

# Azhari, S.Pd., M.Si

Dosen Program Studi S1 Fisika  
Fakultas Matematika Dan Ilmu Pengetahuan Alam  
Universitas Sumatera Utara

✉ azhari@usu.ac.id

🏢 Fakultas Matematika dan Ilmu Pengetahuan Alam

🌐 [fmipa.usu.ac.id/id/dosen/azhari](http://fmipa.usu.ac.id/id/dosen/azhari)

*Azhari, S.Pd., M.Si dilahirkan di Kabupaten Labuhanbatu pada tanggal 22 November 1990. Beliau merupakan seorang dosen Fisika di Universitas Sumatera Utara. Beliau menyelesaikan pendidikan terakhirnya pada jenjang Magister (S2) Fisika di Universitas Sumatera Utara pada tahun 2014.*

---

## Publications

---

2022

Prosiding seminar internasional

### **Hydrolysis of alkaline treatment and characterization of cellulose fibrils from processing waste of bengkoang water-soluble polysaccharide**

ADRIAN HILMAN , AZHARI , TERIP KARO KARO

2021

Jurnal nasional terakreditasi

### **Cultivation Of Bsf (Black Soldier Fly) As Fish Feed In Sukamaju District, Binjai Barat Sub-District, Binjai City**

LUKMAN HAKIM , AZHARI , ACHMAD SADELI , ADRIAN HILMAN , DELIMA LAILAN SARI NASUTION

2025

Buku referensi

### **Fisika Stokastik: Teori dan Aplikasi dalam Sosiofisika**

RUSTAN , ACEP PURQON , AZHARI

2021

Prosiding seminar internasional

### **Effect of temperature and time treatment of Ultrasound-assisted extraction on the properties of bengkoang water-soluble polysaccharides**

ADRIAN HILMAN , ISMED SUHAIDI , AZHARI

2022

Jurnal nasional terakreditasi

### **Construction of Biopond Houses to Increase BSF Maggot Production in the Context of Reducing Organic Waste in Medan**

DELIMA LAILAN SARI NASUTION , AZHARI , LUKMAN HAKIM

2024

Jurnal internasional bereputasi

### **Independence role in the generalized Sznajd model**

AKBAR RIZKI , CAKRA ADIPURA WICAKSANA , AZHARI , HENI INDRAYANI , DIDI AHMAD MULYA , Roni Muslim

2020

Jurnal nasional terakreditasi

### **Analisis Regresi Alat Ukur Emisi Gas Karbonmonoksida Berbasis Arduino Uno**

AZHARI , LUKMAN HAKIM

2021

Jurnal internasional

### **Chemical properties of Bengkuang (Pachyrhizus erosus L.) water-soluble**

## **polysaccharide by ultrasound-Assisted extraction**

AZHARI

2020

Prosiding seminar internasional

### **Mapping earthquake level using probabilistic seismic hazard analysis (PSHA) method in Banjarnegara district**

AZHARI

2023

Prosiding seminar internasional

### **Geomorphological characteristic of Bandar Lampung City and landslide hazard assessment**

AZHARI

2022

Buku referensi

### **Penggunaan Melt Flow Index Tester untuk Menentukan Nilai MFR dan MVR Suatu Polimer**

AZHARI , ARIF NURYAWAN

2021

Jurnal nasional terakreditasi

### **Manufacture of Non-Contact Hand Washing Equipment as a Prevention of Transmission of the SARS Cov-2 Virus at the Al-Buchari Mosque, Johor Building Village, Medan Johor District**

AZHARI

2023

Prosiding seminar internasional

### **Geomorphological Characteristic of Bandar Lampung City and Landslide Hazard Assessment**

AMINUDIN SYAH , RAHMI MULYASARI , AZHARI , RAHMAT CATUR WIBOWO , NANDI HAERUDIN

2019

Jurnal nasional terakreditasi

### **Animal health counseling and animal husbandry management towards smart, creative and independent**

AZHARI , Surya Prayoga , RIZQI HAWARI HASIBUAN

2022

Jurnal internasional

### **Design and control system of temperature and water level in hydroponic plants**

AZHARI

2023

Jurnal internasional

### **Independence role in the generalized sznajd model**

AZHARI , CAKRA ADIPURA WICAKSANA , AKBAR RIZKI , HENI INDRAYANI , Roni Muslim

2023

Prosiding seminar internasional

### **MPU-6050 Wheeled Robot Controlled Hand Gesture Using L298N Driver Based on Arduino**

AZHARI , TULUS IKHSAN NASUTION

2021

Prosiding seminar internasional

### **Chemical properties of Bengkuang (*Pachyrhizus erosus* L.) water-soluble polysaccharide by ultrasound-assisted extraction**

