

CURRICULUM VITAE

PERSONAL INFORMATION

Name : Ahmad Zulfadli
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Sex : Male
Nationality : Indonesia
Marital Status : Single



BRIEF PROFILE

I am a Computer Engineer with an educational background from the Department of Electrical Engineering at UIN Sultan Syarif Kasim Riau. Throughout my academic journey, I have delved deeply into various technological aspects, particularly in the realms of instrumentation, control, and the Internet of Things (IoT). My involvement in a research-based organization has equipped me with the experience of working collaboratively in teams and tackling diverse technical challenges. Some of the projects I spearheaded are, IoT-based composter system (OFFPALS), underscores my capability in understanding and implementing technical solutions for production processes. Other than that, my contributions to the development of an AGV robot for industrial applications and an illegal logging detection system highlight my proficiency in maintaining and troubleshooting hardware components.

In addition to my prior experiences, I have been actively involved in the maintenance of a nanosampler device designed for air pollution measurement. This role required meticulous attention to detail and a deep understanding of the intricacies of the equipment to ensure accurate and reliable data collection. Furthermore, I have also worked on the maintenance and improvisation of a low-cost sensor for air pollution measurement. This particular project challenged me to think innovatively, optimizing the functionality of the device while ensuring cost-effectiveness. These experiences have honed my skills in equipment maintenance, troubleshooting, and innovation, further solidifying my aptitude for roles that demand technical expertise and problem-solving acumen in the realm of environmental monitoring.

PROJECT INVOLVED (WORK EXPERIENCES)

Air Pollution and Health Effect Research Center, Prince of Songkla University

Start Form Sept 2021 - Sept 2023

As: Technician and maintenance of Air Pollution monitoring stations in the laboratory of the Faculty of Science and Technology UIN SUSKA Riau.

PT Riau Samudra Mandiri

As : Engineer support and installation PV System (168 kWp Solar PV for Alfamart Warehouse)

EDUCATIONAL BACKGROUND

State Islamic University of Sultan Syarif Kasim

2019 - 2023

B.Eng of Electrical Engineering Concentration Computers and

Multimedia : 3.38/4

Main Subject : IoT System, Instrumentation and Control, RESTFul API and Object Oriented Programming

Thesis Title : Illegal Logger Detection Using Sound Sensor Max4466 in Forest Area

Forest preservation is crucial, and illegal logging poses a significant threat to the quality, quantity, and ecosystem of our forests. While various measures have been implemented to curb this issue, consistent monitoring remains a challenge. In response to this, I designed and maintained a system to detect illegal logging activities remotely. This system leverages the capabilities of 4 MAX4466 sound sensors to identify chainsaw noises, a common indicator of logging. The noise level data is then processed and relayed from the Node to an IoT Gateway at one-minute intervals. Upon receipt, the IoT Gateway forwards this data to a web server, where it's stored in a database and subsequently displayed on a monitoring website. During testing, a threshold of 60 dB was established. The system demonstrated proficiency in detecting chainsaw sounds, with a notable exception during one specific sensor direction test at a distance of 50 m. My hands-on experience in designing, maintaining, and troubleshooting this system has equipped me with a unique skill set that I believe would be invaluable in a maintenance-focused role. I am adept at ensuring the smooth operation of technical systems, understanding their intricacies, and implementing necessary improvements – all of which are essential for the Production Assistant (Maintenance) position.

SKILLS

Programming Language : Python, Java and C/C++

RESTFul API : Flask, Django and Spring Boot Framework

FrontEnd : CSS, HTML and Bootstrap Framework

BackEnd : Flask and Django Framework

IoT System : Arduino Framework

EXPERTIES

- **Equipment Maintenance:** Proficient in maintaining and troubleshooting complex equipment, as demonstrated by my work on air pollution measurement tools and the illegal logging detection system.
- **Remote Monitoring Systems:** Experience in designing and implementing systems for remote monitoring, ensuring seamless data transmission and accurate real-time reporting.
- **Sound Sensing Technology:** Hands-on experience with MAX4466 sound sensors, capable of setting up and calibrating for specific environmental applications.
- **Data Processing and Transmission:** Skilled in processing noise level data and transmitting it through the LoRa module to the IoT Gateway so that it can be sent to the web server for storage and display.
- **Environmental Conservation Tech:** Knowledge in developing technology solutions aimed at environmental conservation, such as illegal logging detection.

PUBLICATIONS

- **ARTICLE JOURNAL/PAPER (NATIONAL PUBLICATION SINTA 3 INDEKS)**

Illegal Logger Detection Using Sound Sensor Max4466 in Forest Area
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ACHIEVMENTS

- 2nd Robotics and Programming Competition
Olympics of Religion, Science and Research of Islamic Religious Universities in Indonesia (OASE PTKI II in Indonesia) at Syarif Hidayatullah State Islamic University, Jakarta, 2023
- 2nd Scientific Competition (Poster and Product in 2023)
The 77th day of dedication of the Ministry of Religious Affairs UIN SUSKA Riau, Pekanbaru
- 1st Innovation Work Competition
The 14th National Seminar on Communication Information Technology and Industry (SNTIKI), Pekanbaru, 2022

ORGANIZATION

- Chairman and Founder, Research Electrical Technology (RESTEC)
- Vice Chairman, Teknologi Tepat Guna (TTG) UIN SUSKA Riau
- Student Representative Council, HIMATE UIN SUSKA Riau
- Chairman and Founder, Aksi Peduli Hutan Pasaman Community (APHP)