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*Prof. Dr. Ir. Armansyah Ginting, M.Eng., born in Medan on August 7, 1968, is a lecturer in Manufacturing Engineering at the Universitas Sumatera Utara. In 1999, he completed his doctorate from the Faculty of Mechanical and Materials Study Program at the University Kebangsaan Malaysia Faculty of Mechanical and Materials.*

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## Publications

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2021

Jurnal internasional bereputasi

### **STUDY ON CUTTING CONDITION, PRODUCTIVITY, AND SURFACE ROUGHNESS WHEN TURNING OF HARDENED AISI 1045**

ARMANSYAH GINTING

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2024

Jurnal internasional bereputasi

### **STUDY ON PERFORMANCE OF MACHINE LEARNING MODELS IN PREDICTING SURFACE ROUGHNESS WHEN TURNING HARDENED AISI 4340 STEEL USING CERMET CUTTING TOOL**

ARMANSYAH GINTING

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2015

Jurnal nasional terakreditasi

### **Kajian Kinerja Pahat Karbida Berlapis Diamond Film Pada Pembebanan Thermal Pemesinan Kering**

FRANSNAZOAN SITORUS , ARMANSYAH GINTING

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2025

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### **Productivity improvement in hard turning of AISI 4340 with response surface methodology and machine learning**

ROTAMA ARIFIN SIDABUTAR , ARMANSYAH GINTING

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2024

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### **Predictive mapping of surface roughness in turning of hardened AISI 4340 using carbide tools**

ARMANSYAH GINTING , ZUHRINA MASYITHAH

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2016

Jurnal nasional terakreditasi

### **Performa Lapisan Diamond Film CVD Pahat Karbida Melalui Pendekatan Interaksi Secara Kimiawi Bahan AISI 1070 Operasi Bubut Kering**

FRANSNAZOAN SITORUS , ARMANSYAH GINTING

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2020

Jurnal internasional bereputasi

### **Increasing productivity in hard turning of steels using CVD-coated carbide**

ARMANSYAH GINTING

2020

Jurnal internasional bereputasi

## **A study of surface integrity when machining refractory titanium alloys**

ARMANSYAH GINTING

2019

Jurnal internasional bereputasi

## **Optimization of alkyl-diethanolamide synthesis from fatty acid methyl ester of coconut oil using box-behnken design**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

2008

Jurnal internasional bereputasi

## **Surface integrity of dry machined titanium alloys**

ARMANSYAH GINTING

2025

Jurnal nasional terakreditasi

## **English Education on Making Liquid Fertilizer from Horse Urine at Berastagi Kuda Club**

ZUHRINA MASYITHAH , R. EDHY MIRWANDHONO , ARMANSYAH GINTING , NURZAINAH GINTING

2025

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## **Optimization of machining parameters in hard turning of AISI 4340 using Hybrid Taguchi and Grey Relational Analysis technique**

SARJANA , ARMANSYAH GINTING , MUHAMMAD ARIFIN

2021

Jurnal internasional bereputasi

## **Effect of Increasing Spindle Speed at a Constant Chip Load on Cutting Force Behaviour of Hastelloy X**

ARMANSYAH GINTING

2025

Jurnal nasional terakreditasi

## **THE EFFECT OF PROVIDING GOAT MANURE AND ADDITIN WATER WITH THE PARTIAL ROOT ZONE (PRD) METHOD IN INCREASING THE GROWTH AND PRODUCTION OF TOMATO PLANTS (LYCOPERSICUM ESCULENTUM MILL) USING A DIGITAL SOIL MOISTURE METER IN NORTH SUMATERA**

RUSSELL ONG , IRDA NILA SELVIA , M. Idris , ARMANSYAH GINTING , Mohd Khairul Amri Kamarudin

2021

Jurnal internasional bereputasi

## **Direct Amidation Of Fatty Alcohol And Amino Acid In Organic Solvent For The Production Of N-Acyl Arginine**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

2018

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## **The characteristics of CVD- and PVD-coated carbide tools in hard turning of AISI 4340**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

2024

Jurnal internasional bereputasi

## **OIL SPILL DISPERSANT FORMULATION FROM PALMITOYL-DEA AND METHYL ESTER SULFONATE**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

2023

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## **SYNTHESIS OF FATTY AMIDES FROM LAURIC ACID AND STEARIC ACID FOR PHARMACEUTICAL AND COSMETIC APPLICATIONS**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

2025  
Jurnal internasional bereputasi

## **Productivity improvement in hard turning of AISI 4340 with response surface methodology and machine learning**

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2025  
Jurnal internasional bereputasi

