MINISTRY OF EDUCATION AND CULTURE

DIPONEGORO UNIVERSITY

SCHOOL OF POSTGRADUATE STUDIES

Certificate of Appreciation

Number : 1784/UN7.5.12.2/TU/2020

This certificate is presented to

Dwi Sutiningsih

In gratitude for the outstanding contribution as

Presenter

5th International Conference on Energy, Environment, Epidemiology and Information System

(5th ICENIS 2020)

"Emphasizing Environment and Human Security Toward Global Sustainable Development Goals (SDGS) 2030"

Organized by School of Postgraduate Studies Diponegoro University

Semarang - Indonesia on August 12th - 13th, 2020

Dr. R.B. Sularto, S.H., M.Hum.
Dean

Prof. Dr. Hadiyanto, ST., M.Sc.
Conference Chairman

Lamp C....

LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW KARYA ILMIAH: PROCEEDING

Judul Artikel Ilmiah	:	**Case Overview of Patients under Surveillance of COVID-19 in Central Java Province, Indonesia**
Nama semua penulis	:	**Dwi Sutiningsih**, Aufiena Nur Ayu Merzistya, Yulianto Prabowo, Aris Sugiharto and Mufti Agung Wibowo
Status Pengusul (coret yang tidak perlu)	:	**Penulis Utama** / ~~Penulis Anggota~~

Status Proceeding:

• Nama Proceeding/ Seminar	:	The 5th International Conference on Energy, Environmental and Information System (ICENIS 2020)
• Edisi (bulan, tahun)	:	Agustus 2020
• ISSN/ ISBN	:	2267-1242
• DOI	:	https://doi.org/10.1051/e3sconf/202020212013
• Alamat WEB Proceeding	:	https://www.e3s-conferences.org/articles/e3sconf/abs/2020/62/e3sconf_icenis2020_12013/e3sconf_icenis2020_12013.html

Dipresentasikan secara Oral dan dimuat dalam prosiding yang dipublikasikan (beri tanda V yang sesuai)

Seminar
- [√] Internasional Terindeks Scimago SJR dan Scopus **SJR 0,166**
- [ ] Internasional Terindeks pada SCOPUS, IEEE Elrplore, SPIEi
- [ ] Internasional
- [ ] Nasional

Dipresentasikan dengan Poster dan dimuat dalam prosiding yang dipublikasikan (beri tanda V yang sesuai)

Seminar
- [ ] Internasional
- [ ] Nasional

Dipresentasikan tapi tidak dimuat dalam prosiding yang dipublikasikan (beri tanda V yang sesuai)

Seminar
- [ ] Internasional
- [ ] Nasional

Hasil Penilaian Peer Review:

No	Komponen yang dinilai	Nilai Maksimal Artikel Prosiding Internasional Terindeks Scimago SJR dan Scopus **SJR 0,166**	Nilai yang didapat artikel
a	Kelengkapan unsur isi artikel (10 %)	3	2
b	Ruang lingkup & kedalaman pembahasan (30 %)	9	8
c	Kecukupan dan kemutahiran data/informasi dan metodologi (30 %)	9	7
d	Kelengkapan unsur dan kualitas Proceeding (30%)	9	8
	Nilai Total	**30**	25
	Nilai yang didapat pengusul: 60% X 25 =		15

Catatan Penilaian artikel oleh Reviewer

a	Kelengkapan unsur isi artikel	Kelengkapan isi artikel sudah sesuai dengan pedoman proceeding icenis 2020
b	Ruang lingkup & kedalaman pembahasan	Artikel tentang surveilans covid 19 sudah sesuai pedoman proceeding icenis 2020
c	Kecukupan dan kemutahiran data/informasi dan metodologi	Metode ditulis cukup baik. Ada 19 artikel yg direvie
d	Kelengkapan unsur dan kualitas Proceeding	Artikel ini termasuk dalam prosiding internasional terindex scopus

Semarang,
Reviewer 1

Dr. Yuliani Setyaningsih, SKM, M.Kes
NIP. 197107141995032001
Unit kerja : Fakultas Ksehatan Masyarakat UNDIP
Jabatan : Lektor Kepala

Lamp C....

LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW KARYA ILMIAH: PROCEEDING

Judul Artikel Ilmiah	:	**Case Overview of Patients under Surveillance of COVID-19 in Central Java Province, Indonesia**
Nama semua penulis	:	**Dwi Sutiningsih**, Aufiena Nur Ayu Merzistya, Yulianto Prabowo, Aris Sugiharto and Mufti Agung Wibowo
Status Pengusul (coret yang tidak perlu)	:	**Penulis Utama** / ~~**Penulis Anggota**~~
Status Proceeding:		
• Nama Proceeding/ Seminar	:	The 5th International Conference on Energy, Environmental and Information System (ICENIS 2020)
• Edisi (bulan, tahun)	:	Agustus 2020
• ISSN/ ISBN	:	2267-1242
• DOI	:	https://doi.org/10.1051/e3sconf/202020212013
• Alamat WEB Proceeding	:	https://www.e3s-conferences.org/articles/e3sconf/abs/2020/62/e3sconf_icenis2020_12013/e3sconf_icenis2020_12013.html

Dipresentasikan secara Oral dan dimuat dalam prosiding yang dipublikasikan (beri tanda V yang sesuai)

Seminar
- [√] Internasional Terindeks Scimago SJR dan Scopus **SJR 0,166**
- [ ] Internasional Terindeks pada SCOPUS, IEEE Elrplore, SPIEi
- [ ] Internasional
- [ ] Nasional

Dipresentasikan dengan Poster dan dimuat dalam prosiding yang dipublikasikan (beri tanda V yang sesuai)

Seminar
- [ ] Internasional
- [ ] Nasional

Dipresentasikan tapi tidak dimuat dalam prosiding yang dipublikasikan (beri tanda V yang sesuai)

Seminar
- [ ] Internasional
- [ ] Nasional

Hasil Penilaian Peer Review:

No	Komponen yang dinilai	Nilai Maksimal Artikel Prosiding Internasional Terindeks Scimago SJR dan Scopus **SJR 0,166**	Nilai yang didapat artikel
a	Kelengkapan unsur isi artikel (10 %)	3	**2**
b	Ruang lingkup & kedalaman pembahasan (30 %)	9	**6**
c	Kecukupan dan kemutahiran data/informasi dan metodologi (30 %)	9	**6**
d	Kelengkapan unsur dan kualitas Proceeding (30%)	9	**6**
	Nilai Total	**30**	**20**
	Nilai yang didapat pengusul: 60% X =		

Catatan Penilaian artikel oleh Reviewer

a	Kelengkapan unsur isi artikel	Didapati judul, abstrak, pendahuluan, metode, hasil, pembahasan, kesimpulan.
b	Ruang lingkup & kedalaman pembahasan	Penelitian ini pada intinya menggambarkan karakteristik pasien COVID-19 yang tercatat dalam program surveilan Covid-19 di Provinsi Jawa Tengah.
c	Kecukupan dan kemutahiran data/informasi dan metodologi	Semua data/informasi yang diacu untuk penulisan artikel ini adalah dari referensi terbitan kurang dari 10 tahun terakhir.
d	Kelengkapan unsur dan kualitas Proceeding	Penerbit mempunyai nomor e-ISSN, terindeks di Scopus, pengusul tidak mempunyai sertifikat sebagai penyaji oral..

Semarang, April 2021
Reviewer 2

dr. M. Sakundarno Adi, M.Sc, Ph.D
NIP. 196401101990011001
Unit kerja : Fakultas Kesehatan Masyarakat UNDIP
Jabatan : Lektor Kepala

Document details

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E3S Web of Conferences
Volume 202, 10 November 2020, Article number 12013
5th International Conference on Energy, Environmental and Information System, ICENIS 2020;
Semarang; Indonesia; 12 August 2020 through 13 August 2020; Code 164805

Case Overview of Patients under Surveillance of COVID-19 in Central Java Province, Indonesia (Conference Paper) (Open Access)

Sutiningsih, D.[a], Nur Ayu Merzistya, A.[a], Prabowo, Y.[b], Sugiharto, A.[b], Agung Wibowo, M.[b]

[a]Master of Epidemiology, Postgraduate School, Imam Barjo No. 5, Semarang, Indonesia
[b]Department of Health, Central Java Province, Piere Tendean No. 24, Semarang, Indonesia

Abstract

View references (34)

Central Java reported 1,541 cases of Patients Under Surveillance until April 14th, 2020. It is expected to increase everyday. However, reports about the epidemiological characteristics of Patients Under Surveillance cases are still limited. This study aims to describe Patients Under Surveillance case of COVID-19. The study used quantitative descriptive design, whereas many as 1,541 cases were described based on the characteristics, contact history, history of transit, and the symptoms. The data are obtained from the Department of Health, Central Java and processed with descriptive statistical data analysis. Results showed from 1,541 cases as much as 59.9% were male and 43% aged 19-44 years. As many as 154 death cases were dominated by men (61.6%) and elderly 60 years (38.3%). The highest IR was Semarang (16.85/100,000 population). Symptoms that often found were cough, fever, dyspnea (8.3%), and 3.96% asymptomatic. The history of contact with the traveling person (4.7%). The most visited city was Jakarta (7.5%). It is concluded that cases in Central Java spread across 35 cities with a high number of cases and mortality. It is necessary to conduct a detailed Patients Under Surveillance case reports to monitor the spread of the virus that can be prevented in advance.

SciVal Topic Prominence

Topic: Middle East Respiratory Syndrome Coronavirus | Coronavirus Infections | Hajj

Prominence percentile: 98.344

Author keywords

COVID-19 Descriptive Patients under Surveillance PDP

Indexed keywords

Engineering controlled terms: Information systems Information use Viruses

Engineering uncontrolled terms: Case reports Central Java Province Department of healths Indonesia Jakarta Statistical data analysis

Engineering main heading: Monitoring

ISSN: 25550403 DOI: 10.1051/e3sconf/202020212013

Source details

E3S Web of Conferences

Scopus coverage years: from 2013 to Present

E-ISSN: 2267-1242

Subject area: Energy: General Energy | Environmental Science: General Environmental Science | Earth and Planetary Sciences: General Earth and Planetary Sciences

CiteScore 2019
0.4

SJR 2019
0.166

SNIP 2019
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CiteScore | CiteScore rank & trend | Scopus content coverage

Improved CiteScore methodology

CiteScore 2019 counts the citations received in 2016-2019 to articles, reviews, conference papers, book chapters and data papers published in 2016-2019, and divides this by the number of publications published in 2016-2019. Learn more >

CiteScore 2019

$$0.4 = \frac{4{,}213 \text{ Citations } 2016 - 2019}{10{,}927 \text{ Documents } 2016 - 2019}$$

Calculated on 06 May, 2020

CiteScoreTracker 2020

$$0.6 = \frac{10{,}897 \text{ Citations to date}}{18{,}914 \text{ Documents to date}}$$

Last updated on 02 March, 2021 • Updated monthly

CiteScore rank 2019

Category	Rank	Percentile
Energy — General Energy	#52/63	18th
Environmental Science — General Environmental Science	#175/210	16th

View CiteScore methodology > | CiteScore FAQ > | Add CiteScore to your site

Aims & scope

E3S Web of Conferences is an Open Access publication series dedicated to archiving conference proceedings in all areas related to Environment, Energy and Earth Sciences. The journal covers the technological and scientific aspects as well as social and economic matters. Major disciplines include: soil sciences, hydrology, oceanography, climatology, geology, geography, energy engineering (production, distribution and storage), renewable energy, sustainable development, natural resources management, environmental health...

E3S Web of Conferences offers a wide range of services from the organization of the submission of conference proceedings to the worldwide dissemination of the conference papers. It provides an efficient archiving solution, ensuring maximum exposure and wide indexing of scientific conference proceedings.

Proceedings are published under the scientific responsibility of the conference editors.

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Indexation

Metrics and other services

Editorial board

5th International Conference on Energy, Environment, Epidemiology and Information System (5th ICENIS) 2020

Organized by

School of Postgraduate Studies
Universitas Diponegoro

12-13th August 2020

Preface

The 5th International Conference on Energy, Environment, Epidemiology and Information System 2020 (5th ICEN IS 2020) has been organized by the School of Postgradute Studies, Universitas Diponegoro, Indonesia with the support by World Class University (WCU) Program. The conference was held on Auguat 12th-13th 2020 in Semarang, Indonesia by using Online Conference System. The aim of the conference was to distribute research outcomes on multidisciplinary research area on energy, environment, health and epidemiology and information system.

