

# Proceedings of 7th International Conference on Industrial, Mechanical, Electrical and Chemical Engineering 2021 (ICIMECE 2021)

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Surabaya, Indonesia - 5 October 2021

Editors - Mujibul Kaesuma, Ananta Wahyu Budiman,  
Muhammad Fanni Ibrahim, Muhammad Fauzan, Aditya Rio Prabowo,  
Enoch Reber Djatnika and Syarif Prayogo

icimece  2021

## **PREFACE: International Conference on Industrial, Mechanical, Electrical and Chemical Engineering 2021 (ICIMECE 2021)**

International Conference on Industrial, Mechanical, Electrical and Chemical Engineering 2021 (ICIMECE 2021), is the seventh annual international conference organized by the Faculty of Engineering Universitas Sebelas Maret. This conference was held on October 5, 2021 in Surakarta, Indonesia. Since the COVID-19 Pandemic still exists and a new variant appears, bringing on travel issue restriction and avoiding the face-to-face meeting that helps reduce the virus spreading, the ICIMECE 2021 was held in a virtual format using web streaming technology. This format will not reduce our target to make ICIMECE 2021 as the forum for sharing and discussing the knowledge, experiences, and results of engineering, science and technology. Considering pandemic situation, the ICIMECE 2021 deciding the theme on “Sustainable Technology innovation and commercialization for pandemic recovery”.

Speakers from Canada, China, Estonia, Germany, Japan, Malaysia, Saudi Arabia, South Korea, Thailand, United Kingdom, Vietnam, and Indonesia submitted the articles to this conference with more than 111 standard oral presentation were presented and were divided into 18 scopes: Renewable Energy, Bioenergy And Biofuels, Waste To Energy, Conversion Devices And Energy Saving Technology, Network And Communication System, Industry 4.0, Advance Material, Smart Structure, Society 5.0, Artificial Intelligence, Big Data, Machine Learning, IoT Technology, Humanitarian Logistics Human Factor Engineering, Ergonomics And Product Design, Advanced Manufacturing, and “New Normal” Services. This Proceeding consists of 83 full papers that already peer-reviewed from independence reviewers and associated editorial team to ensure high quality of contributed articles.

We would like to thank all those people who have hardly worked in this period for the preparation and the success of the meeting, including all the contributors, the authors, the associated editors, the review committee, the program and steering committees, and all the members of the organization. We hope that the conference will be stimulating, informative, enjoyable and fulfilling experience for all who attend it.

Thank you very much.

Editors

- Humanitarian logistics
- Human Factor Engineering,
- Ergonomics and Product Design,
- Advanced Manufacturing,
- "New Normal" services,

All accepted and presented paper will be published in AIP Conference Proceedings (Scopus Indexed) / IOP - TBC

Selected paper will be published in

- Evergreen (TBC)
- BCREC/IJRED (TBC)
- Jurnal Teknologi (TBC)

#### Keynote Speaker

- Prof. Dr-Ing. Hendro Wicaksono

Jacobs University, Germany

- Dr. Md Golam Kibria

University of Calgary, Canada

- Prof Madya Ir. Dr. Syed Shatir Asghrar Syed Hassan

Universiti Teknologi MARA, Malaysia

- Assoc. Prof. Dr. Somyot Kaitwanidvilai

King Mongkut's Institute of Technology, Thailand

- Dr. Koji Enoki

University of Electro-Communications, Tokyo (UEC), Japan

#### Invited Speaker

- Prof. Anton Satria Prabuwo, PhD

King Abdulaziz University, Saudi Arabia

- Dr. Oki Muroza

Senior Vice President, Research & Technology Pertamina, Indonesia

- Muhammad Hilmy Alfaruqi, ST, M.Eng, Ph.D

Chonnam National University, South Korea

- Assoc.Prof. Abdulhakim Almajid

King Saud University, Saudi Arabia

Assoc. Prof. Anita Pettersson Ph.D

University of Borås, Sweden

- Dr. Nonni Soraya Sambudi

Universiti Teknologi Petronas (UTP), Malaysia

- Prof. Madya Dr. Syed Ahmad Helmi bin Syed Hassan

Universiti Teknologi Malaysia (UTM), Malaysia

#### Important Dates

Paper Submission (Full Paper for publication), July 5, 2021

Notification of Acceptance (Full paper) July 19, 2021

Camera Ready Paper Submission, August 5, 2021

Conference Date, October 5, 2021

Participant Early Bird (due date August 5, 2021) Normal rate (due date September 5, 2021)

