Ramiyo Mohanta

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LINKEDIN

EDUCATION

BIJU PATNAIK UNIVERSITY OF TECHNOLOGY — November 2022 - June 2026
ELECTRICAL ENGINEERING B. TECH — Rourkela, Odisha
CGPA: 7.55

SAI HIGHER SECONDARY SCHOOL — April 2020 - July 2021
SCIENCE +2 (INTERMEDIATE) — Baripada, Mayurbhanj
Percentage: 77%

SARASWATI SISU VIDYA MANDIR — April 2018 - May 2019
10TH (HIGH SCHOOL) — Rairangpur, Mayurbhanj
Percentage: 70%

EXPERIENCE

STEEL AUTHORITY OF INDIA LTD. | SUMMER INTERN — Rourkela, Odisha | June 2024 – July 2024

Gained hands-on experience in the operation and optimization of power distribution systems. Worked on analyzing load flow studies, fault analysis, and protective relaying to ensure system reliability. Assisted in the monitoring and control of substations and power grids, focusing on efficiency improvements. Participated in troubleshooting and maintenance tasks to enhance system stability. Collaborated with senior engineers on power quality analysis and SCADA integration for real-time data monitoring.

MINISTRY OF ELECTRONICS & INFORMATION TECNOLOGY | WORKSHOP ATTENDEE Rourkela, Odisha | July 2024 – August 2024

Worked on the design and optimization of drone aeromechanics systems, focusing on enhancing flight stability and efficiency. Utilized advanced computational fluid dynamics (CFD) tools to model and analyze the aerodynamic performance of various drone configurations. Conducted testing on propulsion systems and designed lightweight, durable airframes using materials like carbon fiber for improved flight time and payload capacity. Developed control algorithms in MATLAB to simulate flight dynamics and optimize thrust-to-weight ratios, ensuring precise maneuverability and stability. The project honed my expertise in aerodynamics, propulsion systems, materials engineering, and flight control systems, along with hands-on experience in drone testing and performance analysis.

SKILLS

PROGRAMMING LANGUAGES	C, C++, Java, Python, MATLAB
LIBRARIES/FRAMEWORKS	NumPy, SciPy, Simulink
TOOLS / PLATFORMS	AutoCAD, MATLAB, NI Multisim, VS Code
DATABASES	SQL, MySQL

PROJECTS / OPEN-SOURCE

SMART HOME AUTOMATION — Arduino-based C++, HC-05 Bluetooth Module, Relay Module, Light/Motion Sensors

This Home Automation project utilizes an Arduino microcontroller, HC-05 Bluetooth module, and relay modules to control light bulbs remotely through a smartphone app. The system integrates sensors such as motion or light sensors to automate the switching of lights based on environmental factors. The HC-05 Bluetooth module allows seamless communication between the Android smartphone and the

Arduino, enabling the user to turn the lights on or off from anywhere within Bluetooth range. The Android app acts as a user interface for controlling the light bulbs, providing both manual and sensor-based automation. The relay modules serve as switches to control the flow of electricity to the bulbs, ensuring safe and efficient operation.

DESIGN AND IMPLEMENTATION OF A SMART SOLAR MICROGRID SYSTEM FOR EFFICIENT ENERGY DISTRIBUTION

MATLAB/Simulink, Python, SCADA Systems, IoT, Raspberry Pi, Arduino

The project involved designing and implementing a smart solar microgrid system to provide sustainable energy for remote areas. It integrated solar panels with MPPT technology for optimized energy production and lithium-ion batteries for storage. Using MATLAB/Simulink for system modeling and Python for data analysis, I developed an energy management system that monitored real-time energy generation and consumption. IoT sensors and smart meters were deployed, transmitting data via MQTT to a central SCADA system for remote monitoring and control. The project enhanced my skills in renewable energy, system optimization, and real-time data management using tools like HOMER Pro, MATLAB, Python, and IoT technologies.

CERTIFICATIONS

- Python Essentials I - CISCO Network Academy.
- Introduction to Networks - CISCO Network Academy.

HONORS & AWARDS

- Awarded by the Honorable Governor for outstanding performance during my tenure in Scouts and Guides
- Won the District-Level Cricket Tournament, demonstrating teamwork and leadership skills