Student Attendance Monitoring System using Deep Learning-based Face Recognition with Smile Validation and Telegram

Notifications

ANANDHINI MEDIANTY NABABAN , NISKARTO ZENDRATO , IVAN JAYA , PAUZI IBRAHIM NAINGGOLAN , DANNY MARIO TUA PANJAITAN

2026

Prosiding seminar internasional

Data Utilization, Methodological Frameworks, and Evaluation Metrics in Head Circumference Measurement Research: A Systematic Review

FAHRURROZI LUBIS , DHANI SYAHPUTRA BUKIT , PAUZI IBRAHIM NAINGGOLAN , IVANNY PUTRI MARIANTO , WILBERT NEILSON SACHIO , Riza Sulaiman

2026

Prosiding seminar internasional

Advancing Kidney Disease Diagnosis With Yolov9 Deep Learning: A Comprehensive Classification Approach

FAHRURROZI LUBIS , PAUZI IBRAHIM NAINGGOLAN , MOHAMMAD FADLY SYAH PUTRA , TRIFALIYOKA GUSRUL MR , Riza Sulaiman

2025

Prosiding seminar internasional

Automated Level Generation Using Depth First Search Algorithm in Confined Space

PAUZI IBRAHIM NAINGGOLAN , JOS TIMANTA TARIGAN , NISKARTO ZENDRATO , TRY JAKA GUNAWAN

2025

Jurnal internasional

Mid-Upper Arm Circumference Measurement Using Digital Images: A Top-Down Approach with Panoptic Segmentation Using Mask R-CNN

MAYA SILVI LYDIA , PAUZI IBRAHIM NAINGGOLAN , DESILIA SELVIDA , DHANI SYAHPUTRA BUKIT , AMALIA , DOLI AULIA HAMDALAH , Prof. Dr. Rahmita Wirza O.K. Rahmat

2025

Jurnal nasional terakreditasi

Optimization of Stunting Prevention in Communities in Bahliran Village Through the Application Peduli Stunting "Penting"

ETTI SUDARYATI , DHANI SYAHPUTRA BUKIT , PAUZI IBRAHIM NAINGGOLAN , LANOVA DWI ARDE M

2025

Prosiding seminar internasional

Leveraging Machine Learning Techniques for Stunting Detection and Height Growth Prediction in Children Aged 0-5 Years

PAUZI IBRAHIM NAINGGOLAN , DHANI SYAHPUTRA BUKIT , MAYA SILVI LYDIA , HUSEIN IBNU MAHMUD , RIZKY MAULANA SEMBIRING , RARA MAURA HASIBUAN , DAVINA ATHIRAH , FAHIA MEUTIA MUFIDA , Prof. Dr. Rahmita Wirza O.K. Rahmat

2024

Prosiding seminar internasional

SENTIMENT ANALYSIS OF HALODOC APPLICATION REVIEWS BASED ON SERVICE QUALITY ASPECTS USING BERT

PAUZI IBRAHIM NAINGGOLAN , T.HENNY FEBRIANA HARUMY

2024

Prosiding seminar internasional

Mixed reality for simulation of human muscle anatomy learning

MOHAMMAD FADLY SYAH PUTRA , DEDY ARISANDI , PAUZI IBRAHIM NAINGGOLAN

2024

Prosiding seminar internasional

IOT-Based Electrical Energy Counter System Using Atmega328 Microcontroller and PLC

FAHRURROZI LUBIS , FAUZAN NURAHMADI , PAUZI IBRAHIM NAINGGOLAN

2023

Jurnal internasional bereputasi

Comparison Analysis of Boldi-Vigna \hat{H}_2 Algorithm and End-Tagged Dense Code Algorithm on Audio File Compression

PAUZI IBRAHIM NAINGGOLAN , HANDRIZAL

2023
Jurnal internasional

The role of recurrent convolutional neural network in IoT for building a security artificial intelligence and home assistance system