Local (IDR) 2.000.000,-

2.500.000,-

International (IDR) 2.000.000,-

2.500.000.-

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MUJTAHID KAAVESSINA, S.T., M.T, Ph.D. (Conference Chairman)

## Basic Information (Informasi Dasar)

#### Unit

Fakultas Teknik

#### Kategori

Seminar

#### Keterangan

Seminar

# Issues

Select Decade 2020 ▾

Select Year 2023 ▾

Issue 12 May - Volume 2674, Issue 1 ▾

## PRELIMINARY

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Preface: **International Conference on Industrial, Mechanical, Electrical and Chemical Engineering 2021 (ICIMECE 2021)** 🛒

AIP Conference Proceedings 2674, 010001 (2023) doi: <https://doi.org/10.1063/12.0013124>

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## INVITED PAPER

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Emerging post-lithium batteries: Opportunities in Indonesia 🛒

[Muhammad Hilmy Alfaruqi](#)

AIP Conference Proceedings 2674, 020001 (2023) doi: <https://doi.org/10.1063/5.0133085>

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## CONTRIBUTED ORAL PAPER

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Modeling of a pellet biomass furnace of 200 kW 🛒

[Tito Gusti Nurrohimi](#); [Suyitno](#); [Rizqi Abdul Rahman](#); [Heru Sutanto](#); [Mohamad Muqoffa](#)

AIP Conference Proceedings 2674, 030001 (2023) doi: <https://doi.org/10.1063/5.0124573>

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Lithium-ion cylinder battery power cooling: A review 🛒

[Zeluyvenca Avista](#); [Ubaidillah](#); [Indri Yaningsih](#); [Aditya Rio Prabowo](#)

AIP Conference Proceedings 2674, 030002 (2023) doi: <https://doi.org/10.1063/5.0117607>

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Automation and monitoring system of drying parameters in cabinet dryer using Arduino (temperature and humidity) 🛒

[Ari Rahayuningtyas](#); [Diang Sagita](#); [Novita Dwi Susanti](#)

AIP Conference Proceedings 2674, 030003 (2023) doi: <https://doi.org/10.1063/5.0114374>

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---

### Preliminary experiment of *Saccharomyces cerevisiae* immobilization using method of in situ flocculation

[Aswandi Asmadi](#); [Mujtahid Kaavessina](#); [Margono](#)

*AIP Conference Proceedings* 2674, 030004 (2023) doi: <https://doi.org/10.1063/5.0115647>

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### Effect of injection molding processing parameters on tensile properties of recycled polypropylene based composites reinforced with bamboo fibers

[Govinda](#); [Indah Widiastuti](#)

*AIP Conference Proceedings* 2674, 030005 (2023) doi: <https://doi.org/10.1063/5.0114104>

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### Effect of bamboo fiber alkalization treatment on water sorption characteristics and mechanical properties of recycled polypropylene-bamboo composites

[Mohammad Khoirul Huda](#); [Indah Widiastuti](#)

*AIP Conference Proceedings* 2674, 030006 (2023) doi: <https://doi.org/10.1063/5.0114094>

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### Review: Recent developments in the design and application of magnetorheological fluids in the medical field

[Agus Lutanto](#); [Ubaidillah](#); [Aditya Rio Prabowo](#); [Fitrian Imaduddin](#); [Dimas Adiputra](#)

*AIP Conference Proceedings* 2674, 030007 (2023) doi: <https://doi.org/10.1063/5.0117624>

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### Preliminary design for manufacturing and assembling bread dough mixer machine

[Catur Harsito](#); [Anugrah Akbar](#); [Ari Prasetyo](#); [Teguh Triyono](#); [Budi Santoso](#)

*AIP Conference Proceedings* 2674, 030008 (2023) doi: <https://doi.org/10.1063/5.0114137>

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### The effect of health warning labels on intention to repurchase cigarettes in Surakarta city using structural equation model method

[Bagus Muchlis Putra](#); [Lobes Herdiman](#); [Susy Sumartini](#); [Taufiq Rochman](#)

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## Access point configuration on Internet of Things with bootstrap WiFi networking Raspberry Pi

[Yustina Tritularsih](#); [Hoedi Prasetyo](#); [Fenty Pandansari](#)

