

# MUHAMMAD SUKRY

## Electrical, Instrumentation Control & Automation Engineer | Engineering & Commissioning Support

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Electrical, Instrumentation Control, and Automation Engineer with experience supporting engineering-phase and tender-stage activities for EPC, industrial, and oil & gas projects. Skilled in BOQ/MTO preparation, technical document review, equipment selection, and engineering deliverables across electrical, instrumentation, and control systems. Experienced in PLC-based automation, SCADA integration, and commissioning support, with strong interest in engineering and commissioning roles.

### Core Competencies

#### Electrical Engineering:

BOQ/MTO, Load List, Cable Sizing, Voltage Drop Calculation, Equipment Selection, Panel Design Support, Single-Line Diagram, Grounding, Protection Coordination.

#### Instrumentation & Control:

Instrument Index, I/O List, Control Architecture, Field Device Specification, MTO, P&ID Interpretation, Instrumentation Documentation.

#### Automation & Industrial Control:

PLC Programming, HMI/SCADA, System Integration, OPC UA, Modbus RTU/TCP, MQTT, SOFTMOTION, Industrial Communication Networks.

#### Engineering & Commissioning Support:

Engineering Drawings, Technical Reports, Multidisciplinary Coordination, System Upgrade Support, Maintenance Support, Testing and Commissioning Assistance, Troubleshooting.

#### Software & Tools:

ETAP, AUTOCAD, INSTRUCALC, EPLAN, MATLAB, EXCEL, CODESYS, TIAPORTAL, AVEVA, IGNITION, FT VIEW, VISIO

### Professional Experiences

#### PT BUKAKA TEKNIK UTAMA, Cileungsi, Bogor

| Jan. 2026 – Present

Electrical and Instrument Engineer

- Support electrical and instrumentation engineering activities for EPC projects, including BOQ/MTO preparation, load list development, cable sizing calculations, and engineering documentation.
- Prepare and review instrumentation deliverables such as instrument index, I/O list, MTO, control architecture, and field device specifications.
- Support tender-stage technical activities by reviewing owner, consultant, and vendor documents, comparing quotations, and assisting material and equipment selection for project proposals.
- Contribute to scope clarification and multidisciplinary coordination to improve technical alignment, cost efficiency, and proposal readiness.

#### PT PRATAMA ABADI INDUSTRI, South Tangerang, Banten

| Jan. 2025 – Dec. 2026

Electrical and Automation Engineer

- Support industrial automation and system integration activities, including control system development, reporting, maintenance support, and commissioning-related works.
- Perform electrical load analysis and cable sizing to improve equipment efficiency, reliability, and preventive maintenance planning.
- Contribute to digitalization and automation initiatives aligned with Industry 4.0 implementation.
- Deliver technical guidance and training for operators and engineers to improve automation understanding and operational readiness.

#### PT PLN UIP3BS ULTG, Padang, West Sumatera

| Oct. 2023 - Nov. 2023

Internship - Protection, Metering, and Automation Maintenance Engineer

- Assisted Substation Automation System (SAS) operations, including routine and corrective maintenance support for protection relays and RTUs.
- Supported operational worthiness testing (SLO) in accordance with applicable electrical safety requirements.
- Prepared technical drawings and wiring diagrams and participated in troubleshooting activities for electrical interlocking systems.

#### DIGITAL CONTROL LABORATORY, Padang, West Sumatera

| Sep. 2022 - Jul. 2024

Research and Development Coordinator

| Oct. 2023 - Jul. 2024

Laboratory Practicum & Maintenance Coordinator

| Sep. 2022 - Oct. 2023

- Designed and delivered practical training programs in PLC, HMI, and process control, including implementation of P&ID interpretation and PID-based motor control.
- Led development of industrial automation practicum modules integrating SCADA visualization and feedback control concepts.
- Managed laboratory readiness, maintenance coordination, and operational support for instructional and research activities.

## Selected Engineering and Automation Projects

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Key projects include:

### Digital Twin for Manufacturing Process:

Developed a digital twin concept for industrial automation processes, including SCADA dashboard design and MES-ready data architecture to improve traceability.

### HMI-Based Automation System:

Designed and implemented PLC, HMI, and process visualization systems using multiple PLC platforms including Schneider, Siemens, LS, Omron, Mitsubishi, and Allen-Bradley.

### Control System Design:

Developed IoT-based control and monitoring systems for industrial applications, applying PID control, cascade control, fuzzy logic, and real-time feedback principles.

### AI-Powered Quality Control System:

Developed machine-vision and motion-detection concepts to support automated inspection and manufacturing data traceability.

## Education Level

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### Andalas University, Padang, West Sumatra

Bachelor's Degree in Electrical Engineering | GPA: 3.76/4.00 | Aug. 2020 – Aug. 2024

Relevant Coursework: Control Systems, Power Distribution, Robotics, IoT, Signal and Systems, Electronics, Data Communication

## Languages

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**Indonesian** : Native

**English** : Professional Working Proficiency (technical documentation, reporting, and communication)

## Selected Certifications & Trainings

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### Electrical:

Electrical and ETAP Course

– NAIQ DERAJAT Training Center, Sep. 2025

Electrical and ETAP Course

– NAIQ DERAJAT Training Center, May 2025

### Industrial Automation & PLC:

Industrial Automation Bootcamp: From Wire to PLC

– Udemy, Nov. 2024

PLC Programming (AB, SIEMENS, OMRON, SCHNEIDER)

– Instrument Control System Academy, 2023-2025

Schneider PLC M221 Configuration and Programming

– Engineering Academy, Sep. 2023

### SCADA & HMI:

SCADA (Wonderware, Siemens TIA Portal, WinCC Explorer)

– Instrument Control System Academy, 2024-2025

HMI Design for Industrial Applications

– Instrument Control System Academy, 2023-2025

### Instrumentation & Control:

Basic Instrumentation & P&ID Interpretation

– ICS Academy & Udemy, 2024

Custody Transfer (Natural Gas)

– ICS Academy, Nov 2024

### Engineering, IIOT & Project

Mechatronics and Industrial Internet of Things

– Code<>Compile, Nov. 2024

Project Management: Electrical and Instrumentation

– Engineering Academy, Sep. 2023

### Supporting Skills

AI 4 Jobs

– PT. Orbit Ventura Indonesia, Jan. 2024

Electronics, Sensing, and Control for Drones

– PT. Karya Solusi Angkasa, Jan. 2024

Microsoft Office Specialist: Excel Associate (Excel 2019)

– Microsoft, Jul. 2024