

Sarah Purnamawati, S.T., M.Sc.

Lecturer of Undergraduate Program in Information Technology Study Program
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Mrs. Sarah Purnamawati is a distinguished lecturer in the Undergraduate Program in Information Technology at Universitas Sumatera Utara, where she specializes in Database Systems, Artificial Intelligence, and Information System Management. With her extensive knowledge and experience, she is dedicated to equipping her students with the skills necessary to navigate the rapidly changing technology landscape. Mrs. Sarah emphasizes hands-on learning, encouraging students to apply theoretical concepts to real-world scenarios, thereby enhancing their problem-solving abilities.

In addition to her teaching responsibilities, Mrs. Purnamawati serves as the Vice Dean for Administration, Finance, Human Resources, and Assets, where she plays a critical role in the operational management of the faculty. Her leadership ensures that the administrative aspects of the program run smoothly, allowing both students and faculty to focus on academic excellence. Committed to fostering an inclusive and supportive educational environment, she actively engages with students to understand their needs and aspirations, helping them achieve their academic goals.

Publications

2026

Prosiding seminar internasional

Classification of Cybercrime Cases Based on Type of ITE Law Article Using Text Convolutional Neural Network

SARAH PURNAMAWATI , TRI MURTI LUBIS , FAHRURROZI LUBIS , ROMI FADILLAH RAHMAT , JANRIAN N SIMBOLON , IQBAL FAKHRIZA

2025

Monograf

Inovasi Teknologi Pengendalian Penggunaan Televisi Untuk Kesehatan Mata Anak

AINUL HIZRIADI , SARAH PURNAMAWATI

2025

Jurnal internasional bereputasi

ENHANCING WATER QUALITY CLASSIFICATION IN LAKE TOBA WITH DEEP LEARNING APPROACH

ROMI FADILLAH RAHMAT , SHARFINA FAZA , SARAH PURNAMAWATI

2024

Jurnal internasional bereputasi

Braille letter recognition in deep convolutional neural network with horizontal and vertical projection

SARAH PURNAMAWATI , ARIF RIDHO LUBIS , WILLY MARDIANTO , Riza Sulaiman , Farhad Nadi , ROMI FADILLAH RAHMAT , SHARFINA FAZA

2023

Prosiding seminar internasional

Automating News Tweet Writing Based on Indonesia Language Using NLG Approach

SARAH PURNAMAWATI , INDRA AULIA , CHRISTINA

2023

Jurnal internasional bereputasi

Classifying Indonesian Cyber Crime Cases under ITE Law Using a Hybrid of

Mutual Information and Support Vector Machine

AINA HUBBY AZIIRA , ROMI FADILLAH RAHMAT , SARAH PURNAMAWATI , SHARFINA FAZA , AL- KHOWARIZMI

2023

Jurnal nasional terakreditasi

Implementation of Extreme Learning Machine for Classification of Retina Ablasio Results on Retina Fundus Images

SARAH PURNAMAWATI , AINUL HIZRIADI

2022

Jurnal internasional bereputasi

Astrocytoma, ependymoma, and oligodendroglioma classification with deep convolutional neural network

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT

2022

Jurnal internasional bereputasi

LAKE TOBA WATER QUALITY PREDICTION USING EXTREME MACHINE LEARNING

ROMI FADILLAH RAHMAT , SARAH PURNAMAWATI

2021

Jurnal internasional bereputasi

Air Quality Classification Using Naive Bayes Classifier on Distributed Raspberry Pi Cluster System

ROMI FADILLAH RAHMAT , SARAH PURNAMAWATI

2021

Prosiding seminar internasional

Face Recognition for a Student Violation Point System in Schools Using the Fisherface Algorithm

MOHAMMAD FADLY SYAH PUTRA , AINUL HIZRIADI , DEDY ARISANDI , SARAH PURNAMAWATI

2021

Jurnal internasional bereputasi

IDENTIFICATION OF THE FISH SURVIVAL RATE AND THE FISH TYPES TO LIVE IN LAKE TOBA USING MACHINE LEARNING

INDRA AULIA , SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT

2020

Prosiding seminar internasional

Sparse Matrix Implementation on Personal News Recommendation for Anonymous User

DETANIA SUKARJA , SARAH PURNAMAWATI , TRI MURTI LUBIS , ROMI FADILLAH RAHMAT

2020

Jurnal nasional terakreditasi

Pembangkitan interpretasi tekstual berbahasa Indonesia berdasarkan data pemeriksaan kimia darah menggunakan pendekatan berbasis r-template