FAUZAN NURAHMADI , SYAHRIL EFENDI , PAUZI IBRAHIM NAINGGOLAN

2023
Jurnal internasional

The Design Of Online Smart Application SIRISKA (WORK RISK MAPPING SYSTEM): A Study Of Oil Palm Harvesting Workers In PTPN IV ADOLINA Plantation

UMI SALMAH , RISANTI FEBRINE ROPITA SITUMORANG , SRI MALEM INDIRAWATI , PAUZI IBRAHIM NAINGGOLAN

2023
Prosiding seminar internasional

Optimization of the Near Miss Reporting System in Achieving Zero Accidents at PTPN IV ADOLINA Garden (SIRISKA Online Smart Application)

UMI SALMAH , RISANTI FEBRINE ROPITA SITUMORANG , SRI MALEM INDIRAWATI , PAUZI IBRAHIM NAINGGOLAN

2023
Prosiding seminar internasional

The Larvae Project Application as a Digital Image for monitoring the Larvae Free Index in DHF endemic areas in Tebing Tinggi city

DHANI SYAHPUTRA BUKIT , INDRA CHAHAYA , UMI SALMAH , SRI MALEM INDIRAWATI , PAUZI IBRAHIM NAINGGOLAN

2022
Jurnal nasional terakreditasi

PEMANFAATAN WEBSITE SEBAGAI SARANA INFORMASI DAN PROMOSI DESA LIANG MUDA

MAHYUDDIN , SRI MELVANI HARDI , PAUZI IBRAHIM NAINGGOLAN , IVAN JAYA

2022
Jurnal internasional

Web-Based E-Archives Application Design Innovation to Facilitate Systematic Document Storage and Facilities Archives Discovery Speed at SMP Negeri 38, Medan Marelan District

INNEKE QAMARIAH , TETTY YULIATY , PAUZI IBRAHIM NAINGGOLAN

2022
Jurnal nasional terakreditasi

Analysis Of Deep Learning Architecture In Classifying SNI Masks

FAHRURROZI LUBIS , PAUZI IBRAHIM NAINGGOLAN , FAUZAN NURAHMADI

Researches

2025
Penelitian Dana Lokal Perguruan Tinggi

Pengembangan Model Identifikasi Emosi Multi-Label Teks Bahasa Indonesia Berbasis Large Language Model (LLM) untuk Media Sosial

AMALIA , PAUZI IBRAHIM NAINGGOLAN , NURRAHMADAYENI , MAYA SILVI LYDIA

2025
Penelitian Fundamental

DETECTION AND CLASSIFICATION OF MOSQUITO LARVAE USING YOLOV8 AND MOBILENETV3 ARCHITECTURES

PAUZI IBRAHIM NAINGGOLAN , MUHAMMAD ANGGIA MUCHTAR , MOHAMMAD FADLY SYAH PUTRA , DHANI SYAHPUTRA BUKIT , RIO OCTAVIANNUS LOKA , Riza Sulaiman

2024
Ipteks

Deteksi Status Gizi Bayi berdasarkan Perhitungan Lingkar Kepala menggunakan Pendekatan Deep Learning

PAUZI IBRAHIM NAINGGOLAN , MAYA SILVI LYDIA , DHANI SYAHPUTRA BUKIT , Prof. Dr. Rahmita Wirza O.K. Rahmat

2024
Ipteks

Prediksi Status Gizi Bayi Berdasarkan Pengukuran Tubuh Dengan Pendekatan Deep Learning

FAUZAN NURAHMADI , FADILAH AINI , PAUZI IBRAHIM NAINGGOLAN , UMayA RAMADHANI PUTRI NASUTION

2023
Ipteks

ZONASI WILAYAH POTENSI DBD MENGGUNAKAN TEKNOLOGI ARTIFICIAL INTELLEGENCE DENGAN DIGITAL IMAGES DALAM MENGIDENTIFIKASI JENTIK DI KOTA TEBING TINGGI

