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Dr. Ir. Bambang Trisakti, M.T. dilahirkan di Binjai pada tanggal 25 September 1966. Beliau merupakan seorang dosen Teknik Kimia di Universitas Sumatera Utara. Beliau menyelesaikan pendidikan terakhirnya pada jenjang Magister (S2) Teknik Kimia di Institut Teknologi Bandung pada tahun 1996.

Publications

2025

Jurnal internasional bereputasi

Microalgae for sustainable biodiesel and omega-3: A comprehensive review of production, processing, and implementation

RIVALDI SIDABUTAR , BAMBANG TRISAKTI , IRVAN , MUHAMMAD THORIQ AL FATH. , NISAUL FADILAH DALIMUNTHER

2025

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Bioreactor design for acidogenesis process of palm oil mill effluent

MAYA SARAH , RIVALDI SIDABUTAR , IRVAN , BAMBANG TRISAKTI , RONDANG TAMBUN

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Development of a novel co-composting system for empty fruit bunches using UASB-HCPB fermentor-derived effluent for sustainable palm oil waste management: Design, performance evaluation, and kinetic study

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Enhanced H₂S absorption and water recovery using Thiobacillus sp. and Azolla microphylla for zero-waste palm oil mill applications

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2025

Buku referensi

Teknologi Pembuatan Biogas dari Limbah Cair Pabrik kelapa Sawit

DR.TASLIM, IR, MSC , IRVAN , BAMBANG TRISAKTI , MUHAMMAD TURMUZI

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Strengthening and Empowering of Community Observer and User of Biomass Waste Utilization Facility in Tadukan Raga Village, Deli Serdang Regency

RIVALDI SIDABUTAR , IRVAN , BAMBANG TRISAKTI , MUHAMMAD THORIQ AL FATH. , INDRA SURYA , MERSI SURIANI SINAGA , FATIMAH

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BAMBANG TRISAKTI , RIVALDI SIDABUTAR , IRVAN

2024
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Pengurangan Nilai COD pada Effluent Fermentor Biogas UASB-HCPB dengan Memanfaatkan Mikroalga Chlorella vulgaris

OKTA BANI , BAMBANG TRISAKTI , RIVALDI SIDABUTAR , IRVAN , JUAN AKMAL NASUTION

2024
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Synergistic integration of zeolite engineering and fixed-bed column design for enhanced biogas upgrading: Adsorbent synthesis, CO2/CH4 separation kinetics, and regeneration assessment

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Towards low-cost and sustainable biochar production based on empty fruit bunch: Effect of pelletization, microwave power, residence time, and mass on biochar quality for commercial approach

BAMBANG TRISAKTI , RIVALDI SIDABUTAR , IRVAN

2024
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Determination of Kinetic Models in Acidogenesis Process of Palm Oil Mill Effluent

BAMBANG TRISAKTI , MUHAMMAD TURMUZI , DR.TASLIM, IR, MSC , IRVAN

2024
Prosiding seminar internasional

Design and fabrication of UASB-HCPB reactor assisted UF membrane for POME treatment to produce biogas

RIVALDI SIDABUTAR , BAMBANG TRISAKTI , IRVAN

2024
Jurnal internasional bereputasi

Treatment of effluent from the upflow anaerobic sludge blanket-hollow centered packed bed fermentor by utilizing Chlorella vulgaris in a fed-batch system

BAMBANG TRISAKTI , RIVALDI SIDABUTAR , IRVAN

2024
Prosiding seminar internasional

Removal of H2S from Rich Solution in Absorption Process by Utilizing Thiobacillus.sp

IRVAN , BAMBANG TRISAKTI , RIVALDI SIDABUTAR

2024
Prosiding seminar internasional

Effect of Cutting Size in the Composting Process of Oil Palm Empty Fruit Branches (EFB) Using Active Organic Liquid Fertilizer (AOLF) as Co-Composting

RIVALDI SIDABUTAR , BAMBANG TRISAKTI , IRVAN

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Development of Biogas Plant and Mushrooms Grumpy in a Biomass Waste Utilization Facility at Tadukan Raga Village, STM Hilir District, Deli Serdang Regency

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THE UTILIZATION OF PIMPING GRASS (THEMEDA GIGANTEA) AS ADSORBENT OF BABURA RIVER WATER TURBIDITY WITH BATCH OPERATION

