



## **IRDAVLAN MOHAMAD YAHYA, S.T., M.Eng.**

Jakarta, Indonesia 10550 | +628983306970 | irdavlanmoh.yahya97@gmail.com  
<https://www.linkedin.com/in/irdavlan-mohamad-yahya-a0262a187>

### **PROFIL PERSONAL**

---

I hold a Master's degree in Systems Engineering from Gadjah Mada University, with a specialization in New and Renewable Energy. I have a strong background in regional energy planning, energy conversion, and energy management. My knowledge includes renewable energy sources like solar, wind, and biomass, which play a crucial role in reducing greenhouse gas emissions and addressing climate change.

I am currently serving as a Commissioning Engineer in the electrical construction sector, specializing in the operation of advanced testing equipment and conducting feasibility inspections for various electrical components, including transformers, circuit breakers (CB), disconnect switches (DS), capacitors, busbars, cables, and other critical systems to ensure safety and performance standards are met. Additionally, I actively contribute to the preparation of detailed test reports, providing comprehensive analyses and documentation to support compliance, operational efficiency, and successful commissioning of electrical systems

### **WORK EXPERIENCE**

---

#### **PT. GRAHA USAHA TEKNIK**

Contract | Commissioning Engineer

Tebet, Indonesia  
Nov 2024 – Present

Responsibility:

- Conducted various electrical testing, including:
  - a. Continuity testing
  - b. Insulation Resistance (IR), DAR, and PI measurement
  - c. Current Transformer (CT) testing using CT Analyzer or CPC 100
  - d. Voltage Transformer (VT) and CVT/IVT testing using CPC 100
  - e. Circuit Breaker testing with a Circuit Breaker Analyzer
  - f. Contact Resistance and Busbar/Main Circuit Resistance testing using a Micro-Ohm Tester
  - g. Grounding System or Soil Resistance testing with CPC 100 & Fluke 1625
  - h. Tangent Delta testing using CPC 100 + TD1
  - i. Transformer electrical testing with CPC 100 and other tools
  - j. Protection and metering testing using a Secondary Injection Test Kit
  - k. Dielectric Withstand testing with Power Frequency or Very Low Frequency Injection Test Kit
  - l. Performing function tests according to schematic diagrams and functional descriptions of electrical systems
- Analyzed test results, identified issues, and determined root causes
- Documented technical issues and proposed solutions
- Delivered comprehensive commissioning documentation to clients, securing operational readiness and formal project acceptance.

#### **PT. OPTIMAXX PRIMA TEKNIK**

Full Time | IoT/ CC Engineer

Cengkareng, Indonesia  
May 2024 – September 2024

Responsibility:

- Solving network and platform connection issues
- Managing IoT data flow via MQTT protocol using Node-RED for configuration, monitoring, and troubleshooting
- Creating Python scripts for IoT data collection, processing, and analysis, integrating with web services using suitable frameworks
- Administering the ThingsBoard platform for IoT data visualization and device control, including installation, configuration, and software updates
- Conducting commissioning tests for sensors

- Sizing and designing IoT control panels
  - Experience with pressure, temperature, level, and flow meter sensors
  - Experience with industrial machinery in plantations, such as palm oil, including storage tanks, boilers, screwpress machines, steamers, digesters, CST tanks, diesel tanks, and steam flowmeters
- Tools used: Linux, Python, JavaScript, MQTT, Node-RED, Connection (4 – 20mA , RS485 and HART).

### **PT. SOLUSI BANGUN INDONESIA Tbk.**

Freelance | IoT Engineer

Cilacap, Indonesia  
January 2023 – August 2023

Responsibility:

- IoT System Design
- Hardware Development
- Programming and Software Development
- Dashboard Design (Blynk)
- Project Documentation
- Creating a CO<sub>2</sub> measurement device using Arduino and ESP32
- Using sensors for pH, temperature, salinity, and CO<sub>2</sub>
- Online monitoring of CO<sub>2</sub> absorption via Blynk server
- Maintenance and cultivation of microalgae in a photobioreactor

### **MICRO X INDONESIA**

Intern | Social Media Analyst

Yogyakarta, Indonesia  
February 2023 – May 2023

- Social media content management
- Creation of monthly Instagram, Facebook and TikTok content strategies
- Ensure brand consistency and strong messaging on every social media platform used by the company

### **INDONESIA POWER (IP)**

Intern | Electrical Engineer

Pasuruan, Indonesia  
August 2019 – September 2019

- Ensure electrical equipment functions properly and safely following standard operational procedure (SOP)
- Monitoring electrical operating systems in generating units and fields
- Study the generation system thoroughly (Fuel, Combustion, Steam, Turbine and Boiler)
- Study Generation Transmission to Substation Transmission

### **PT BIMARUNA JAYA (Korindo Group - Docking)**

Intern | Electrical Engineer

Asiki, Indonesia  
October 2015 – December 2015

- Ensure that the electricity on the ship is running correctly and safely
- Repair and maintain ship electrical systems
- Ensure that the electricity in the Docking Unit (entire work area) is running correctly and safely
- Designing electrical installations in a workspace

