

## **Ir. Hendi Santoso, S.I.K., M.Si., IPM., CBEC (DataIntel)**

*Lecturer & Marine Technology Expert | Blue Data Intelligence Specialist*

An academic and maritime technology practitioner who integrates operational engineering with sustainable maritime economic strategies. As a holder of the Professional Engineer (Ir.) degree with Senior Professional Engineer (IPM) qualifications, I ensure the application of precise, safe, and innovative engineering standards. I possess high-level managerial experience as a Director and Commissioner in the IT industry, complemented by specialized expertise in Internet of Things (IoT), Artificial Intelligence (AI), and Blue Data Intelligence

### Personal Information

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Google Scholar	: <a href="https://scholar.google.com/citations?user=P_Cfag0AAAAJ&amp;hl=en">https://scholar.google.com/citations?user=P_Cfag0AAAAJ&amp;hl=en</a>

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### Education

- Professional Engineer Program (Ir.), Universitas Katolik Widya Mandala Surabaya (Graduated 2025). Design and Construction of an Internet of Things-Based Aquarium Environmental Monitoring System (Water Temperature)
- Master of Computer Science (M.Kom), STMIK Jakarta STI&K (Ongoing – Thesis).
- Master of Science (M.Si) in Marine Technology, IPB University (Graduated 2020). Design of an IoT-Based Sand Temperature and Moisture Monitoring System for Sea Turtle Nesting
- Bachelor of Marine Science and Technology (S.I.K), IPB University (Graduated 2013). Portable solar-powered fish-chiller instrument.

### Teaching Experience

- Permanent Lecturer, OSO University (2024–Present): Marine Robotics, Marine Instrumentation, Oceanography Pysic, Information Technology, Research Methodology and Data Processing.
- Adjunct Lecturer, Pontianak State Polytechnic (2024–Present): Smart Technology for Fishing Gear.
- Guest Lecturer, Trisakti University (2020–Present): Information Technology I & 2.
- Adjunct Lecturer, Sultan Ageng Tirtayasa University, *Department of Marine Science* (2023 – 2024): Marine Instrumentation and Robotics, Numerical Analysis and Modelling

### Selected Publications & Books

- Book: *Marine Geology* (2025)
- Book: *Arduino Programming for Agromaritime* (2024).
- Book: *Fundamental of Marine Acoustic* (2024).
- Proceeding: Analysis of carbon footprint in fish cold storage using IoT-based inventory monitoring, BIO Web of Conferences 220, 05001 (2026) <https://doi.org/10.1051/bioconf/202622005001> ICMS 2025
- Journal: *Design and Construction of an IoT-Based Aquarium Environmental Monitoring System*, Journal of Information Technology 5 (1), 2024
- Hybrid Renewable Energy System: Design of Fishing Boat Lamp Based on Solar Energy and Seawater Electrochemistry in West Kalimantan, Barakuda 45: Jurnal Ilmu Perikanan dan Kelautan 7 (2), 314-327. 2025
- Journal: Design and Development of a Solar-Powered Tide Monitoring Device Based on The Internet of Things (IoT), Juvenil: Jurnal Ilmiah Kelautan dan Perikanan 6 (2), 125-136, 2025

- Journal: Design of A Solar-Powered Automatic Grouper Fish Feeder in Floating Net Cages, Barakuda 45: Jurnal Ilmu Perikanan dan Kelautan 6 (2), 141-149, 2024
- Journal: Sand temperature and moisture monitoring system for turtle nests using Arduino Uno, Jurnal Teknologi dan Sistem Komputer, 9(1), 8-14, 2021

### Industrial & Professional Experience

1. Director, CV. Marinest Riset dan Teknologi. (2024 – Now)
2. Commissioner, CV. Maju Jaya Cipta Karya (MJTech) (2023-Now).
3. Director, Yayasan Neritik Alam Nusantara (2020 – Now)
4. Expert Coral Reef and Mangrove Health Survey in the Coastal and Small Islands Conservation Area (KKP3K) of the Derawan Islands and Surrounding Waters (KDPS), Berau Regency, East Kalimantan 2025.
5. Sustainability Specialist, PT. Rantai Pasok Ekosistem (Fishlog), April-September 2024
6. Hydroacoustic Surveyor (Bathymetry), IMIP Morowali, 2023
7. GIS Analyst, PT. Indocarbon Nusantara, June – Dec 2023
8. Oceanography and Bathymetry Specialist, Yayasan Terumbu Rupa, Putri Island, Jakarta, February 2023
9. Mangrove and Marine Specialist, Environmental and Forestry Ministry, Rambut Island, Jakarta, 2020
10. Survey Amdal Coal Mining, Satui, Tanah Bumbu, South Kalimantan, Nov-Dec 2019
11. Survey Bathymetry, Pulo Ampe, Serang, Nov 2019
12. Marine Specialist, Marine Science and Technology Department, Pari Island, Jakarta 2017
13. Research and Development, PT. Indogreen Technology & Management, 2015-2017
14. Engineer, PT. Indogreen Technology & Management, 2013-2015

### Professional Certifications

1. Senior Professional Engineer (IPM) (2025).
2. Certified Blue Economist in Blue Data Intelligence (CBEc. DataIntel.), The Blue Economist International Association (2025). *Competencies: Geospatial & Ocean Data Systems, AI Analytics, Decision Support, and Cybersecurity.*
3. Peningkatan Keterampilan Dasar Teknik Instruksional (PEKERTI), Universitas Tanjungpura (2025).

### Professional Memberships

- The Institution of Engineers Indonesia (PII)
- Ikatan Sarjana Oseanologi Indonesia (ISOI)

### Technical Expertise

- Systems Engineering & Automation: Expert in Control Systems, Robotics, and Power Electronics. Experienced in designing marine instrumentation and automated systems, such as solar-powered automatic fish feeders.
- Industrial IoT & Instrumentation: Specialized in Real-time Monitoring Systems and Advanced Sensor Integration. Proven research in IoT-based monitoring for aquarium environments and sea turtle conservation.
- Marine Technology & Geospatial: Proficient in Bathymetric Mapping, Hydrographic Surveying, and GIS. Skilled in using SIMRAD EK15 for hydroacoustics and OBIA for satellite image analysis.
- Renewable Energy: Skilled in Solar PV Design and its maritime applications. Developed hybrid energy systems using solar and seawater electrochemistry for fishing operations.
- Data Intelligence & Digital Dev: Certified Blue Data Intelligence Specialist (CBEc) proficient in AI, Big Data Analytics, and Python for Data Science. Experienced in Full-stack Web Development and Laravel.
- Blue Economy & Leadership: Expertise in Sustainable Maritime Strategy and Data Governance. Experienced in executive leadership as a Director and Commissioner in the IT industry.