Prof. Dr. Drs Kerista Tarigan, M.Eng.Sc.

Lecturer of Laboratorium Elektronika Lanjutan Study Program
Fakultas Matematika Dan Ilmu Pengetahuan Alam
Universitas Sumatera Utara

kerista@usu.ac.id

USU Faculty of Mathematics and Natural Sciences

fmipa.usu.ac.id/en/lecturer/kerista-tarigan

Dr. Kerista Tarigan, M.Eng.Sc. was born in Karo on February 3, 1960, and is a lecturer in Physics at Universitas Sumatera Utara. He completed a Doctoral Program in Chemistry at USU in 2009.

Publications

2026
Jurnal internasional bereputasi

Interfacial charge redistribution and catalytic activation in rGO-supported NiO–ZnO heterostructures

Dr. KERISTA TARIGAN, M.Eng.Sc. , LISNAWATY SIMATUPANG , NUNI WIDIARTI

2024
Jurnal internasional bereputasi

Electromigration Effects in Overcurrent PVC-Insulated Copper Wire: Failure and Deformation Impacts

Dr. KERISTA TARIGAN, M.Eng.Sc.

2024
Jurnal internasional bereputasi

Fabrication and Optimization of Primary Batteries Using Ni/Graphene Nanosheet Electrodes

Dr. KERISTA TARIGAN, M.Eng.Sc.

2024
Jurnal internasional bereputasi

Enhanced Photocatalytic Activity of Cu2O/ZnO/GO Nanocomposites on the Methylene Blue Degradation

FRIKSON JONY PURBA , ZURIAH SITORUS , NURDIN SIREGAR , Dr. KERISTA TARIGAN, M.Eng.Sc.

2024
Jurnal internasional bereputasi

Enhanced Photocatalytic Activity of Cu<inf>2</inf>O/ZnO/GO Nanocomposites on the Methylene Blue Degradation

Dr. KERISTA TARIGAN, M.Eng.Sc.

2023
Prosiding seminar internasional

Lead-Free Perovskite Using Formamidinium Iodide (FAI) and Antimony Trichloride (SbCl<inf>3</inf>) By Inverse Temperature Crystallization Method: Bandgap Value UV/VIS Spectroscopy

Dr. KERISTA TARIGAN, M.Eng.Sc.

2023
Jurnal internasional bereputasi

Enhanced Photocatalytic Activity of Cu2O/ZnO/GO Nanocomposites on the Methylene Blue Degradation

ZURIAH SITORUS , Dr. KERISTA TARIGAN, M.Eng.Sc.

2023
Prosiding seminar internasional

The analysis of tidal, wave, and swell of tidal flood incidence in Belawan on 17 October 2020

MARZUKI SINAMBELA , Dr. KERISTA TARIGAN, M.Eng.Sc. , CHRISTEN ORDAIN NOVENA MARPAUNG

2023
Jurnal nasional terakreditasi

Identification of Rainfall events on Climate Phenomena in Medan based on Machine Learning

YAHYA DARMAWAN , Dr. KERISTA TARIGAN, M.Eng.Sc. , RICHARD MAHENDRA PUTRA , DEASSY EIRENE DIANA DOLOKSARIBU

2023
Jurnal nasional terakreditasi

Implementation of Monte Carlo Simulation in Evaluation of The Uncertainty of Rainfall Measurement

YAHYA DARMAWAN , Dr. KERISTA TARIGAN, M.Eng.Sc. , MARDININGSIH , MARHAPOSAN SITUMORANG , SYAHRUL HUMAIDI , ROMEO KONDOUW

2023
Jurnal nasional terakreditasi

Development of an Automated Temperature Calibration Monitoring System Using Internet of Things for the Regional Meteorology, Climatology, and Geophysics Agency (Bmkg) in Medan

YAHYA DARMAWAN , Dr. KERISTA TARIGAN, M.Eng.Sc. , SYAHRUL HUMAIDI , HUMAM MAULANA

2023
Jurnal nasional

Design of Fiber Optic Load Sensor for Low-Load Detection Using Microbending Method

Dr. KERISTA TARIGAN, M.Eng.Sc.

2022
Prosiding seminar internasional

Effect of post-consumer plastic polyethylene and grafted maleic anhydride on polyethylene (PE-g-MA) additive on the properties of asphalt binder

WINSYAH PUTRA RITONGA , SYAHRUL HUMAIDI , Dr. KERISTA TARIGAN, M.Eng.Sc. , MOTLAN , EDDIYANTO

2022
Prosiding seminar internasional

Power setting based on load using phase control on conveyor system

SYAHRUL HUMAIDI , Dr. KERISTA TARIGAN, M.Eng.Sc.

2021
Jurnal internasional bereputasi

Visualization of Fire Weather Index in Aek Godang Based on the Machine Learning Approach

Dr. KERISTA TARIGAN, M.Eng.Sc.