INDRA AULIA , SARAH PURNAMAWATI , JUNIANTO

2019

Jurnal internasional bereputasi

Android-based automatic detection and measurement system of highway billboard for tax calculation in Indonesia

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT , TRI MURTI LUBIS

2018

Prosiding seminar internasional

A real time mobile-based face recognition with fisherface methods

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT , MOHAMMAD FADLY SYAH PUTRA , DEDY ARISANDI

Researches

2025

KLASIFIKASI KASUS CYBERCRIME DENGAN TEXT CONVOLUTIONAL NEURAL NETWORK

SARAH PURNAMAWATI , TRI MURTI LUBIS , ROMI FADILLAH RAHMAT

2025

Smart System Prediksi Radiasi Matahari dengan Enhanced Deep Learning

SARAH PURNAMAWATI , HERRIYANCE , ROSSY NURHASANAH , ROMI FADILLAH RAHMAT

2024

FUTURE BUSINESS POTENTIAL FOR SMEs: AN ANALYSIS OF SURVEY DATA USING LARGE LANGUAGE MODEL AND K-MEANS CLUSTERING

SARAH PURNAMAWATI , YASMIN CHAIRUNISA MUCHTAR , MUHAMMAD ANGGIA MUCHTAR

2024

TRANSLASI BAHASA ISYARAT DENGAN BI-LONG SHORT-TERM MEMORY

SARAH PURNAMAWATI , AINUL HIZRIADI , ROMI FADILLAH RAHMAT , FAHRURROZI LUBIS

2023

DEEP NEURAL NETWORK DI DALAM KLASIFIKASI KUALITAS AIR

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT

2023

Penelitian Dana Lokal Perguruan Tinggi

PENDEKATAN DEEP LEARNING DI DALAM PREDIKSI PENYEBARAN MALARIA

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT , FAHRURROZI LUBIS

2022

Penelitian Fundamental

IMPLEMENTASI NEURAL NETWORK UNTUK KLASIFIKASI CITRA DAUN TUMBUHAN ANGIOSPERMAE PADA PLATFORM BERBASIS AUGMENTED REALITY

SARAH PURNAMAWATI , AINUL HIZRIADI , ANDI FARRAS THARIQ HASIBUAN , DONNY ADITHYA , REZA TAQYUDDIN

2022

IDENTIFIKASI DAN KLASIFIKASI JENIS MANGROVE BESERTA ZONA TANAM MANGROVE DENGAN INTERNET OF THINGS DAN ADVANCE MACHINE LEARNING

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT , ONRIZAL

2021

Penelitian Unggulan Perguruan Tinggi

SISTEM KLASIFIKASI JENIS MANGROVE BERDASARKAN CITRA MORFOLOGI

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT , RHAMA PERMADI AHMAD , SHIFANI ADRIANI CH.

2021

Penelitian Unggulan Perguruan Tinggi

KLASIFIKASI BIG DATA MONITORING CUACA DAN AIR MENGGUNAKAN ADAPTIVE NEURAL NETWORK

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT

2021

Penelitian Dana Lokal Perguruan Tinggi

KLAFIKASI TEXT MINING DARI BERITA KEJAHATAN CYBER DENGAN MACHINE LEARNING

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT , PENTARI TRIMITA PAKPAHAN , YUNITA S MARITO PANE

2021

Penelitian Dana Lokal Perguruan Tinggi

DEEP LEARNING UNTUK KLASIFIKASI CITRA BRAILLE

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT , FENTA GRATA , WILLY MARDIANTO

2020

Penelitian Unggulan Perguruan Tinggi

SISTEM KLASIFIKASI JENIS MANGROVE BERDASARKAN CITRA MORFOLOGI

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT

2020

Penelitian Dana Lokal Perguruan Tinggi

PENERAPAN DAN AUTOMASI SISTEM PENDETEKSIAN TUMOR OTAK PADA CITRA MRI DENGAN PENDEKATAN KECERDASAN BUATAN

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT , HALIMATUSSADIAH , MHD. FARIS PRATAMA