The 5th ICENIS 2020 have presented 10(ten) international honorable keynote speakers from representative institutions and continents: i) Prof. Elco van Burg, Vrij University Amsterdam, The Netherlands; ii) Prof Peter Gell, Federation University, Australia., iii) Prof. Jerry Miller, Western Caroline University, USA; iv) Prof. Shabbir Gheewalla, Joint Graduate School of Energy and Environment (JGSEE), Kingmokut University, Thailand; v) Assoc. Prof. Zainul Zakaria, Chemical Engineering Department, UTM Malaysia; (vi) Dr Yurdi Yasmi; Regional representative of IRRI for Southeast Asia, Cambodia; (vii) Dr Nuki Agya Utama, Executive Director of Asean Energy research; (viii) Patrick van Schijndel, TU Delft, The Netherlands, (ix) Barokah Sri Utami, Former President Director of PT Phapros, Indonesia, and (x) Dr Liew Kian heng from Strategics Singapore. Pursuing the international network of researchers and industrial applications, this event also has been attended by overseas colleagues to share their best research works as well as local academia and practitioners. Over 320 representatives from various institutions participated in this event, involving more than 340 abstracts submitted. After a rigorous selection process, the Scientific & Editorial Board of 5th ICENIS 2020 made selection of 300 articles to be published in E3S Web of Conferences, an open-access proceedings in environment, energy and earth sciences, managed by EDP Sciences, and indexed on Scopus, Scimago, Conference Proceedings Citation Index-Science (CPCI-S) of Clarivate Analytics's Web of Science, DOAJ (Directory of Open Access Journals). The Proceedings of 5th ICENIS 2020 consists of selected articles from Kazakhstan, Libya, Netherlands, Thailand, Malaysia. The published papers have passed all necessary improvement requirements in accordance to the Web of Conferences standard, reviewer's comments, SI, similarity tests by Turnitin program.

We would like to express our gratitude to the official committee, scientific & editorial boards, organizing partners. A very special thanks to Universitas Diponegoro for financially supporting this conference especially for financing indexing of proceeding in E3S. Finally, we would like to briefly acknowledge all presenters and attendees for their efforts sharing the beautiful ideas and useful research outcomes to inspire further research and collaborations. Although, this time the conference has been successfully conducted via webinar, but the number of participants showed a great increases and we do hope that this also will be the same for the coming 6th ICENIS 2021.

See you again in the next year conference 5th ICENIS 2021

The chairman

Prof. Hadiyanto

SCIENTIFIC and EDITORIAL BOARD

The School Of Postgraduate Studies,
Diponegoro University

5th ICENIS 2020

Online International Conference

Emphasizing Environment And Human Security Towards Global Sustainable Development Goals (SDGs) 2030

Topic

Energy
- Energy management and policy
- Energy planning and Education
- Energy conservation and efficiency
- Energy conversion technology
- Renewable energy
- Nonrenewable energy / Fossil energy
- Culture and Environmental Development in Coastal Community

Environment
- Environmental Conservation
- Environmental Policy, Planning and Education
- Environmental Technology
- Environmental Health and Toxicology
- Environmental Epidemiology
- Pollution Control
- Waste Management
- Green Infrastructure and Resilience

Epidemiology
- Epidemiology related to disease and health event preventionmand control
- Managerial epidemiology
- Environmental epidemiology
- Occupational epidemiology
- Nutritional epidemiology
- Behavioral epidemiology

Information System
- Bussiness Intelligence
- Supply Chain Information Systems
- Industrial Information Systems
- Decission Support Systems
- Smart Information Systems
- Health, Safety and Environment Information Systems

Keynote Speaker

PROF. PETER GELL
Professor Of Environmental Management, Federation University, Australia

DR. NUKI AGYA UTAMA
Executive Director ASEAN Center For Energy

DR. YURDI YASMI
International Rice Research Institute (IRRI) Regional Representative For Southeast Asia, Phillipine

DR. LIEW KIAN HENG
Strategics And Liew Consultants, Singapore

PROF. ELCO VAN BURG
School Of Business And Economics At Vrije Universiteit Amsterdam, Netherlands

DR. IR. PATRICK VAN SCHIJNDEL
Technische Universiteit Eindhoven (TUE), Netherlands

DR. ZAINUL AKMAR ZAKARIA
Chemical Engineering Department, University Teknologi Malaysia(UTM), Malaysia

DRA. BAROKAH SRI UTAMI, APT., MM
Managing Director Pt Phapros Tbk, Indonesia

PROF. DR. JERRY MILLER
Department of Geosciences and Natural Resources, Western Carolina University

PROF. HADIYANTO
School Of Postgraduates Studies Universitas Diponegoro, Indonesia

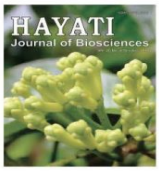
PROF. DR. SHABBIR H. GHEEWALA
Joint Graduate School Of Environment And Energy (JGSEE), King Mokut University, Thailand

Submission & Registration

http://www.icenis.org

Publication

All accepted papers will be published in Scopus Indexed Proceeding E3S Web of Conferences and selected papers will be published in International Journal of Renewable Energy Development (Scopus indexed) and HAYATI Journal of Biosciences (Scopus Q3)



IJRED International Journal of Renewable Energy Development

Contact

+62 24 8449 608 (Office)
+62 813 2647 7628 (Prof. Hadiyanto)
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+62 813 9085 6514 (Eko Pujiyanto)
Email : icenis (at) live.undip.ac.id

Conference Fees

	Before June 27th, 2020	After June 27th, 2020
Presenter		
Indonesian Presenter	IDR ~~2500000~~ 2.000.000/ paper	IDR ~~3750000~~ 2.250.000/paper
International Presenter	USD ~~250~~ 175/ paper	USD ~~300~~ 225/paper
Student presenter	IDR ~~2000000~~ 1500.000/ paper	IDR ~~2500000~~ 2.000.000/paper
Participant (Non Presenter)		
Indonesian Participant	IDR 1.000.000	IDR 1.250.000
International Participant	USD ~~150~~ 125	USD ~~200~~ 150

* The fee had been adjusted as our commitment in fixing the current situation of Pandemic Covid-19
* Additional fee for second paper IDR ~~1.750.000~~
* Every author may submit maximum of four articles, two articles as first author and the remaining two articles as co-author

	Early Birds 1	Batch 2
FULL PAPER SUBMISSION	Before May 30th, 2020	Before June 20th, 2020
ACCEPTANCE NOTIFICATION	On June 17th, 2020	On July 17th, 2020
FINAL MANUSCRIPT	Before June 24th, 2020	Before July 17th, 2020
EARLY REGISTRATION PAYMENT	Before June 24th, 2020	Before July 17th, 2020

Organizing committee:

Prof. Dr. Hadiyanto, M.Sc (Chairman)
Dr. Thomas Trihadi Putranto, S.T., M.Eng. (Co Chairman)
Dr. drg. Dwi Surtiningsih, M.Kes. (Program)
Dr. Budi Warsito, S.SI., M.Si. (Publication)

The Organizing Committee

This conference has been organized by School of postgraduate studies, Universitas Diponegoro Semarang. The school currently coordinating 6 graduate multidisciplinary programs i.e Master program of environmental science, master program of energy, master program of epidemiology, master program of information system, doctoral program of environmental sciences, and doctorate program of Information system. The total students is currently 350 students among these 6 programs.

The website: https://pasca.undip.ac.id

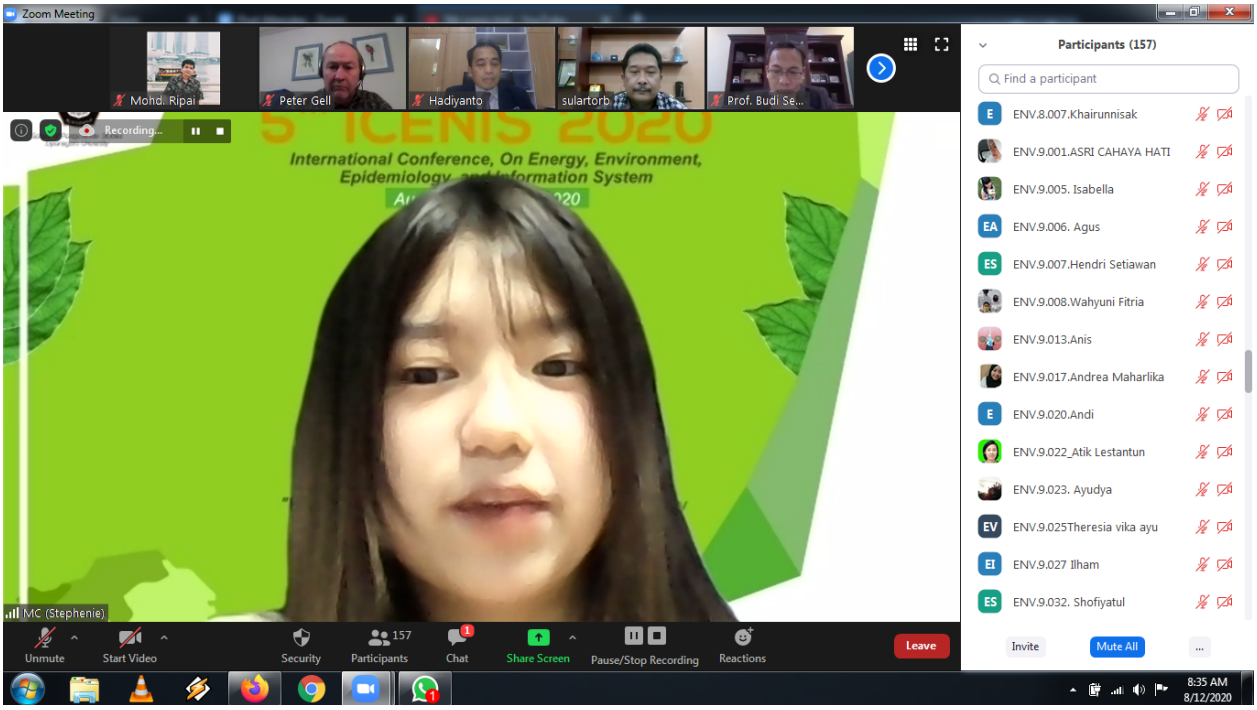
Website of conference: https://icenis.undip.ac.id

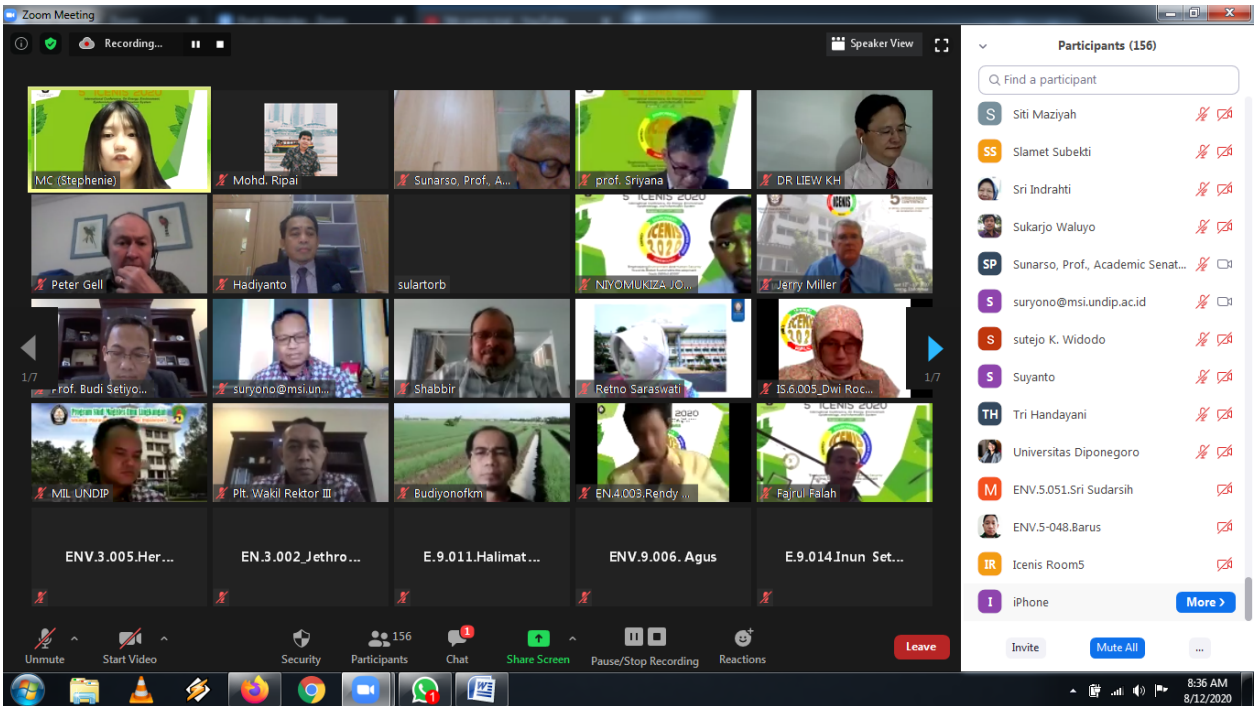
The committee of 5th ICENIS 2020

Chairman	: Prof. Hadiyanto, MSc
Vice chairman	: Dr Thomas Putranto Triadi
Programs	: Dr Fuad Muhammad
Publications	: Dr Budi Warsito
Supporting	: Yunis, Alwi, Doni, Silvia, Fitri Handayani, Eko, Emma, Imma, Hastomo, Hamim, Rohmad, Gito, Joko, Lila

