



JOURNAL OF GEOSCIENCE, ENGINEERING, ENVIRONMENT AND TECHNOLOGY

Volume 9. No 3. September 2024

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

Adi Suryadi B.Sc (Hons) M.Sc.(Indonesia)

MANAGER EDITOR

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)

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 09 No 03 2024.

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

Petrogenesis of Metamorphic Rock in the Mukito Formation at Sorawolio Region, Bau-Bau City, Buton Island, Southeast Sulawesi Province, Indonesia.....	225
Groundwater Resilience Study for Sustainable Tourism Development Through Electrical Sounding Method in Mansinam Island, Manokwari Regency, West Papua, Indonesia	236
A Response of Water Temperature to Wind Speed and Air Temperature in Lake Laut Tawar, Aceh Province, Indonesia	243
Quantitative Analysis of Thin Section using Frequency Measurement (Point Counting), a Case Study on Limestone of The Rajamandala Formation, Cikamuning, West Java, Indonesia	251
The Analysis of Pyrophyllite Quality as a Potential Industrial Raw Material in Argotirto Area, Sumbermanjing Wetan District, Malang Regency, East Java, Indonesia	259
Natural Gas Geochemistry in Jambanan Area, Sidoharjo, Sragen, Central Java, Indonesia	266
Technical Assessment Of Mud Handling Planning With Dredger Pump In Mining Front Area Of Pt. Makmur Lestari Primatama, Southeast Sulawesi, Indonesia	272
Slope Stability Analysis Throughout Road Around Bukit Barisan Selatan National Park (BBSNP) using Fellenius Method	279
Analysis Of Presumed Land Subsidence In The Cities Of Lampung Province Using InSAR And GNSS Data.....	287
Drought Management in Batam using Combined NDVI-TCT Algorithm to Create a Classification Level Map.....	294
Quantifying Marine Oil Slick using the Hydrocarbon Spectra Slope Index (HYSS): A Case Study of the 2010 Deep-water Horizon Spill in the Gulf of Mexico.....	301
Geochemistry of Volcanic Rocks in Ponelo Island, North Gorontalo, Indonesia.....	310

The Content Of Heavy Metal In Turmeric (<i>Curcuma Domestica Val.</i>) In The Volcanic Rocks Oligocene-Miocene Volcano, Biting Wonogiri, Central Java, Indonesia.....	319
Increasing Production Of Purple Sweet Potato (<i>Ipomoea Batatas Poir</i>) By Treatment Of Shimmer Fertilizer and Kaliphos.....	326
Geo-Environment Aspects Assessment Applied In Land Stability Determination Of A Disaster-Prone Area: A Case Study Around The Lembang Active Fault Zone, On The Western Part Of Bandung Basin, Indonesia.....	334
Geochemical Correlation of Volcanic Rocks and Groundwater Quality in the Todoko-Ranu Complex, Sahu District, West Halmahera, North Maluku, Indonesia.....	341
Surfactant-Polymer Slug Optimization, Injection Rate & Pattern Size Determination Using The Cmg Simulator In The Mj Well.....	349
Characteristics of Host Rocks Manganese of The Anabanua Village Barru District South Sulawesi Province, Indonesia	357
Mechanistic Characteristics of HRS-WC Mixture Using Tabas Stone Waste Coated With Plastic Waste As Aggregate.....	363
Safety Factor Analysis on the Stability of the Retaining Wall Structure in Cimahi City, Indonesia.....	372
Review: Geological Structure Impacts to Hydrocarbon Potential and Active Faults in the East Java Basin, Indonesia.....	379
Coulomb Stress Change of Active Fault in South Sumatra Region Revealed from Kerinci Earthquake October 06, 1995 Mw 6.7 and Sungai Penuh Earthquake October 01, 2009 Mw 6.6.....	384