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Dr. Ir. Iriany, M.Si. was born in Medan on June 13, 1964 is a lecturer at the Universitas Sumatera Utara in the disciplines of Chemical Engineering. She earned her doctoral degree at the Faculty of Engineering, Mechanical and Material Engineering Study Program Universiti Kebangsaan Malaysia in 2003.

Publications

2026

Jurnal internasional bereputasi

Corrosion effects on a leakage steam control valve: analysis and risk assessment on the biodiesel plant case study

Barbara Ernst , Yacine Benguerba , ANGGARA DWITA BURMANA , RONDANG TAMBUN , DR.TASLIM, IR, MSC , DR IRIANY, IR, MSC

2023

Prosiding seminar internasional

Kinetics study of regeneration spent bleaching earth by microwave-assisted extraction

ERNI MISRAN , DR IRIANY, IR, MSC

2025

Prosiding seminar internasional

Multistage pectin extraction from lemon (Citrus limon) peel: Effect of nitric acid solvent pH and number of stages

DR.TASLIM, IR, MSC , MICHAEL , MASYTHA , DR IRIANY, IR, MSC

2024

Jurnal internasional bereputasi

Investigating the catastrophic roof failure of a fatty acid storage tank: Causes, mechanisms, and safety implications

DR.TASLIM, IR, MSC , ROSDANELLI HASIBUAN , ANGGARA DWITA BURMANA , WAN RIZKI ANSARI , SILVIA NOVA , VIKRAM ALEXANDER , DWINA RAHMAYANI HASIBUAN , DR IRIANY, IR, MSC , SRI APRILIA

2024

Jurnal nasional terakreditasi

Karakterisasi Biofilm Selulosa Bakteri dengan Modifikasi Gliserol secara Ex Situ

LILIS SUKEKSI , DR IRIANY, IR, MSC

2021

Jurnal nasional terakreditasi

Ekstraksi Tanin dari Buah Balakka (Phyllanthus emblica L.) dengan Bantuan Microwave: Pengaruh Daya Microwave, Perbandingan Massa Kering Terhadap Jumlah Pelarut Etil Asetat

DR IRIANY, IR, MSC

2020

Tulisan ilmiah

Moringa Leaves (Moringa Oleifera) Potential as Green Catalyst for Biodiesel Production

DR IRIANY, IR, MSC

2022

Prosiding seminar internasional

The role of various plastisizers and fillers additions in improving tensile strength of starch-based bioplastics: A mini review

DR IRIANY, IR, MSC , ZUHRINA MASYITHAH , HALIMATUDDAHLIANA , HAMIDAH HARAHAHAP , ROSDANELLI HASIBUAN

2021

Jurnal nasional terakreditasi

Potential Formulation of Coconut Oil Solid Soap Preparation with Bentonite Filling as Najis Mughallazah Cleansing Media

SISWARNI MZ , DR IRIANY, IR, MSC , LILIS SUKEKSI

2025

Jurnal internasional bereputasi

Improving efficiency and product quality by optimizing methanol purification in biodiesel plant: Addressing abnormalities in distillation column performance

DR IRIANY, IR, MSC , DR. TASLIM, IR, MSC , ANGGARA DWITA BURMANA , VIKRAM ALEXANDER , SILVIA NOVA

2021

Jurnal internasional bereputasi

Characterization of the Chemical and Physical Properties of Bar Soap Made with Different Concentrations of Bentonite as a Filler

DR IRIANY, IR, MSC

2017

Jurnal nasional

Rancangan Pengering Energi Surya Menggunakan Kolektor dan Kipas untuk Pengeringan Kakao Fermentasi

FATIMAH , RONDANG TAMBUN , MUHAMMAD TURMUZI , DR IRIANY, IR, MSC

2023

Artikel ilmiah

Processing and Utilization of Natural Resources of Gulamah Fish with Boiling and Steaming Method