*AIP Conference Proceedings* 2674, 030010 (2023) doi: <https://doi.org/10.1063/5.0118880>

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## Regional innovation driving factors model (Cianjur Regency)

[Anita Ilmaniati](#); [Isma Masrofah](#)

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## Integration AHP and MOORA for sustainable supplier selection during the COVID-19 pandemic era: A case study

[Muhammad Faisal Ibrahim](#); [Tara Laurensia](#); [Dana Marsetiya Utama](#)

*AIP Conference Proceedings* 2674, 030012 (2023) doi: <https://doi.org/10.1063/5.0114216>

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## The effect of quenching agents at T6 heat treatment on hardness Al6061-sea sand composite

[Hafidh Rawi Mufti](#); [Hammar Ilham Akbar](#); [Eko Surojo](#); [Wibowo](#); [Teguh Triyono](#); [Sukmaji Indro Cahyono](#); [Nurul Muhayat](#); [Triyono](#)

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## Assistive technology on the SS1-V1 weapon stock to support shooting stability for DEPOHAR 50 - TNI AU

[Langgeng Andy Setiawan](#); [Susy Susmartini](#); [Lobes Herdiman](#)

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## Li-ion batteries as energy storage for solar power plant

[Muhammad Nur Ikhsanudin](#); [Maudy Pratiwi Novia Matovanni](#); [Rizky Ibnufaatih Arvianto](#); [Sunu Herwi Pranolo](#); [Agus Purwanto](#); [Joko Waluyo](#)

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## Comparison of the production of dimethyl ether (DME) from lignite coal and biomass as energy sources to substitute LPG: A case study in Indonesia

[Rizky Ibnufaatih Arvianto](#); [Muhammad Nur Ikhsanudin](#); [Maudy Pratiwi Novia Matovanni](#); [Anatta Wahyu Budiman](#); [Sunu Herwi Pranolo](#); [Joko Waluyo](#)

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### The thermophysical properties, configurations and applications of nanofluids on solar PV/T system: A review

[Nuha Khairunnisa](#); [Zainal Arifin](#); [Budi Kristiawan](#); [Mohd Afzanizam Mohd Rosli](#)

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### The gravitational water vortex turbine: A review and application development

[Rieky Handoko](#); [Syamsul Hadi](#); [D. Danardono Dwi P.T.](#); [Ari Prasetyo](#)

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### Selection of materials for the prosthetic liner using coconut water composite as a substitute for EVA

[Arung Sasmaya Bahari](#); [R. Hari Setyanto](#); [Lobes Herdiman](#)

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### Characteristic of the UAV structural design and platform in military-use environment: State and development

[Annas Isman Saputro](#); [Aditya Rio Prabowo](#); [D. Danardono Dwi Prija Tjahjana](#); [Ristiyanto Adiputra](#); [Hari Nubli](#)

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### Multicriteria optimization of 3D printed flow restrictor using Taguchi method and PCR-TOPSIS for dimensional accuracy and printing duration

[Virsha Alviasha](#); [Joko Triyono](#); [Eko Pujianto](#)

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### Manufacturing green hybrid new material made from bagasse, rice husk ash and reinforced glutinous glue as noise absorption

[Lobes Herdiman](#); [R. Hari Setyanto](#); [Susy Susmartini](#); [Taufiq Rohman](#)

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### Power efficiency analysis by using UBEC for prosthetic hand

[Agung Dwicahyo](#); [Lobes Herdiman](#); [Susy Susmartini](#)

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### Implementation of lean six sigma reducing E-DOWNTIME waste proposed improvement of flooring board production at PT. LBB

[Rut Yolanda Karfisa Br Lumbanraja](#); [Fakhrina Fahm](#); [Eko Pujiyanto](#)

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### Formulating strategic purchasing strategy: A case study

[Hery Suliantoro](#); [Drajat A. Dilaga](#); [M. Mujiya Ulkhaq](#)

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### Implementation of fluid-structure interaction (FSI) in marine design: Calculation review on hull structures

[Rizky Adhi Febrianto](#); [Syamsul Hadi](#); [Raymundus Lulus L. G. Hidayat](#); [Dong Myung Bae](#); [Bo Cao](#); [Aditya Rio Prabowo](#)

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### Synthesis of superabsorbent (hydrogel) based on banana peel cellulose-acrylamide-carrageenan with microwave grafting method

