



JOURNAL OF GEOSCIENCE, ENGINEERING, ENVIRONMENT AND TECHNOLOGY

Volume 4. No 4. December 2019

ISSN (print) : 2503-216x
ISSN (online): 2541-5794

UIR PRESS

(Journal of Geoscience, Engineering, Environment, and Technology)

Publish periodically four times annually

Scope of Journal

Paper covering the following aspects of Geology, Earth and Planetary Science, Engineering, Environment, and Technology

Address of Secretariat and Paper Submitting

Jl. Kaharuddin Nasution No 113 Marpoyan Damai
Pekanbaru, Riau 28284 Phone.(0761) 72126 , Fax. 0761-674834
e-mail: jgeet@journal.uir.ac.id; web: <http://journal.uir.ac.id/index.php/JGEET>

EXECUTIVE EDITORIAL ADVISOR

Prof. Josaphat Tetuko Sri Sumantyo, Ph.D (Japan)
Prof. Mega F. Rosana, Ph.D (Indonesia)
Prof. Dr. Abdul Rahim Samsudin (Malaysia)
Prof. Dr. H. Detri Karya, S.E, M.A (Indonesia)
Prof. Dr. Ir. H. Sugeng Wiyono, MMT.

EDITOR IN CHIEF

Dr. Eng. Husnul Kausarian B.Sc.(Hons), M.Sc. (Indonesia)

MANAGER EDITOR

Catur Cahyaningsih B.Sc (Hons) M.Sc.(Indonesia)
Tiggi Choanji S.T, M.T (Indonesia)

EDITORIAL MEMBER

Dr. Eng. Takahiro Miyazaki (Japan)
Dr. Evizal Abdul Kadir S.T., M.Eng (Indonesia)
Dr. Luong Nguyen (Vietnam)
Dr. Mursyidah, M.Sc. (Indonesia)
Dr. Anas Puri S.T, M.T (Indonesia)
Dr. Eng. Muslim, M.T (Indonesia)
Dr. Emi Sukiyah, ST., MT (Indonesia)
Dr. Sapari Dwi Hadian, MT (Indonesia)
Dr. Vijaya Isnaniawardhani, S.T, M.T (Indonesia)
Good Fried Panggabean, S.T, M.T (Indonesia)
Katia Nagamine Urata, M.Eng (Brazil)
Mirza Muhammad Waqar, M.Sc (Pakistan)
Kageaki Inoue, M.Eng (Japan)
Yuta Izumi, M.Eng (Japan)
Joko Widodo, S.Si, M.Si (Indonesia)
Yuniarti Yuskar S.T, M.T (Indonesia)
Dewandra Bagus EP., B.Sc (Hons) M.Sc. (Indonesia)
Budi Prayitno S.T, M.T (Indonesia)
Adi Suryadi B.Sc. (Hons) M.Sc. (Indonesia)
Babag Purbantoro, S.T, M.T (Indonesia)
Pakhrur Razi, S.Si, M.Si (Indonesia)
Eunice Wanjiku Nduati M.Agr (Kenya)
Muhammad Zainuddin Lubis S.Ik M.Si (Indonesia)

PREFACE

Welcome to the Journal of Geoscience, Engineering, Environment and Technology (JGEET). JGEET is a peer reviewed, open access and online journal in English for the enhancement of research in various areas of science and engineering. The aim of the JGEET is to give a highly readable and valuable addition to the literature which will serve as an indispensable reference tool for years to come Now, we're publishing new volume 04 No 04 2019.

We are pleased the scientist and researcher to publish in this journal. This journal discussed the topic related to the areas of geoscience, engineering, environment, and technology.

As the Editor-in-Chief of the JGEET, I take this opportunity to express my sincere gratitude to authors who have chosen JGEET to disseminate their research. Further, I would like to thank executive editorial advisor, journal manager, editorial member and other supporting staff for the success of this Journal.

We are more than happy to receive contributions for our next issue from academicians, researchers, scholars and practitioners to ensure the consistency and the success of the Journal.

Thank you very much.

Editor-in-Chief

LIST OF CONTENT

Soil Minerals Serving as Source of Arsenic in Alluvial Aquifers of Holocene: A Study Case from Indus Delta, Sindh, Pakistan	227
The Weak Soil Investigation at the Slope Zone in the Hot Spring Area, Rokan Hulu, Indonesia	236
Evaluation of the Hydrocarbon Potential of Shale Exposures in Endo North	242
Integrated Approach in Geophysical Investigation of Road Failure in Crystalline Basement Environment in South-western Part of Nigeria	248
Geotourism on XIII Koto Kampar: An Approach for Sustainable Eco-Geo System	257
Geology and Lamongan Volcanic Rocks Case Study at Ranu Pakis, Klakah, Lumajang, East Java Province, Indonesia.....	263
Rock Formation Acid Mine Drainage in Epithermal Gold Mineralization, Pandeglang, Banten Province	271
The Hydrochemistry of Groundwater in Jambakan, Klaten Regency, Central Java Province, Indonesia	277
Analysis of Land Cover Changing and Vegetation Index at Kuranji Watershed in Padang, West Sumatera, Indonesia	286