ABSTRACT
2nd ULICoSTE 2021

Bandar Lampung, 27 - 28 August 2021

"Promoting Synergy through Collaborative Research in Science and Technology for Digital Transformation"

Institute of Research and Community Service
Universitas Lampung

The 2nd Universitas Lampung International Conference on Science, Technology, and Environment (ULICoSTE) 2021

"Promoting Synergy Through Collaborative Research in Science, Environment and Technology for Digital Transformation"

Friday-Saturday, August 27-28 2021
Emersia Hotel, Bandar Lampung, Indonesia

Scope of Conference:

- Sustainable Development
- Environmental Science
- Remote Sensing and GIS
- Climate Change
- Renewable Energy
- Natural Science
- Design and Implementation of a Technology-Rich Learning Environment

Organized by:

WELCOME MESSAGE FROM CONFERENCE CHAIR

Dear Colleagues,

The Institute for Research and Community Services of Universitas Lampung was honored to host the Second Universitas Lampung International Conference on Science, Technology, and Environment (ULICoSTE) 2021. We warmly welcome all respected paper presenters and participants to the 2nd ULICoSTE 2021. Due to the COVID-19 pandemic, we are now dealing with a paradigm of completely online-organized event using Zoom.

The world is now moving toward digitalization, where technology reigns supreme, the Conference is dedicated to promoting synergy through collaborative research in science and technology for digital transformation. Furthermore, the pandemic has forced us to go digital. As a result, today's digital transformation requires synergy with multiple parties through various research and innovations. Therefore, this 2nd ULICoSTE 2021 was an invitation to discuss various topics related to our Conference theme "Promoting Synergy through Collaborative Research in Science, Environment, and Technology for Digital Transformation."

We hope you have a good technical experience. The 2nd ULICoSTE 2021 promises to be both stimulating and informative with a fantastic line-up of keynote speakers from Murdoch University (Australia), Universitas Lampung (Indonesia), Universiti Teknologi MARA (Malaysia), and National Taiwan Normal University (Taiwan) to develop a relationship and exchange theoretical and practical ideas and knowledge whose interest is focused on collaborative interdisciplinary research in the areas of sustainable development, environmental science, remote sensing and GIS, climate change, renewable energy, and other related areas.

This conference includes invited sessions and panel discussions with notable speakers on a wide range of science and technology research topics. The interactive sessions allow all attendees to meet and communicate with one another online. We hope your experience with the 2nd ULICoSTE 2021 is a fruitful and long-lasting one.

We have raised the bar by focusing on better quality articles for acceptance to be published in reputable conference proceedings and journals. We expect that participants will recognize that publication is a lengthy and exhausting process that entails numerous rounds of reviews and corrections. For these reasons, we expect that participants will contribute by making a concerted effort to guarantee that the articles contributed are original, error-free, and meet the quality standards required. Thus, please assist us in assisting you and others, as a delay in submission by some individuals will have an impact on others.

The conference program represents the efforts of many individuals. Therefore, we would like to express our gratitude to the members of the organizing committee for putting much effort into ensuring the success of day-to-day operation of the conference and the reviewers for their hard work in reviewing submissions. We also thank the four invited

keynote speakers for sharing their insights with us. Finally, the conference would not be possible without the excellent papers contributed by authors. We thank all authors for their contributions and participation in the 2nd ULICoSTE 2021.

We wish all attendees of the 2nd ULICoSTE 2021 an enjoyable scientific gathering in Bandar Lampung, Indonesia. We look forward to seeing you next year at the 3rd ULICoSTE 2022 conference.

Conference Chair
Dr. Ryzal Perdana
Universitas Lampung, Indonesia

CONFERENCE SCHEDULE

The 2nd Universitas Lampung International Conference on Science, Technology and Environment

(ULICoSTE 2021)

RUNDOWN 2nd ULICoSTE

Friday

27th August 2021

The 2nd Universitas Lampung International Conference on Social Sciences, Technology and Environment (ULICoSTE), taking place on 27th and 28th August 2021, the city of Bandar Lampung, Lampung Province, Indonesia

Day/Date	Time Schedule		Activity	Speaker/PIC	Place	Moderator
	Time	Duration				
Friday, 27th August 2021	08.30-09.00 AM	30’	Registration of participants	Participants		
	09.00-10.00 AM	60’	1. Greeting and Dance Performance (10')	Committee Dewi Lestari (MC)	Emersia Hotel	
			2. Opening (5')	Dewi Lestari (MC)		
			3. National Anthem (5')	All participants		
			4. Welcoming address and opening speech. - Head of LPPM (10')	Dr. Ir. Lusmeilia Afriani, D.E.A.		
			- Rector of University of Lampung (10')	Prof. Dr. Karomani, M.Si.		
			5. Praying (10')	Dr. Mualimin, M.Pd		
			6. Photo Session and Closing (10')	All participants		
	10.00-10.45 AM	45'	Presentation 1	Prof. Peter Charles (Digital Transformation)	Zoom	Andi Nafisah Tendri Ajeng, S.Farm., M.Sc.

