MUHAMMAD SUKRY

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I am a recent graduate in Electrical Engineering from Andalas University with a specialization in control system, aiming to contribute in various industries using agile methodology. Demonstrated proficiency in power control system, industrial automation, IIoT and network system with strong analytical thinking, problem-solving, teamwork and communication skill. I acquired hands-on experience in electrical and automation during my internship as a Protection, Maintenance and Automation at PT PLN and as a laboratory assistant specializing in digital and control system. I have a solid track record of collaboration on group projects and posses exceptional communication skills.

Professional Experiences

PT PLN (Persero) UIP3BS ULTG Padang |Oct. 2023 – Nov. 2023
Pauh,Padang
Internship Protection, Metering, and Automation Maintenance Engineer

- Ensured and enhanced the reliability of electrical components by executing corrective maintenance and troubleshooting, optimizing system efficiency while adhering to stringent safety protocols.
- Developed strong competencies in interlocks, system logic, and wiring diagrams to support substation safety and functionality; documented technical findings and procedures to aid in system diagnostics and future maintenance tasks.
- Participated in the testing process for the Certification of Operational Feasibility (SLO), which serves as formal recognition for Electrical Power Installations.

Digital Control Laboratory, Padang |Sep. 2022 – Jul. 2024
Research and Development Coordinator | Oct. 2023 – Jul. 2024

- Developed expertise in Automation and Instrumentation through comprehensive training, workshops, and hands-on P&ID applications.
- Led research training with Automation specialists to enhance knowledge transfer.
- Mastered advanced concepts in Optimization Control, PLC, Ladder Logic, FBD, SFC, HMI, and Process Control.

Laboratory Practicum & Maintenance Coordinator |Sep. 2022 – Oct. 2023

- Organized and streamlined the Electrical Engineering Department's Laboratory Practicum at Andalas University, enhancing coordination by managing and reporting schedules.
- Initiated and directed a new practicum module focused on motor analysis and control using PID controllers, boosting student engagement and practical learning outcomes.
- Ensured optimal performance of lab equipment through rigorous testing and regular maintenance, ensuring high operational standards.
- Improved productivity and adherence to project milestones by effectively communicating laboratory schedules and adjustments to faculty members.

Education Level

Andalas University, **Padang, West Sumatera** |Aug. 2020 – Aug. 2024
Bachelor Degree in Electrical Engineering*, 3.76/4.00*

- Developing a strong understanding of Control Systems,Instrumentation, Digital Electronics, SCADA and Programmable Logic Control necessary for success in the field of engineering.
- Relevant Courses: Robotics, Control System, Signals and Systems, Internet of Things, and Data Communication.

Organization and Project Experience

PT Telekomunikasi Selular, Telkomsel Indonesia
Digital Talent Development, IndonesiaNext Program |Jun. 2024 – Oct. 2024

- My Itinerary (Project)**,** a Web-Based Recommendation System Using Machine Learning.
- Increased project efficiency by 40% by implementing an AI-based automation system for travel plan management, saving 20 work hours per month and applying Agile to iteratively enhance features and incorporate feedback.
- Increased digital skills proficiency by 30%, applying data visualization for effective communication. Trained and optimized machine learning models with RecommenderNet, improving accuracy and recommendation quality.

PT. Karya Solusi Angkasa, Yogyakarta
Electronic, Sensing and Control Engineer, MSIB Program |Jan. 2024 – Jun. 2024

- Designing manufacturing with artificial intelligence, data acquisition, and big data analysis for agricultural drones, plantation mapping, and forestry.
- Improved electronic system design and battery management, increasing drone performance efficiency by 10%.
- Led quality control initiatives, enhancing team leadership and project management skills.

PT. Orbit Future Academy, Jakarta
Artificial Intelligence Engineer, MSIB Program |Aug. 2023 – Des. 2023

- Lillung (CV project), Kadekbot (NLP project), Motion Detection (CV Project), Prediction System (DS Project).
- Enhanced model reliability and system performance by executing data analysis, debugging, and optimizing machine learning pipelines, adhering to stringent development and data safety protocols.
- Built strong competencies in NLP, computer vision, and system logic, supporting model accuracy and functionality; documented technical insights and coding procedures to facilitate diagnostics and future enhancements.

Neotelemetri, Padang, Indonesia

Machine Learning |Feb. 2022 – Sep. 2022

- Acquired skills in Data Science, focusing on Natural Language Processing, Computer Vision, Data Exploration, Augmentation, and Visualization.
- Developed capabilities in Classification, Clustering, Modeling, and Deployment, preparing for real-world data science challenges.