2020

Penelitian Dana Lokal Perguruan Tinggi

APLIKASI REKOMENDASI BERITA CYBER CRIME DENGAN METODE SPARSE MATRIX REPRESENTATION

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT

2020

Penelitian Unggulan Perguruan Tinggi

KLASIFIKASI BIG DATA MONITORING CUACA DAN AIR MENGGUNAKAN ADAPTIVE NEURAL NETWORK

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT

2019

Penelitian Dana Lokal Perguruan Tinggi

PENGENALAN DAN DETEKSI PAPAN IKLAN JALAN RAYA BERBASIS ANDROID

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT , HANDRA SAITO

2019

Penelitian Dana Lokal Perguruan Tinggi

KLASIFIKASI PADA CITRA MEDIS DIGITAL MELALUI PENDEKATAN ADVANCE MACHINE LEARNING

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT

2019

Penelitian Dana Lokal Perguruan Tinggi

PENDETEKSIAN RUANG PARKIR KOSONG DALAM SISTEM PARKIR MOBIL DENGAN KECERDASAN BUATAN

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT , JOKO KURNIANTO

2019

Penelitian Unggulan Perguruan Tinggi

PENGEMBANGAN DISTRIBUTED ADAPTIVE NEURAL NETWORK DAN KETERKAITAN DENGAN DEEP LEARNING

SARAH PURNAMAWATI , OPIM SALIM SITOMPUL , ROMI FADILLAH RAHMAT , DENNIS

2019

Penelitian Unggulan Perguruan Tinggi

SISTEM CERDAS PEMANTAUAN LINGKUNGAN SECARA REAL TIME DENGAN PENGOPTIMALAN ADVANCE MACHINE LEARNING

SARAH PURNAMAWATI , TIGOR HAMONANGAN NASUTION , ROMI FADILLAH RAHMAT , REZA TAQYUDDIN

2019

Penelitian Dana Lokal Perguruan Tinggi

IDENTIFIKASI KUALITAS AIR DANAU TOBA DENGAN PENDEKATAN DEEP LEARNING

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT

2018

Penelitian Unggulan Perguruan Tinggi

SISTEM CERDAS PEMANTAUAN LINGKUNGAN SECARA REAL TIME DENGAN PENGOPTIMALAN ADVANCE MACHINE LEARNING

SARAH PURNAMAWATI , TIGOR HAMONANGAN NASUTION , ROMI FADILLAH RAHMAT , REZA TAQYUDDIN

2018

Penelitian Unggulan Perguruan Tinggi

PENGEMBANGAN DISTRIBUTED ADAPTIVE NEURAL NETWORK DAN

KETERKAITAN DENGAN DEEP LEARNING

SARAH PURNAMAWATI , OPIM SALIM SITOMPUL , ROMI FADILLAH RAHMAT , DENNIS

2017

Penelitian Dana Lokal Perguruan Tinggi

Pengenalan GERAKAN TANGAN DINAMIS MENGGUNAKAN DEEP LEARNING

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT , EKA PRATIWI GOENFI

2017

Penelitian Dana Lokal Perguruan Tinggi

Pengenalan Wajah Secara Real Time Dalam Lingkungan Mobile

SARAH PURNAMAWATI , DEDY ARISANDI , MOHAMMAD FADLY SYAH PUTRA

2016

SEGMENTASI WARNA KULIT PADA CITRA MENGGUNAKAN TIGA RUANG WARNA

SARAH PURNAMAWATI , ROMI FADILLAH RAHMAT

Community Services

2025

Ipteks Bagi Masyarakat

Pelatihan Editing Video dan Gambar dengan Menggunakan Software Aplikasi Ulead Video Studio (UVS) di Pondok Pesantren Tahfudz Al-Qu'ran dan Hadist Al-Faiz

SARAH PURNAMAWATI , HERRIYANCE , HANDRIZAL , ROMI FADILLAH RAHMAT , FAHRURROZI LUBIS

2025

Pembuatan Absensi Deteksi Wajah untuk Kehadiran Pegawai Berbasis Web di Madrasah Aliyah Swasta Al Ittihadiyah Medan

SARAH PURNAMAWATI , HERRIYANCE , HANDRIZAL , ROMI FADILLAH RAHMAT , POLTAK SIHOMBING

2024

Ipteks Bagi Masyarakat

Pelatihan Pembuatan Poster Dijital dan Editing Video dengan Menggunakan Software Aplikasi Canva Online di Pondok Pesantren TAHFIDZ AL-QUR'AN DAN HADIST AL-FAIZ

SARAH PURNAMAWATI , HERRIYANCE , HANDRIZAL , ROMI FADILLAH RAHMAT , POLTAK SIHOMBING

2015

Ipteks

Optimalisasi E-learning dalam Proses Pembelajaran Sekolah

SARAH PURNAMAWATI , ULFI ANDAYANI , MOHAMMAD FADLY SYAH PUTRA

Intellectual Property Rights

2025

Hak cipta nasional

Buku Inovasi Teknologi Pengendalian Penggunaan Televisi Untuk Kesehatan Mata Anak

AINUL HIZRIADI , SARAH PURNAMAWATI