Some pictures from the conference

Opening Ceremony





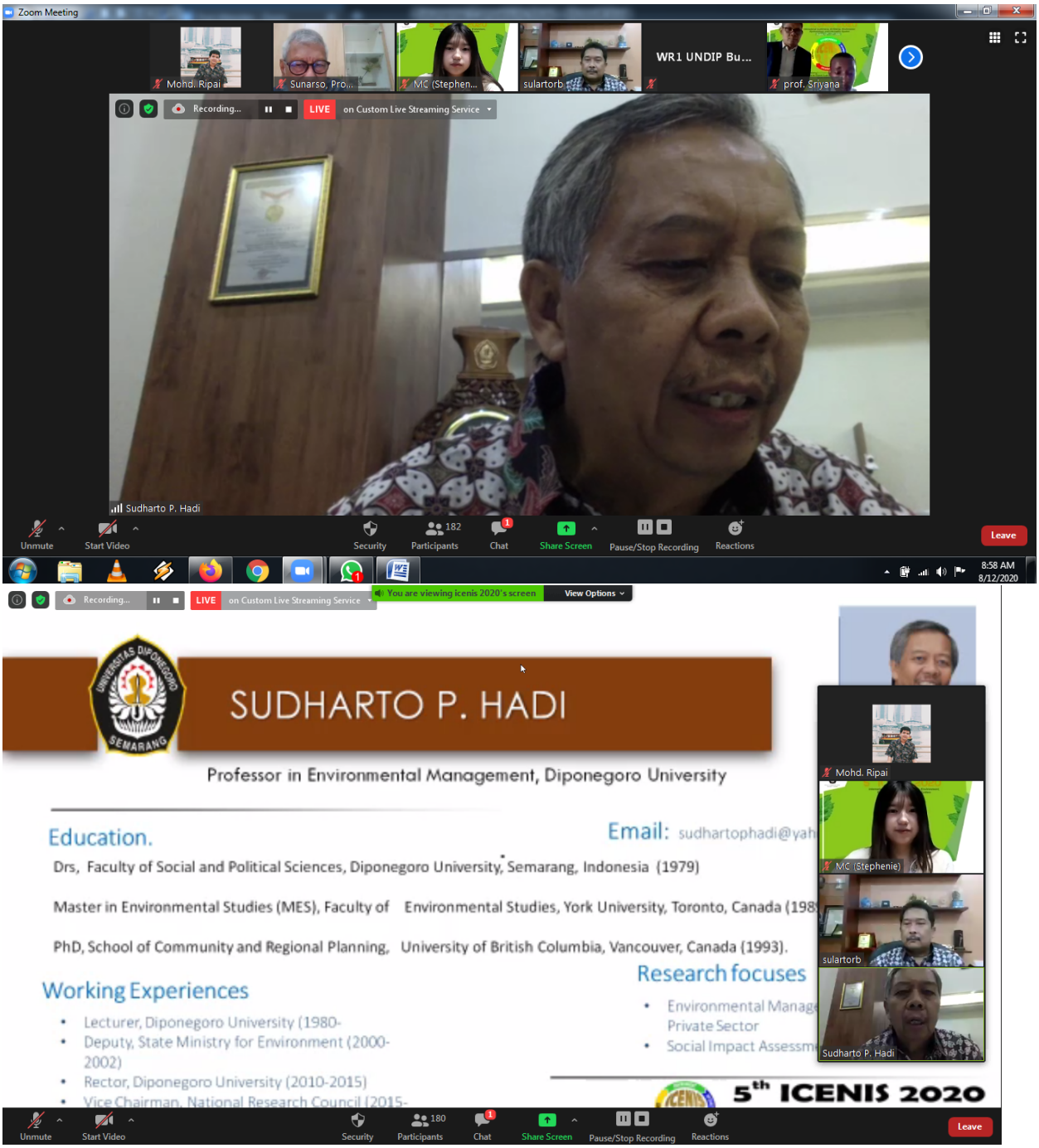
2. The Chairman report

3. The remarks form Dean of School of Postgraduate Studies

4. Opening Remarks by The vice Rector, Prof. Budi Setiyono

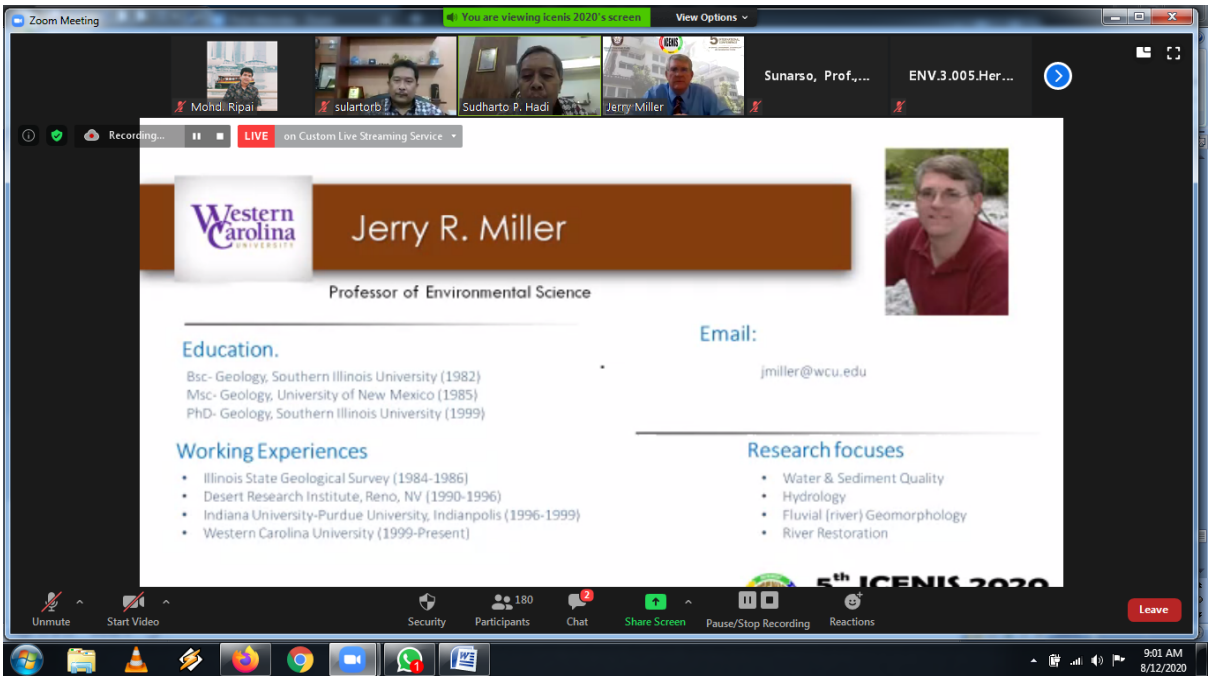
Participants

Keynote speaker Session I (Chaired by Prof. Sudharto P Hadi)



Keynote 1: Prof. Elco

2. Keynote 2 (Prof. Jerry Miller)


Zoom Meeting
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Mohd. Ripai
sulartorb
Sudharto P. Hadi
Jerry Miller
Sunarso, Prof.,...
ENV.3.005.Her...
Recording...
LIVE
on Custom Live Streaming Service
Western Carolina University
Jerry R. Miller
Professor of Environmental Science
Email:
jmiller@wcu.edu
Education.
Bsc- Geology, Southern Illinois University (1982)
Msc- Geology, University of New Mexico (1985)
PhD- Geology, Southern Illinois University (1999)
Working Experiences
Illinois State Geological Survey (1984-1986)
Desert Research Institute, Reno, NV (1990-1996)
Indiana University-Purdue University, Indianpolis (1996-1999)
Western Carolina University (1999-Present)
Research focuses
Water & Sediment Quality
Hydrology
Fluvial (river) Geomorphology
River Restoration
Unmute
Start Video
Security
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Participants
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Share Screen
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Reactions
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ON ENERGY, ENVIRONMENT, EPIDEMIOLOGY AND INFORMATION SYSTEM
Jerry Miller
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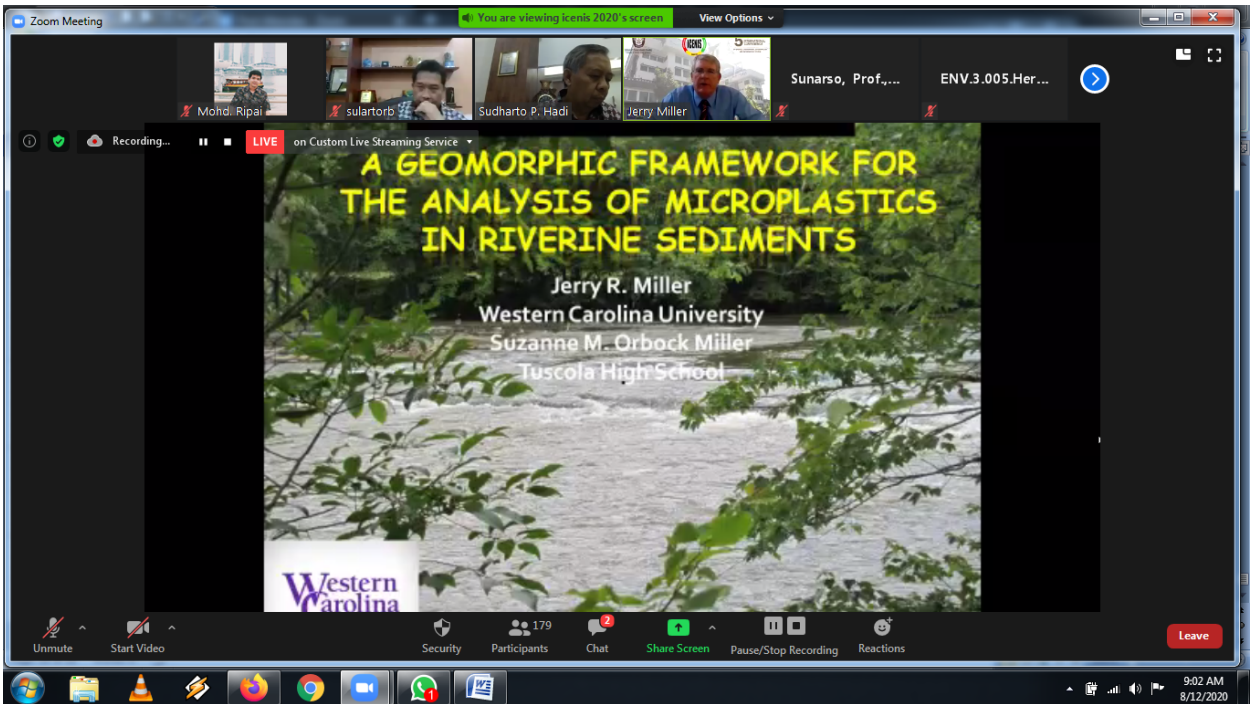
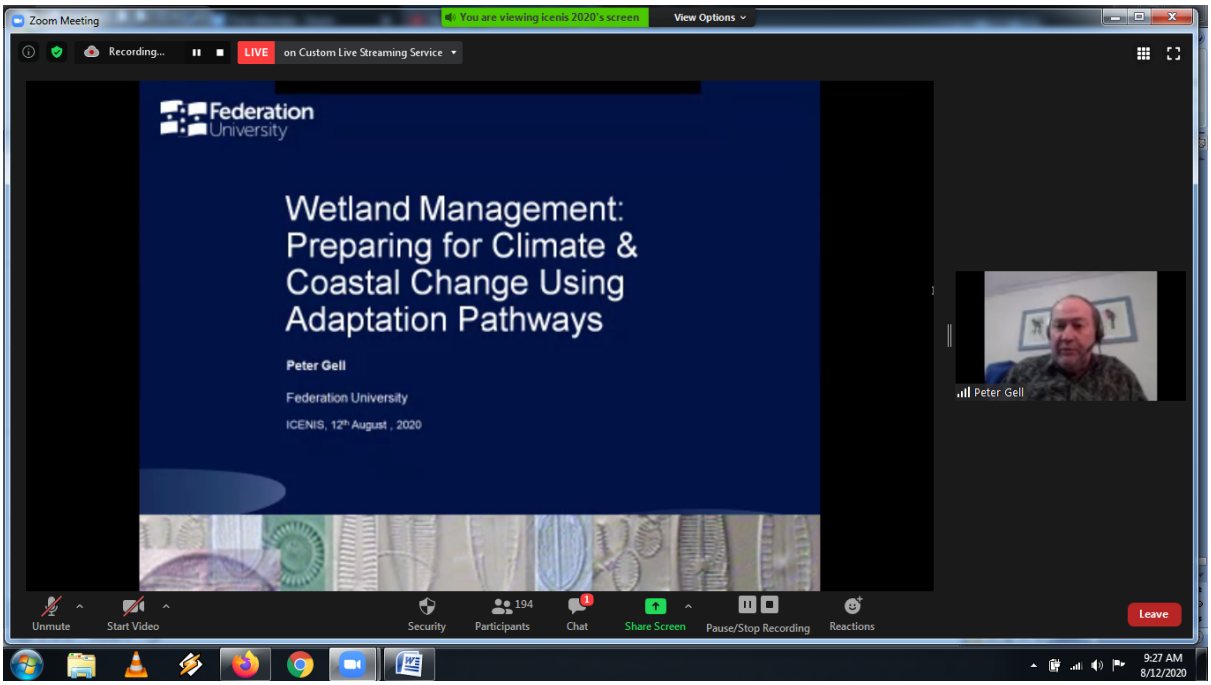
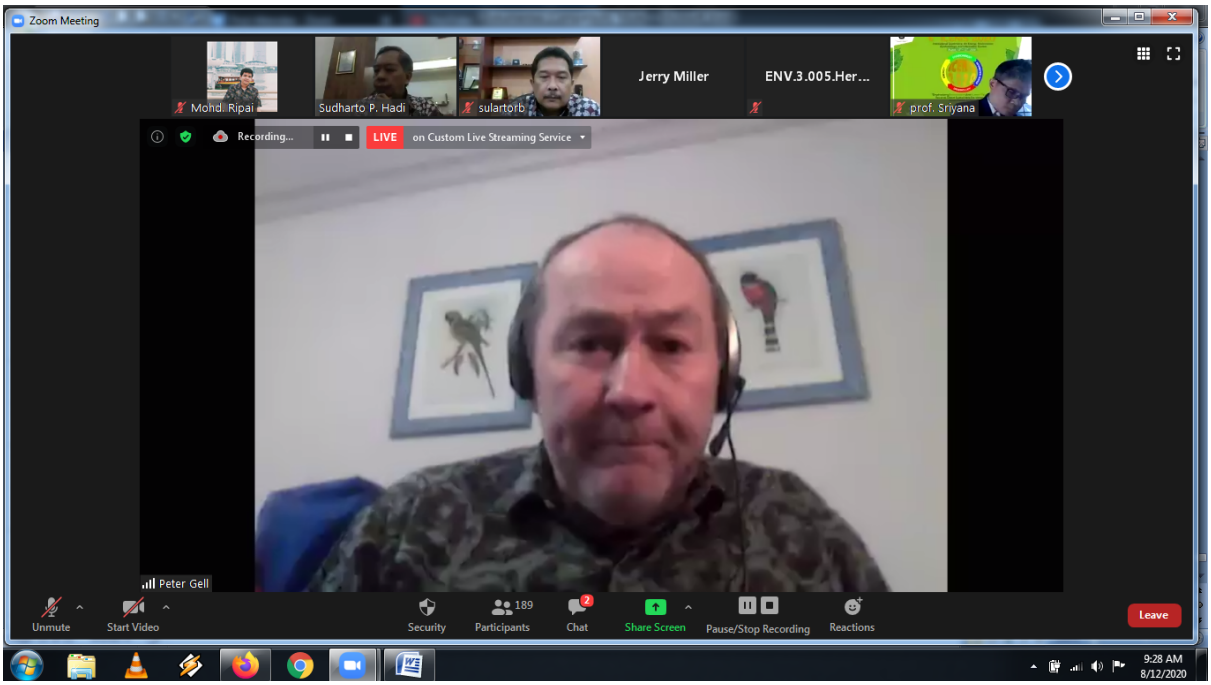