	10.45-11.30 AM	45'	Presentation 2	Prof. Chun Yen Chang (Sustainable Development)	Zoom	Andi Nafisah Tendri Ajeng, S.Farm., M.Sc.
	11.30-13.00 PM	90'	Break Session			
	13.00-13.45 PM	45’	Presentation 3	Muhamad Norhisyam Ph.D. (Research in Science)	Zoom	Dr. Agus, M.P.
	13.45-14.30 PM	45’	Presentation 4	Prof. Dr. Udin Hasanuddin (Environmental Science)	Zoom	Dr. Agus, M.P.
	15.00-16.00 PM	60’	Parallel Session	All Presenters	Zoom	

Saturday

28th August 2021

The 2nd Universitas Lampung International Conference on Social Sciences, Technology and Environment (ULICoSTE), taking place on 27th and 28th August 2021, the city of Bandar Lampung, Lampung Province, Indonesia

Day/Date	Time Schedule		Activity	Speaker/PIC	Place	Moderator
	Time	Duration				
Saturday, 28th August 2021	08.00-08.50 AM	50’	Participants joining in zoom	All Presenters	Zoom	
	09.00-11.00 AM	120’	Parallel Session	All Presenters	Zoom	
	11.15-11.45 AM	30’	Closing	Dr. Ryzal Perdana, M.Pd.	Zoom	

ROOM 2

Moderator : Khairun Nisa **Time: 15.00 - 16.00 (60 minutes)**

No	Paper ID	Title	Author	Affiliation	Theme
1	PAPERID-101	FAUNA ASPECT OF REPONG DAMAR INDONESIA (STUDY CASE IN KRUI, PESISIR BARAT DISTRICT LAMPUNG PROVINCE)	Sugeng Harianto, Afif Bintoro, Hendra Prasetia, Khoironi Anwar, Seftilia Sari.	Lampung University	Environmental Science
2	PAPERID-118	EFFECT OF NATURAL RUBBER LATEX ADHESIVE CONTENT ON THE PHYSICAL AND MECHANICAL PROPERTIES OF AGRIBOARD FROM CASSAVA STEM WASTES	Wahyu Hidayat, Nana Aprilliana, Sandi Asmara, Muhammad Lubis, Samsul Bakri, Sri Hidayati	Lampung University, Indonesian Institute of Sciences	Environmental Science
3	PAPERID-120	DESIGN OF INTEGRATED TECHNOLOGY IN TEXTILE WASTEWATER MANAGEMENT, GROWTH CONTROL OF WATER HYACINTH (EICHHORNIA CRASSIPES), AND ITS UTILIZATION AS RAW MATERIAL FOR HANDICRAFTS	Ilham Muhammad, Muhammad Amnan, Muhammad Taufiq Qurrahman	Diponegoro University	Environmental Science
4	PAPERID-176	POTENTIAL OF CASSAVA PEEL WASTE AND SEAWEED CARRAGEENAN (EUCHEUMA COTTONII) AS ECO-FRIENDLY FOOD PACKAGING (BIOPLASTIC) : A REVIEW	Esa Fadhallah, Nana Juwita, Septin Eksamayora, Rian Prayoga, Indah Assa'diyah	Lampung University	Environmental Science
5	PAPERID-178	POTENTIAL FOR MANAGEMENT AND UTILIZATION OF LAMPUNG PROVINCE OF TOFU INDUSTRIAL WASTE	Novita Herdiana, Suci Rahmawati, Udin Hasanudin	Lampung University	Environmental Science

TABLE OF CONTENTS

ABSTRACTS

Potential Of Cassava Peel Waste And Seaweed Carrageenan (Eucheuma Cottonii) As Eco-Friendly Food Packaging (BIOPLASTIC) : A Review

Esa Fadhallah[1*)], Nana Juwita[2)], Septin Eksamayora[3)], Rian Prayoga[4)], Indah Assa'diyah[5)]

Lampung University

esa.ghanim@fp.unila.ac.id[1], nanajuwita9@gmail.com[2], Septineksa703@gmail.com[3], rianadiprayoga41@gmail.com[4], Indahnurul9@gmail.com[5]

Abstract: Plastic waste continues to increase every year along with the increasing number of industries and population. Plastic waste has a negative impact on the environment due to its difficulties to decompose and can cause some environmental problems such as lower soil fertility, air pollution, the effects of global warming because it produces CO2 and HCN gas when burned. An alternative to this problem is to make eco-friendly plastics or bioplastics that are easily decomposed by the soil and are made from renewable materials. This study aims to explore bioplastics produced from cassava peels as food industry waste and seaweed carrageenan (Eucheuma cottonii). The method used was an effective literature review. The cassava peel waste and carrageenan have the potential to be made into bioplastics because they contain one type of polysaccharide that can make films based on the principle of gelatinization. The development of bioplastics from cassava peel waste and seaweed carrageenan potentially being able to solve two problems indirectly, such as reducing plastic waste which has many negative impacts as well as being able to utilize cassava peel waste from the industry and maximize the potential of seaweed which is abundant in Indonesia, to promoting the environmental sustainability.

***Keywords**: Bioplastic, Cassava Peel, Plastic, Carrageenan, Waste.*

Office Address:
Universitas Lampung
Gedung Rektorat, 5th Floor
Jl. Prof. Dr. Sumantri Brojonegoro No. 1 Bandar Lampung, 35145, Indonesia
Phn. +62-721-702673 Fax. +62-721-702767