## **Study on performance of machine learning models in predicting surface roughness when turning of hardened AISI 4340 steel using CERMET cutting tool**

SARJANA , ARMANSYAH GINTING

2021  
Jurnal internasional bereputasi

## **CATALYTIC AMIDE FORMATION OF N-STEAROYL LYSINE FROM CARBOXYLIC ACID IN MIX SOLVENT: ANALYSIS OF THE RESPONSE SURFACE**

ARMANSYAH GINTING , ZUHRINA MASYITHAH

2024  
Jurnal nasional terakreditasi

## **Training on Making Dadih from Goat's Milk to Overcome the Problem of Stunting in Deli Serdang Regency**

NURZAINAH GINTING , ZUHRINA MASYITHAH , ARMANSYAH GINTING

2018  
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## **Response Surface Methodology for the Optimization of Coco ethanolamide Production From Coconut oil**

ARMANSYAH GINTING , ZUHRINA MASYITHAH

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## **Machine Learning-Based Surfaced Roughness Prediction In Turning Of Hardened AISI 4340 Steels: Incorporating Tool Wear Via Cutting Length**

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## **Study on characteristics of AlTiN and TiCN coating layers deposited on carbide cutting tools in hard turning of steel: Experimental, simulation and optimisation**

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2025  
Jurnal internasional

## **Design, Simulation, and Mechanical Evaluation of Modular Aluminium-Based Goat Housing for Tropical Conditions**

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2021  
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## **A RESPONSE SURFACE METHOD FOR THE PREPARATION OF N-LAUROYL LYSINE FROM MEDIUM CHAIN FATTY ACID CATALYZED BY SODIUM METOXIDE**

ARMANSYAH GINTING , ZUHRINA MASYITHAH

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## **Parametric Analysis Of Heat-Affected Zone (HAZ) Characteristics And Taper Angle During Machining Of Alumina Ceramic Using CO2 Laser**

ARMANSYAH GINTING

2023  
Jurnal internasional bereputasi

# **A REVIEW ON LASER MACHINING OF ALUMUNIA CERAMIC**

ARMANSYAH GINTING , Irianto

2008

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## **Analysis of the adhesion wear mechanism and brittle failure of carbide tools when dry machining the aeronautical titanium alloy: Ti-6Al-4V**

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## **Determining optimal laser engraving conditions for high contrast and well defined engraving on Kapur wood (Dryobalanops) using ImageJ**

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## **APPLICATION OF SUPER BASE CALCIUM OXIDE CATALYST IN THE SYNTHESIS OF STEARAMIDE SURFACTANTS BY AMIDATION**

ARMANSYAH GINTING , ZUHRINA MASYITHAH

2011

Jurnal internasional bereputasi

## **Study on machining characteristic of aeronautical material under orthogonal dry cutting**

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2021

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## **APPLICATION OF RESPONSE SURFACE METHOD FOR LIPASE MEDIATED SYNTHESIS OF FATTY ACIDAMIDE BIOSURFACTANT FROM DIETHANOLAMINE AND GLUCOSAMINE**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

2015

Jurnal nasional terakreditasi

## **KAJIAN KINERJA PAHAT KARBIDA BERLAPIS DIAMOND FILM PADA PEMBEBANAN TERMAL PEMESINAN KERING**

FRANSNAZOAN SITORUS , ARMANSYAH GINTING

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## **THE OPTIMUM PROCESS PARAMETER WHEN CUTTING OF THIN PLATE MADE OF STAINLESS STEEL 316L USING CO2 LASER**

ARMANSYAH GINTING , SUPRIANTO , ZUHRINA MASYITHAH

2020

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## **Study on cutting performance of cermet tool in turning of hardened alloy steel**

ARMANSYAH GINTING

2021

Prosiding seminar internasional

## **Load characteristics of cold water pipe based on fibreglass-filled HDPE composites**

BASUKI , ARMANSYAH GINTING

2023

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## **OPTIMUM DESIGN OF A PALMITOYL ARGININE SURFACTANT FROM ARGININE IN MIX SOLVENT HEXANE-ISOPROPANOL**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

2024

Prosiding seminar internasional

## **Simulation and experimental study of friction stir welding on high-density**

## **polyethylene with variation of tool rotation speed**

DODI SOFYAN ARIEF , M DALIL , BASUKI , ARMANSYAH GINTING

2021

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### **PVD-COATED CERMET APPLIED FOR HARD TURNING OF AISI 4340**

ARMANSYAH GINTING , ZUHRINA MASYITHAH

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### **Optimizing process condition for amidification of stearic acid and urea using response surface methodology**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