2021
Jurnal internasional bereputasi

Synthesis and characterization of nanoparticles Zn0. 7Ni0. 15Cu0. 15Fe2O4 using the co-precipitation method

Dr. KERISTA TARIGAN, M.Eng.Sc.

2021
Jurnal internasional bereputasi

Degradation studies of MASbCl3 with a variety of DMF and DMSO solvents: A lead-free perovskite

Dr. KERISTA TARIGAN, M.Eng.Sc.

2021
Jurnal internasional bereputasi

Simulation of atmospheric dynamics during heavy rain events on Nias Island using WRF model and Himawari-8 satellite data

Dr. KERISTA TARIGAN, M.Eng.Sc.

2021
Jurnal internasional bereputasi

Synthesis and characterization of nanoparticles Zn0.7Ni0.15Cu0.15Fe2O4 using the co-precipitation method

Dr. KERISTA TARIGAN, M.Eng.Sc.

2021
Jurnal internasional bereputasi

Characterization of indicator electrodes using the potentiometric biosensor method as urea sensor with XRD, SEM-EDS, UV-Vis and FTIR

Dr. KERISTA TARIGAN, M.Eng.Sc.

2021
Jurnal internasional bereputasi

Cluster analysis and seismicity partioning for northern sumatera using machine learning approach

Dr. KERISTA TARIGAN, M.Eng.Sc.

2021
Jurnal internasional bereputasi

Investigation of chaos behaviour on damped and driven nonlinear simple pendulum motion simulated by mathematica

Dr. KERISTA TARIGAN, M.Eng.Sc.

2021
Jurnal internasional bereputasi

Waveforms Classification of Northern Sumatera Earthquakes for New Mini Region Stations Using Support Vector Machine

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

Design of solar power system for the new mini region of broadband seismometer shelter in Tiganderket, Karo, North Sumatera, Indonesia

Dr. KERISTA TARIGAN, M.Eng.Sc. , MARHAPOSAN SITUMORANG , SYAHRUL HUMAIDI

2020
Jurnal internasional bereputasi

Development and testing of an advance seismic monitoring to evaluate the performance of new mini region in the onan ganjang station

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

Manufacture of High Current Low Voltage Power Supply with Using the Mot (Microwave Oven Transformer)

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

Analyzing of Phase Change on Binary Alloy System Pt1-X Mnx (X= 17.5 At.%) By Diffraction Method

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

Detection of Background Seismic Noise on Selected Digital Broadband Network Stations: Tarutung Earthquake

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

Analyzing of Phase Change on Binary Alloy System Pt1-X Mnx (X=17.5 At. %) by Diffraction Method

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

Time-Frequency Analysis of Digital Broadband Station Based on Padang Lawas Earthquake

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

An Application of Power Spectral Density and Probability Density Function for Seismic Mini Region Stations Performance: Padang Lawas Earthquake

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

Detection of Background Seismic Noise on Selected Digital Broadband Network Stations:Tarutung Earthquake

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

Time Frequency Signal Classification Using Continuous Wavelet Transformation

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

Classification of seismic signal by evaluating broadband networks station in sumatera fore-arc

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

Characterization of k175 concrete sni standards using volcanic ash aggregates with variation in composition

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

Integrated high voltage generator with ATmega 328 microcontroller using flyback transformer

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

Effect of capacitance of graphene coated electrodes on supercapacitor by charging and discharging method

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

Wavelet based machine learning approach for spectral seismic signal analysis: A case study North Tapanuli earthquake

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

High voltage designed and pulsed electric field circuit using standard sphere-gap method

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

Machine learning approach for turbulence forecasting using support vector machine

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

Automatic and Realtime Control of pH Level in Water Catfish Cultivation

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

An Automatic and Realtime Control of Ammonia Concentration in Catfish Pond Water Based on MQ137 Sensor

Dr. KERISTA TARIGAN, M.Eng.Sc.

2020
Jurnal internasional bereputasi

Influence of Impulse-Electric Field on Dielectric Properties of Nerve Membranes

Dr. KERISTA TARIGAN, M.Eng.Sc.

2019
Jurnal internasional bereputasi

Classification of Nuclear Explosion Earthquake Signal based on Machine Learning Approach

Dr. KERISTA TARIGAN, M.Eng.Sc.

2019
Jurnal internasional bereputasi

Simple Designed of High Voltage Pulsed Electric Field Generator Based on Fly-back Transformer

Dr. KERISTA TARIGAN, M.Eng.Sc.

2019
Jurnal internasional bereputasi

Time Resolved Spectroscopy Using Boxcar Integrator

Dr. KERISTA TARIGAN, M.Eng.Sc.

2019
Jurnal internasional bereputasi

Fluorescence Spectra Measurement of Essential Oils

Dr. KERISTA TARIGAN, M.Eng.Sc.