[Sperisa Distantina](#); [Ivan Satritama](#); [Verania Arnetta Putri](#); [Ghea Safiraventa Anggreini](#)

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### Rice husks and bagasse as composite materials characterized by heat resistance

[Larasati Sekar Palupi](#); [Susy Susmartini](#); [R Hari Setyanto](#)

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### Development of ceramic jewellery industry in the form of necklaces with Indonesian batik motifs

[T. Yuniarto](#); [P. W. Anggoro](#); [B. Bawono](#); [P. K. Fergiawan](#); [A. P. Bayuseno](#); [J. Jamari](#)

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## Failure analysis: Hardness and stress study of failed IC engine rocker arms

[Aprianur Fajri](#); [Nurul Muhyat](#); [Aditya Rio Prabowo](#); [Fitrian Imaduddin](#); [D. Danardono Dwi Prija T.](#); [Ari Prasetyo](#); [Yemi Kuswardi](#); [Jung Min Sohn](#); [Dharu Feby Smaradhana](#)

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## A critical review on structural testing and assessment of lightweight sandwich structure for ship structure application

[Tuswan Tuswan](#); [Abdi Ismail](#); [Achmad Zubaydi](#); [Bambang Piscesa](#); [Nadya Paramita Langening Sukma Sukma](#)

*AIP Conference Proceedings* 2674, 030031 (2023) doi: <https://doi.org/10.1063/5.0116355>

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## Assessment of debonding failures in the sandwich plate of stern ramp door of ferry Ro-Ro using k-nearest neighbor algorithm

[Safri Adam](#); [Tuswan Tuswan](#); [Abdi Ismail](#); [Achmad Zubaydi](#); [Bambang Piscesa](#); [Aditya Rio Prabowo](#)

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## Conceptual design and performance evaluation of COVID-19 vessel for public health service in Indonesia's remote Island

[Tuswan Tuswan](#); [Saefulloh Misbahudin](#); [Adi Widiyanto](#); [Mahendra Guna Satriananta](#); [Rayhan Satria Dwinata](#); [Abdi Ismail](#); [Muhammad Luqman Hakim](#); [Good Rindo](#); [Aditya Rio Prabowo](#); [Teguh Putranto](#)

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## Design of work aids on temporary storage stations based on Karakuri Kaizen principles (case study: Industri Tahu Sari Murni)

[Ricky Aziz Febrianto](#); [Eko Liquiddanu](#); [Rahmaniyah Dwi Astuti](#)

*AIP Conference Proceedings* 2674, 030034 (2023) doi: <https://doi.org/10.1063/5.0130242>

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## Warehouse design under class-based storage policy based on entry-item-quantity analysis: A case study

[Sekarsari Utami Wijaya](#); [Rahayu Johanna](#); [Muhammad Faisal Ibrahim](#)

*AIP Conference Proceedings* 2674, 030035 (2023) doi: <https://doi.org/10.1063/5.0114493>

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## Microwave-assisted in synthesis of cassava bagasse-acrylamide-carrageenan bead gel

[Sperisa Distantina](#); [Widya Nur Ramadhani](#); [Dimas Rizqi Damarjati Listyono](#); [Nurul Hidayatun](#)

*AIP Conference Proceedings* 2674, 030036 (2023) doi: <https://doi.org/10.1063/5.0129645>

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---

### Study of middle interceptor implementation on patrol boat 🚢

[Samuel](#); [Aji Setiawan](#); [Eko Sasmito Hadi](#); [Muhammad Iqbal](#); [Parlindungan Manik](#)

*AIP Conference Proceedings* 2674, 030037 (2023) doi: <https://doi.org/10.1063/5.0114759>

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### Simulation computational fluid dynamics: The effect of adding rear wing airfoil Eppler 423 Gurney flap on speed and pressure distribution value 🚢

[D. D. P. Tjahjana](#); [B. Kristiawan](#); [Suyitno](#); [W. E. Juwana](#); [R. A. Rachmanto](#); [C. H. Brillianto](#); [S. D. Prasetyo](#); [A. F. Muhammad](#); [Z. Arifin](#)

*AIP Conference Proceedings* 2674, 030038 (2023) doi: <https://doi.org/10.1063/5.0114153>

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### New operating mode of magnetorheological fluids (MRFs) simulation studies with finite element methods for magnetics (FEMM) 🚢

