

**2021**

# **Book of Abstracts**

of The 11<sup>th</sup> International Conference  
on Green Technology

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**October 26, 2021**

**OPTIMIZING TECHNOLOGY  
FOR SUSTAINING  
PRODUCTIVITY  
DURING COVID-19**

**Organized by :**



**Fakultas Sains Dan Teknologi  
UIN Malang**



**GreenTech**

**PREFACE**  
**DEAN OF SCIENCE AND TECHNOLOGY FACULTY**  
**STATE ISLAMIC UNIVERSITY MAULANA MALIK IBRAHIM MALANG**

We are pleased to welcome all participants to the 2021 11th International Conference on Green Technology (ICGT 2021) in the Faculty of Science and Technology, Universitas Islam Negeri Maulana Malik Ibrahim Malang, although we can only meet virtually. The main topic of the conference is “*Optimizing Technology for Sustaining Productivity during Covid 19*”. Right now, we are still recovering from a pandemic that hit us hard. Thus, we hope through this conference we can contribute our research in recovering global condition. We hope this conference can bring academic scientists, engineers, industry researchers together to discuss, exchange, and share their experiences and research results about green technology, especially in sustaining productivity during the pandemic era.

We want to thank:

1. Rector and Vice-Rectors of Universitas Islam Negeri Maulana Malik Ibrahim for their assistance and support for the 11th International Conference on Green Technology.
2. Science and Technology Faculty vice-Deans for supporting The 11th International Conference on Green Technology.
3. All the keynote speakers who willingly attended this conference.
4. Academic board committee for work in abstract and paper review.
5. The event organizing committee for managing this conference.
6. Special Thanks to the Journal of Islamic Architecture, ALCHEMY Journal of Chemistry, NEUTRINO Journal, CAUCHY, and MATICS for supporting this conference.

We wish all participants of the 11th International Conference on Green Technology get an enjoyable scientific virtual meeting. We look forward to seeing all of you next year at the 12th International Conference on Green Technology.

Dean of Faculty of Science and Technology  
UIN Maulana Malik Ibrahim Malang

Dr. Sri Harini

## **PREFACE**

### **Chairperson of The 11<sup>th</sup> International Conference On Green Technology**

Dear Colleagues,

We have the pleasure to welcome you to the 11th International Conference on Green Technology 2021. The conference is annually organized by Science and Technology Faculty, State Islamic University Maulana Malik Ibrahim. We hope through this event we can exchange and explore the issues, innovations, and integrated perspectives towards environmental sustainability.

The emergence of science and technology has offered solutions for daily life's problems in the modern era, including the covid-19 pandemic. The Covid-19 pandemic ultimately evolves our life patterns, from how companies work to accomplishing our daily activities while adhering to the health protocols. However, research revealed across the economy, productivity tends to be stable and even more, increase. This happens at the cost of innovations in the science and technology field. Therefore, it is not too much to say that the Covid-19 pandemic makes room for innovations and research in science and technology.

Concerning this, we set "Optimizing Technology for Sustaining Productivity during Covid-19" as the main topic of the 11th International Conference of Green Technology (ICGT). The 11th ICGT will be held on 26th October 2021.

This booklet contains the abstracts of contributions presented at the conference, either as a keynote speaker or oral presentation.

Finally, I would like to thank the Rector and Vice-Rectors of UIN Maulana Malik Ibrahim Malang for supporting this event. And thanks to Dean and Vice-Deans for the guidance and support for this event. And also for all the committee who helped in the organization of this conference, big thanks to all of you.