BODE HARYANTO , BAMBANG TRISAKTI , MEGARIA LUBIS , MARVINO BRAYN TARIGAN , FRANS YAKOBUS KETAREN , VIKRAM ALEXANDER

2023

Jurnal nasional terakreditasi

Utilization of Cow Rumen into Biogas Using a Fixed Dome Reactor as an Alternative Energy in Deli Serdang Regency

IRVAN , TULUS , BAMBANG TRISAKTI , MEUTIA NAULY , RIVALDI SIDABUTAR , DESTANUL AULIA , NURZAINAH GINTING

2023

Jurnal nasional terakreditasi

Pengaruh Laju Alir Biogas dan Ukuran Partikel Pembentuk Pelet terhadap Penyisihan Karbon Dioksida (CO₂) dalam Biogas dengan Proses Adsorpsi - Desorpsi Menggunakan Adsorben Berbasis Zeolit Alam untuk Peningkatan Kualitas Biogas

RIVALDI SIDABUTAR , IRVAN , BAMBANG TRISAKTI

2021

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The utilization of mushroom growing media waste as raw material for biogas production: Energy productivity ratio (EPR) study

IRVAN , BAMBANG TRISAKTI

2020

Jurnal internasional

Crushing Mung Beans Using Ball Mill Tool: Base on Fraction Size Sieving Results

BAMBANG TRISAKTI , BODE HARYANTO

2020

Prosiding seminar internasional

Comparison of mass balance and oil quality in plant refinery I and IV

BAMBANG TRISAKTI , IRVAN , RIVALDI SIDABUTAR

2020

Prosiding seminar internasional

Effect of sulphuric acid (H₂SO₄) and sodium hydroxide (NaOH) addition to prevent silica scaling in geothermal power plant projection pipes at PLTP X

BAMBANG TRISAKTI , RIVALDI SIDABUTAR , IRVAN

2020

Prosiding seminar internasional

Effect of sulphuric acid (H₂SO₄) and sodium hydroxide (NaOH) addition to prevent silica scaling in geothermal power plant projection pipes at PLTP X

BAMBANG TRISAKTI , RIVALDI SIDABUTAR , IRVAN

2020

Prosiding seminar internasional

Combination of CSTR and membrane process in treating palm oil mill effluent (POME)

BAMBANG TRISAKTI , IRVAN , RIVALDI SIDABUTAR

2020

Jurnal internasional

Combination of CSTR and membrane process in treating palm oil mill effluent (POME)

BAMBANG TRISAKTI

2019

Jurnal internasional

Study of gravity thickener as sludge separator in fermentation of palm oil mill effluent to biogas at pilot scale

BAMBANG TRISAKTI

2018

Prosiding seminar internasional

Automation of Temperature Sensor in Biogas Production from Palm Oil Mill Effluent (POME)

T HUSAINI , RIVALDI SIDABUTAR , BAMBANG TRISAKTI , IRVAN

2018

Jurnal internasional

ADSORPTION - DESORPTION SYSTEM FOR CO₂ REMOVAL IN BIOGAS USING NATURAL ZEOLITE - BASED ADSORBENT

IRVAN , RIVALDI SIDABUTAR , DR IRIANY, IR, MSC , SERI MAULINA , BAMBANG TRISAKTI

2018

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Development of anaerobic digestion of palm oil mill effluent with heated recycle sludge

BAMBANG TRISAKTI

2018

Jurnal internasional

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BAMBANG TRISAKTI , FATIMAH , IRVAN

2018

Jurnal internasional bereputasi

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BAMBANG TRISAKTI

2018

Prosiding seminar internasional

Composting of Empty Fruit Bunches in the Tower Composter - Effect of Air Intake Holes

FATIMAH , BAMBANG TRISAKTI , IRVAN

2018

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BAMBANG TRISAKTI

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Fermentative utilization of glycerol residue for the production of acetic acid

BAMBANG TRISAKTI

2018

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mixed with activated liquid organic fertilizer

BAMBANG TRISAKTI

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BAMBANG TRISAKTI

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BAMBANG TRISAKTI

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BAMBANG TRISAKTI

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2017

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BAMBANG TRISAKTI

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BAMBANG TRISAKTI

2017

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2017

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with Activated Liquid Organic Fertilizer

