Dr. Ir. Rahmi Karolina, ST., MT., IPM., GP.

Dosen Program Studi S1 Teknik Sipil
Fakultas Teknik
Universitas Sumatera Utara

rahmi.karolina@usu.ac.id

Fakultas Teknik, USU

ft.usu.ac.id/id/dosen/rahmi-karolina

Dr. Ir. Rahmi Karolina, S.T., M.T., IPM, lahir di Medan pada 18 Maret 1982, Saat ini, beliau menjabat sebagai Kepala Unit Pelaksana Teknis Laboratorium Penelitian Terpadu USU dan salah satu dosen di Departemen Teknik Sipil Fakultas Teknik USU dan juga berprofesi sebagai Insinyur Madya. Beliau memperoleh gelar Sarjana Teknik Sipil pada tahun 2005 dan Magister Teknik Sipil pada tahun 2008, dan saat ini sedang melanjutkan pendidikan doktor di Universitas Sumatera Utara.

Publications

2025
Jurnal internasional bereputasi

pH responsive natural-based hydrogel: Application in bacteria-based self-healing mortar

AGUSTINA ARI MURTI BUDI HASTUTI , PUPUT RISDANARENI , KHADIJAH , RAHMI KAROLINA , IRFAN MUSTAFA , STEFANUS ADI KRISTIAWAN , MUHAMMAD FATKURROHMAN TONTOWI , Andri Kusbiantoro

2024
Jurnal internasional bereputasi

Ecological Aspects in Urban Streetscape Design Based on Users' Preferences Towards Green City

RAHMI KAROLINA

2024
Jurnal internasional bereputasi

Physico-chemical and structural characterization of mixed natural polymer hydrogels under simulated gastrointestinal fluid

AGUSTINA ARI MURTI BUDI HASTUTI , KHADIJAH , PUPUT RISDANARENI , RAHMI KAROLINA , IRFAN MUSTAFA

2024
Jurnal internasional bereputasi

THE APPLICATION OF SUPER ABSORBENT POLYMER IN SELF-HEALING MORTAR: THE EFFECT ON MECHANICAL PROPERTIES

PUPUT RISDANARENI , KHADIJAH , RAHMI KAROLINA , AGUSTINA ARI MURTI BUDI HASTUTI , M.M.A.B. Abdullah , B SRI UMNIATI , IRFAN MUSTAFA

2024
Jurnal internasional bereputasi

The Application of Super Absorbent Polymer in Self-Healing Mortar: The Effect on Mechanical Properties

AGUSTINA ARI MURTI BUDI HASTUTI , PUPUT RISDANARENI , RAHMI KAROLINA , KHADIJAH , B SRI UMNIATI , IRFAN MUSTAFA , Muhammad Mustafa Al Bakri Abdullah

2024
Prosiding seminar internasional

Sustainable Streetscape Design Based on Functional Aspects Case Study: Medan City, Indonesia

RAHMI KAROLINA

2024
Jurnal internasional bereputasi

Application of Pervious Concrete Principles on U-Ditch Covers in Overcoming Puddles

RAHMI KAROLINA

2024
Book chapter internasional

Study on Compressive Strength of Geopolymer Mortar Based on Fly Ash and GGBFS with Various Molar Variations

RAHMI KAROLINA

2023
Prosiding seminar internasional

Compressive strength of geopolymer concrete from volcanic ash calcination

ING JOHANNES TARIGAN , RAHMI KAROLINA

2023
Jurnal internasional bereputasi

Physical and mechanical properties of commercial fish feed with addition of fish scales and starch

ANTOMI SAREGAR , ADRIAN HILMAN , RAHMI KAROLINA , Azhari , Rahmi Mulyasari

2023
Prosiding seminar internasional

Physical and mechanical properties of commercial fish feed with addition of fish scales and starch