DR IRIANY, IR, MSC , RENITA MANURUNG , HAMIDAH HARAHAHAP

2024

Jurnal internasional bereputasi

Failure investigation of canned motor pump high temperature at yellow Teikoku Rotary Guardian as circulating pumps on the refining column

DR. TASLIM, IR, MSC , ANGGARA DWITA BURMANA , VIKRAM ALEXANDER , DR IRIANY, IR, MSC

2016

Jurnal internasional bereputasi

Physical and biophysical pretreatment of water hyacinth biomass for cellulase enzyme production

FATIMAH , DR IRIANY, IR, MSC , Darin Khumsupan , FENI AMRIANI

2020

Jurnal internasional

Furfural Synthesis from Mikania micrantha using Tamarind Extract as Catalyst

DR IRIANY, IR, MSC

2017

Jurnal nasional

EKSTRAKSI TANIN DARI KULIT KAYU AKASIA DENGAN MENGGUNAKAN MICROWAVE: PENGARUH DAYA MICROWAVE, WAKTU EKSTRAKSI DAN JENIS PEL...

DR IRIANY, IR, MSC

2025

Jurnal internasional bereputasi

Life cycle assessment of reusing by-products from esterification reaction:

Through the acidification process

RENITA MANURUNG , MAYA SARAH , DR IRIANY, IR, MSC , ANGGARA DWITA BURMANA , RONDANG TAMBUN

2025

Jurnal internasional bereputasi

Corrosion Effect in Safety Implication of a Leakage Steam Traps: A Case Studies in Biodiesel Storage Tank

DR IRIANY, IR, MSC , DR.TASLIM, IR, MSC , ANGGARA DWITA BURMANA , DWINA RAHMAYANI HASIBUAN

2023

Jurnal nasional terakreditasi

Pengaruh Komposisi Bahan Baku dan Ukuran Partikel Terhadap Kualitas Biobriket dari Cangkang Buah Karet dan Ranting Kayu

ROSDANELLI HASIBUAN , DR IRIANY, IR, MSC

2020

Prosiding seminar internasional

Extraction of tannin from garlic skins by using microwave with ethanol as solvent

DR IRIANY, IR, MSC , RONDANG TAMBUN

2025

Prosiding seminar internasional

The properties of green polybag from empty fruit bunch compost and wet decanter solid with chitosan as additive

HAMIDAH HARAHAHAP , ICHSAN HABIBI HASIBUAN , DR IRIANY, IR, MSC

2025

Jurnal internasional bereputasi

Sustainable production of CaO rich-indigofera (Indigofera zollingeriana) as heterogeneous catalyst of biodiesel from refined bleached deodorized palm olein using associated transesterification process

DR.TASLIM, IR, MSC , RENITA MANURUNG , DR IRIANY, IR, MSC , SILVIA NOVA , VIKRAM ALEXANDER , ANGGARA DWITA BURMANA

2019

Tulisan ilmiah

Biodiesel Synthesis from Waste Cooking Oil using Heterogeneous Catalyst from Corn cob Ash Impregnated with KOH

DR IRIANY, IR, MSC

2021

Jurnal nasional terakreditasi

Studi Model Isoterm Adsorpsi Kristal Violetoleh Biosorben Kulit Ubi Kayu (Manihot esculenta)

DR IRIANY, IR, MSC , ERNI MISRAN , MUHAMMAD TURMUZI

2026

Jurnal internasional bereputasi

Valorization of durian and jengkol shell waste into high-performance green solid fuel through the effect of molasses-tar binder ratio on biobriquette properties

DR IRIANY, IR, MSC , DR.TASLIM, IR, MSC , CHLOE LYANTO , TANIAH STEPANI BR MANURUNG , VIKRAM ALEXANDER

2020

Tulisan ilmiah

Effect of Wuluhstarfruit (Averrhoa bilimbi) electrolyte filtrate addition on making hydrogel aluminum battery based on carboxymethyl cellulose

DR IRIANY, IR, MSC

2021

Tulisan ilmiah

Potential of papaya seeds as a heterogenous catalyst in biodiesel synthesis

DR IRIANY, IR, MSC

2025

Loss prevention of cooling tower with an open loop system at cooling tower pipeline on a biodiesel plant: Analysis and safety implications

ROSDANELLI HASIBUAN , DR IRIANY, IR, MSC , ANGGARA DWITA BURMANA , DR.TASLIM, IR, MSC

2021

Tulisan ilmiah

Polyisoprenoids composition in mulberry (Morus alba L.)