UMI SALMAH , INDRA CHAHAYA , PAUZI IBRAHIM NAINGGOLAN , DHANI SYAHPUTRA BUKIT

2023

PENERAPAN APLIKASI AUGMENTED REALITY PADA PERMAINAN TEBAK EKSPRESI UNTUK ANAK BERKEBUTUHAN KHUSUS

PAUZI IBRAHIM NAINGGOLAN , DIAN RACHMAWATI

2023

Penelitian Fundamental

Model Identifikasi Risiko Malnutrisi dari Pengukuran Antropometri Citra Lingkaran Lengan Atas (LILA)

LANOVA DWI ARDE M , DESILIA SELVIDA , ANANDHINI MEDIANTY NABABAN , ANNISA FADHILLAH PULUNGAN , PAUZI IBRAHIM NAINGGOLAN , MAYA SILVI LYDIA , DHANI SYAHPUTRA BUKIT

2023

KKN Pembelajaran Pemberdayaan Masyarakat

Model Identifikasi Risiko Malnutrisi dari Pengukuran Antropometri Citra Lingkaran Lengan Atas (LILA)

LANOVA DWI ARDE M , ANNISA FADHILLAH PULUNGAN , PAUZI IBRAHIM NAINGGOLAN

2023

Ipteks Bagi Masyarakat

PENGEMBANGAN POSYANDU CEGAH STUNTING MELALUI DEDEL (DETEKSI DINI ELEKTRONIK) KIA DI KOTA MEDAN

RISANTI FEBRINE ROPITA SITUMORANG , ETTI SUDARYATI , PAUZI IBRAHIM NAINGGOLAN , DHANI SYAHPUTRA BUKIT

2022

Penelitian Fundamental

PENERAPAN MIXED REALITY UNTUK SIMULASI PEMBELAJARAN ANATOMI OTOT MANUSIA

DEDY ARISANDI , PAUZI IBRAHIM NAINGGOLAN , MOHAMMAD FADLY SYAH PUTRA , NABILA RIZKA

2022

Penelitian Fundamental

PENERAPAN MIXED REALITY UNTUK SIMULASI PEMBELAJARAN ANATOMI OTOT MANUSIA

DEDY ARISANDI , PAUZI IBRAHIM NAINGGOLAN , MOHAMMAD FADLY SYAH PUTRA , NABILA RIZKA

2021

Penelitian Dosen Pemula

Sistem Pengawasan Cluster Masker SNI Berbasis Deep Learning

PAUZI IBRAHIM NAINGGOLAN , FAHRURROZI LUBIS

2021

Penelitian Dosen Pemula

Sistem Pengawasan Cluster Masker SNI Berbasis Deep Learning

FAUZAN NURAHMADI , PAUZI IBRAHIM NAINGGOLAN , FAHRURROZI LUBIS , PRAYUDHA WIRA ARYAPUTRA , MAULANA AZHARI PARAS HARAHAP , FIQRI RAMADHAN TAMBUNAN , FAUZAN NOVALDI , MOHAMMAD RAJA ALFACH

Community Services

2024

TeleHealth Trauma Korban Bencana

PAUZI IBRAHIM NAINGGOLAN , MAYA SILVI LYDIA , DHANI SYAHPUTRA BUKIT , FAHRURROZI LUBIS

2025

Ipteks

TeleHealth Trauma Korban Bencana

PAUZI IBRAHIM NAINGGOLAN , MAYA SILVI LYDIA , DHANI SYAHPUTRA BUKIT , FAHRURROZI LUBIS

2025

Ipteks Bagi Masyarakat

Pemberdayaan Masyarakat Melalui Digitalisasi Trauma Healing (DIMAH) Di Wilayah Resiko Bencana

LANOVA DWI ARDE M , ISMIL KHAIRI LUBIS , PAUZI IBRAHIM NAINGGOLAN , DHANI SYAHPUTRA BUKIT

2023

Ipteks Bagi Masyarakat

Edukasi Kesehatan Gigi Dan Mulut Serta Pengenalan Gigi Tiruan Pada Siswa Di Sekolah Menengah Kejuruan Harum Sentosa Perbaungan Kabupaten Serdang Bedagai

PAUZI IBRAHIM NAINGGOLAN , ARIYANI DRG , VERONICA ANGELIA , SITI WAHYUNI , BELIA PUTRI AMANDA , ELVINA HAKIMAN , BELLA ASTRIA EFFENDI

