

MUHAMMAD SHULHAN JIHADI

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PROFILE

I hold a Bachelor degree in Oceanography with a strong background on satellite remote sensing, GIS, cartography, and ecological modelling. I have a proven track records of both technical and managerial skills developed through conducting research, experience leading teams, and writing scientific articles.

EDUCATION

Universitas Diponegoro: B.Sc Oceanography

Semarang, Aug 2019 – June 2023

- Bachelor of Science - B.Sc, Oceanography | Final GPA: 3.58/4.00
 - Specialized in marine ecological modelling using diverse remote sensing data and GIS methods.
 - Thesis: Modelling of Pygmy Blue Whale (*Balaenoptera musculus brevicauda*) Migration Corridor in Savu and Banda Sea Using Circuit Theory ([read](#))
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RESEARCH EXPERIENCE

Research Assistant: Universitas Diponegoro

Semarang, May 2023 – Present

- Assisted Prof. Muhammad Zainuri DEA, in conducting research along the northern coast of Central Java, with a primary focus on marine ecology and coastal environments.
 - Led multiple teams in conducting field surveys across locations including Pekalongan, Jepara, Pemalang, and Batang.
 - Aided in drafting proposals, budget plans, timelines, and team management to ensure efficient project execution and alignment with research goals.
 - Co-authored some research articles:
 1. Determination of chlorophyll-a and its distribution in the waters of the mangrove forest rehabilitation area in Mojo Estuaria, Pemalang. <http://dx.doi.org/10.14710/jkt.v27i2.23253>
 2. Geospatial Modeling of the Nitrate Distribution as an Indicator of Aquatic Fertility in the Lagoon Waters of the Mangrove Information Center (PIM), Pekalongan. <http://dx.doi.org/10.14710/jkt.v27i3.24081>
 3. Books: [Buletin Geomaritime XIV Juni 2022](#) – Parangtritis Geomaritime Science Technopark
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WORK EXPERIENCE

Hydrographic Surveyor: PT Fifan Jaya Makmur

East Nusa Tenggara, July 2024-Aug 2024

- Conducted Hydrographic survey such as bathymetric survey, seafloor & sub-bottom profiling, and current measurement in West Manggarai and Maumere, East Nusa Tenggara
- Operated marine instrument such as Marine GPS Hemisphere 330, Odom Hydrotrac II, and Current Meter Valeport 106 while also assisting to use Side-Scan Sonar and Sub-bottom profiler
- Used software such as Hypack, Pocket Max, and Valeport Data Logger

GIS Technician: BRGM**Semarang, July 2023-Sept 2023**

BRGM is Peatland And Mangrove Restoration Agency of Republic of Indonesia. This projects is a collaboration between BRGM and Universitas Diponegoro for National Mangrove Map.

- Processed Sentinel-2 Image using Google Earth Engine and ArcGIS
- Delineated vast mangrove forest for East Kalimantan region (around 127,346.92 km²)
- Providing guidance and directions for the junior technicians

Teaching Assistant: Universitas Diponegoro**Semarang, Aug 2021 – Nov 2022**

- Assisted teaching practical skill in several subject: Remote Sensing, GIS, Coastal Multihazard, and Disaster Mitigation. Provided hands-on guidance and mentoring to students, explained complex concepts in a clear and concise manner
- Coordinated a team of 10 assistants, overseeing the planning and execution of practicum sessions for younger students (100+) across three different departments.
- Developed tailored curriculum and lesson plans, aligning them with the specific learning objectives and needs of each practicum.

ORGANIZATION EXPERIENCE**REGISTER UNDIP**

Remote Sensing and Geographic Information System Technology and Research is a student research club in the Faculty of Fisheries and Marine Science, Universitas Diponegoro, that focuses on the usage of satellite and geospatial analysis for coastal and marine application.

President**Semarang, Jan 2022 – Dec 2022**

- Led a student research club comprised of 45 members, fostering a collaborative and growth-oriented environment.
- Developed a comprehensive learning curriculum for the organization, incorporating the cutting edge tech and concepts in remote sensing and geographic information system technology
- Directed the organization to overcome challenges during the post-COVID transition, conceptualizing strategies and initiatives to adapt effectively
- Supervised the execution of projects and programmes, ensuring their successful and timely completion.

Research and Development staff**Semarang, March 2021 – Dec 2021**

- Organized webinars and sharing sessions to improve members' research competency
- Executed flexible methods for conducting organizational programs during the COVID situation
- Disseminated newest technology for collaboration with external partners
- Highest annual performance among members of 2021 period

SKILLS

- Language:
 - Native / Mother tongue(s) : Bahasa Indonesia, Javanese
 - Other languages : English (C1/IELTS Band:7.5) – British Council – 09/12/2023

- Digital Skills:
 - Geographic Information System : ArcGIS, QGIS,
 - Remote Sensing : Google Earth Engine, SNAP
 - Programming Language : R, Python, Julia, HTML, CSS
- Training and Workshops:
 - [Using Spatial Data for Biodiversity](#) – United Nations Development Programme – 11/09/2024
 - [Invasive Species Monitoring with Remote Sensing](#) – NASA 14/08/2024 – 28/08/2024
 - [Spatial Data Science: The New Frontier In Analytics](#) – Esri 28/10/2021 – 09/12/2021
 - [Species Distribution Modeling With Remote Sensing](#) – NASA 12/08/2021 – 19/08/2021
 - [Cartography](#) – Esri 06/02/2021 – 20/03/2021
 - [Hyperspectral Data For Land And Coastal Systems](#) – NASA 19/01/2021 – 02/02/2021