DR IRIANY, IR, MSC

2020

Tulisan ilmiah

Preparation and Characterization of Coconut Oil Based Soap with Kaolin as Filler

DR IRIANY, IR, MSC

2020

Jurnal internasional

Reuse of chicken eggshell ash and natural zeolite catalyst on palm oil transesterification

DR IRIANY, IR, MSC

2024

Jurnal nasional terakreditasi

ANTHOCYANIN EXTRACTION FROM RED SPINACH UTILIZING MICROWAVE IRRADIATION AND ITS APPLICATION IN FOOD PRODUCTS

DR.TASLIM, IR, MSC , ZUHRINA MASYITHAH , DR IRIANY, IR, MSC

2025

Jurnal internasional

Production of liquid fuels from co-pyrolysis of high-density polyethylene (HDPE) and spent coffee grounds: Comparison of microwave energy and liquified petroleum gas as heat source on the fuel properties

RENITA MANURUNG , DR IRIANY, IR, MSC , HAMIDAH HARAHAH , WAN RIZKI ANSARI

2023

Prosiding seminar internasional

Regeneration of spent bleaching earth using microwave assisted extraction method with hexane as solvent for the bleaching of crude palm oil

DR IRIANY, IR, MSC

2018

Jurnal internasional bereputasi

Isolation and Characterization of Nanocrystal from Corn cob Waste Using H₂SO₄ Hydrolysis Method

DR IRIANY, IR, MSC

2020

Jurnal internasional

Furfural synthesis from mikania mircantha using sulfonated carbon catalyst derived from candlenut shell

DR IRIANY, IR, MSC

2026

Jurnal internasional bereputasi

Investigate biodiesel products using heterogeneous catalysts in variations lauric acid feedstock through elemental analysis and emissions testing using diesel engines

ANGGARA DWITA BURMANA , RENITA MANURUNG , DR IRIANY, IR, MSC , DR.TASLIM, IR, MSC

2025

Jurnal internasional bereputasi

Loss prevention of cooling tower with an open loop system at cooling tower pipeline on a biodiesel plant: Analysis and safety implications

ROSDANELLI HASIBUAN , DR IRIANY, IR, MSC , Mohammad Yazdi , DR.TASLIM, IR, MSC , ANGGARA DWITA BURMANA

2026
Jurnal internasional bereputasi

Corrosion effects on a leakage steam control valve: analysis and risk assessment on the biodiesel plant case study

RONDANG TAMBUN , DR IRIANY, IR, MSC , DR.TASLIM, IR, MSC , ANGGARA DWITA BURMANA

2024
Jurnal internasional bereputasi

Biodiesel production using waste cooking oil and Amberlite 62i as heterogeneous catalyst: Sustainability energy solution

RONDANG TAMBUN , ANGGARA DWITA BURMANA , DWINA RAHMAYANI HASIBUAN , ERWIN NAZRI , DR IRIANY, IR, MSC

2025
Jurnal internasional bereputasi

Application of choline chloride-based deep eutectic solvent (DES) as catalyst for glycerolysis of palm fatty acid distillate (PFAD) and glycerol

ALWI GERY AGUSTAN SIREGAR , RENITA MANURUNG , DR IRIANY, IR, MSC , DWINA RAHMAYANI HASIBUAN

2026
Jurnal internasional bereputasi

Energy investigation of pressure pulsation and flow instability in centrifugal pumps used in biodiesel plants

DR IRIANY, IR, MSC , DR.TASLIM, IR, MSC , VIKRAM ALEXANDER , RURI RIZKI SYAHPUTRI ZUHRI , ANGGARA DWITA BURMANA , Yacine Benguerba