3. Keynote 3 (Prof. Peter Gell)

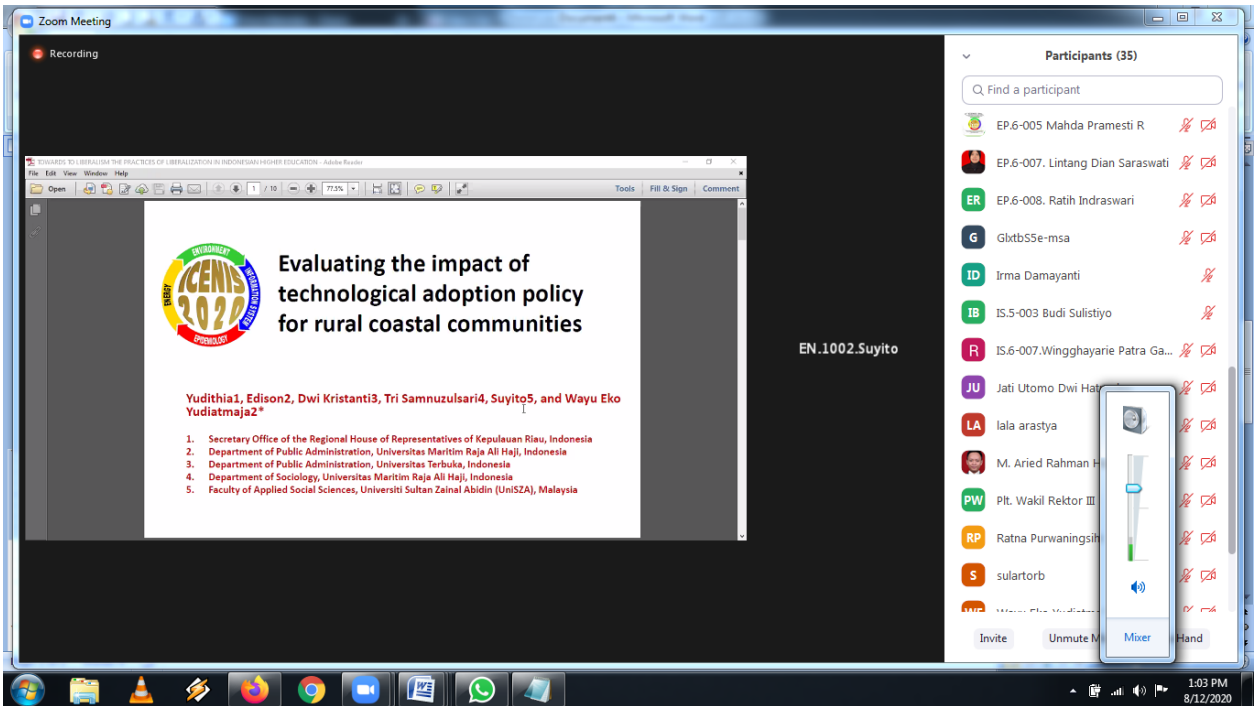




Keynote 5 (Dr Yurdi Yasmi)

Keynote 6(Dr Liew Kian Heng)

Example for Parallel Session
ROOM 1


Zoom Meeting
Recording
Evaluating the impact of technological adoption policy for rural coastal communities
Yudithia1, Edison2, Dwi Kristanti3, Tri Samnuzulsari4, Suyito5, and Wayu Eko Yudiatmaja2*
1. Secretary Office of the Regional House of Representatives of Kepulauan Riau, Indonesia
2. Department of Public Administration, Universitas Maritim Raja Ali Haji, Indonesia
3. Department of Public Administration, Universitas Terbuka, Indonesia
4. Department of Sociology, Universitas Maritim Raja Ali Haji, Indonesia
5. Faculty of Applied Social Sciences, Universiti Sultan Zainal Abidin (UniSZA), Malaysia
EN.1002.Suyito
Participants (35)
Find a participant
EP.6-005 Mahda Pramesti R
EP.6-007. Lintang Dian Saraswati
EP.6-008. Ratih Indraswari
Glxtb55e-msa
Irma Damayanti
IS.5-003 Budi Sulistiyo
IS.6-007.Wingghayarie Patra Ga...
Jati Utomo Dwi Ha
lala arastya
M. Aried Rahman H
Plt. Wakil Rektor III
Ratna Purwaningsih
sulartorb
Invite
Unmute M
Mixer
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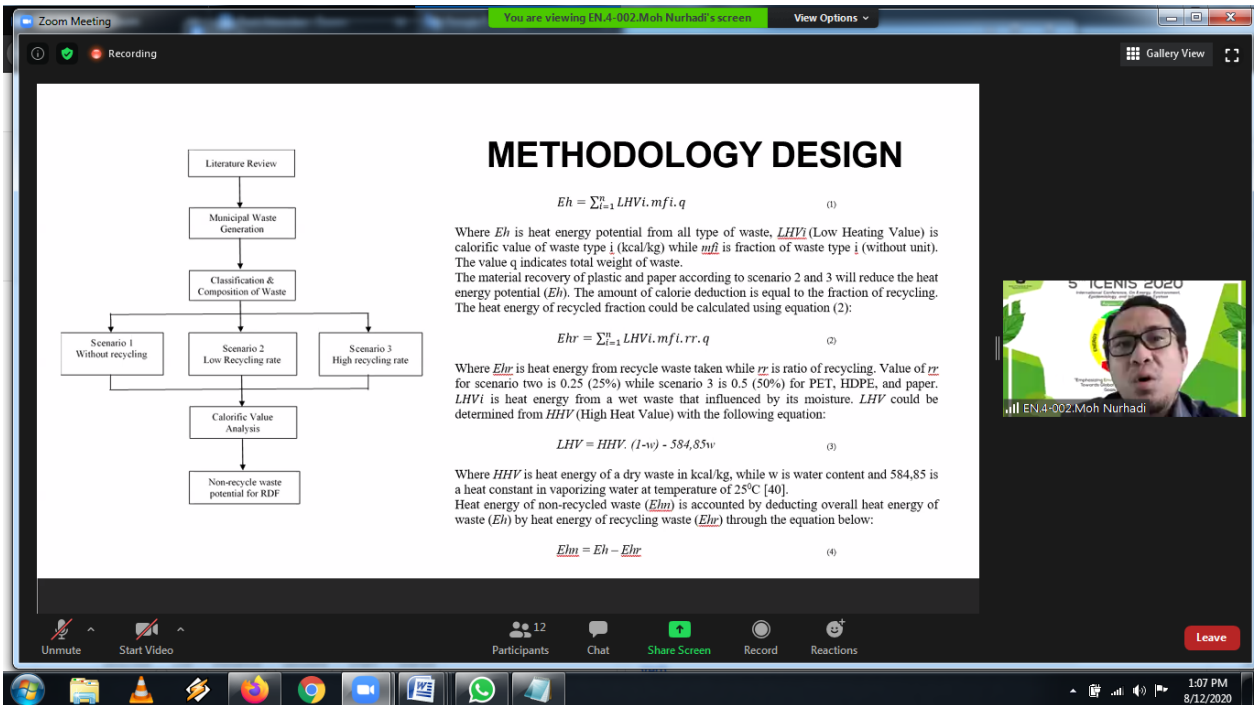
8/12/2020