ADRIAN HILMAN , AZHARI , RAHMI KAROLINA

2022
Jurnal internasional bereputasi

Synthesis of Volcanic Ash-based Geopolymer Mortar Designed by the Taguchi Method

ING JOHANNES TARIGAN , RAHMI KAROLINA

2022
Buku referensi

Karakterisasi Termal Material Menggunakan Differential Scanning Calorimetry

AZHARI , RAHMI KAROLINA

2022
Prosiding seminar internasional

Effect of volcanic ash as partial replacement of groundgranulated blast-furnace slag based alkaline activated mortar

RAHMI KAROLINA , ING JOHANNES TARIGAN

2020
Jurnal internasional

The effect of rice straw fiber addition as sound silencer and its effect to concrete mechanical properties

RAHMI KAROLINA

2020
Jurnal internasional

The analysis of tensile strength and elasticity in slag concrete with curing variations at 90 days age

RAHMI KAROLINA

2020
Jurnal internasional

Compressive and tensile strength of bamboo species

RAHMI KAROLINA

2020
Jurnal internasional

Crack Patterns Analysis on Structural Beam with Slag Cement

RAHMI KAROLINA

2020
Jurnal internasional

Effect of shape of test specimen on the shear strength of bamboo from eastern region of sumatera utara

RAHMI KAROLINA

2020
Jurnal internasional

Comparison of The Effect of Steel Slag Usage As a Fine Aggregate Against Compressive Strength And Flexture on Reinforced Concrete With Normal Concrete (Experimental Study)

RAHMI KAROLINA

2020
Jurnal internasional

Geopolymer Concrete Made From Volcanic Ash of Mount Sinabung

RAHMI KAROLINA

2020
Jurnal internasional

Shear behavior of interlocking masonry brick wall portal with the substitution of Mount Sinabung volcanic ash against pushover static load

RAHMI KAROLINA

2020
Jurnal internasional

Effect of various commercial of Na2SiO3 on compressive strength of Fly ash-based alkaline activated mortar

RAHMI KAROLINA

2020
Jurnal internasional

Shear behavior of interlocking masonry brick wall portal with the substitution of Mount Sinabung vol

RAHMI KAROLINA

2020
Jurnal internasional

Effect of various commercial of Na<inf>2</inf>SiO<inf>3</inf> on compressive strength of Fly ash-bas

RAHMI KAROLINA

2020
Jurnal internasional

The analysis of tensile strength and elasticity in slag concrete with curing variations at 90 days a

RAHMI KAROLINA

2020
Jurnal internasional

Integrated systems of major drainage and minor drainage towards low impact development

RAHMI KAROLINA

2020
Jurnal internasional

Effect of shape of test specimen on the shear strength of bamboo from eastern region of sumatera uta

RAHMI KAROLINA

2020
Jurnal internasional

Analysis of mechanical and physical behaviour of post-burn concrete

RAHMI KAROLINA

2020
Jurnal internasional

The effect of rice straw fiber addition as sound silencer and its effect to concrete mechanical prop

RAHMI KAROLINA

2020
Jurnal internasional

Modified strength of materials and energy approach to determine effective properties of piezoelectri

RAHMI KAROLINA

2020
Jurnal internasional bereputasi

The effect of borax solution as preservative to the mechanical properties of bamboo

RAHMI KAROLINA

2020
Jurnal internasional

Effect of various curing on high strength concrete using slag cement

RAHMI KAROLINA

2019
Jurnal internasional

The Effect of Clamshell Ash Substitution to the Mechanical Properties of Concrete

RAHMI KAROLINA

2019
Jurnal internasional

Analysis of Post-Combustion Concrete Study with the Addition of Superplasticizer

RAHMI KAROLINA

2019
Jurnal nasional

EXPANSION OF THE READING SPACE BUILDING TO IMPROVE THE QUALITY OF EDUCATION FOR COMMUNITY CHILDREN BELAWAN NELAYAN

RAHMI KAROLINA

2019
Jurnal internasional

Leaf disease classification using advanced SVM algorithm

RAHMI KAROLINA

2019
Jurnal internasional

Development of interlock bricks with eruption ash of mount sinabung as one of its constituent materi