## **EDUCATIONAL BACKGROUND**

---

### **UNIVERSITAS GADJAH MADA**

Master of Engineering – M.Eng, Systems Engineering (3.60)

Yogyakarta, Indonesia  
February 2022 – March 2024

- Energi Regional Development Based on - New and Renewable Energy
- Publication of Master's Thesis - Program Study New and Renewable Energy  
Design of An IoT-Based CO<sub>2</sub> Absorption Monitoring Unit For Microalgae Cultivation (PSCO<sub>2</sub>-IoT)

### **UNIVERSITAS ISLAM MALANG**

Bachelor's Degree, Electrical Engineering (3.06)

Malang, Indonesia  
September 2016 – February 2021

- Publication of Bachelor Degree Thesis - Program Study Electrical Engineering  
Rancang Bangun Alat Penurun Polusi Udara Dengan Aerogel Silica Bertenaga Wind Turbin Berbasis IoT

### **SMK N 3 MERAUKE**

Electrical Engineering – 93.5

Merauke, Indonesia  
July 2013 – June 2016

- Competency in Electrical Power Installation Engineering Skills  
Installation of a 3-Phase Electric Motor Control Panel with Automatic Star Delta Starting Using Contactors and Time Delay Relays and Installation of Lighting.

## **ORGANIZATIONAL EXPERIENCE**

---

### **VOLUNTARY CORPS IN INDONESIA RED CROSS UNIT UNISMA**

Members of The Group

Malang, Indonesia  
January 2018 – December 2020

- First Aid Training
- Social Activities
- Social Service
- Disaster Management Training

## COURSE AND TRAINING

---

### **My Skill – Drone Mapping**

August 2024

Course : • Aerial Photogrammetry • Ground Control Point (GCP) • Flight Plan • Image Processing and GCP • Creation of DEM, Contour, Surface, and Terrain • Orthophoto Creation • Base Map Layout Creation

### **My Skill Bootcamp – Pelatihan Perhitungan Emisi Gas Rumah Kaca**

April 2024 – May 2024

Course : • Climate Change and GHG Inventory • Carbon Tax and Trading in Indonesia • Carbon Trading Calculation Methods • GHG Emission Calculation Methods for the Energy and Transportation Sectors • GHG Emission Calculation Methods for the Industrial Sector • GHG Emission Calculation Methods for the Solid and Liquid Waste Sector • GHG Emission Calculation Methods for the Plantation Sector • GHG Emission Calculation Methods for the Forestry Sector • Presentation of Example GHG Reports • Practical Workshop on GHG Emission Calculations for the Energy Sector • Practical Workshop on GHG Emission Calculations for the Transportation Sector • Practical Workshop on GHG Emission Calculations for the Industrial Sector • Practical Workshop on GHG Emission Calculations for the Solid and Liquid Waste Sector • Practical Workshop on GHG Emission Calculations for the Plantation Sector • Practical Workshop on GHG Emission Calculations for the Forestry Sector

### **My Skill Bootcamp – Project & Construction Electrical**

April 2024 – May 2024

Course : • Basic Drawing in AutoCad • Basic Electrical Design MEP Engineering Using AutoCad • MEP Project Design Engineering Using AutoCad • Panel Distribution Design Engineering And Switchgear (Basic) • Lightning Protection And Grounding.

### **My Skill – Training in Basic and Thematic Google Earth Engine (GEE) : Renewable Energy Potential Solar and Wind Power Plant Site**

March 2024 – April 2024

Course : • Introduction to remote sensing • Introduction to google earth engine (GEE) and java script programming language • Basic google earth engine simulation (filter, load, and data visualization; impor assets (vector data); clip image with vector data; export data; mosaic & cloud masking) • Introduction to remote sensing for impact of deforestation on air pollution concentrations • Thematic googel earth engine simulation (solar panel site suitability; quantifying wind energy farm & annual energy production estimation; relationship between deprestation rate and air pollution concentration)

### **My Skill – Power System Analysis for Oil and Gas Industry Using ETAP**

February 2024 – March 2024

Course : • Power System Analyst • Oil and gas electrical system • Load list • Generator sizing • Transformer sizing • Electric motor • Motor starting • Shor circuit analyst • Protection • Arc flash • DC load flow • DC short circuit

### **My Skill – Basic Power System Analysis With ETAP Simulation**

February 2024 – March 2024

Course : • Basic Concepts of Electric Power Systems • Basic Components of Electric Power System • Single Line Diagram (SLD) and Network • Load Flow Analysis and Strategies for Handling Drop Voltage Using ETAP • Short Circuit Analysis and Rating Selection Method Component On ETAP • Arc flash • Protection system.

