Fadhli Atarita

Geophysicist

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Education

Doctor of Philosophy — *2021 - present*
Geological Engineering (Geophysics), Queen's University at Kingston
Research: The Geoselenic Project, Geodynamics

Master of Applied Science — *2019 - 2021*
Geological Engineering (Geophysics), Queen's University at Kingston
GPA 4.20/4.30
Thesis: Hyperspectral Imaging Simulator and Applications for Unmanned Aerial Vehicles.

Bachelor of Engineering — *2013 - 2017*
Geophysical Engineering, Bandung Institute of Technology
GPA 3.68/4.00
Thesis: Lava Flow Direction Analysis Based on Anisotropy of Magnetic Susceptibility and Porosity of Igneous Rock from Ijen Volcanic Complex, East Java.

Technical Skills

MATLAB, Python, Scilab, ModelVision, IP2WIN, RES2DINV, Vista, ProMAX, Seisgram, ArcGIS, Surfer

Experience

Teaching Assistant — *2019 - present*
Department of Geological Sciences and Geological Engineering, Queen's University
Courses: Applied Geophysics; Earth Systems and Engineering; Environmental Geology and Natural Hazards.

Intern — *Jun 2020 – Sep 2020*
Pioneer Exploration Consultants Ltd.
Project: Development of an industry-standard workflow for UAV-based hyperspectral imaging for mineral exploration and data testing.

Research Assistant — *Jan 2019 – Jun 2019*
Department of Geophysical Engineering, Bandung Institute of Technology
Project: Analysis of the correlation between magnetic anisotropy and porosity in basalt lava.

Field Assistant — *May 2017*
Department of Geophysical Engineering, Bandung Institute of Technology
Responsibilities: Supervising geomagnetic survey, modelling, and interpretation.

Teaching Assistant — *2016 - 2017*
Department of Geophysical Engineering, Bandung Institute of Technology
Courses: Geostatistic; Seismology; Geophysical Instrumentation; Geophysical Computation.

Intern — *Dec 2016 - Jan*
PT PERTAMINA EP
Project: Processing and interpretation of gravity data from Bunyu Island, North Kalimantan.

Research Projects

- Integrating a Hyperspectral Camera with an Unmanned Aerial Vehicle for Land Classification and Geological Unit Mapping. *(2020)*
- Pre-seismic thermal anomalies from MODIS Land Surface Temperature data: A study on the 2001-2003 Alaska earthquakes. *(2020)*
- District heating potential from abandoned wells for the City of Edmonton: A spatial analysis approach. *(2019)*
- Pseudogravity transformation for magnetic data in Ontario, Canada. (2019)
- Aquifer Exploration and Landslide Plane Mapping in Kidang Pananjung, West Java, Indonesia. *(2017)*

Honours and Awards

- KEGS Foundation Scholarship - The CGG Airborne Geophysics Scholarship. *(2020)*
- Ganesha Karsa of Bandung Institute of Technology. *(2017)*
- Recipient of The APPG Foundation's L. Austin Weeks Undergraduate Grant Program. *(2017)*
- 1st Winner of The Geophysical Interpretation Competition at The Indonesian Undergraduate Geophysical Competition. *(2016)*
- 2nd Winner of The Geobowl Competition in The 2nd South Asian Geosciences Student Conference. *(2016)*
- Best Participant in the Geophysical Engineering Department Field Program, Karang Sambung Geophysical Engineering Department, Bandung Institute of Technology. *(2016)*

Publications and Presentations

- Synthetic Hyperspectral Imaging Simulator: A Tool for Optimizing Applications in Mineral Exploration
  In SPIE Future Sensing Technologies 2021, 15-19 November 2021.
- HYSIMU: A Hyperspectral Simulator for Airborne Remote Sensing of Soils
  In SEG symposium on "Applications of Proximal and Remote Sensing Technologies for Soil Investigations", 16-19 August 2021.
- Preferred Pore Orientation as a Complement to Anisotropy of Magnetic Susceptibility: A Case Study of Lava Flows from Batur Volcano, Bali, Indonesia
  Frontiers in Earth Science, 2020, 8, 636. https://doi.org/10.3389/feart.2020.578294
- Petrology and geochemistry dataset of lava from the Ijen Crater and Mount Blau, Banyuwangi, East Java, Indonesia
  Elsevier: Data in Brief, Vol. 2, 202 (2019). https://doi.org/10.1016/j.dib.2019.104765
- Anisotropy of Magnetic Susceptibility and Preferred Pore Orientation in Lava Flow from the Ijen Volcanic Complex, East Java, Indonesia
  Geosciences, 2019, 9, 304. https://doi.org/10.3390/geosciences9070304

Organizational Experience

Society of Exploration Geophysicists - Student Chapter: ITB
Member (2015 - 2017)

Geophysical Engineering Department Student Community | HIMA TG "TERRA" ITB
Research Team Coordinator (2016 - 2017)
Community Service Division Member (2015 - 2017)

Minangkabau Art Unit | UKM-ITB
Head of Human Resources Development Division *(2015 - 2016)*