ROOM 2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METHODOLOGY DESIGN
Literature Review
Municipal Waste Generation
Classification & Composition of Waste
Scenario 1 Without recycling
Scenario 2 Low Recycling rate
Scenario 3 High recycling rate
Calorific Value Analysis
Non-recycle waste potential for RDF
$Eh = \sum_{i=1}^{n} LHVi.mfi.q$ (1)
Where Eh is heat energy potential from all type of waste, LHVi (Low Heating Value) is calorific value of waste type i (kcal/kg) while mfi is fraction of waste type i (without unit). The value q indicates total weight of waste.
The material recovery of plastic and paper according to scenario 2 and 3 will reduce the heat energy potential (Eh). The amount of calorie deduction is equal to the fraction of recycling. The heat energy of recycled fraction could be calculated using equation (2):
$Ehr = \sum_{i=1}^{n} LHVi.mfi.rr.q$ (2)
Where Ehr is heat energy from recycle waste taken while rr is ratio of recycling. Value of rr for scenario two is 0.25 (25%) while scenario 3 is 0.5 (50%) for PET, HDPE, and paper. LHVi is heat energy from a wet waste that influenced by its moisture. LHV could be determined from HHV (High Heat Value) with the following equation:
$LHV = HHV.(1-w) - 584,85w$ (3)
Where HHV is heat energy of a dry waste in kcal/kg, while w is water content and 584,85 is a heat constant in vaporizing water at temperature of 25°C [40].
Heat energy of non-recycled waste (Ehn) is accounted by deducting overall heat energy of waste (Eh) by heat energy of recycling waste (Ehr) through the equation below:
$Ehn = Eh - Ehr$ (4)
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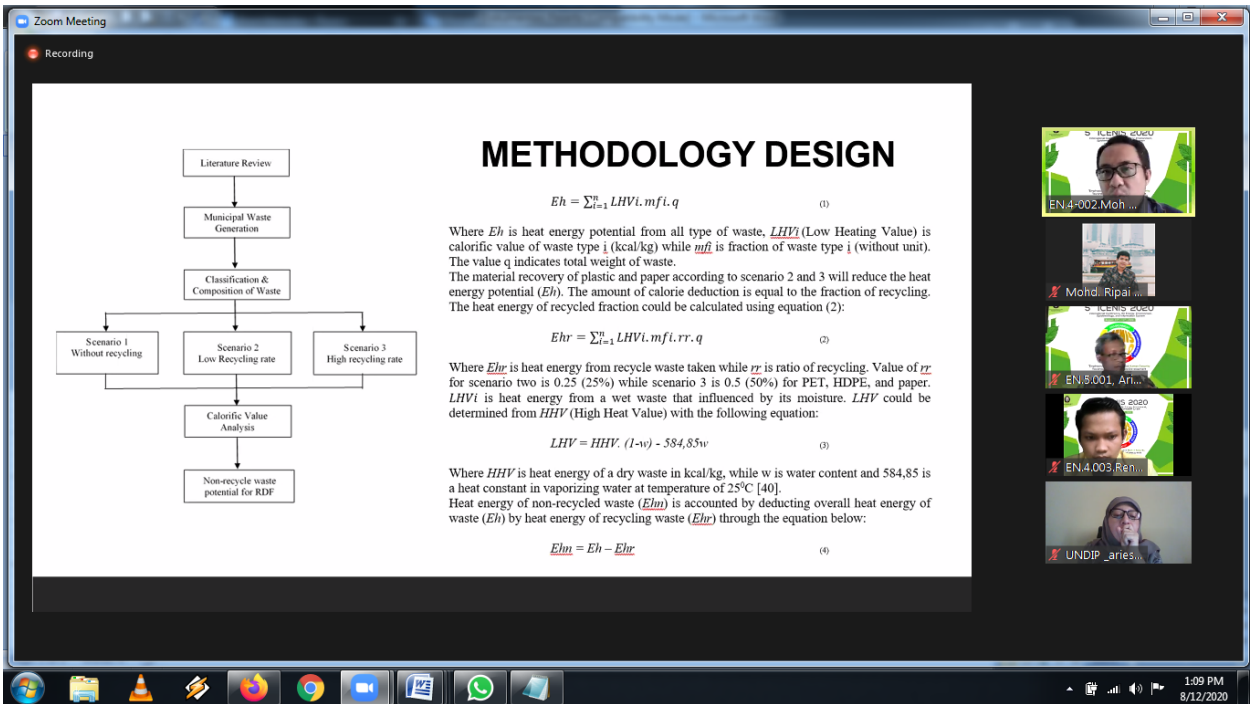
Zoom Meeting
Recording
METHODOLOGY DESIGN
Literature Review
Municipal Waste Generation
Classification & Composition of Waste
Scenario 1 Without recycling
Scenario 2 Low Recycling rate
Scenario 3 High recycling rate
Calorific Value Analysis
Non-recycle waste potential for RDF
$Eh = \sum_{i=1}^{n} LHVi.mfi.q$ (1)
Where Eh is heat energy potential from all type of waste, LHVi (Low Heating Value) is calorific value of waste type i (kcal/kg) while mfi is fraction of waste type i (without unit). The value q indicates total weight of waste.
The material recovery of plastic and paper according to scenario 2 and 3 will reduce the heat energy potential (Eh). The amount of calorie deduction is equal to the fraction of recycling. The heat energy of recycled fraction could be calculated using equation (2):
$Ehr = \sum_{i=1}^{n} LHVi.mfi.rr.q$ (2)
Where Ehr is heat energy from recycle waste taken while rr is ratio of recycling. Value of rr for scenario two is 0.25 (25%) while scenario 3 is 0.5 (50%) for PET, HDPE, and paper. LHVi is heat energy from a wet waste that influenced by its moisture. LHV could be determined from HHV (High Heat Value) with the following equation:
$LHV = HHV.(1\text{-}w) - 584,85w$ (3)
Where HHV is heat energy of a dry waste in kcal/kg, while w is water content and 584,85 is a heat constant in vaporizing water at temperature of 25°C [40].
Heat energy of non-recycled waste (Elm) is accounted by deducting overall heat energy of waste (Eh) by heat energy of recycling waste (Ehr) through the equation below:
$Elm = Eh - Ehr$ (4)
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EN.4.003.Ren...
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ROOM 3


