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## Publications

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2017

Jurnal nasional

**Pengaruh Aerasi Bertingkat dengan Kombinasi Saringan Pasir, Karbon Aktif, dan Zeolit dalam Menyisihkan Parameter Fe dan Mn dari Air Tanah di Pesantren Ar-Ra...**

HAFIZHUL KHAIR A.M.

2016

Jurnal nasional

**ANALISIS ISOPHLET KONSENTRASI DAN ESTIMASI POTENSI PENURUNAN KARBON MONOKSIDA DI KOTA MEDAN**

HAFIZHUL KHAIR A.M. , ISRA SURYATI

2017

Jurnal nasional terakreditasi

**Pemanfaatan Titanium Dioxide pada Trotoar untuk Mengurangi Gas Pencemar NOx di Udara**

HAFIZHUL KHAIR A.M.

2023

Jurnal internasional bereputasi

**Potential Risks of Open Waste Burning at the Household Level: A Case Study of Semarang, Indonesia**

HAFIZHUL KHAIR A.M.

2023

Tulisan ilmiah

**Geotourism and Rural Development, Baktiraja Subsub-District: Case Study Toba Caldera Area Humbang Hasundutan Regency**

HAFIZHUL KHAIR A.M. , GUSTANTO , SAID MUZAMBIQ

2020

Jurnal nasional terakreditasi

**Pengembangan Sistem Pengelolaan Sampah Kawasan Wisata Pantai Kota Pariaman dengan Pendekatan Reduce-Reuse-Recycle**

HAFIZHUL KHAIR A.M.

2018

Jurnal internasional bereputasi

**Analysis of Air Quality Index Distribution of PM10 and O3 Concentrations in Ambient Air of Medan City, Indonesia**

ISRA SURYATI , HAFIZHUL KHAIR A.M.

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2017

Makalah ilmiah

### **Mapping air quality index of carbon monoxide (CO) in Medan city**

HAFIZHUL KHAIR A.M. , ISRA SURYATI

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2026

Jurnal internasional bereputasi

### **Multi-Stakeholder Synergy in Waste Management Toward a Clean and Sustainable North Sumatra**

ZAID PERDANA NASUTION , VITA CITA EMIA TARIGAN , ODING AFFANDI , HAFIZHUL KHAIR A.M. , DR AFRIADI SANUSI

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2023

Jurnal internasional bereputasi

### **Potential Risks of Open Waste Burning at the Household Level: A Case Study of Semarang, Indonesia**

HAFIZHUL KHAIR A.M. , BIMASTYAJI SURYA RAMADAN , INDRIYANI RACHMAN , Syafrudin , MUNAWIR

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2018

Makalah ilmiah

### **Examining of solid waste generation and community awareness between city center and suburban area in Medan City, Indonesia**

HAFIZHUL KHAIR A.M.

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2018

Makalah ilmiah

### **Flood prediction, its risk and mitigation for the Babura River with GIS**

HAFIZHUL KHAIR A.M.

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2023

Prosiding seminar internasional

### **Study of the Effectiveness of Using Natural Gas as an Effort to Reduce Conventional Emission Load at Gas and Steam Power Plant in Medan City**

HAFIZHUL KHAIR A.M. , ISRA SURYATI , YOHANA BETARIA PERMATA SAMOSIR , Suyanto , Randy Zulkarnain

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2017

Makalah ilmiah

### **Analisis Mitigasi Banjir di Daerah Aliran Sungai Babura Berbasis Sistem Informasi Geografis (SIG)**

HAFIZHUL KHAIR A.M.

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2017

Jurnal nasional

### **Perancangan sistem sanitasi lingkungan di posko bencana Sinabung Konco Kecamatan Tigan Derket**

HAFIZHUL KHAIR A.M.

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2019

Jurnal internasional

### **Environmental and Economic Assessment of Solid Waste Bank Activities in Indonesia: a Case Study of Medan City**

HAFIZHUL KHAIR A.M.

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2020

Jurnal nasional

### **Application of ultraviolet light as an indoor disinfectant**

HAFIZHUL KHAIR A.M.

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2023

Jurnal internasional bereputasi

### **Analysis of Factors Influencing Illegal Waste Dumping Generation Using GIS Spatial Regression Methods**

HAFIZHUL KHAIR A.M.

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2019

Jurnal nasional terakreditasi

### **Material Flow Analysis of Waste Bank Activities in Indonesia: Case Study of**

## Medan City

HAFIZHUL KHAIR A.M.