ADRIAN HILMAN , AZHARI , ISMED SUHAIDI

2022

Jurnal internasional bereputasi

### **The external field effect on the opinion formation based on the majority rule**

## **and the q -voter models on the complete graph**

Roni Muslim , AZHARI

2023

Prosiding seminar internasional

### **Design of Monitoring System Temperature And Humidity Using DHT22 Sensor and NRF24L01 Based on Arduino**

TULUS IKHSAN NASUTION , SUDIATI , AZHARI

2022

Jurnal nasional terakreditasi

### **Manufacture of Non-Contact Hand Washing Equipment as a Prevention of Transmission of the SARS Cov-2 Virus at the Al-Buchari Mosque, Johor Building Village, Medan Johor District, Medan City**

AZHARI , ZIKRI NOER , SUDIATI , TULUS IKHSAN NASUTION , RAHMADHANI BANUREA , LUKMAN HAKIM

2022

Jurnal internasional bereputasi

### **The external field effect on the opinion formation based on the majority rule and the -voter models on the complete graph**

Roni Muslim , AZHARI

2019

Jurnal nasional

### **Community empowerment through making maroca (mangrove root craft) in village Tanjung Rejo, Kecamatan Percut Sei Tuan, Sumatera Utara**

RIDAHATI RAMBEY , IPANNA ENGGAR SUSETYA , ASTRID FAUZIA DEWINTA , AZHARI , SUDIATI

2021

Prosiding seminar internasional

### **Improvement of the composition value of commercial fish feeds with additional waste of torpedo scad fish scales, water hyacinth, and taro leaves**

ADRIAN HILMAN , TULUS IKHSAN NASUTION , AZHARI

2022

Prosiding seminar internasional

### **Design and control system of temperature and water level in hydroponic plants**

AZHARI , LUKMAN HAKIM

2021

Jurnal nasional terakreditasi

### **Cultivation Of Bsf (Black Soldier Fly) As Fish Feed In Sukamaju District, Binjai Barat Sub-District, Binjai City**

ADRIAN HILMAN , DELIMA LAILAN SARI NASUTION , LUKMAN HAKIM , AZHARI , ACHMAD SADELI

2020

Jurnal nasional terakreditasi

### **River Water Purifier as an Alternative for Clean Water Supply in Sei Siarti Village, Panai Tengah District, Labuhanbatu Regency**

KOKO SUJATMOKO , ASTRID FAUZIA DEWINTA , AZHARI , TULUS IKHSAN NASUTION

2023

Jurnal nasional terakreditasi

### **Automatic Wood Cutting Technology and Marketing Digitalization in Wood Processing Businesses in Marindal 1 Village, Patumbak District, Deli Serdang Regency**

AZHARI , JAJANG SUTIAWAN

2019

Jurnal nasional terakreditasi

### **Exclusive breastfeeding counseling and free health checks as efforts to improve community healthy awareness**

AZHARI , DARA MAULIDA , FIRDA AMALIA ANGKAT

# Researches

---

2021

Penelitian Dosen Pemula

## **Pemanfaatan Insoluble Fiber dari Pengolahan Polisakarida Larut Air Bengkoang (*Pachyrhizus erosus*) menjadi Selulosa Nanofiber dalam Pembuatan Film Bionanokomposit Berbasis Pati**

ADRIAN HILMAN , AZHARI , TERIP KARO KARO , HALIMATUS SAKDIAH , NABILAH ARGHINA SALMA

2019

Penelitian Dosen Pemula

## **Visualisasi Kondisi Kualitas Udara di Kota Medan**

AZHARI , LUKMAN HAKIM

2020

Penelitian Dosen Pemula

## **Karakterisasi Kimia dan Sifat Fungsional Polisakarida Larut Air Bengkoang (*Pachyrhizus erosus*)**

ADRIAN HILMAN , AZHARI , ISMED SUHAIDI , HALIMATUS SAKDIAH , PUTRI TASYA NURHALIZA

2021

## **Perancangan Sistem Pengukur Kapasitas Ruangan dan Pendeteksi Suhu Tubuh Berbasis Internet of Things**

AZHARI , LUKMAN HAKIM , HERTIKA HANDAYANI MARBUN

2021

## **Perancangan Sistem Kontrol Suhu dan Level Air pada Budidaya Tanaman Hidroponik**

AZHARI , LUKMAN HAKIM , DERVIN SIMANUNTAK

2020

Penelitian Dosen Pemula

## **Perbaikan Sifat Fisika dan Nilai Komposisi pada Pelet Ikan Komersil dengan Penambahan Limbah Sisik Ikan Tetengkek, Eceng Gondok, dan Daun Talas**