T HUSAINI , BAMBANG TRISAKTI , IRVAN

2017

Jurnal internasional

Effect of agitation on Acidogenesis stage of two-stage anaerobic digestion of palm oil mill effluent (POME) into biogas

BAMBANG TRISAKTI

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Effect of turning frequency on composting of empty fruit bunches mixed with activated liquid organic fertilizer

BAMBANG TRISAKTI

2016

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Effect of discontinuing sodium bicarbonate on fermentation process of palm oil mill effluent

BAMBANG TRISAKTI

2015

Jurnal internasional

Acidogenesis of palm oil mill effluent to produce biogas: effect of hydraulic retention time and pH

BAMBANG TRISAKTI

2012

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Methane emission from digestion of palm oil mill effluent (POME) in a thermophilic anaerobic reactor

BAMBANG TRISAKTI

2026

Prosiding seminar internasional

Taslim and Turmuzi M 2017 Effect of temperature on methanogenesis stage of two-stage anaerobic digestion of palm oil mill effluent (POME) into biogas IOP Conf

BAMBANG TRISAKTI

Researches

2025

Ipteks

Inovasi Membran Fotokatalitik untuk Pengolahan Limbah Industri menjadi Air Bersih

BAMBANG TRISAKTI , IRVAN

2025

INTEGRASI PENGOLAHAN LIMBAH PABRIK KELAPA SAWIT SECARA FAKULTATIF MENGGUNAKAN SISTEM TERPADU REAKTOR ANAEROBIK-KOMPOSTER

DR IRIANY, IR, MSC , BAMBANG TRISAKTI , IRVAN

2024

Penelitian Fundamental

Pengembangan Prototipe Komposter Silinder Tandan Kosong Kelapa Sawit (TKKS) menggunakan Pupuk Cair Organik Aktif (PCOA) sebagai Co-Composting untuk Menghasilkan Kompos Komersil

BAMBANG TRISAKTI , IRVAN , RIVALDI SIDABUTAR

2023

Penelitian Dana Lokal Perguruan Tinggi

Pengolahan Effluent Fermentor Biogas UASB-HCPB dengan Memanfaatkan Mikroalga Chlorella vulgaris pada Sistem Fed-Batch

BAMBANG TRISAKTI , OKTA BANI , RIVALDI SIDABUTAR , GLORIA CLARITA SINAMO , JOHANNES SIREGAR , JUAN AKMAL NASUTION , RENATA AMBARITA

2023

Upgrading Biogas melalui Absorpsi CO₂ menggunakan K₂CO₃ Berpengaktif Monosodium Glutamat pada Reaktor Packed Column

BAMBANG TRISAKTI , IRVAN , RIVALDI SIDABUTAR

2022

Penelitian Unggulan Perguruan Tinggi

Integrasi Produksi Biogas Berbasis POME Menggunakan Reaktor UASB-HCPB Kombinasi Membran Ultrafiltrasi dan Upgrading Biogas dengan Teknologi Bioscrubber

BAMBANG TRISAKTI , IRVAN , RIVALDI SIDABUTAR , DEBORA KRISTINA SIMBOLON , JOSUA F MANURUNG , RAISSA PASSA

2022

Penelitian Dosen Pemula

Recycle Absorben melalui Degradasi CO₂ dari Rich Solution dengan Memanfaatkan Chlorella vulgaris

BAMBANG TRISAKTI , OKTA BANI , RIVALDI SIDABUTAR , MUHAMMAD RIZKY ANSHARI GIRSANG , OSAMA HARAHAP , MUHAMMAD RIZKY PULUNGAN

2021

Penelitian Unggulan Perguruan Tinggi

Produksi Biogas dari Campuran Limbah Cair Pabrik Kelapa Sawit dan Tandan Kosong Kelapa Sawit

BAMBANG TRISAKTI , IRVAN

2021

Penelitian Unggulan Perguruan Tinggi

Pemurnian dan Peningkatan Produk Biogas dari Proses Digestasi Anaerobik Limbah Cair Pabrik Kelapa Sawit Skala Pilot

BAMBANG TRISAKTI , IRVAN

2020

Penelitian Unggulan Perguruan Tinggi

Pemurnian dan Peningkatan Produk Biogas dari Proses Digestasi Anaerobik Limbah Cair Pabrik Kelapa Sawit Skala Pilot