2025

Hasil penelitian/pemikiran yang tidak dipublikasikan

### **Strategi Pengelolaan Air Hujan melalui Sumur Laluan dan Pengelolaan Sampah sebagai Upaya Mitigasi Genangan Banjir untuk Keberlanjutan Lingkungan**

NOVRIAL , HAFIZHUL KHAIR A.M. , ELIMASNI

2017

Jurnal nasional

### **Pengaruh Aerasi Bertingkat dengan Kombinasi Saringan Pasir, Karbon Aktif, dan Zeolit dalam Menyisihkan Parameter Fe dan Mn dari Air Tanah di Pesantren Ar-Raudhatul Hasanah**

HAFIZHUL KHAIR A.M.

2019

Jurnal internasional bereputasi

### **Analyzing household waste generation and its composition to expand the solid waste bank program in Indonesia: a case study of Medan City**

HAFIZHUL KHAIR A.M.

2025

Artikel ilmiah

### **Material Flow Analysis of Solid Waste Management System in Medan City**

IRA RUMIRIS HUTAGALUNG , HAFIZHUL KHAIR A.M. , INDRIYANI RACHMAN , TORU MATSUMOTO

2019

Makalah ilmiah

### **Study of household solid waste generation and composition in Medan City, Indonesia; A case study in Medan Labuhan and Medan Tuntungan**

HAFIZHUL KHAIR A.M.

2025

Jurnal internasional bereputasi

### **Potential exposure to metals-bound particulate during open burning of different waste materials**

HAFIZHUL KHAIR A.M.

2026

Jurnal internasional bereputasi

### **The relevancy-analysis of air quality index to Acute Respiratory Infection (ARI) in A landfill site of Medan**

HAFIZHUL KHAIR A.M.

2020

Jurnal nasional terakreditasi

### **PARTICIPATION OF LEADERS AND COMMUNITY IN SOLID WASTE MANAGEMENT IN INDONESIA TO REDUCE LANDFILL WASTE LOAD**

HAFIZHUL KHAIR A.M.

## Researches

2025

Penelitian Dana Lokal Perguruan Tinggi

### **Persepsi Masyarakat Terhadap Kepuasan Pengembangan Pariwisata Bekelanjutan di Kecamatan Pangururan, Indonesia.**

HAFIZHUL KHAIR A.M. , NURLISA , WAHYUNI ZAHRAH , JULIZA HIDAYATI , BENY OCTOFRYANA YOUSCA MARPAUNG

2022

Ipteks Bagi Inovasi Kreativitas Kampus

### **RESEARCH OF GROUNDWATER QUALITY BASED ON GEOELECTRICAL AND**

## **HYDROGEOCHEMICAL PARAMETERS AROUND PESISIR BELAWAN IN MEDAN CITY, INDONESIA**

HAFIZHUL KHAIR A.M. , SAID MUZAMBIQ , MAYA SARAH , MULIANA FUDAILA , ANTI FADILAH NASUTION , MUHAMMAD VIRZA FATHULLAH

2024

### **PENELITIAN RANCANGAN SISTEM DAN RISET PRODUK TURUNAN SERTA POTENSI KOMERSIALISASI DARI PENGOLAHAN SAMPAH DOMESTIK USU MENUJU ZERO WASTE**

ZAID PERDANA NASUTION , HAFIZHUL KHAIR A.M. , ADE CANDRA

2022

### **Pemanfaatan Unmanned Aerial Vehicle, Deep Learning, dan Transect Survey untuk Pemetaan Pencemaran Lingkungan di 3 Kota Besar di Indonesia**

HAFIZHUL KHAIR A.M.

2022

### **Research Of Groundwater Quality Based On Geoelectrical And Hydrogeochemical Parameters Around Pesisir Belawan In Medan City, Indonesia**

HAFIZHUL KHAIR A.M. , SAID MUZAMBIQ , MAYA SARAH , ANTI FADILAH NASUTION , MULIANA FUDAILA , MUHAMMAD VIRZA FATHULLAH

2021

Penelitian Unggulan Perguruan Tinggi

### **Perancangan pengolahan sampah teknologi termal untuk skala komunitas**

HAFIZHUL KHAIR A.M. , ISRA SURYATI , TAUFIQ BIN NUR

2021

### **Perancangan pengolahan sampah teknologi termal untuk skala komunitas**

HAFIZHUL KHAIR A.M. , ISRA SURYATI , TAUFIQ BIN NUR

2022

Penelitian Kerjasama Antar Perguruan Tinggi

### **Pemanfaatan Unmanned Aerial Vehicle, Deep Learning, dan Transect Survey untuk Pemetaan Pencemaran Lingkungan di 3 Kota Besar di Indonesia**

HAFIZHUL KHAIR A.M. , Syafrudin , MUNAWIR

2021

### **Model Pemetaan Daerah Rawan Banjir Rob untuk Langkah Mitigasi di Wilayah Medan Utara**

HAFIZHUL KHAIR A.M. , AHMAD PERWIRA MULIA TARIGAN

2020

Penelitian Dosen Pemula

### **Pemanfaatan Larva Black Soldier Fly (Hermetia Ollucens) Dalam Pengolahan Sampah Pasar dan Restoran**

HAFIZHUL KHAIR A.M. , ISRA SURYATI

2024

### **Rancangan Sistem dan Riset produk Turunan Serta Potensi Komersialisasi Dari pengolahan Sampah Domestik USU menuju Zero Waste**

ZAID PERDANA NASUTION , HAFIZHUL KHAIR A.M.

