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

HSD SMA Negeri 3 Karawang, Science Track   Jul 2017 – May 2020
GPA 86.73

WORK EXPERIENCE

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

Students Union of Electrical Department UNS   Feb 2022 – Jan 2023
Staff of Communication and Media Information Division
- 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

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 Intelegent 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:

- Operation of microcontrollers
- Operation of programmable logic controllers (PLCs)
- Operation of human machine interfaces (HMIs)
- Operation of electronic components
- Development of object detection models

Software:
- Arduino IDE
- CX-One
- GX-Works
- EAGLE
- ETAP
- Wonderware Intouch
- MATLAB
- Proteus
- Haiwell SCADA

Programming:
- C
- C++
- PHP
- Python
- JavaScript
- 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