2019
Jurnal internasional bereputasi

Characterization of Membrane PVA_Enzyme Coated PVC-KTpCIPB as Urea Sensor with Potentiometric Method

Dr. KERISTA TARIGAN, M.Eng.Sc.

2019
Jurnal nasional

A Adjustable power supply assembly and training on the physics laboratory at YPK Masehi Berastagi

Dr. KERISTA TARIGAN, M.Eng.Sc.

2019
Jurnal internasional bereputasi

Manufacture and Determination of Absorbent in Bolus Radiotherapy Based On Alginate Using of 8 MeV and 10 MeV Energy

Dr. KERISTA TARIGAN, M.Eng.Sc.

2019
Jurnal nasional

Machine Learning for Handoffs Classification Based on Effective Communication History

Dr. KERISTA TARIGAN, M.Eng.Sc.

2019
Jurnal internasional bereputasi

Characterization of membrane PVA-enzyme coated PVC-KTpCLPB as urea sensor with potentiometric method

KERISTA TARIGAN

2018
Jurnal internasional bereputasi

The Characteristics Influence of the Seismic Signal Noise Using Spectral Analysis

Dr. KERISTA TARIGAN, M.Eng.Sc.

2018
Jurnal internasional bereputasi

Synthesis of Urea Sensors using Potentiometric Methods with Modification of Electrode Membranes Indicators of ISE from PVA-Enzymes Coating PVC-KT <inf>p</inf> ClPB

Dr. KERISTA TARIGAN, M.Eng.Sc.

2018
Jurnal internasional bereputasi

Machine Learning for Waveform Spectral Analysis on Nuclear Explosion Signal and Performance of Broadband Vertical Component

Dr. KERISTA TARIGAN, M.Eng.Sc.

2018
Jurnal internasional bereputasi

Waveform analysis of broadband seismic station using machine learning Python based on Morlet wavelet

Dr. KERISTA TARIGAN, M.Eng.Sc.

2018
Jurnal nasional

Machine Learning For Waveform Spectral Analysis On Signal Seismic With Broadband Vertical Component

Dr. KERISTA TARIGAN, M.Eng.Sc.

2018
Jurnal internasional bereputasi

THE CHARACTERISTICS MEMBRANE PVA-ENZYME AND COATING PVCPLASTICIZER WITH SEM-EDX

Dr. KERISTA TARIGAN, M.Eng.Sc.

2018
Jurnal nasional terakreditasi

Analysis Perhitungan Group Delay pada Device Optik dengan Menggunakan Metoda Transfer Function

Dr. KERISTA TARIGAN, M.Eng.Sc.

2018
Jurnal internasional bereputasi

Synthesis of Urea Sensors using Potentiometric Methods with Modification of Electrode Membranes Indicators of ISE from PVA-Enzymes Coating PVC-KTpClPB

Dr. KERISTA TARIGAN, M.Eng.Sc.

2016
Jurnal nasional

Pembuatan dan Pengujian Membrane Capasitive Deionization Menggunakan Material Karbon Aktif Tempurung Kelapa Sebagai Pemurni Kesadahan

Dr. KERISTA TARIGAN, M.Eng.Sc.

2012
Jurnal nasional

Proses Permeabilisasi Non-Thermal Dengan Metode lmbas Medan Elektrik

Dr. KERISTA TARIGAN, M.Eng.Sc.

Researches

2025
Penelitian Kerjasama Antar Perguruan Tinggi

PABRIKASI N-GRAFENA/ZnO/MnO2 DARI CANGKANG KEMIRI PADA NICKEL FOAM SEBAGAI SUPERKAPASITOR

NUNI WIDIARTI , LISNAWATY SIMATUPANG , Dr. KERISTA TARIGAN, M.Eng.Sc.

2025

PABRIKASI N-GRAFENA/ZnO/MnO2 DARI CANGKANG KEMIRI PADA NICKEL FOAM SEBAGAI SUPERKAPASITOR

NUNI WIDIARTI , Dr. KERISTA TARIGAN, M.Eng.Sc.

Community Services

2025

Pengurus Physical society of Indonesia Cabang Sumatera Utara Periode 2021 2026

RUGAYA , Dr. KERISTA TARIGAN, M.Eng.Sc.

2024

Pengurus Physical society of Indonesia Cabang Sumatera Utara Periode 2021 2026

ALKHAFI MAAS SIREGAR , RUGAYA , Dr. KERISTA TARIGAN, M.Eng.Sc.

2019
Ipteks

PEMBELAJARAN DAN PELATIHAN ELEKTRONIKA SERTA PEMBUATAN POWER SUPPLY PADA LAB. FISIKA DI YPK MASEHI BERASTAGI

TIMBANGEN SEMBIRING , Dr. KERISTA TARIGAN, M.Eng.Sc.

2022

PENGABDIAN KEPADA MASYARAKT

TIMBANGEN SEMBIRING , Dr. KERISTA TARIGAN, M.Eng.Sc.