2016

Penelitian Dosen Pemula

### **Pemetaan Kualitas Udara Ambien di Kota Medan**

HAFIZHUL KHAIR A.M. , ISRA SURYATI

## **Community Services**

2022

Ipteks Bagi Masyarakat

## **Sosialisasi Dan Edukasi Mitigasi Bencana Banjir Lahar Dingin Gunung Sinabung Di Kecamatan Tiganderket, Kabupaten Karo Provinsi Sumatera Utara**

GUSTANTO , HAFIZHUL KHAIR A.M.

2024

## **Laporan Indeks Kualitas Lingkungan Hidup Kabupaten Langkat Tahun 2024**

HAFIZHUL KHAIR A.M. , ISRA SURYATI

2021

Ipteks Bagi Masyarakat

## **Geowisata Dan Pengembangan Pedesaan Kecamatan Baktiraja Studi Kasus : Kawasan Kaldera Toba Kabupaten Humbang Hasundutan Provinsi Sumatera Utara**

GUSTANTO , HAFIZHUL KHAIR A.M. , SAID MUZAMBIQ , Mikael Manalu

2015

Ipteks Bagi Masyarakat

## **Pengabdian Masyarakat Mono Tahun USU-Penerapan Teknologi Penjernihan Air dan Distribusi Air Bersih untuk Konsumsi Masyarakat Desa Pasca Erupsi Gunung Sinabung (Studi Kasus: Desa Jandi Meriah dan Desa Kuta Mbaru, Kecamatan Tiganderket, Kabupaten Karo)**

HAFIZHUL KHAIR A.M. , AHMAD PERWIRA MULIA TARIGAN , ISRA SURYATI

2022

Ipteks Bagi Masyarakat

## **Sosialisasi Dan Edukasi Mitigasi Bencana Banjir Lahar Dingin Gunung Sinabung di Kecamatan Tiganderket, Kabupaten Karo Provinsi Sumatera Utara**

ZAID PERDANA NASUTION , HAFIZHUL KHAIR A.M. , SAID MUZAMBIQ , YEMIMA TRININA BANGUN

2016

Ipteks Bagi Masyarakat

## **Pengabdian Masyarakat Mono Tahun USU-Penerapan Teknologi Penjernihan Air Bersih dan DIstribusi Air Bersih untuk Konsumsi Terdampak Erupsi Gunung Sinabung dan Santri/Wati Pesantren (Studi Kasus: Posko Pengungsian Gudang Konco/Terong Peren dan Pesantrren Ar-Raudlatul Hasanaj)**

HAFIZHUL KHAIR A.M. , AHMAD PERWIRA MULIA TARIGAN , ISRA SURYATI

2025

Ipteks

## **Strategi Pengelolaan Air Hujan Melalui Sumur Lualan Dan Pengelolaan Sampah Sebagai Upaya Mitigasi Genangan Banjir Untuk Keberlanjutan Lingkungan**

ELIMASNI , HAFIZHUL KHAIR A.M. , NOVRIAL

2024

## **Kajian Pemanfaatan Sumur Lualan (Ground Water Recharge) Dalam Upaya Mengurangi Genangan Air di Kota Medan**

HAFIZHUL KHAIR A.M. , AHMAD PERWIRA MULIA TARIGAN , NOVRIAL

2015

Ipteks Bagi Kewirausahaan

## **Pengabdian Masyarakat Mono Tahun USU-Teknologi Tepat Guna Bagi Usaha Home Industri Sabun Cuci Piring Cair (Studi Kasus: Kelurahan Berngam, Kecamatan Binjai Kota, Kota Binjai, Sumatera Utara)**

HAFIZHUL KHAIR A.M. , KARTINI NOOR HAFNI , ISRA SURYATI

2019

Ipteks Bagi Masyarakat

## **Pentingnya Pendidikan Masyarakat Dan Interpretasi Dalam Konservasi Dan Geoheritage Kaldera Toba Provinsi Sumatera Utara(The Importance of Public**

# Education and Interpretation in the Conservation of Geoh heritage Toba Caldera)

HAFIZHUL KHAIR A.M. , SAID MUZAMBIQ , Waden Nainggolan

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## Intellectual Property Rights

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2020

Paten nasional

### Kandang Black Soldier Fly (BSF) Terintegrasi Untuk Pengolahan Limbah Padat Organik Restoran

HAFIZHUL KHAIR A.M.

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