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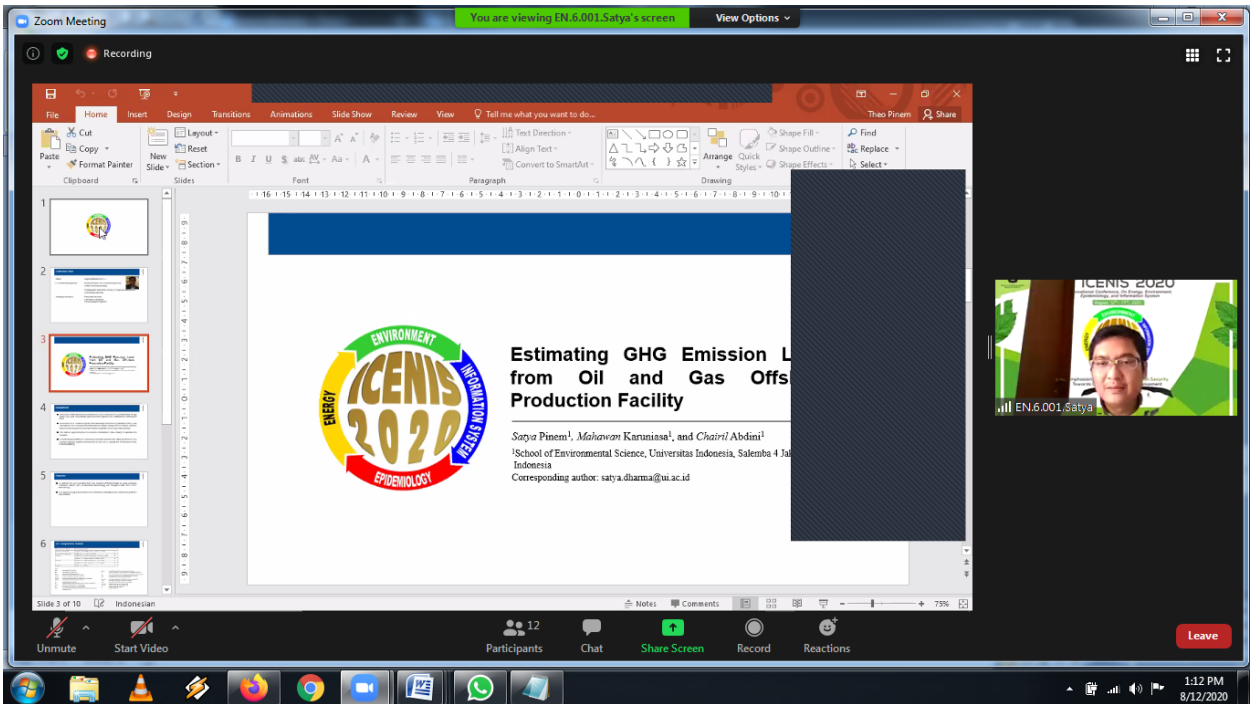
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Estimating GHG Emission L
from Oil and Gas Offs
Production Facility
Satya Pinem[1], Mahawan Karuniasa[1], and Chairil Abdini[1]
[1]School of Environmental Science, Universitas Indonesia, Salemba 4 Jal
Indonesia
Corresponding author: satya.dharma@ui.ac.id
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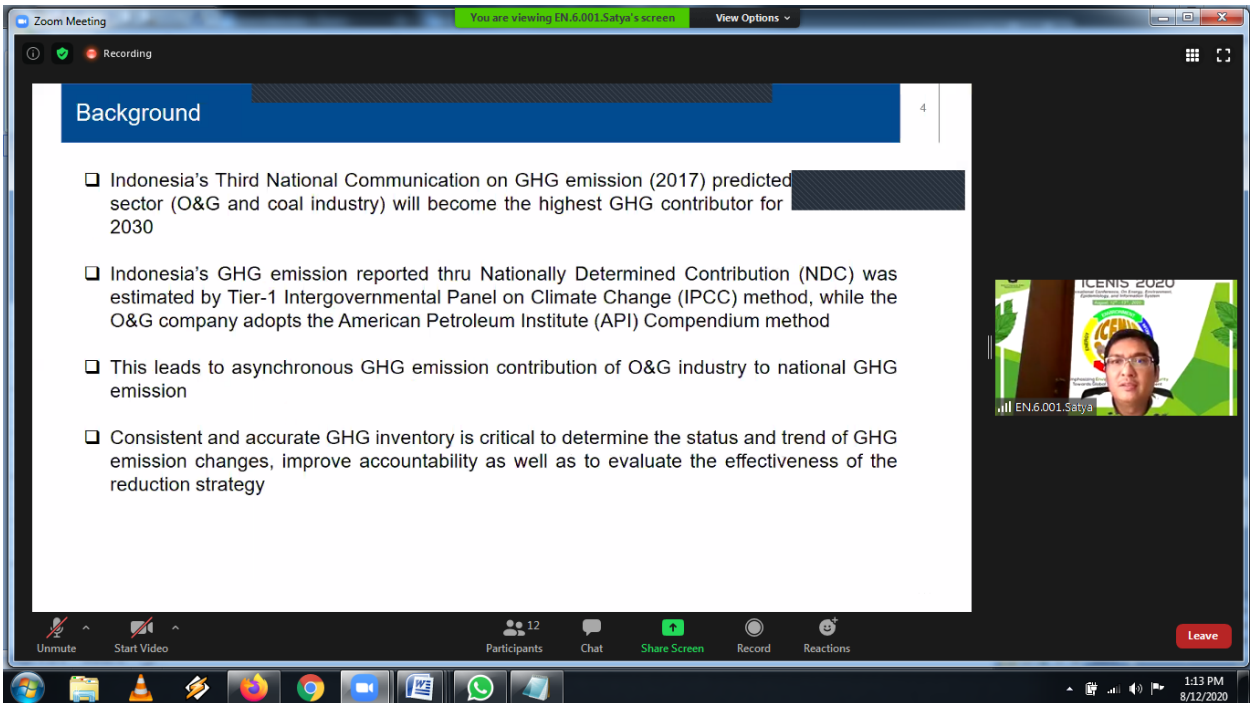
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Background
4
Indonesia's Third National Communication on GHG emission (2017) predicted
sector (O&G and coal industry) will become the highest GHG contributor for
2030
Indonesia's GHG emission reported thru Nationally Determined Contribution (NDC) was estimated by Tier-1 Intergovernmental Panel on Climate Change (IPCC) method, while the O&G company adopts the American Petroleum Institute (API) Compendium method
This leads to asynchronous GHG emission contribution of O&G industry to national GHG emission
Consistent and accurate GHG inventory is critical to determine the status and trend of GHG emission changes, improve accountability as well as to evaluate the effectiveness of the reduction strategy
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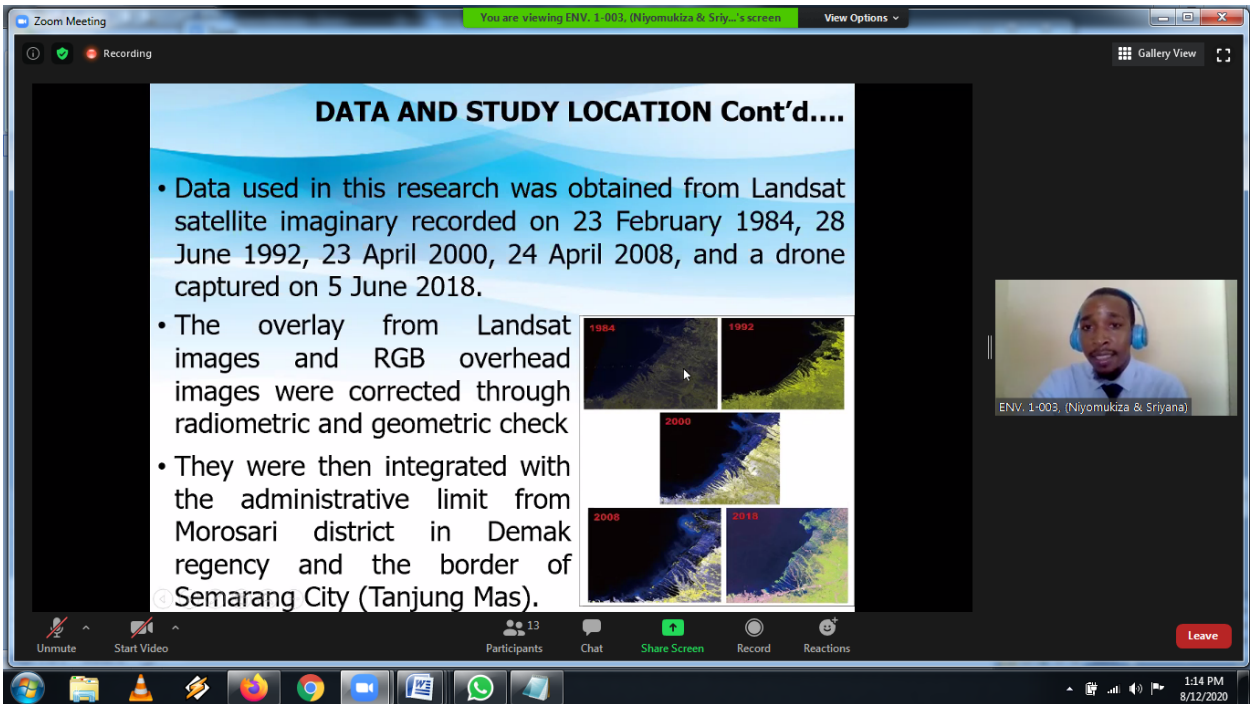
ROOM 4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Gallery View
DATA AND STUDY LOCATION Cont'd....
• Data used in this research was obtained from Landsat satellite imaginary recorded on 23 February 1984, 28 June 1992, 23 April 2000, 24 April 2008, and a drone captured on 5 June 2018.
• The overlay from Landsat images and RGB overhead images were corrected through radiometric and geometric check
• They were then integrated with the administrative limit from Morosari district in Demak regency and the border of Semarang City (Tanjung Mas).
1984
1992
2000
2008
2018
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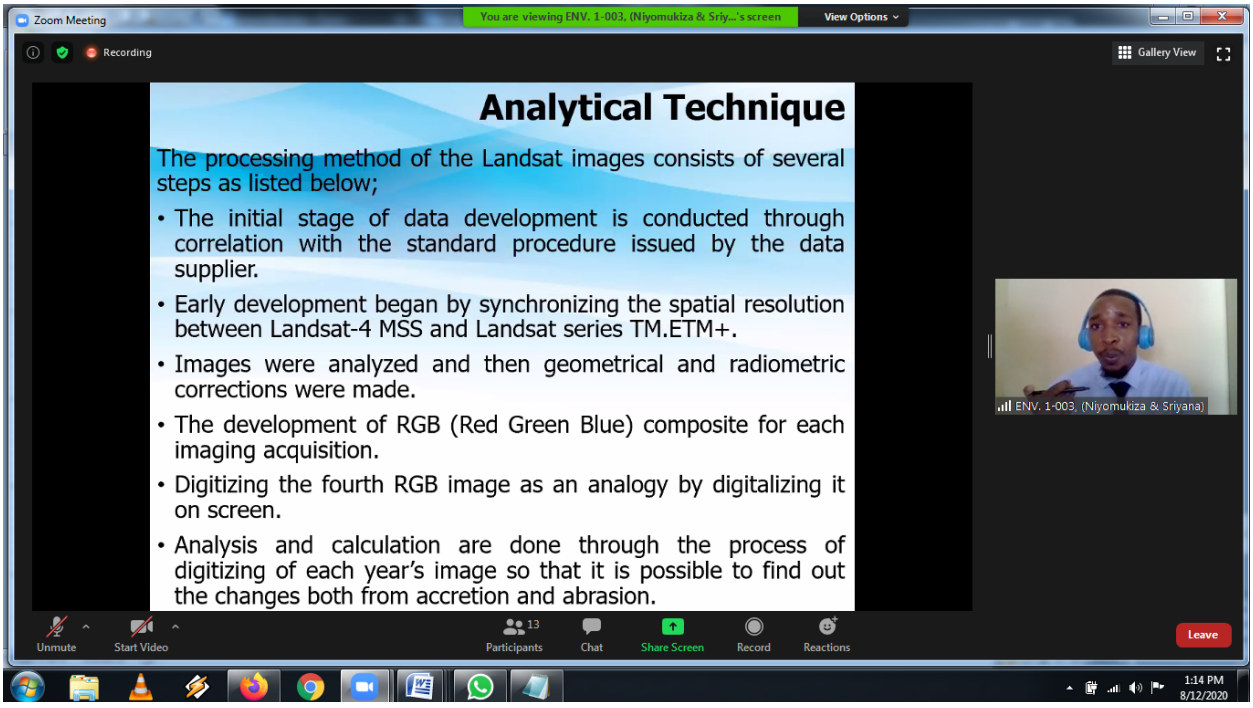
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Gallery View
Analytical Technique
The processing method of the Landsat images consists of several steps as listed below;
• The initial stage of data development is conducted through correlation with the standard procedure issued by the data supplier.
• Early development began by synchronizing the spatial resolution between Landsat-4 MSS and Landsat series TM.ETM+.
• Images were analyzed and then geometrical and radiometric corrections were made.
• The development of RGB (Red Green Blue) composite for each imaging acquisition.
• Digitizing the fourth RGB image as an analogy by digitalizing it on screen.
• Analysis and calculation are done through the process of digitizing of each year's image so that it is possible to find out the changes both from accretion and abrasion.
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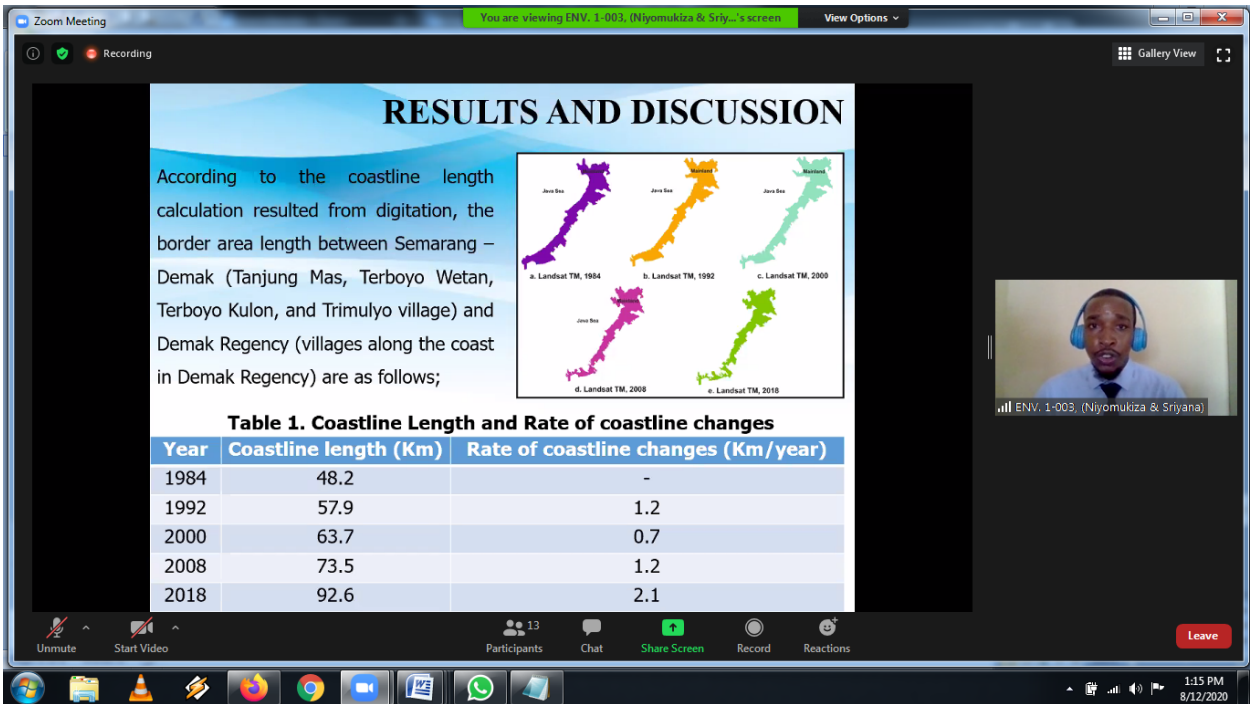
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RESULTS AND DISCUSSION
According to the coastline length calculation resulted from digitation, the border area length between Semarang – Demak (Tanjung Mas, Terboyo Wetan, Terboyo Kulon, and Trimulyo village) and Demak Regency (villages along the coast in Demak Regency) are as follows;
a. Landsat TM, 1984
b. Landsat TM, 1992
c. Landsat TM, 2000
d. Landsat TM, 2008
e. Landsat TM, 2018
Table 1. Coastline Length and Rate of coastline changes
Year | Coastline length (Km) | Rate of coastline changes (Km/year)
1984 | 48.2 | -
1992 | 57.9 | 1.2
2000 | 63.7 | 0.7
2008 | 73.5 | 1.2
2018 | 92.6 | 2.1
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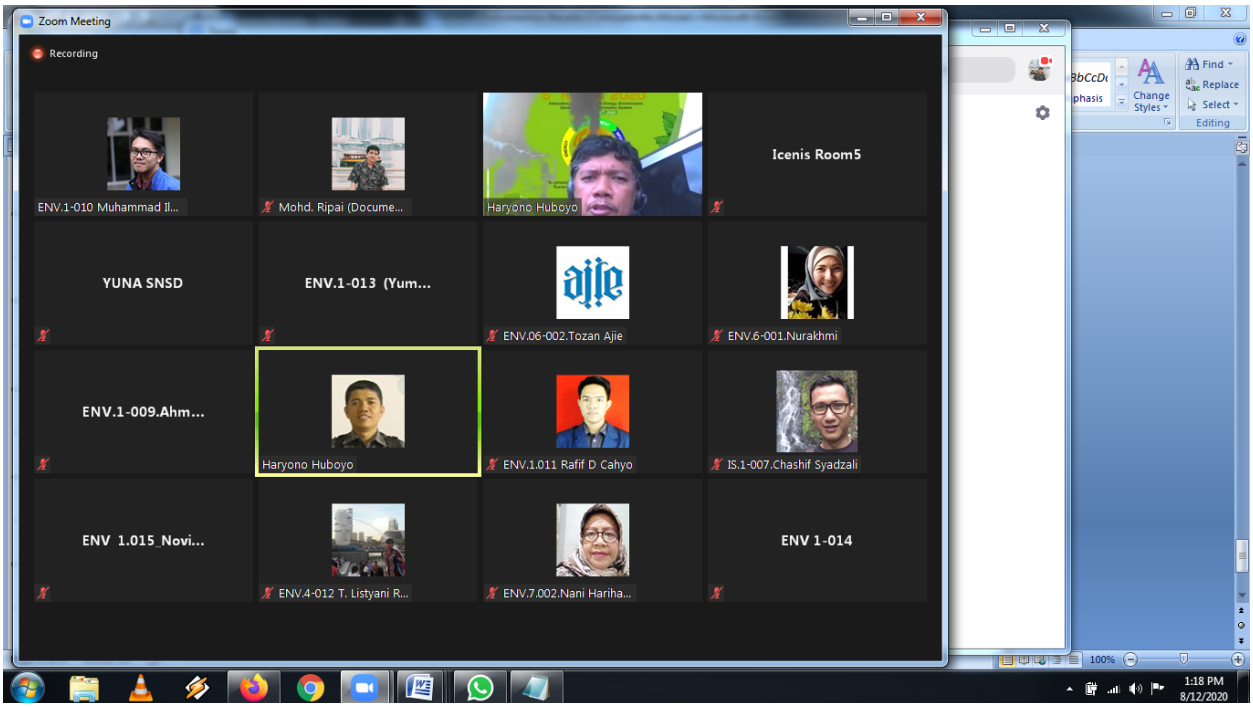
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ENV.6-001.Nurakhmi
ENV.1-009.Ahm...
Haryono Huboyo
ENV.1.011 Rafif D Cahyo
IS.1-007.Chashif Syadzali
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ENV.4-012 T. Listyani R...
ENV.7.002.Nani Hariha...
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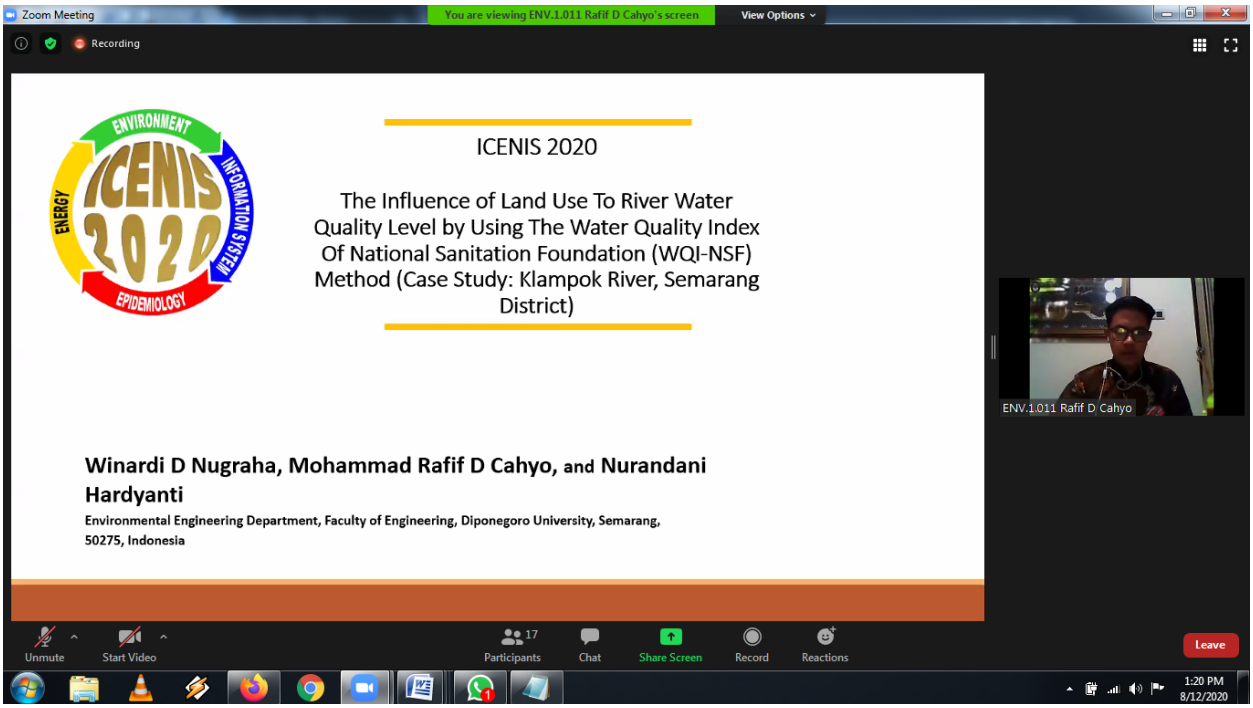
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ICENIS 2020
The Influence of Land Use To River Water Quality Level by Using The Water Quality Index Of National Sanitation Foundation (WQI-NSF) Method (Case Study: Klampok River, Semarang District)
Winardi D Nugraha, Mohammad Rafif D Cahyo, and Nurandani Hardyanti
Environmental Engineering Department, Faculty of Engineering, Diponegoro University, Semarang, 50275, Indonesia