[Purwadi Joko Widodo](#); [Eko Prasetya Budiana](#); [Ubaidillah](#); [Fitrian Imaduddin](#)

*AIP Conference Proceedings* 2674, 030039 (2023) doi: <https://doi.org/10.1063/5.0119051>

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### CFD-based analysis of an accidental jet-fire release on LNG bunkering vessel 🚢

[Haris Nubli](#); [Jung Min Sohn](#)

*AIP Conference Proceedings* 2674, 030040 (2023) doi: <https://doi.org/10.1063/5.0117438>

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### IoT based early warning system of landslide and flood disasters 🚢

[Hanifah Yulia](#); [Subuh Pramono](#); [Sutrisno](#); [B. D. Jati](#)

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### Wind energy in Tanzania: Turbines classification and territory status review 🚢

[Enock Michael](#); [Dominicus Danardono Dwi Prija Tjahjana](#); [Aditya Rio Prabowo](#); [Ristiyanto Adiputra](#)

*AIP Conference Proceedings* 2674, 030042 (2023) doi: <https://doi.org/10.1063/5.0129598>

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### Performance comparison of position and swing angle control system on a gantry crane 🚢

[Anis Tri Hayati](#); [Fitrian Imaduddin](#); [Ubaidillah](#); [Budi Santoso](#); [R. Lullus Lambang G.H.](#)

*AIP Conference Proceedings* 2674, 030043 (2023) doi: <https://doi.org/10.1063/5.0114501>

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### Identification of design requirements for noodles untangling and cutting machines on non-wheat noodle production line: A QFD approach ▾

[Novrinaldi](#); [A. Haryanto](#); [U. Hanifah](#); [M. A. Karim](#); [S. A. Putra](#); [E. K. Pramono](#); [A. Sitorus](#); [N. K. I. Mayasti](#)

*AIP Conference Proceedings* 2674, 030044 (2023) doi: <https://doi.org/10.1063/5.0114410>

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### Measuring user experience of a decision support system for operating room scheduling using the user experience questionnaire ▾

[Pasca Purwoko](#); [Yusuf Priyandari](#); [Cucuk Nur Rosyidi](#)

*AIP Conference Proceedings* 2674, 030045 (2023) doi: <https://doi.org/10.1063/5.0114991>

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### Mathematical modeling of fluidized bed drying kinetics of unhulled rice in a swirling fluidized bed dryer with bed ratio 1.25 ▾

[Novrinaldi](#); [S. A. Putra](#); [A. Sitorus](#)

*AIP Conference Proceedings* 2674, 030046 (2023) doi: <https://doi.org/10.1063/5.0114385>

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### The effect of adding heatsink cooling with concentrator on increasing photovoltaic performance ▾

[Z. Arifin](#); [M. L. Baharuddin](#); [W. E. Juwana](#); [Suyitno](#); [D. D. D. P. Tjahjana](#); [M. Muqoffa](#); [S. D. Prasetyo](#)

*AIP Conference Proceedings* 2674, 030047 (2023) doi: <https://doi.org/10.1063/5.0114139>

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### Effect of addition of emulsifier Tween 20 on microencapsulation rice bran oil using natural polymers kappa-carrageenan and chitosan ▾

[Fadilah](#); [Ari Diana Susanti](#); [Sperisa Distantina](#); [Viona Rohmah Armia Gita Kusuma](#); [Gemilang Ramadhan Syahputraningrat](#)

*AIP Conference Proceedings* 2674, 030048 (2023) doi: <https://doi.org/10.1063/5.0114822>

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### Low-density parity-check codes (LDPC) 5G -new radio (NR) performance using modified min-sum decoding algorithm ▾

[Eni Wardihani](#); [Syrico A. Setyawan](#); [Muhammad Mukhlisin](#)

*AIP Conference Proceedings* 2674, 030049 (2023) doi: <https://doi.org/10.1063/5.0129761>

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## Analysis of gear fault based on acoustic signal and least square support vector machine 🗑

[Didik Djoko Susilo](#); [Achmad Widodo](#); [Toni Prahasto](#); [Muhammad Nizam](#)

*AIP Conference Proceedings* 2674, 030050 (2023) doi: <https://doi.org/10.1063/5.0117472>

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## Natural weathering on recycled polypropylene-bamboo fiber composites 🗑

[Arianti Ramadhani](#); [Indah Widiastuti](#)