Johan E.W. Prakasa

## EVENTS AGENDA

Time (GMT+7)	AGENDA
<b>Oct, 26 2021</b>	<b><i>The 11<sup>th</sup> International Conference on Green Technology</i></b>
07:30 - 08:00	Registration & Technical Check
08:00 - 08:15	Opening Ceremony
08:15 - 08:45	Welcome Speech by Rector of UIN Maulana Malik Ibrahim Malang Welcome Speech by Dean of Science and Technology Faculty
08:45 – 09:00	Opening Prayer
09.10-09.50	Speaker 1 Session (Dr. Sakinah Ali Pitchay - Universiti Sains Islam Malaysia.)
09.50-10.30	Speaker 2 Session (Dr. Dian Indrayani Jambari – Universiti Kebangsaan Malaysia)
10.30-11.10	Speaker 3 Session (Ismail Fahmi, Ph.D- UII Yogyakarta )
11.10-11.50	Speaker 4 Session (Prof. Dr. Eng. Kuwat Triyana, M.Si - Univ. Gajah Mada)
11:50 - 12:15	Main event closing
12:15 - 13:00	Break
12:45 - 13:15	Preparation & Technical Check
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	<b><u>Parallel Session Room 2:</u></b> Submission ID: 32, 30, 132, 21, 148, 85, 115, 111
	<b><u>Parallel Session Room 3:</u></b> Submission ID: 97, 22, 37, 80, 52, 61, 81, 133
	<b><u>Parallel Session Room 4:</u></b> Submission ID: 93, 103, 40, 160, 39, 90, 42, 110
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	<b><u>Parallel Session Room 7:</u></b> Submission ID: 128, 35, 36, 135, 3, 62, 75, 23, 71
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	114	Toxicity Test and Identification of Flavonoid Isolates from Preparative TLC Result Ethyl Acetate Fraction of Katuk Leaves ( <i>Sauropus androgynus</i> L. Merr)	Karavana Nura Izza
	130	Toxicity Test and Identification of Secondary Metabolites in Jeringau Rhizome ( <i>Acorus calamus</i> L.) Result of Ultrasonic Extraction of Solvent Variations	Faskho Akbar Kusuma
	92	Toxicity Test and Identification of Steroid Isolates Fraction n-Hexane from Sonication Extraction with Methanol Solution in Microalgae of <i>Chlorella</i> sp.	Jeffry Anggatra Kuntha Asmara
	131	Toxicity test of column chromatography steroids isolates of <i>chlorella</i> sp. Microalgae chloroform fraction	Ahmad Ghanaim Fasya
	125	Price Prediction of Cayenne Pepper in Malang Using Time Invariant Fuzzy Time Series Method	Maila Santi Rahmania
	123	Second-Wave of COVID-19 infection in Indonesia	Ester Meyliana
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	30	Potentials of blood bags (whole blood) towards the quality of hiv pre transfusion test results: early study in darah bank rsud dr. Ben mboi ruteng manggarai district, east nusa tenggara province	Yani Suryani
	132	The Ability Of Entomopathogenic Fungus As Biocontrol Of Cockroaches	Anggita Rahmi Hafsari
	21	THE EFFECTIVENESS OF <i>Hermetia illucens</i> LARVAE IN CONVERTING ORGANIC WASTE WITH PRETREATMENT By <i>Bacillus subtilis</i> and <i>Trichoderma</i> sp	Ateng Supriyatna
	148	SENTIMENT ANALYSIS ON COVID-19 VACCINE OF TWITTER USING NAIVE BAYES METHOD	Andhika Maulana Effendi
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	90	Identification Of Microplastic Abundance In Selorejo Waters, Ngantang District, Malang Regency	Iqbal Fatkhul Akbar
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**Transesterification of Rubber Seed Oil with Methanol Using Natural Zeolite Supported NiO Catalyst****K.D. Pandiangan<sup>1</sup>, W. Simanjuntak<sup>2</sup>, D.A. Sinaga<sup>3</sup>, H. Satria<sup>4</sup>, D.I. Alista<sup>5</sup>**<sup>1,2,3,4,5</sup>Department of Chemistry, University of Lampung, Indonesia.e-mail: <sup>1</sup>kamisah.delilawati@fmipa.unila.ac.id, <sup>3</sup>davinentandreas28@gmail.com

This research was carried out to study transesterification of rubber seed oil (RSO) with methanol using natural zeolite supported NiO, specified as NiO/NZ, as catalyst. The catalyst was prepared by activating the natural zeolite using 3M NaOH solution and the impregnated  $\text{Ni}(\text{NO}_3)_2 \cdot 6 \text{H}_2\text{O}$  to produce supported catalysts with NiO loads of 0, 5, 10, 15, and 20%. To confirm the attachment of NiO to the zeolite, the original zeolite and two of the impregnated samples were characterized using XRF. The three samples were also characterized using XRD and SEM. Transesterification experiments demonstrated that the catalysts prepared possess catalytic activity, with the highest conversion of the RSO into methyl esters of 92% was achieved using the catalyst with NiO load of 5%. Conversion of the RSO into methyl esters was also confirmed using GC-MS technique.

**Keyword:** Transesterification; NiO/NZ catalyst; impregnation; rubber seed oil