Ministry of Education, Culture, Research, and Technology

Student Creativity Program (PKM), Team Member of Futuristic Ideas, IoT Division **|**Feb. 2023 – Nov. 2023

- Successfully passed the National Student Creativity Program (PKM) funded by the Ministry of Education and Culture (Dikti) with the title "Carbonfence: A Carbon Footprint Control Concept Based on Integrated Deep Learning and IoT Analysis for Conventional Vehicles Towards Indonesia's Net Zero Emission 2060 Goal".
- Approved submission for the Student Creativity Week (PKM-GFT) at the Faculty and University level in 2023

Indonesian Talent Development Center (GemasTIK) Team Member of CSTEM, IoT Division |Oct. 2022 – Jan. 2023

- Designed and built a prototype of IoT Soil Suitability Detector in Corn to help farmer productivity up to 15% using HTTP Protocol
- Successfully conducted a trial of an IoT-based Soil Suitability System

Andalas University, Padang, Indonesia

Academic Project- IoT Engineer |Sep. 2023 – Jan. 2024

- Prototyping an IoT System for Vannamei Shrimp Farming using MQTT communication to increase production up to 15%.

Academic Project- Industrial Automation Engineer |Oct. 2023 – Nov. 2024

- Developed a Ladder Diagram to make State Logic and designed an HMI interface for a Tank Filling Machine using Allen Bradley software (RSLogix5000 and Factory Talkview).
- Designed a Protection, Cable Sizing, and Schematic Diagram Machine for industrial application
- Prototyping and Simulate Dosing Machine with PLC Programming, HMI Visualization, and Web Connectivity.
- Prototyping and Simulate Box Wrapper for Industrial Automation Using PLC programming and HMI Visualization.

Academic Project- Power Engineer |Jan. 2024 – Jun. 2024

- Modelling and Simulate a Control System of Single Machine Infinite Bus System (SMIB) with Power System Stabilizer (PSS) Using Backtracking Search Algorithm (BSA) case studies BARKA II (Oman) and IEEE Std 421.5™-2016.

Himpunan Mahasiswa Teknik Elektro (HMTE) FT UNAND, Padang, Indonesia

Member | Sep.2021 – Oct.2024

- Directed advanced mentoring sessions in Control Systems, specifically on topics such as root locus and system control, enhancing student comprehension and technical skills.
- Delivered impactful presentations on Signals and Systems that emphasized foundational principles and system modeling, sharpening analytical skills of peers.
- Gained proficiency in essential electrical engineering tools like ETAP, RsLogix5000, FactoryTalkView, TIAPortal, and MATLAB, preparing for advanced applications in industry settings.

SKILLS

- **Programming Languages:** Visual Basic, Python, JavaScript, C++, CSS, React.
- **PLC Programming:** Ladder Logic(LD), Function Block Diagram(FBD), Structured Text(ST), Continous Function Chart (CFC).
- **IIOT (Industrial Internet of Things) integration:** Node-RED.
- **Communication protocols:** MQTT, OPC UA, Modbus, REST API.
- **SCADA:** Experience in SCADA systems utilizing WinCC, Ignition.
- **HMI design:** Siemens WinCC, Factory TalkView, CX-Designer.
- **Engineering programs:** ETAP, AutoCAD, MATLAB, Simulink, InstruCalc, Excel.
- **Soft skills:** Problem solver, Analytical thinking, Communication, Presentation, Leadership, Adaptability, Collaboration,Research and Development.

CERTIFICATIONS AND COURSES

Workshop Custody Transfer For Natural Gas	**Instrument Control System Academy**, Nov. 2024
Mechatronics and Industrial Internet of Things	**Code</>Compile**, Nov. 2024
Know Read Understand Piping & Instrumentation Diagrams P&IDs	**Udemy**, Nov. 2024
From Wire to PLC, A Bootcamp in Industrial Automation	**Udemy**, Nov. 2024
Microsoft Office Specialist: Excel Associate (Excel 2019)	**Microsoft**, Jul. 2024
Basic Health, Safety, and Environment	**Mita Training**, Jun. 2024
Electronics, Sensing and Control Drone	**PT. Karya Solusi Angkasa**, Jan. 2024
Basic Instrumentation	**Instrument Control System Academy**, May 2024
PLC Allen Bradley	**Instrument Control System Academy**, Apr. 2024
AI 4 Jobs	**PT. Orbit Ventura Indonesia,** Jan. 2024
Basic Project Management Electrical and Instrumentation	**Engineering Academy**, Sep. 2023
Schneider PLC M221 Configuration and Programming	**Engineering Academy**, Sep. 2023
Pinch Analysis & Heat Exchanger Network (HEN) Design	**Engineering Academy**, Sep. 2023
Scripting Logika & Data Logging pada WinCC Explorer	**Creative Station**, Sep. 2023
Merancang Desain & Animasi Object Dengan WinCC Explorer	**Creative Station**, Sep. 2023
Eksplorasi Tag dan Numeric Field Scada WinCC Explorer	**Creative Station**, Sep. 2023

Languages

- Indonesia: Native Speaker
- English: Good in Listening & Reading, Good in Writing, Intermediate in Speaking.

HONORS & AWARDS

- TOP 11 MVP Bootcamp, 8th Indonesia NEXT by Telkomsel
- Finalist, GemasTIK National 2022 in Smart Devices, Embedded Systems, and IoT
- Incentive Winner, Student Creativity Program 2023, "Carbon Fence: IoT-Integrated Carbon Footprint Control"