*AIP Conference Proceedings* 2674, 030051 (2023) doi: <https://doi.org/10.1063/5.0118916>

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## Low cost three-phase electrical power quality analyzer system using PC-based USB DAQ 🗑

[Latif Nur Fauzi](#); [Muhammad Hamka Ibrahim](#); [Muhammad Nizam](#)

*AIP Conference Proceedings* 2674, 030052 (2023) doi: <https://doi.org/10.1063/5.0115104>

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## The optimization of polytetrafluoroethylene (PTFE) cutting parameters for minimizing energy consumption in CNC turning of using Taguchi method 🗑

[Suwondo Adi Saputro](#); [Cucuk Nur Rosyidi](#); [Eko Pujiyanto](#)

*AIP Conference Proceedings* 2674, 030053 (2023) doi: <https://doi.org/10.1063/5.0115439>

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## The effect of volume, ball diameter, and milling time through the ball mill process of corncob 🗑

[Rusdi Nur](#); [Ahmad Nurul Muttaqin](#); [Baso Nasrullah](#); [Dermawan](#)

*AIP Conference Proceedings* 2674, 030054 (2023) doi: <https://doi.org/10.1063/5.0116172>

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## Design and analysis of ozone monitoring system produced by plasma corona discharge for disinfectant 🗑

[Ivan Robi Septian](#); [Miftahul Anwar](#); [M. Maulana Yusuf](#); [Riski Rama Kusuma](#); [Teguh Endah Saraswati](#); [Meiyanto Eko Sulistyono](#); [Feri Adriyanto](#); [Fandi Surya Adinata](#)

*AIP Conference Proceedings* 2674, 030055 (2023) doi: <https://doi.org/10.1063/5.0115023>

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## Detection of product container defect using automatic visual inspection: System design and performance evaluation 🗑

[Muhammad Hamka Ibrahim](#); [Hari Maghfiroh](#); [Agus Ramelan](#); [Subuh Pramono](#); [Cucuk Nur Rosyidi](#)

*AIP Conference Proceedings* 2674, 030056 (2023) doi: <https://doi.org/10.1063/5.0115113>

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## Economic dispatch optimization using Lagrange multipliers as merit order strategy for thermal power plant in Java and Sumatra 🗑

[Henry Pariaman](#); [Gita Maya Luciana](#); [Muhammad Hisjam](#)

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## Dynamic analysis of different fenestration design in artificial hip joint using finite element analysis 🗑

[Ikhsan](#); [Triyono J.](#); [A. R. Prabowo](#); [Jung Min Sohn](#)

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## Experimental study of an EAHE combined with a solar collector and a solar panel 🗑

[S. H. S. Surbakti](#); [T. B. Sitorus](#); [J. S. Purba](#); [W. O. D. Hutabarat](#); [G. J. Yudha](#)

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## Study on EAHE system combined with several components in the Medan city 🗑

[J. S. Purba](#); [T. B. Sitorus](#); [S. H. S. Surbakti](#); [W. O. D. Hutabarat](#); [G. J. Yudha](#)

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## The performance of an earth-air heat exchanger by using a solar chimney 🗑

[G. J. Saragi](#); [T. B. Sitorus](#); [W. O. D. Hutabarat](#); [S. H. S. Surbakti](#); [J. S. Purba](#)

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## Workload analysis of non-wheat noodle production with standard time approach (case study: Youngster SME, Subang West Java, Indonesia) 🗑

[N. K. I. Mayasti](#); [A. Haryanto](#); [U. Hanifah](#); [R. Kumalasari](#); [M. A. Karim](#); [Novrinaldi](#); [S. A. Putra](#); [E. K. Pramono](#); [A. Sitorus](#)

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## Demographic and behaviour clustering on chicken meat's seller using K-means method 🗑

[Harwati](#); [A. M. S. Asih](#); [B. M. Sopha](#)

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## Residual ultimate strength formulations of submarine pressure hull subjected to collisions of attendant vessels or floating objects 📄

[Quang Thang Do](#)

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## Integration of yeast cells flocculation with continuous ethanol fermentation using laboratory scale of integrated aerobic anaerobic baffled reactor 📄

[Leader Firstandika](#); [Margono](#); [Mujtahid Kaavessina](#)

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## Rattan as an alternative material for elementary school furniture to support active learning 📄

