

# abstract\_forsymposium2020

*by* Zulkarnaini Zulkarnaini

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*Cultivation of anammox bacteria from tropical environment:  
Talago Lake, Tanah Datar, Indonesia.*

Zulkarnaini<sup>1\*</sup>, Puti Sri Komala<sup>1</sup>, and Randi Permana Putra<sup>1</sup>

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**Key words:** Anammox, cultivation, tropical environment

**Abstract:** This study was conducted on the cultivation of anammox bacteria from a tropical environment. The sludge sample was taken from Talago Lake in Koto Baru, Tanah Datar, Indonesia where eutrophication takes place. Two Filter Biofilm Reactors (FtBR) were operated in ambient temperature and 35°C. A string wound filter was set in the middle of reactor and substrate containing ammonium and nitrite fed into reactor through the filter. After cultivation for 192 days, red biofilm appeared in the filter. Nitrogen removal efficiency (NRE) reached 79% in ambient temperature and 69% in 35°C. The result showed that anammox process occurred in the reactor. It needs to investigate the microbial communities.

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Z Zulkarnaini, B Primasari, D J Saputra.  
"Performance of anammox biofilm reactor  
under tropical temperature", IOP Conference  
Series: Materials Science and Engineering,  
2021

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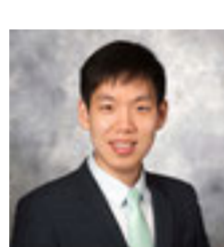
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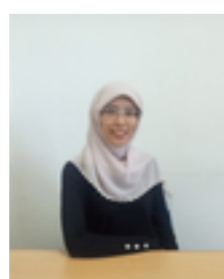
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EETP (ETIC+SPSD) Symposium Agenda 2020, Kanazawa

February 21st, Kanazawa Bunka Hall

## Keynote Session - Multipurpose room

10:00-10:10	Welcome Speech	Prof. IKEMOTO Ryoko
10:10-10:30	Palu Earthquake and Post Disaster Condition for Revitalization Dan Sustainable Development	Prof. Akbar Ali Amar
10:30-10:50	The study of transportation network accessibility on retail distribution - Using space syntax method	Prof. PAI Jen-Te
10:50-11:10	Coffee Break	

## Planning Session - No.6 Meeting Room

11:10-11:30	Automatic Generation of 3D Building Models for BIM (Building Information Model)	Prof. SUGIHARA kenichi
11:30-11:50	Post-audit of watershed management-A case study in Japan	Prof. HUANG Guangwei
11:50-12:10	Design of Entrance Size for Living Space of Evacuation Shelter using Mixed Reality	Assist. Prof. YAMATO Yuya
12:10-12:30	How Mobile Grocery Wagons Can Help Disadvantaged Shoppers in Tokyo's Outskirts? Characteristics of purchasing points and purchased items	Assist. Prof. SEKIGUCHI tatsuya
12:30-14:00	Lunch Break(13:00-14:00 RESD Meeting) - No.2 Meeting Room	
14:00-14:20	Thermal Performance of Vernacular House Form in Tropical Hill Area of Palu	Assist. Prof. PUTERI Fitriaty
14:20-14:40	Spatial Characteristics of Citizens' Discomfort with Disseminated Solar Panels	Assoc. Prof. YAMASHITA Ryohei
14:40-15:00	HoloDesigner: A Mixed Reality (MR) Tool for On-Site Design	Mr. DAN Yuze
15:00-15:20	Principle of Personal Information Collection to Integrate Tourism Management using Smart Visiting Service Management System in Isolated Island	Mrs. TENG xiao
15:20-15:40	The Pre-programming and Visualization of Smart Infrastructure: A Case Study of Huangguan Island	Mr. LIN Yuming

## Envrionmental session - Multipurpose room

11:10-11:30	Challenges in Biodiesel Utilization to Substitute Petro-diesel in Indonesia	Assoc. Prof. Fadjar Goembira
11:30-11:50	(Untitled)	Assoc. Prof. HATA Mitsuhiko
11:50-12:10	Study of the Antioxidative Properties of Several Green Surfactants: Originated by Amino Acid and their Synergistic Effect	Assoc. Prof. OTA Akio
12:10-12:30	Size-fractionated particles bound carbonaceous component in roadside and riverside Jambi city, Indonesia	Mr. Muhammad Amin
12:30-14:00	Lunch Break(13:00-14:00 RESD Meeting) - No.2 Meeting Room	
14:00-14:20	Effect of Landfill Leachate Effluent to Seed Germination by Using Acclimatized Sludge in Activated Sludge and Membrane Bioreactor	Assist. Prof. Jarungwit Boonnorat
14:20-14:40	Mechanism of fouling mitigation by vanillin in MBR revealed by size-polarity profiling of EPS	Assoc. Prof. HONDA Ryo
14:40-15:00	Cultivation of anammox bacteria from tropical environment	Assist. Prof. Zulkarnaini
15:00-15:20	Microbial Community Analysis of Enhanced Biological Phosphorus Removal Process (EBPR) Associated Sulfur Cycle	Assist. Prof. MATSUURA Norihisa
15:20-15:40	Tofu Acidic Wastewater Treatment by Anaerobic Fixed Bed Reactor	Ms. Dewi Nilawati

## Keynote Session - Multipurpose room

15:40-16:00	Coffee Break	
16:00-16:15	Close Speech	Prof. SHEN Zhenjiang



*GRADUATE SCHOOL  
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NATURAL SCIENCE AND TECHNOLOGY  
KANAZAWA UNIVERSITY*

Kakuma-machi, Kanazawa, Japan 920-1192

## **Certificate of Appreciation**

Kanazawa University,  
Kakuma Machi, Kanazawa City, Japan 920-1192

February 21, 2020

Dear Dr. Assist. Prof. Zulkarnaini,

On behalf of all the participants and the organizing committees, I appreciate your outstanding presentation as an invited speaker, entitled “Cultivation of anammox bacteria from tropical environment” at the 8th International Symposium on Environment/Eco-technology and Policy (EETP) in East Asia held at Kanazawa Bunka Hall (Japan) on February 21, 2020, organized by Energy and Environmental Technology Course (ETIC) in the Graduate School of Natural Science and Technology, Kanazawa University and International Community of Spatial Planning and Sustainable Development (SPSD).

Based on the fruitful discussions at the session, we would appreciate your continued cooperation on research and education of the environment in the Asian region.

Best wishes,

Prof. Zhenjiang SHEN  
Director, Division of Environment Design  
Graduate School of Nature Science and Technology  
Kanazawa University