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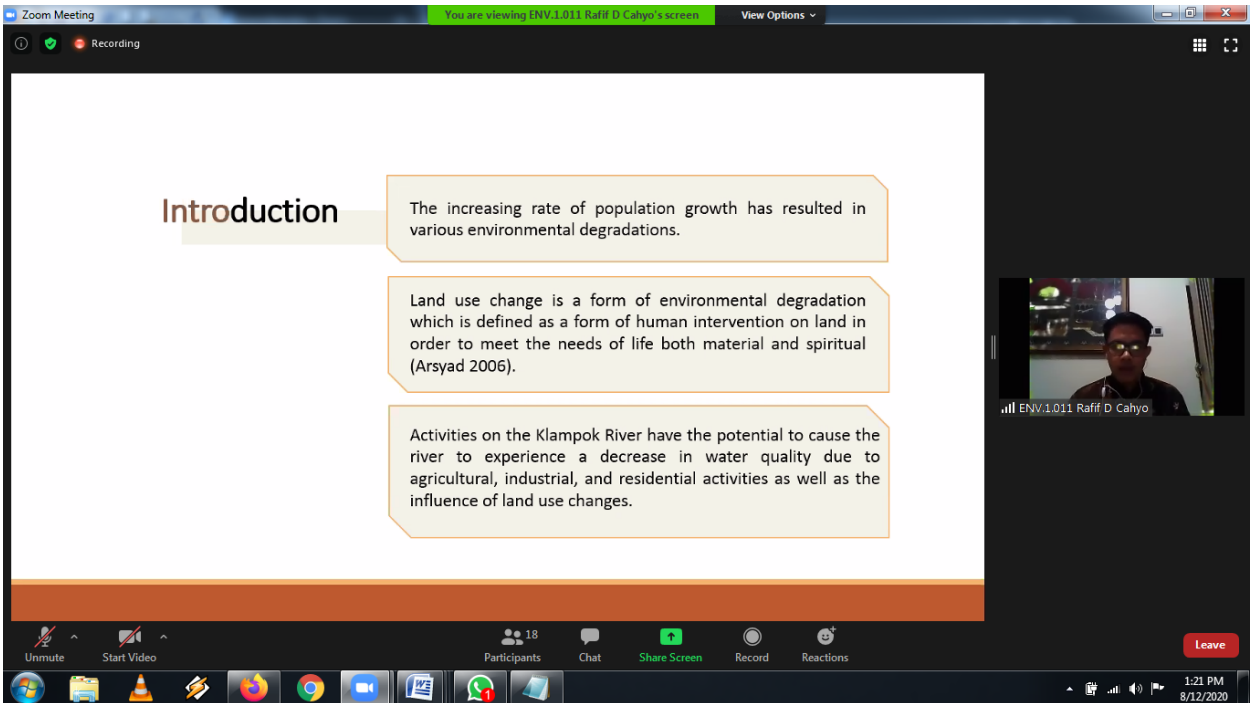
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Introduction
The increasing rate of population growth has resulted in various environmental degradations.
Land use change is a form of environmental degradation which is defined as a form of human intervention on land in order to meet the needs of life both material and spiritual (Arsyad 2006).
Activities on the Klampok River have the potential to cause the river to experience a decrease in water quality due to agricultural, industrial, and residential activities as well as the influence of land use changes.
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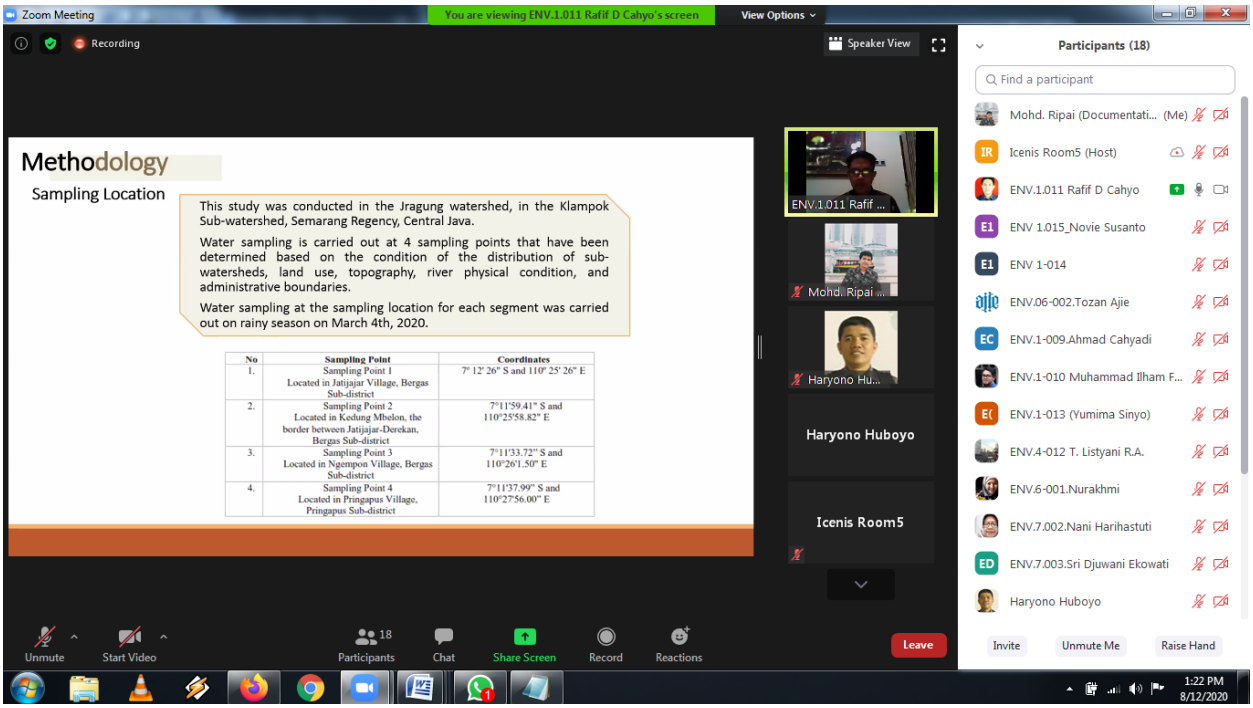
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Recording
Speaker View
Methodology
Sampling Location
This study was conducted in the Jragung watershed, in the Klampok Sub-watershed, Semarang Regency, Central Java.
Water sampling is carried out at 4 sampling points that have been determined based on the condition of the distribution of sub-watersheds, land use, topography, river physical condition, and administrative boundaries.
Water sampling at the sampling location for each segment was carried out on rainy season on March 4th, 2020.
No | Sampling Point | Coordinates
1. Sampling Point 1 Located in Jatijajar Village, Bergas Sub-district | 7° 12' 26" S and 110° 25' 26" E
2. Sampling Point 2 Located in Kedung Mbelon, the border between Jatijajar-Derekan, Bergas Sub-district | 7°11'59.41" S and 110°25'58.82" E
3. Sampling Point 3 Located in Ngempon Village, Bergas Sub-district | 7°11'33.72" S and 110°26'1.50" E
4. Sampling Point 4 Located in Pringapus Village, Pringapus Sub-district | 7°11'37.99" S and 110°27'56.00" E
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ENV.1-010 Muhammad Ilham F...
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ENV.4-012 T. Listyani R.A.
ENV.6-001.Nurakhmi
ENV.7.002.Nani Harihastuti
ENV.7.003.Sri Djuwani Ekowati
Haryono Huboyo
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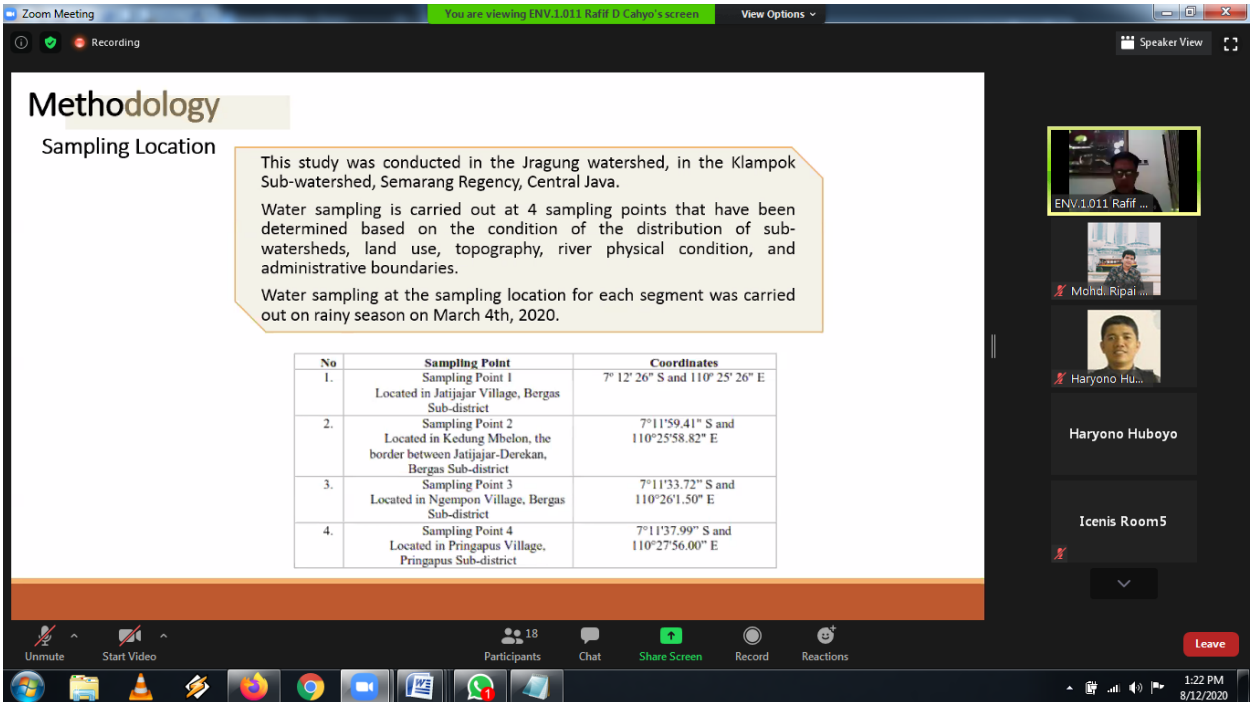
Zoom Meeting
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Recording
Speaker View
Methodology
Sampling Location
This study was conducted in the Jragung watershed, in the Klampok Sub-watershed, Semarang Regency, Central Java.
Water sampling is carried out at 4 sampling points that have been determined based on the condition of the distribution of sub-watersheds, land use, topography, river physical condition, and administrative boundaries.
Water sampling at the sampling location for each segment was carried out on rainy season on March 4th, 2020.
No | Sampling Point | Coordinates
1. Sampling Point 1 Located in Jatijajar Village, Bergas Sub-district | 7° 12' 26" S and 110° 25' 26" E
2. Sampling Point 2 Located in Kedung Mbelon, the border between Jatijajar-Derekan, Bergas Sub-district | 7°11'59.41" S and 110°25'58.82" E
3. Sampling Point 3 Located in Ngempon Village, Bergas Sub-district | 7°11'33.72" S and 110°26'1.50" E
4. Sampling Point 4 Located in Pringapus Village, Pringapus Sub-district | 7°11'37.99" S and 110°27'56.00" E
ENV.1.011 Rafif ...
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Haryono Huboyo
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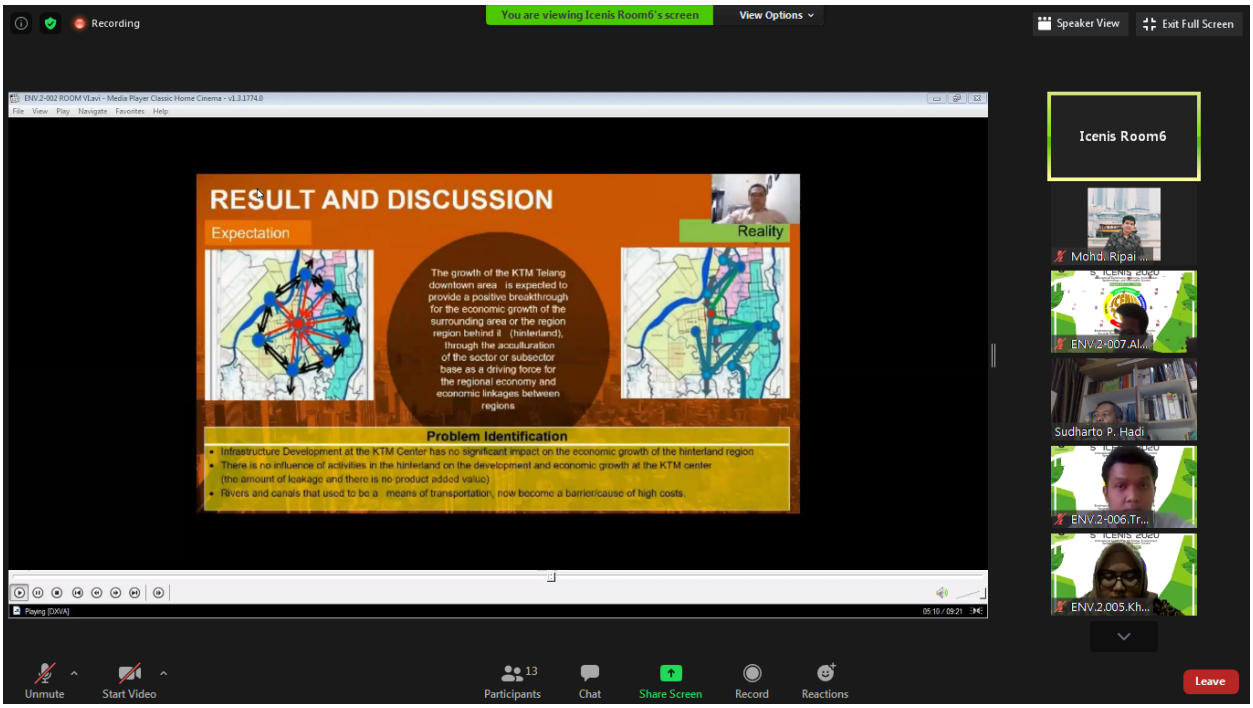
ROOM 6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Speaker View
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RESULT AND DISCUSSION
Expectation
Reality
The growth of the KTM Telang downtown area is expected to provide a positive breakthrough for the economic growth of the surrounding area or the region region behind it (hinterland), through the acculturation of the sector or subsector base as a driving force for the regional economy and economic linkages between regions
Problem Identification
Infrastructure Development at the KTM Center has no significant impact on the economic growth of the hinterland region
There is no influence of activities in the hinterland on the development and economic growth at the KTM center (the amount of leakage and there is no product added value)
Rivers and canals that used to be a means of transportation, now become a barrier/cause of high costs.
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Sudharto P. Hadi
ENV.2-006.Tr...
ENV.2.005.Kh...
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Life Cycle Thinking for Sustainable Consumption and Production towards a Circular Economy

