

FARID JOHOR ABDULLAH RITONGA

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SUMMARY OF QUALIFICATIONS

An Engineering Physics graduate with a strong interest in operations and instrumentation control. Gained hands-on experience through an internship with the Facility Engineer-Operations Engineer Team at PT Pertamina Hulu Rokan. Experienced in research dissemination, with a paper presented at IPA Convex 2025. Demonstrated problem-solving, teamwork, and leadership through academic projects, university organizations, and student competitions. Eager to contribute skills and knowledge to the energy and industrial sector in a professional engineering role.

EDUCATION

Universitas Gadjah Mada, Yogyakarta, Indonesia | Aug 2021 – Aug 2025

Bachelor of Engineering (B.Eng) in Engineering Physics

- **GPA: 3.30/4.00**
- **Scholarships:** PT IMIP Scholarship Program and Dato' Low Tuck Kwong Scholarship Program
- **Relevant Courseworks:** PLC & HMI Programming (Schneider), Automation System Design, Control Engineering, Instrumentation System, Control Logic Programming, Electronics (Digital & Analog), Material Science and Technology, Communication Networks, Project Management

EXPERIENCES

Student Intern at Facility Engineer-Operation Engineer NCTGP Team

PT Pertamina Hulu Rokan | January 2024

- Assisted in field visits, learned about company business processes, delivered the final internship report, and contributed to drafting a journal paper for IAFMI publication to strengthening the team's research output.
- Analyzed online monitoring system with data mining algorithms, producing insights to predict oil congeal phenomena in pipelines.

PROJECTS

MethaneTrack UGM

Electronics and Programming

June 2024 – July 2025

- Designed and developed a methane monitoring system by integrating TGS2600, BME280, and MH-Z19C sensors with Raspberry Pi.
- Built a web-based dashboard using HTML, CSS, and JavaScript to monitor real-time sensor data.

Paper Research Team for IPA CONVEX 2025

Co-author and Electronics

October 2024 – May 2025

- Co-authored research paper accepted and presented at 49th IPA CONVEX 2025.
- Designed and developed electronics system, mechanicals system and experiment setup for the research.

ThinkFast DTNTF

Electronics and Programming

June 2023 – October 2023

- Created an IoT training kit module with real-world use cases based on Arduino UNO and Analog/Digital Sensor.
- Conducted training sessions for high school students at MA Assalafiyah Mlangi
- Project was funded by DTNTF UGM 2023 and recognized as a successful community outreach initiative.

Ci-Theray Team

Electronics and Mechanics

June 2023 – November 2023

- Designed the 3D mechanical model and electrical system of the Ci-Theray health device.
- The prototype design selected for funding by Belmawa Dikti 2023 under the Innovative Work scheme.

HONORS & AWARDS

- Scholarship Awardee of PT IMIP Scholarship 2024 and Dato' Low Tuck Kwong Scholarship 2023
- 2nd Runner Up Essay Competition at Festival Hari Bumi BEM PKN STAN 2024
- 2nd Runner Up Business Case Competition at Annual Petroleum Competition and Exhibition (APECX) 2024
- Funding Recipient, PKM-Karsa Cipta 2023 and PKM-Karya Inovatif 2021

SKILLS

Software & Tools : MachineExperts Schneider, Raspberry Pi, Arduino, ESP32, AutoCAD, Autodesk Inventor, Autodesk Eagle, Proteus, Matlab Simulink, Instrucalc
Programming : SQL, Python, C++, Ladder Logic, JavaScript, HTML, CSS
Languages : Bahasa Indonesia (Native), English (Limited Working Proficiency)

ADDITIONAL EXPERIENCES

KKN-PPM UGM Senjana Sangihe 2024

Subunit Coordinator of Simueng Village

July 2024 – September 2024

- Led a team of 9 students in Simueng village, successfully delivering 45 impactful work programs that addressed community needs.
- Managed logistics and transportation from Yogyakarta to the Sangihe Islands, ensuring on-time arrival and successful completion of fieldwork.

Department of Nuclear Engineering & Engineering Physics

Laboratory Assistant

February 2023 – December 2023

- Supervised practicums in Analog Electronics and Basic Physics, supporting 50+ students and ensuring effective knowledge transfer.
- Designed exam materials, guided 50+ students, and evaluated performance, contributing to enhanced learning outcomes and academic achievement.

BEM KMFT UGM

Staff and Expert Staff

February 2022 – December 2023

- Coordinated the Ministry of Academic and Professional Affairs team in cross-ministry collaboration for International Webinar *Infinity 2022*, successfully attracting 200+ participants.
- Evaluated ministry work programs through KPI-based reports, driving measurable improvements in program performance.