# AZMI ZAIDAN AYIMMANTAKATH

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#### **OBJECTIVE**

Final-year Electrical and Electronics Engineering student with a strong foundation in electrical system design, energy management, automation, and digital electronics. Eager to apply academic knowledge to design and optimize efficient, sustainable electrical systems. Passionate about leveraging advanced technologies to solve complex challenges in system design and energy solutions. Committed to continuous learning, professional growth, and contributing to team and organizational success.

#### **EDUCATION**

Bachelor of Technology in Electrical and Electronics Engineering October, 2021 - June, 2025

Government College of Engineering, Kannur, CGPA: 6.52 (upto Semester 7)

AISSCE, CBSE, Class XII

April, 2019 - March, 2021

Rims International School, Kannur, 91%

AISSE, CBSE, Class X
April, 2018 - March, 2019

Gulf Indian High School, Dubai, 95.6%

#### SKILLS AND INTERESTS

Soft Skills Problem Solving, Teamwork, Communication Skills, Time Management,

Leadership, Crtitical Thinking, Conflict Resolution, Adaptable

Technical Skills Circuit Analysis, Electrical System Design, MATLAB/SIMULINK,

Renewable Energy Systems, Electrical Safety

Design Skills PCB Designing (basic), Circuit Designing (basic), UI/UX Designing,

Front-end Web Development

Programming Languages Python, C

Languages English, Malayalam, Hindi, Arabic, Urdu Interests Sports and Games, Photography, Volunteering

#### **PROJECTS**

# Intelligent Home Automation and Energy Management using IoT

October, 2024 - March, 2025

- Major Project
- · Designed and implemented an energy-efficient smart home automation system prioritizing solar energy with a UPS backup and grid integration for cost optimization.
- · Integrated temperature, motion, light, and water level sensors for real-time monitoring and appliance management.
- · Developed an automated power source switching mechanism between solar and grid based on availability, reducing dependency on grid power and optimizing energy usage.
- · Utilized an Arduino Mega for control and automation, interfacing with ESP32 for Wi-Fi communication to the Blynk cloud platform for real-time control and data visualization.
- · Developed a scalable system with potential for expansion into security, advanced AI, and more appliances.

# Luggage Security Alarm using NAND Gates

October, 2022 - February, 2023

- Course Project
- · Designed and implemented a security alarm system using NAND gates to detect unauthorized tampering or movement of luggage.
- · Utilized digital logic circuits to create a simple yet effective system that triggers an alarm when specific conditions (like movement or opening) are detected.

- · Gained hands-on experience in digital electronics, focusing on combinational logic circuits and their application in real-world security systems.
- · Demonstrated the practical use of Boolean algebra to simplify and optimize the circuit design, ensuring reliability and accuracy.

#### Simple Clap Switch

June, 2022 - August, 2022

Course Project

- · Developed a simple clap switch system that allows the user to control electrical devices such as a light or fan by producing a loud sound or clap.
- · The project utilizes sound detection to trigger the switching action.
- · Demonstrated the practical application of basic electronics in automation and sound-based control.
- · Utilized a 555 timer to filter and amplify the sound signal, ensuring reliable clap detection for system activation.

## INTERNSHIPS/TRAININGS

### Kerala State Electricity Board

Chovva, Kannur

Student Intern

21 June, 2024 - 26 June, 2024

- · Gained practical exposure to power generation, transmission, and distribution systems.
- · Observed the functioning of substations, transformers, and grid management.
- · Studied load dispatch operations and analyzed energy distribution networks.
- · Learned about the maintenance and troubleshooting of power equipment in real-time scenarios.

### RineX Technologies

Bangalore, Karnataka

Intern

May 2024 - June 2024

- · Gained hands-on experience in web development, enhancing skills in UI/UX design and coding best practices.
- · Designed and developed the frontend of a dynamic website using HTML, CSS and JavaScript.
- · Successfully delivered the project within the given timeline, meeting all requirements.

### Goa Shipyard Ltd.

Vasco da Gama, Goa

Industrial Visit

March 2023

- · Gained insights into shipbuilding and repair processes.
- · Observed advanced engineering practices, quality control measures and safety protocols used in ship construction.
- · Learned about the importance of teamwork, precision, and adherence to timelines in large-scale engineering projects.
- · Understood the challenges and advancements in the maritime and defense manufacturing sectors.

#### EXTRA-CURRICULAR ACTIVITIES AND ACHIEVEMENTS

Attended an Iot Bootcamp conducted by NIELITS Calicut

Active volunteer under the National Service Scheme

2025

2024

2023

Completed Data Analytics: Turning Data into Decisions using Python, an IBM SkillsBuild winter certification program 2025

Completed a course on Web Development provided by Rinex Organisation

2022 - 2024

Part of the Committee of Malabar Hub Meet conducted by IEEE SB GCEK

1022 - 2024

Secured First in the University Inter-Collegiate (F-Zone) Football tournament

2022 - 2023

Attended a workshop on UI/UX Design conducted by IEEE SB GCEK

2022

Hosted and participated in DHRUVA conducted by ICI GCEK

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2022

Completed memorization of The Holy Quran

2019