[Ratriana Aminy](#); [Prima Adhi Kusuma](#); [Cucuk Nur Rasyidi](#); [Lulu Purwaningrum](#)

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## Numerical approach of TiO<sub>2</sub> and CNT nanofluids flowing in circular, rectangular, and triangular tubes 📄

[Bayu Sutanto](#); [Budi Kristiawan](#); [Indri Yaningsih](#); [Agung Tri Wijayanta](#); [Takahiko Miyazaki](#)

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## Pilot scale production of digested cow manure bio-pellet for alternative fuel 📄

[Paryanto](#); [Joko Waluyo](#); [Anwar Saputro](#); [Margono](#); [Sunu Herwi Pranolo](#); [Ari Diana Susanti](#); [Bregas S. T. Sembodo](#); [Prabang Setyono](#)

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## Parameter optimization of FDM type 3D printing against dimensional accuracy with recycled filament plastic LDPE (low density polyethylene) 📄

[Tri Hannanto Saputra](#); [Adhi Setya Utama](#); [Ana Ningsih](#); [Herda Agus Pamasaria](#)

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## The effect of furniture type and working position when drawing with laptop on musculoskeletal pain among students and the desk design strategy 📄

[Dian Moneta](#); [Lu'lu' Purwaningrum](#)

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### Recent progress on geometrical and stress concentration characterization of welded joints

[Moritz Braun](#)*AIP Conference Proceedings* 2674, 030071 (2023) doi: <https://doi.org/10.1063/5.0114736>[Abstract](#) [View article](#)[PDF](#) 

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### Simulation of a two-dimensional ice crushing processes with the Mohr-Coulomb nodal split model

[Hauke Herrnring](#); [Moritz Braun](#)*AIP Conference Proceedings* 2674, 030072 (2023) doi: <https://doi.org/10.1063/5.0114602>[Abstract](#) [View article](#)[PDF](#) 

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### A cooperative manufacturer-retailer inventory model with carbon tax regulation, imperfect production, and rework

[Wakhid Ahmad Jauhari](#); [I. Nyoman Pujawan](#); [Mokh Suef](#)*AIP Conference Proceedings* 2674, 030073 (2023) doi: <https://doi.org/10.1063/5.0114196>[Abstract](#) [View article](#)[PDF](#) 

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### Iron-loaded activated carbon as a tar cracking/reforming catalyst in the production of clean producer gas from oil palm biomass

[Syed Shatir A. Syed-Hassan](#); [Nur Hanina Malek](#); [Rusmi Alias](#)*AIP Conference Proceedings* 2674, 030074 (2023) doi: <https://doi.org/10.1063/5.0117326>[Abstract](#) [View article](#)[PDF](#) 

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### Designing an e-commerce success factor model based on inputs from practitioners and entrepreneurs to evaluate the e-commerce website (a case study: Magetan leather crafts SMEs)

[Arga Seta Asmara Sakti](#); [Eko Liquiddanu](#)*AIP Conference Proceedings* 2674, 030075 (2023) doi: <https://doi.org/10.1063/5.0114264>[Abstract](#) [View article](#)[PDF](#) 

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### An operational model design of leather bag consumer needs to increase the sales of leather bag products (a case study of Magetan leather industry)

[Her Tafga Arfanindita](#); [Eko Liquiddanu](#)*AIP Conference Proceedings* 2674, 030076 (2023) doi: <https://doi.org/10.1063/5.0114263>[Abstract](#) [View article](#)[PDF](#) 

## Resistant starch type-3 (RS-3) production from cassava starch with high rotational speed of rotor-stator mixer

[Sumarno](#); [Prida Novarita Trisanti](#); [Bramantyo Airlangga](#); [Abissantun Priyambodo](#); [Aditya Rachman Ganimeda](#)

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## Biodelignification of sengon wood using trametes versicolor

[Prida Novarita Trisanti](#); [Ferd Saepulah](#); [Filo Sofia Kamila Mukmin](#); [Sumarno Sumarno](#)

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## The influence of mixing on electrocoagulation performance during soy sauce wastewater treatment

[F. A. Nugroho](#); [P. T. P Aryanti](#); [A. A. Dania](#); [F. F. Sari](#)

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## Multi-response optimization in injection molding process of PLA bone screw using Taguchi method and response surface methodology

[Rizca Tri Wulandari](#); [Joko Triyono](#); [Eko Pujiyanto](#)

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