Shabbir H. Gheewala [1,2*]

[1]The Joint Graduate School of Energy and Environment, King Mongkut's University of Technology Thonburi, 126 Prachauthit, Bangmod, Tungkru, Bangkok 10140, Thailand
[2]Center of Excellence on Energy Technology and Environment, PERDO, Ministry of Higher Education, Science, Research and Innovation, Bangkok, Thailand

Abstract. The current model of a linear economy with end-of-pipe waste treatment is not sustainable. Cleaner production helps reduce resource use and emissions, but is still not an optimal solution without considering a life cycle perspective. Life cycle-based tools such as life cycle assessment and life cycle costing are useful for identifying optimal environmental and economic options for product systems. SDG 12 dealing with responsible consumption and production is key for sustainability. Developing ~~of~~ a circular economy requires life cycle thinking and life cycle-based tools for assessment. All these issues are discussed along with illustrative examples.

1 Introduction

Every activity is associated with some consequences; the desired objective of the activity usually leading to some benefit to society but also with some undesired outcomes which are unplanned, but inevitable. In practice, thermodynamics does not allow us to break even and we will end up losing some utility whenever there is an activity or transformation. Activities in nature must also follow this law, but a decrease in entropy is powered by energy from the sun. Activities in nature are part of ecosystems, large and small, which are very delicately but efficiently balanced in a way that there is no waste per se. All elements/substances move in cycles which is, for example, easily evident in the hydrological cycle which represents the cyclic movement of water on earth. There are many such biogeochemical cycles for nitrogen, sulphur and so on. Industrial activities, on the other hand, have largely been developed in a linear format – so called take, make, use and dispose (Figure 1). We take valuable resources from nature, transform them to products which are then used and finally go back to nature in the form of waste – solid, liquid or gaseous. The loop is not "closed". Hence, every activity must somehow lead to some form of pollution being produced.

* Corresponding author: shabbir_g@jgsee.kmutt.ac.th; shabbirg@hotmail.com

A Geomorphic Framework for the Analysis of Microplastics in Riverine Sediments

Jerry Miller[1,*] *and Suzanne M. Orbock Miller*[2]

[1]Department of Geosciences & Natural Resources, Western Carolina University, Cullowhee, USA
[2]Tuscola High School, Waynesville, NC, USA

Abstract. The wide-spread use and persistence of plastics in the environment have placed them on the list of significant emerging pollutants. In contrast to marine environments, the analysis of plastic debris, including microplastics (particles <5 mm in maximum diameter), in freshwater systems is limited, and even fewer studies have examined microplastics in riverine sediments. Nonetheless, it has become clear that microplastics are now a ubiquitous component of riverine ecosystems and their distribution is dependent on anthropogenic inputs and the physical and chemical processes that control their transport, transformation, and deposition along the drainage network. In many ways, the transport and fate of microplastics will parallel that of other particulate matter that has been extensively studied for at least the last 50 years. Here, we briefly explore the application of a geomorphic approach to the assessment of sediment-contaminated rivers to the microplastic problem, and argue that future studies can significantly benefit by incorporating the principles of this approach into their analyses.

1 Introduction

The ability to mold synthetic polymers (plastics) into an infinite variety of shapes, combined with their versatile nature in terms of weight, strength, durability, melting point, and chemical reactivity have made them virtually indispensable in modern manufacturing. There are about 20 distinct groups of plastics that are extensively used in everything from cosmetic products and cleansers to clothing, to plumbing, to packaging and ropes, among a host of other products. The development of synthetic polymers began in the late 1800s [1], but it was not until the 1950s that plastics were produced on an industrial scale. Since then, plastic production has increased exponentially, reaching 359 million metric tons [2], and is expected to increase significantly in the coming years [3].

Unfortunately, plastics released to the environment represent a significant emerging pollutant found in atmospheric, terrestrial, freshwater and marine systems. Microplastics (MPs), in particular, have received considerable attention as a global pollutant. While the definition of what constitutes a MP is a topic of debate, the most widely used definition is any plastic item measuring <5 mm in its maximum (long) dimension, a size that can be

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Faith and development: The role of local religious organization in community change in Papua

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Abstract. Religious organizations have an important role in development aid. For a long time, this role was not acknowledged by the main players in the development arena, but this has changed over the last few decades. Yet, this role is not without tensions, as in particular western donors hold secular perspectives on development and find it hard to deal with organizations that want to provide help as well as spread their religion. In this study, I review the literature on faith-based organizations (FBOs) and present a case-study of how churches in rural areas of Indonesia's Papua province fulfill key roles in local development. To come to a fruitful cooperation between large development organizations and such indigenous churches, an important condition is that the role of religion in daily life of these Papuans needs to be acknowledged.

1 Introduction

In 1998, the World Bank's president James Wolfensohn started the World Faiths Development Dialogue (WFDD) as an independent think-tank and established a 'Directorate on Faith' within the World Bank. Both initiatives targeted to facilitate the cooperation between development donors such as the World Bank and faith-based organizations (FBOs). Soon, these initiatives received broad criticism, as many were afraid this would blur the boundaries between church and state [1]. Despite these criticisms, the World Bank has initiated – or exemplified – a trend towards involving FBOs more in the development agenda. At the same time, the criticism around the role of FBOs remains the same: blurring church-state boundaries, only linked to one faith-group, evangelism, et cetera. In this study, I will first review the role of faith-based organizations in local development and next present a case study of how churches help in developing local communities the Papua province in Indonesia.

2 Development aid and religion

For a long time, FBOs did not get much attention in development aid policies and studies. The main opinion was that development aid policy should focus on economic aspects:

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Using FHE in a binary ring Encryption and Decryption with BLE Nano kit microcontroller

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Abstract. An integrated circuit (IC) that can be programmed to perform a series of functions to control a range of electronic devices is a microcontroller. What makes the microcontroller special is that it is programmable. In this article, we're going to try to rely on the mbed platform, the most common open source microcontroller development platform; we use completely homomorphic encryption in a binary number ring to ensure the data protection feature. Let us compare the time it takes to perform encryption and decryption on a Visual Studio C ++ and a Bluetooth Low Energy (BLE) Nano kit microcontroller. Experimental results show that the device can complete a fully homomorphic encryption in a binary number ring in 64.2 microseconds, which is reasonable in a real application scenario and illustrates the feasibility of implementing a more complex cryptographic system using a microcontroller.

1. Introduction

Microcontroller can be easily adopted in various applications with a variety of peripherals due to its merits of small size, simple architecture. One kind of microcontroller with an open source platform is the BLE Nano Kit [1-2]. The smallest BLE production board on the market is the BLE Nano.

In short, due to its low cost, cross-OS scalability, open source and easy use features, BLE Nano Kit has a wide developing future [3-4]. As a consequence, on this framework, different multifunctional applications can be created. The aim of a scientific article is to perform on the microcontroller of the BLE Nano Kit on a Windows block cipher and modern cryptographic algorithms on the mbed platform and Visual Studio C++, such as completely homomorphic encryption in a binary number ring. The execution time of various algorithms in the microcontroller and the personal computer is then compared.

As follows, the rest of the paper is organized. In Section 2, we summarize the key features and applicability of a binary number ring for both block cipher and completely homomorphic encryption. We present the running time of various algorithms in our microcontroller and PC (personal computer) and problems in Section 3, as well as address the adoption of the strategy. Finally, we are reporting the final findings of the paper in Section 4.

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