### **My Skill E-Learning – Commissioning Process for Oil and Gas Facilities**

February 2024 – March 2024

Course : • Pre - Comissioning and Comissioning • Planning and Preparation • Execution • Start up and Post Activities

### **My Skill – Ahli K3 Umum KEMNAKER RI**

January 2024 – February 2024

Course : • Risk Management • Analysis and Statistics of Occupational Accidents • Occupational Health and Safety Management System (SMK3) • Audit SMK3 • Supervision of Occupational Health and Safety in the Workplace • Supervision of Hazardous Material Safety • Supervision of Steam and Pressure Vessel Safety • Mechanical Safety Supervision (PAA & PTP) • Construction Safety Supervision • Electrical Safety Supervision and Fire Prevention • Occupational Health Supervision • Occupational Health Service Supervision.

### **HSE Officer Development Program**

Course : • Contractor Safety Management System (CSMS) • Accident Investigation (AI) • Lock Out Tag Out (LOTO) • Quality Management System (ISO 9001) • Environmental Management System (ISO14001) • Safety Management System (ISO 45001) • Auditing Management System (ISO 19011) • Emergency Response Plan (ERP) • Basic Fire Fighting (BFF) • K3 Migas Offshore • K3 Migas Onshore • K3 Pertambangan.

### **My Skill Bootcamp – Solar Energy Electrical**

January 2024 – February 2024

Course : • Design Solar PV System Using PVSyst • Design PV System Using Helioscope • Design PV System Using Homer.

**My Skill E-Learning – OHSAS 18001**

February 2024

Course : • OHSAS 18001 Standar • Concept of Occupational Health and Safety • OH&S Policy • Planning • Implementation and operation • Checking • Management Review • Management System Audit

**My Skill E-Learning – Quality Control (QC) / Quality Assurance (QA) Management**

January 2024

Course : • Concept and Definition of Quality • Evolution of Quality Control • Managing Cost of Quality • Roles and Responsibilities of Quality Control (QC) • Roles and Responsibilities of Quality Assurance (QA)

**My Skill E-Learning – PROPER BIRU**

January 2024

Course : • Definition of PROPER • Fundamental Principles of PROPER Assessment • Environmental Documents • Water Pollution Control • Air Pollution Control • Hazardous Waste Pollution Control • Reporting and Documentation.

**My Skill E-Learning – Manajemen Risiko K3 Berdasarkan HIRADC & JSA**

January 2024

Course : • Understanding Hazards & Risks • Concept of Work Accident • HIRADC Concept • Hazard and Risk Identification Techniques in the Workplace:HAZOP/ FMEA/ What if/ FTA/ ETA/ CCA • Definition of JSA and SOP • Criteria for Making JSA • JSA Format • Steps for Making JSA and Its Application.

**COMPETENCY CERTIFICATE**

---

- Drone Mapping – Powerindo Karya Perkasa | 2024
- Pelatihan Perhitungan Emisi Gas Rumah Kaca – EcoEdu.id | 2024
- Project & Construction Electrical Bootcamp – PT. Zaada Bana Engineering | 2024
- Training in Basic and Thematic Google Earth Engine (GEE) : Renewable Energy Potential Solar and Wind Power Plant Site – Geoaccess Indonesia | 2024
- Calon Ahli K3 Umum – KEMNAKER RI | 2024
- Power System Analysis for Oil and Gas Industry Using ETAP – Anak Teknik Indonesia | 2024
- Project & Construction Electrical Bootcamp – PT. Zaada Bana Engineering | 2024
- Basic Power System Analysis Using ETAP – Anak Teknik Indonesia | 2024
- OHSAS 18001 – Udemy | 2024
- PROPER – PT. Sinergy Ruang Zaman | 2024
- QA / QC – PT. Sinergi Ruang Zaman | 2024
- Design Solar PV System Using PVSyst, Helioscope and Homer – PT. Zaada Bana Engineering | 2024

**ABILITIES**

---

• PVSyst	Advance	• Microsoft Word	Excellence
• Homer	Advance	• Microsoft Excel	Excellence
• Helioscope	Advance	• Power Point	Excellence
• LEAP	Beginners	• Microsoft Project	Advance
• ETAP	Advance	• Electrical Installation	Excellence
• PLC	Beginner	• Arduino IDE	Excellence
• SCADA & HMI	Beginner	• Automation Industri	Excellence
• AutoCad	Advance	• Python	Advance
		• JavaScript	Advance
		• C#	Advance
		• Linux	Advance

---

## REFERENCE

---

**Dr., Nugroho Dewayanto., S.T., M.Eng.**

Lecture,

Gadjah Mada University

Phone: 0813-5883-7595

Email: nugrohodewayanto@ugm.ac.id

**Cipta Kurniawan., S.T.**

Senior Mechanical Engineer,

PT Eni Muara Bakau

Phone: 0811-5420-586

Email: cipta.kurniawan@eni.com

**Docs** (Ijazah, SKL, Certificate, etc) :<https://drive.google.com/drive/folders/1bDIYAgDuwMsUuV30RBBvRdvsuJIBHUur?usp=sharing>

**Interest** :Renewable Energy & Carbon Credit Engineer, IoT Engineer, Power System Analyst, Data Analyst, AI and Machine Learning

## PORTFOLIO