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### **OPTIMIZATION OF MACHINING PARAMETERS IN HARD TURNING OF AISI 4340 USING HYBRID TAGUCHI AND GREY RELATIONAL ANALYSIS TECHNIQUE**

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### **Framework design of cold water pipe joint based on fibreglass-filled HDPE composite using friction stir welding technique**

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2018

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### **Optimization of A Two-Step Method to Synthesize Azelaic Acid from Oleic Acid**

ARMANSYAH GINTING , ZUHRINA MASYITHAH

2020

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### **SYNTHESIS OF N-ACYL ARGININE SURFACTANTS FROM TETRADECANOL AND ARGININE USING TERT-AMYL ALCOHOL**

ARMANSYAH GINTING , ZUHRINA MASYITHAH

2023

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### **STUDY OF THE SURFACE PROPERTIES OF ALKYL-DEA FROM PALMITIC ACID FOR CLEANING AND COSMETIC APPLICATIONS**

ARMANSYAH GINTING , ZUHRINA MASYITHAH

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### **A systematic study of the variables that control the synthesis of n-acyl l-lysine from hexadecanoic acid in a stirred tank reactor**

BODE HARYANTO , ZUHRINA MASYITHAH , ARMANSYAH GINTING

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### **A Thermomechanical Modeling and Experimental Validation of the Gear Finish Hobbing Process**

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### **EDUCATION ON MAKING LIQUID FERTILIZER FROM HORSE URINE AT BERASTAGI KUDA CLUB**

NURZAINAH GINTING , ARMANSYAH GINTING , Norizan Baba Rahim , R. EDHY MIRWANDHONO , ZUHRINA MASYITHAH

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### **An Experimental Study To Determine The Correlation Between Tool Wear And Residual Stresses Induced In Turning Of Inconel 718**

2011

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**A new optimization approach based on Kriging interpolation and sequential quadratic programming algorithm for end milling refractory titanium alloys**

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**CUTTING OF 316L STAINLESS STEEL FOR METAL MESH IMPLANT USING CO2 LASER CUTTING: ANALYSIS AND OPTIMIZATION**

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Jurnal internasional

**Essential Contents for a Flood Disaster Survival Kit: A Practical Guide for Malaysian Families**

ARMANSYAH GINTING

2026

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**Performance Analysis of Aluminium Alloy 6063-T5 Grooved Hollow Pipes For Goat Housing Structure Application**

ARMANSYAH GINTING

## Researches

2021

Penelitian Dana Lokal Perguruan Tinggi

**Studi Kinetika dan Aplikasi Katalis Kalsium Oksida Super Basa pada Sintesis Fatty Amida secara Kondensasi**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

2019

Penelitian Dana Lokal Perguruan Tinggi

**Eksperimental and Simulation Studies on Performance of Ceramic Metal (CERMET) Tool in Hard Machining of AISI 4340 HSLA Steel**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

2017

Penelitian Dana Lokal Perguruan Tinggi

**Optimasi Proses pada Produksi Asam Azelat Melalui Pemecahan Oksidatif Asam Oleat Minyak Sawit**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

2023

Penelitian Dana Lokal Perguruan Tinggi

**SINTESIS SURFAKTAN N-ASIL TRIPTOPAN DARI MINYAK KELAPA DAN APLIKASINYA SEBAGAI OIL SPILL DISPERSANT UNTUK REMEDIASI AIR LAUT TERKONTAMINASI MINYAK BUMI**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

2020

Penelitian Dana Lokal Perguruan Tinggi

**Pembesaran Skala Sintesis N-acyl Asam Amino dari Asam Lemak Jenuh dan Fatty Alkohol dalam Reaktor Tangki Berpengaduk**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

2018

Penelitian Dana Lokal Perguruan Tinggi

**Pengembangan Sintesis Cocamide DEA dari Minyak Kelapa Melalui Proses Transesterifikasi dan Amidasi dengan Katalis Heterogen**

2018

Penelitian Dana Lokal Perguruan Tinggi

### **Performa dan Perilaku Tribologi Lapisan Pahat pada Pembubutan Baja yang Dikeraskan: Studi Eksperimen dan Numerik**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

2020

### **Sistem MQL untuk Mengoptimalkan Kinerja Pahat Ceramic Metal pada Pemesinan Baja Paduan yang Dikeraskan**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