2021
Prosiding seminar internasional

Potential of lime as a green catalyst in the manufacture of furfural from Mikania micrantha

DR IRIANY, IR, MSC

2023
Prosiding seminar internasional

Citronella oil extraction using microwave-assisted extraction (MAE) with various solvents

DR IRIANY, IR, MSC , SERI MAULINA

2024
Jurnal internasional bereputasi

Inlet diverters and oil collectors in distillation columns for reducing COD and BOD5 in biodiesel plants

VIKRAM ALEXANDER , ANGGARA DWITA BURMANA , SILVIA NOVA , DR IRIANY, IR, MSC , DR.TASLIM, IR, MSC

2017
Jurnal nasional

PEMBUATAN KARBON AKTIF DARI CANGKANG BUAH KARET DENGAN AKTIVATOR H_3PO_4 DAN APLIKASINYA SEBAGAI PENJERAP Pb (II)

DR IRIANY, IR, MSC

2021
Tulisan ilmiah

Preparation of activated carbon-based catalyst from nipa palm (*Nypa fruticans*) shell modified with KOH for biodiesel synthesis

DR IRIANY, IR, MSC

Researches

2020
Pendidikan Magister Doktor Sarjana Unggul

Pengaruh Variabel Ekstraksi Menggunakan Gelombang Mikro terhadap Proses Regenerasi Spent Bleaching Earth pada Proses Pemucatan Miyak Kelapa Sawit

ERNI MISRAN , DR IRIANY, IR, MSC

2019

Penelitian Dana Lokal Perguruan Tinggi

FORMULASI SEDIAAN SABUN PADAT MINYAK KELAPA DENGAN PENGISI KAOLIN DAN BENTONIT SEBAGAI MEDIA PEMBERSIH NAJIS MUGHALLAZAH

DR IRIANY, IR, MSC , LILIS SUKEKSI

2024

Penelitian Disertasi Doktor

Microwave Assisted Co-Pyrolysis Limbah Plastik dan Ampas Kopi sebagai Upaya untuk Meningkatkan Yield Bahan Bakar

DR IRIANY, IR, MSC , RENITA MANURUNG , WAN RIZKI ANSARI

2023

Pendidikan Magister Doktor Sarjana Unggul

KARAKTERISASI BIOFILM MENYERUPAI KULIT DARI SELULOSA BAKTERI NATA DE COCO DENGAN MODIFIKASI EX-SITU (PERENDAMAN GLISEROL) DAN VARIASI METODE PENGERINGAN

DR IRIANY, IR, MSC , LILIS SUKEKSI

2021

Penelitian Dana Lokal Perguruan Tinggi

Analisa Kemampuan Daya Hambat Antibakteri dan Jamur pada Sediaan Sabun Padat dengan Bahan Baku Minyak Nabati Menggunakan Pengisi Daun Sirih

DR IRIANY, IR, MSC , LILIS SUKEKSI

Community Services

2021

Ipteks Bagi Masyarakat

Pelatihan pembibitan budi daya ikan lele di Desa Sentang Kecamatan Teluk Mengkudu Kabupaten Serdang Bedagai

FATIMAH , DR IRIANY, IR, MSC , HALIMATUDDAHLIANA , MAULIDA , DR.TASLIM, IR, MSC

2026

Yayasan Baitul Hijaiyyah

DR IRIANY, IR, MSC , DR.TASLIM, IR, MSC

2023

Panitia Qurban 2023

DR IRIANY, IR, MSC , DR.TASLIM, IR, MSC

Intellectual Property Rights

2021

Paten nasional

PEMBUATAN SABUN SIRIH PADAT DENGAN METODE DINGIN SEBAGAI ANTIBAKTERI (P.acne & S. epidermis) DAN ANTIJAMUR (C. albican)

DR IRIANY, IR, MSC , DR.TASLIM, IR, MSC , LILIS SUKEKSI