

Muhammad Firman Nuruddin

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EDUCATION

- **Ocean Science Department, The Hong Kong University of Science and Technology**

Doctor of Philosophy Candidate in Marine Environmental Science Expected September 2027

- Awarded a Hong Kong PhD Fellowship to conduct research about zooplankton derived dissolved organic matter molecular fingerprint and its associations with the physiological response of the zooplankton community in the Subtropical Coastal Ocean under the supervision from Dr. Longjun Wu. The project is part of the Area of Excellence Research in Hong Kong and Macau.
- Awarded Red Bird Award by Fok Ying Tung Graduate School. It is an award for excellent PhD candidates, in recognition of their outstanding academic performance and research capacity which include HK\$40,000 (~US\$5,110) plus a waiver of tuition fee in the first year.

Master of Philosophy in Marine Environmental Science August 2024

- GGA: 3.923/4.3
- Awarded a Postgraduate Studentship to conduct research on understanding the impact of environmental stressors on the physiological response of the zooplankton community in the Subtropical Coastal Ocean under the supervision from Dr. Longjun Wu. The project is also funded (HK\$300,000) by the Center for Ocean Research in Hong Kong and Macau (CORE) for the year 2023/2024.

- **Earth Science and Technology Faculty, Institut Teknologi Bandung**

Bachelor of Science in Oceanography July 2018–July 2022

- GPA: 3.58/4.0 (Cum laude)
- Honors: 3rd Most Outstanding Student of Institut Teknologi Bandung 2021

AWARDS

- **Young Oceanographer Research Award 2022**

Secured a six months of research collaboration funding from the First Institute of Oceanography (FIO), Ministry of Natural Resources of China.

- **Best Oral Presentation in International Conference of Fisheries and Marine Sustainability 2022 (on Biodiversity, Conservation, and Climate Adaptation Category)**

Selected as the best presenter from 11 selected presenters (come from International and various Institution). At this conference I presented research entitled "Climate Variability Impact on Ocean Primary Productivity and Zooplankton Biomass in the Natuna Sea".

- **Second Prize in Global Environment Solution Competition (GEC) 2021**

GEC is an international competition conducted by The United Nation Development Programme in collaboration with Tongji University Shanghai. In this competition the participants were challenged to propose sustainable solutions for climate change impact mitigation and by using Ecosystem Restoration. My idea proposed Nature Based Solution combining with Sustainable Aquaculture method to tackle Coastal Flooding in Demak, Central Java. More than 300 students from 55 countries joined this competition.

- **First Winner of ESRI Young Scholar Award 2021**

Selected as the first winner from 89 participants after succeeded to develop a Geographic Information System to support Tuna Marine protected Area development planning in the South Java Sea Fisheries Management

Area by combining satellite remote sensing data of chlorophyll-a and sea surface temperature.

Link: <https://storymaps.arcgis.com/stories/82440847524f4db8862bcf7fc502c5a3>

LEADERSHIP AND VOLUNTEERISM EXPERIENCES

- **JCSCCP Leadership Programme Spring 2023** March 2023 – September 2023
Jockey Club Sustainable Campus Consumer (JCSCCP) Leadership Programme is an initiative aimed at promoting United Nations SDG 12: Responsible Consumption and Production among the eight universities in Hong Kong. As part of a team from HKUST consisting of 8 students, I am involved in conducting an electronic waste reuse and recycle campaign. Additionally, we have collaborated with Caritas Computer Workshop (CCW) to redistribute functioning electronics such as laptops and tablets to low-income families.
- **Project Manager Paragon Innovation Fellowship** September 2019 – February 2020
Led a team consisting of 10 students from diverse majors to design curriculum and teach Elementary School Students about waste management and Sustainable Development Goals 14 by using storytelling and simple experiment-based method.
- **Teacher in Indonesia Teaching Movement Foundation** June - July 2019
During this program, 30 university students were selected from a pool of over 7,000 applicants. The activities were primarily focused on teaching science and art to elementary school students in grades 1 to 3, as well as conducting community empowerment activities related to hygiene and sanitation. The program took place in a remote area of Indonesia, specifically in Labuan Kallo Village, East Kalimantan.

WORKING EXPERIENCES

- **Graduate Teaching Assistant Hong Kong University of Science and Technology**
 - OCES-3001 Coastal Environmental Monitoring January – June 2023
 - OCES-4203 Environmental Impact & Risk Assessment September – December 2023
Responsible for assisting course instructors in conducting laboratory and field work sessions, grading student assignments, and invigilating exams for both courses. Additionally, in the OCES-3001 Coastal Environmental Monitoring Course, I taught laboratory modules on Microplastics monitoring and analysis.
- **Eel Research Assistant World Wildlife Fund for Nature (WWF) Indonesia** April 2021 – June 2021
Assisted in monitoring and collecting data on fish catch composition and water quality parameters. Additionally, I am responsible for creating maps using some Geographic Information System tools to support the conservation project of *Aquila marmorata* and *Aquila bicolor* in the southern coast of Java, specifically in Sukabumi.
- **Solution Strategist Intern ESRI Indonesia** February– March 2021
 - Supported the development of Ocean Technology mockup website (Minapolitan, integrated Fisheries Industries Area) for local government by using ArcGIS Pro (collaboration project of Geographic Division ESRI Indonesia x SDGs Program)
 - Developed Fishing Ground Prediction Map for North and South Java Sea area by using sea surface temperature and chlorophyll-a data with consecutive hotspot analysis method.
 - Supported the development of landing page Demo for Architecture, Engineering, and Construction (AEC) projects repository by using ArcGIS Site.