2017

Penelitian Dana Lokal Perguruan Tinggi

### **Perbandingan Prestasi Ketermesinan Pahat Karbida Berlapis pada Pembubutan Keras Baja AISI 4340**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

2019

Penelitian Dana Lokal Perguruan Tinggi

### **Optimasi Sintesis Surfaktan Berbasis Asam Amino dari Metil Ester Asam Lemak Minyak Kelapa dan L-lysine**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

## **Community Services**

2022

Ipteks Bagi Masyarakat

### **Optimalisasi Manfaat Pembersih Lantai Organik Diperkaya dengan Jeringau di Kecamatan Medan Tuntungan Kotamadya Medan**

NURZAINAH GINTING , ZUHRINA MASYITHAH , ARMANSYAH GINTING , R. EDHY MIRWANDHONO

2021

Ipteks Bagi Masyarakat

### **OPTIMALISASI OUTPUT BIOGAS MELALUI PELATIHAN MEMBUAT BIOAKTIVATOR DAN MERAKIT KOMPOR BIOGAS DI KELOMPOK BIOGAS TADUKEN RAGA, KECAMATAN SINEMBAH TANJUNG MUDA HILIR, KABUPATEN DELI SERDANG**

NURZAINAH GINTING , ZUHRINA MASYITHAH , ARMANSYAH GINTING

2018

### **Pengaruh Makanan dan Minuman yang Dikonsumsi Siswa-siswa SMP Perguruan Islam Terpadu Nurul Azizi**

NISMAH PANJAITAN , DINI WAHYUNI , RENITA MANURUNG , ARMANSYAH GINTING

2023

Ipteks Bagi Masyarakat

### **PELATIHAN ES KRIM PROBIOTIK DARI KULTUR KEFIR SUSU KAMBING DI KELOMPOK USAHA BERSAMA TANI TERNAK, DESA TADUKAN RAGA, KECAMATAN STM HILIR, KABUPATEN DELI SERDANG**

NURZAINAH GINTING , ZUHRINA MASYITHAH , ARMANSYAH GINTING , R. EDHY MIRWANDHONO

2024

Ipteks Bagi Masyarakat

### **PENDAMPINGAN PENGEMBANGAN USAHA ES KRIM PREBIOTIK PROBIOTIK DI KELOMPOK USAHA BERSAMA TANI TERNAK, DESA TADUKAN RAGA, KECAMATAN STM HILIR, KABUPATEN DELI SERDANG**

NURZAINAH GINTING , ZUHRINA MASYITHAH , ARMANSYAH GINTING , R. EDHY MIRWANDHONO

2025

Kerjasama Luar Negeri dan Publikasi Internasional

## **PKM INTERNASIONAL BERASTAGI**

NURZAINAH GINTING , ZUHRINA MASYITHAH , ARMANSYAH GINTING , R. EDHY MIRWANDHONO

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2017

Ipteks

### **Upaya Meningkatkan Keterampilan Masyarakat Mengolah Biji Kopi Desa Lumban Suhi-suhi Kaputaben Samosir**

NURZAINAH GINTING , ZUHRINA MASYITHAH , ARMANSYAH GINTING , MEILITA TRYANA SEMBIRING

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## **Intellectual Property Rights**

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2026

Paten nasional

### **PROSES PEMBUATAN SURFAKTAN STEARAMIDA DARI ASAM STEARAT DAN UREA MENGGUNAKAN KATALIS KALSIMUM OKSIDA SUPER BASA**

ARMANSYAH GINTING , ZUHRINA MASYITHAH

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2026

Paten nasional

### **PROSES PEMBUATAN SURFAKTAN PALMITOIL-DIETANOLAMIDA DARI ASAM PALMITAT DAN DIETANOLAMINA MENGGUNAKAN KATALIS KALSIMUM OKSIDA**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

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2026

Paten nasional

### **SISTIM PENGUKURAN DAYA DAN GAYA PEMOTONGAN PADA OPERASI PEMBUBUTAN LOGAM**

ARMANSYAH GINTING

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2026

Paten nasional

### **PROSES PEMBUATAN SURFAKTAN AMIDA LAUROIL-LISIN DARI ASAM LAURAT DAN LISIN MENGGUNAKAN KATALIS NATRIUM METILAT**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

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2026

Paten nasional

### **PROSES PEMBUATAN DISPERSAN HIJAU PENGURAI MINYAK DARI SURFAKTAN N-ASIL TRIPTOPAN DAN METIL ESTER SULFONAT**

ZUHRINA MASYITHAH , ARMANSYAH GINTING

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