ADRIAN HILMAN , AZHARI , TULUS IKHSAN NASUTION

2023

Penelitian Kerjasama Antar Perguruan Tinggi

## **Penyebaran Rumor pada Jaringan Sosial dalam Pengaruh Media Massa**

AZHARI , HENI INDRAYANI , AKBAR RIZKI , CAKRA ADIPURA WICAKSANA , A. TAMIMI NURROHMAN , Roni Muslim

2021

## **Perancangan Sistem Kontrol Suhu dan Level Air pada Budidaya Tanaman Hidroponik**

AZHARI , LUKMAN HAKIM , DERVIN SIMANUNTAK

# Community Services

---

2021

Penelitian Dosen Pemula

## **TEKNOLOGI PENGOLAHAN KULIT DAN BIJI DURIAN SEBAGAI PAKAN MAGGOT BLACK SOLDIER FLY (BSF) DI KELURAHAN TERJUN KECAMATAN MEDAN MARELAN KOTA MEDAN**

AZHARI , DELIMA LAILAN SARI NASUTION , LUKMAN HAKIM

2020

Ipteks Bagi Masyarakat

## **Alat Penjernih Air Sungai Sebagai Solusi Alternatif Ketersediaan Air Bersih di Desa Sei Siarti Kecamatan Panai Tengah Kabupaten Labuhanbatu**

AZHARI , KOKO SUJATMOKO , TULUS IKHSAN NASUTION , ASTRID FAUZIA DEWINTA

2019  
Ipteks Bagi Kewirausahaan

## **Pemberdayaan Masyarakat melalui Pembuatan Maroca (Mangrove Root Craft) di Desa Tanjung Rejo, Kecamatan Percut Sei Tuan, Sumatera Utara**

AZHARI , SUDIATI , ASTRID FAUZIA DEWINTA , IPANNA ENGGAR SUSETYA

2022  
Ipteks Bagi Masyarakat

## **Alat Sistem Kontrol PH dan Nutrisi Pada Hidroponik Binjai**

ADRIAN HILMAN , AZHARI , LUKMAN HAKIM , TAMARA BLESJINKI SIJABAT

2022

## **Teknologi Pemotong Kayu Otomatis serta Digitalisasi Pemasaran pada Usaha Pengolahan Kayu di Desa Marindal 1, Kecamatan Patumbak, Kabupaten Deli Serdang**

AZHARI , JAJANG SUTIAWAN , NADIA PERMATA SARI GIRSANG , MARSINTA ULI SINURAT , ANGEL GRACIANA SIHOMBING

2020  
Ipteks Bagi Masyarakat

## **Pengembangbiakan BSF (Black Soldier Fly) Sebagai Pakan Ikan di Desa Sukamaju, Kecamatan Binjai Barat Kota Binjai**

ACHMAD SADELI , ADRIAN HILMAN , AZHARI , DELIMA LAILAN SARI NASUTION , LUKMAN HAKIM

# **Intellectual Property Rights**

---

2019  
Hak cipta nasional

## **Pengembangan Budidaya Maggot Black Soldier Fly (BSF) Di KUB Pondok Maggot Marelán, Kota Medan**

AZHARI

2019  
Hak cipta nasional

## **Pengembangan Budidaya Maggot Black Soldier Fly (BSF) Di KUB Pondok Maggot Marelán, Kota Medan**

AZHARI

2019  
Patén nasional

## **FORMULASI PAKAN IKAN APUNG BERBAHAN SISIK IKAN TETENGKEK (Megalopsis Cordyla)**

AZHARI , Sally Irvina Ritonga , Ilham Pangestu , TULUS IKHSAN NASUTION

2019  
Hak cipta nasional

## **Penggunaan Melt Flow Index Tester untuk Menentukan Nilai MFR dan MVR Suatu Polimer**

ARIF NURYAWAN , AZHARI

2019  
Hak cipta nasional

## **Pengembangan Media E-Learning Fisika**

AZHARI