BAMBANG TRISAKTI , IRVAN

2020

Penelitian Unggulan Perguruan Tinggi

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BAMBANG TRISAKTI , IRVAN

2019

Penelitian Unggulan Perguruan Tinggi

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BAMBANG TRISAKTI , IRVAN

2019

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Pemurnian dan Peningkatan Produk Biogas dari Proses Digestasi Anaerobik Limbah Cair Pabrik Kelapa Sawit Skala Pilot

BAMBANG TRISAKTI , IRVAN

2018

Penelitian Strategis Nasional

Produksi Kompos Tandan Kosong Kelapa Sawit untuk Budidaya Tanaman Hias

FATIMAH , BAMBANG TRISAKTI

2017

Produksi Kompos Tandan Kosong Kelapa Sawit untuk Budidaya Tanaman Hias

BAMBANG TRISAKTI , T HUSAINI

2016

Penelitian Unggulan Perguruan Tinggi

Pemanfaatan Biogas dari Proses Digestasi Anaerobik Limbah Cair Pabrik Kelapa Sawit Skala Pilot Sebagai Bahan Bakar Enjin Premium

BAMBANG TRISAKTI , T HUSAINI , IRVAN

2015

Penelitian Strategis Nasional

Automatisasi Pabrik Konversi Limbah Cair Pabrik Kelapa Sawit (LCPKS) Menjadi BioBiogas Skala Pilot dengan Programmable Logic Controller (PLC)

BAMBANG TRISAKTI , T HUSAINI , IRVAN , Martiawan Sijabat

2015

Penelitian Unggulan Perguruan Tinggi

Pengaruh Pengurangan Konsentrasi Trace Metal dan Penyetabil pH Terhadap Produksi Pada Konversi Limbah Cair Pabrik Kelapa Sawit (LCPKS) Menjadi Biogas Secara Anaerobik Termofilik

BAMBANG TRISAKTI , T HUSAINI , IRVAN

2014

Penelitian Strategis Nasional

Automatisasi Pabrik Konversi Limbah Cair Pabrik Kelapa Sawit (LCPKS) Menjadi BioBiogas Skala Pilot dengan Programmable Logic Controller (PLC)

BAMBANG TRISAKTI , T HUSAINI , IRVAN , Daniel Surbakti

2012

Penelitian Unggulan Strategis Nasional

Pembuatan Pupuk Organik Aktif dari Pengolahan Lanjut Limbah Cair Kelapa Sawit (LCPKS) Skala Pilot

BAMBANG TRISAKTI , ROSDANELLI HASIBUAN , IRVAN , YUSUF HUSNI

2011

Penelitian Unggulan Strategis Nasional

Pembuatan Pupuk Organik Aktif dari Pengolahan Lanjut Limbah Cair Kelapa Sawit (LCPKS) Skala Pilot

BAMBANG TRISAKTI , ROSDANELLI HASIBUAN , IRVAN , YUSUF HUSNI

Community Services

2025

PENGEMBANGAN SISTEM PENYULINGAN BAHAN BAKAR BIOETANOL DARI SAMPAH ORGANIK PERTANIAN DI DESA SEMPAJAYA, KECAMATAN BERASTAGI, KABUPATEN KARO

BAMBANG TRISAKTI , DR.TASLIM, IR, MSC , INDRA SURYA , MERSI SURIANI SINAGA

2020

Ipteks Bagi Masyarakat

PEMANFAATAN LIMBAH KANTIN DHARMA WANITA FAKULTAS TEKNIK USU SEBAGAI ENERGI ALTERNATIF DAN KOMPOS UNTUK MENDUKUNG GREEN CAMPUS

BAMBANG TRISAKTI , IRVAN , INDRA SURYA

2018

Ipteks Bagi Wilayah Antara PT-CSR / PT-PEMDA-CSR

Pembangunan Pilot Plant (Bioreaktor, Jaringan Biogas, dan Kumbung Jamur) Fasilitas Pemanfaatan Limbah Non B3 Biomassa Menjadi Energi di Kabupaten Deli Serdang

BAMBANG TRISAKTI , IRVAN , RIVALDI SIDABUTAR

2013

Ipteks Bagi Masyarakat

IbM Industri Kecil Obat Tradisional Herbal

BAMBANG TRISAKTI , ANIZAR , ROSDANELLI HASIBUAN
