

BINTANG RAMADHAN

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Graduate in Electrical Engineering with a specialization in Mechatronic Control. Actively participated in various activities such as student organizations, independent studies, research, internships, competitions, and workshops. Interested in systems and control mechatronics, web development, and machine learning.

EDUCATIONS

BE Sebelas Maret University, Electrical Engineering Aug 2020 – Jul 2024
GPA 3.86
Specialized in Mechatronic Control

WORK EXPERIENCE

PT Matsuo Precision Indonesia Sep 2024 – Now
Production Engineering Staff

- Maintain machine documentation
- Conduct and manage product trials
- Troubleshoot and repair semi-automatic and automatic machines
- Program and configure PLCs for semi-automatic and automatic machines
- Program and operate robots, and conduct camera inspections
- Continuously improve the production process to increase efficiency and quality.

PT Industri Kereta Api (INKA) Jan 2023 – Feb 2023
Student Intern

- Analyze battery cell imbalance problem and battery cell balancing method
- Learn the basic system of train propulsion
- Build relationships and experience in the industrial world

ORGANIZATIONAL EXPERIENCES

Sebelas Maret International IoT Challenge 2022 Aug 2022
Staff of Communication and Media Information Division

- Design images, posters, background meetings, and other media needs
- Practice collaboration with other division partners
- Document the event throughout its duration

EL-SEMAR#9 National Webinar Jul 2022
Staff of Communication and Media Information Division

- Create visual content for meetings, promotional materials, and digital platforms
- Engage in teamwork with other divisions
- Capture and document key moments throughout the event

- Create poster designs, also edit images and videos
- Creating relationships with good colleagues with seniors, juniors, and lecturers
- Conduct documentation sessions every time an event is held

RESEARCH AND PROJECT EXPERIENCES

Thesis

Feb 2024 – Jul 2024

Design and Development of an Automated Storage System (ASS) on Stacked Shelves with Programmable Logic Controller and Barcode

- Designing a PLC-based ASS with barcodes.
- Designing an operational control system for ASS with HMI and web-based ASS monitoring.
- Designing a control algorithm for stepper motor speed in ASS.

Product-based Capstone Project

Oct 2023 – Dec 2023

Recipefy : Identify, Find, and Share Recipes

- Creating a dataset involves collecting, organizing, and structuring data, including labeling images
- Creating an object detection model using SSD Mobilenet v2 FPNLite, then quantizing it, and converting it into a TFLite model
- Building a recipe recommendation model using content-based collaborative filtering and converting it into a TFLite model as well

Hibah MBKM UNS 2023

Feb 2023 – Sep 2023

Design of A Lighting System With Solar Panels In The Refugia Gardens of Magetan

- Programming the microcontroller Arduino based on C++ language
- Connecting the microcontroller Arduino and upload data to the website using HTTP protocol
- Designing and deploying a native PHP web application as an information interface

Course Final Project

Jan 2023 – Jun 2023

Adaptive Cruise Control and Intelligent Speed Assistant on RC Car

- Designing and implementing the electrical and control system
- Monitoring current, voltage, RPM, and steering angle
- Programming a closed-loop system between inputs (sensors) and actuators

Course Final Project

Aug 2022 – Dec 2022

Courier Smart Car With ESP32

- Researched and developed a courier smart car using ESP32, focusing on creating a web-based HMI control interface.
- Integrated sensors, actuators, and communication modules, ensuring reliability and performance through comprehensive testing.
- Implemented IoT features for remote control and monitoring, while maintaining detailed project documentation.

Course Final Project

Jan 2022 – Jun 2022

Design and Development of a House Lock with E-KTP Integrated with ESP-32 Cam and Telegram

- Designing and implementing a house locking system using an ESP-32 Cam controller and Telegram
- Developing an informational web system with native PHP integrated with a MySQL database
- Creating an HMI using Telegram as the operational interface for system usage

COURSE

Internship & Independent Study Bangkit Program Batch 2

Aug 2023 – Dec 2023

Held by PT Dicoding Akademi Indonesia

- Learned Python programming, deep learning, image processing, NLP, object detection, and used tools like Pycharm, Google Colab, and Jupyter Notebook
- Developed soft skills such as time management, project management, critical thinking, digital branding, and growth mindset
- Completed a Capstone Project, integrating mobile development, cloud computing, and Machine learning learning paths

LICENSES AND CERTIFICATIONS

English for Business Communication

Jan 2024

The British Institute

Score 82

English for Academic Purposes

Dec 2023

Universitas Sebelas Maret

Score 77 / 3.30 / B+

HONORS AND AWARDS

Copyright of Computer Program

Mar 2023

Courier Smart Car with ESP32

- Researching and developing a courier smart car with ESP32, featuring HMI control via web interface

Awardee Funding on The Program HIBAH MBKM UNS 2023

Feb 2023

Held by Sebelas Maret University

- Participated in the government program HIBAH MBKM in making garden lighting systems with solar panels in Refugia Gardens, Magetan

Finalist National Lomba Gagasan dan Rancangan Kreatif (LOGRAK) 2021

Nov 2021

Held by Malang State Polytechnic

- Participated in the LOGRAK competition in writing scientific papers that are related to the Application of Technology and Information Utilization to Solve Problems in the New Normal Era

SKILLS

Technical:

- Program and operate of microcontrollers
- Program and operate of programmable logic controllers (PLCs)
- Program and operate of human machine interfaces (HMIs)
- Program, operate, and teaching robot (Dobot Magician and Shibaura)
- Operate of electronic components
- Development of object detection models

Software:

- | | | |
|-----------------|----------------------|-----------------|
| • Arduino IDE | • KV & VT Studio | • MATLAB |
| • CX-One | • EAGLE | • Proteus |
| • GX-Works | • ETAP | • Haiwell SCADA |
| • FPWin Control | • Wonderware Intouch | |

Programming:

- | | | |
|-------|----------|------------------|
| • C | • PHP | • JavaScript |
| • C++ | • Python | • Ladder Program |

Organizing:

Disciplined in time management and behavior. Effective in both team and individual settings. Highly motivated to enhance skills and knowledge

LANGUAGES

Indonesian : Native

English : Intermediate