RAHMI KAROLINA

2018
Jurnal internasional

Development of Interlock Bricks with Eruption Ash of Mount Sinabung as One of Its Constituent Materials

RAHMI KAROLINA

2018
Jurnal internasional

The Effect of Admixture Type F and Silica Fume on High Early Strength Self Compacting Concrete

RAHMI KAROLINA

2017
Jurnal internasional

APPLICATION OF OIL PALM EMPTY FRUIT BUNCH FIBERS IN STRENGTH IMPROVEMENT AS A FIBER REINFORCED CONCRETE

RAHMI KAROLINA

2014

Jurnal internasional

The Use of Volcanic Ash of Mount Sinabung Eruption as the Substitution of Fine Aggregate in Makin Batako (Mass-Produced Brick)

RAHMI KAROLINA

2014

Jurnal internasional

dkk. 2014. The Use of Volcanic Ash of Mount Sinabung Eruption as the Subtitution of fine Agregate in Making Batako (Massproduced Brick)

RAHMI KAROLINA

2014

Jurnal internasional

The Use of Volcanic Ash of Mount Sinabung Eruption as thr Subtitution of fine Agregate in Making Batako (Massproduced Brick)

RAHMI KAROLINA

Researches

2025

Investigasi Terhadap Komposit yang Terbentuk dari Crumb Rubber-ECC dengan Kerikil-Aspal Porus Berbasis Styrofoam dan Crumb Rubber Berdasarkan Uji Tekan dan Lentur

RAHMI KAROLINA

2022

Pemanfaatan Nanokristalin Abu Vulkanik (NKAV) Gunung Sinabung dalam Konstruksi Hijau Sebagai Bahan Baku Beton Tanpa Semen

RAHMI KAROLINA

2022

Studi Penggunaan Ph Responsive Hydrogel Sebagai Material Pelindung Bakteri Dalam Pembuatan Beton Self-Healing

KHADIJAH , AGUSTINA ARI MURTI BUDI HASTUTI , PUPUT RISDANARENI , RAHMI KAROLINA

2022

Studi Penggunaan Ph Responsive Hydrogel Sebagai Material Pelindung Bakteri dalam Pembuatan Beton Self-Healing

KHADIJAH , PUPUT RISDANARENI , RAHMI KAROLINA

2022

Ecoprinting pada Kain Rami, Pengujian Kualitasnya dan Aplikasinya untuk Produk Sustainable Fashion dan Home Decor, Serta Impactnya Terhadap Lingkungan

RAHMI KAROLINA

2022

Penelitian Kerjasama Antar Perguruan Tinggi

Studi Penggunaan PH Responsive Hydrogel Sebagai Material Pelindung Bakteri dalam Pembuatan Beton SELF-HEALING

RAHMI KAROLINA

2013

Penelitian Hibah Bersaing

Pengembangan Peredam Leleh Baja (Steel Yielding Damper) Sebagai Anti Gempa Jenis

YURISMAN , DANIEL , RAHMI KAROLINA

Community Services

2022

Pengembangan Ekowisata Manggrove Di Desa Kampung Nelayan Kecamatan Medan Belawan Kota Medan

PRIHATIN LUMBANRAJA , RAHMI KAROLINA

Intellectual Property Rights

2023
Hak cipta nasional

Atomic Force Microscope (Afm) Park Xe7 : Teori Dan Aplikasinya

RAHMI KAROLINA

2022
Hak cipta nasional

Karakterisasi Termal Material Menggunakan Differential Scanning Calorimetry (DSC)

AZHARI , RAHMI KAROLINA

2021
Paten nasional

MORTAR GEOPOLIMER BERBAHAN DASAR ABU ERUPSI GUNUNG SINABUNG

ING JOHANNES TARIGAN , RAHMI KAROLINA