2023

Ipteks Bagi Masyarakat

Optimalisasi Pencegahan Stunting Pada Masyarakat di Desa Bahliran Melalui Aplikasi Peduli Stunting (PENTING)

LANOVA DWI ARDE M , ETTI SUDARYATI , PAUZI IBRAHIM NAINGGOLAN , DHANI SYAHPUTRA BUKIT , JULQIFLI MUNGKUR

2023

Pengembangan Desa Simempar Kecamatan Gunung Meriah Kabupaten Deli Serdang untuk Mewujudkan Kesejahteraan Masyarakat Pasca Covid-19

FAUZAN NURAHMADI , SYAHRIL EFENDI , DEWI SARTIKA BR GINTING , IVAN JAYA , PAUZI IBRAHIM NAINGGOLAN , FUZY YUSTIKA MANIK

2022

Ipteks Bagi Masyarakat

PENGAPLIKASIAN DAN DIGITALISASI BAHASA KEHUMASAN DI KELURAHAN DELI TUA TIMUR

RAHMADSYAH RANGKUTI , ZULFAN , MULYADI , PAUZI IBRAHIM NAINGGOLAN

2022

Inovasi Perancangan Aplikasi E-Arsip Berbasis Web untuk Mempermudah Penyimpanan Dokumen Secara Sistematis dan Kemudahan Kecepatan Penemuan Arsip di SMP Negeri 38 Kecamatan Medan Marelan

PAUZI IBRAHIM NAINGGOLAN , TETTY YULIATY , INNEKE QAMARIAH

2022

Ipteks Bagi Masyarakat

IMPLEMENTASI ASAH (APLIKASI ANAK SEHAT) DALAM RANGKA PENINGKATAN KESEHATAN MASYARAKAT DI WILAYAH KERJA PUSKESMAS KM 11

PAUZI IBRAHIM NAINGGOLAN , DHANI SYAHPUTRA BUKIT

2021

Penelitian Dosen Pemula

PEMBERDAYAAN MASYARAKAT PADA KELUARGA PETANI DALAM PENINGKATAN KESEHATAN MASYARAKAT DI KABUPATEN HUMBahas

FITRI KHAIRANI , PAUZI IBRAHIM NAINGGOLAN , DHANI SYAHPUTRA BUKIT

2021

Ipteks Bagi Masyarakat

Pemanfaatan Website Desa Liang Muda Sebagai Sarana Informasi Dan Promosi Desa

SRI MELVANI HARDI , MAHYUDDIN , IVAN JAYA , PAUZI IBRAHIM NAINGGOLAN

Intellectual Property Rights

2024

Hak cipta nasional

BUKU PANDUAN APLIKASI DETEKSI DINI ELEKTRONIK (DEDEL)

ETTI SUDARYATI , FADILAH AINI , RISANTI FEBRINE ROPITA SITUMORANG , PAUZI IBRAHIM NAINGGOLAN , DHANI SYAHPUTRA BUKIT

2023

Hak cipta nasional

Program Komputer Aplikasi Permainan Tebak Ekspresi Augmented Reality Menggunakan Metode Markerless User Defined Target

MOHAMMAD FADLY SYAH PUTRA , PAUZI IBRAHIM NAINGGOLAN

2022

Hak cipta nasional

User Manual Penggunaan Aplikasi LARVAE

SURYA UTAMA , UMI SALMAH , INDRA CHAHAYA , DHANI SYAHPUTRA BUKIT , NAMORA LUMONGGA LUBIS , SRI MALEM INDIRAWATI , PAUZI IBRAHIM NAINGGOLAN , ALAM BAKTI

2022

Hak cipta nasional

User Manual Penggunaan Aplikasi Cerdas Online SIRISKA (Sistem Informasi Risiko Kerja)

RISANTI FEBRINE ROPITA SITUMORANG , UMI SALMAH , PAUZI IBRAHIM NAINGGOLAN , SRI MALEM INDIRAWATI
