Treedip Paul

paultreedip@gmail.com | +91-7059927950 | LinkedIn | Portfolio

PROFILE

Recent engineering graduate with expertise in embedded systems, IoT, and digital electronics. Proficient in hardware descriptive languages and adept at designing innovative solutions to enhance operational efficiency and safety. Proven ability to adapt quickly, lead effectively, and deliver measurable results in challenging projects. Seeking to leverage my skills and passion for technology in an engineering role.

SKILLS

- **Embedded Systems:** Arduino, ESP8266 NodeMCU, Embedded C, Assembly Language
- **Hardware Descriptive Languages:** Verilog, VHDL
- **EDA & IDE Tools:** Tanner EDA, MATLAB, SPICE, VS Code, PyCharm
- **Programming Languages:** Python, Java, C, C++, MySQL
- **IoT and Sensor Integration:** LPG Sensor, Load Cell, Fingerprint Sensor, Servo Motors
- **Other Tools:** Tinkercad, Multisim
- **Project Management:** Agile Methodology, Root Cause Analysis, Maintenance Optimization

EDUCATION

Bachelor of Technology (B. Tech) - Electronics & Communication Engineering Aug 2020 - Jul 2024
Brainware University, Barasat, Kolkata **CGPA**: 9.23

EXPERIENCE

Schwing Stetter (India) Private Limited | GET – Projects Sept – Oct 2024 | Delhi NCR

- Improved operational efficiency by **15%** through optimizing dry mix mortar plants, concrete pumps, and batching plants.
- Reduced project downtime by **10%** through proactive equipment maintenance and **bottleneck** analysis.
- Enhanced workflow efficiency by **12%** by implementing technical improvements and streamlining processes.
- Devised quick solutions for recurring technical issues, minimizing delays by an average of **8 hours** per incident.
- Increased safety compliance scores by **20%** by introducing advanced monitoring methods.

PROJECTS

IoT-Based LPG Cylinder Level & Leakage Detection System June – July 2024

- Designed a system to detect LPG gas leakage and monitor cylinder levels, ensuring household safety.
- Leveraged **ESP8266 NodeMCU**, **LPG Sensor MCQ6**, **Load Cell**, and **Amplifier Module HX711**.
- Achieved a 30% improvement in response accuracy by integrating advanced logic-based algorithms.
- Reduced project setup costs by 15% through strategic component selection.

Biometric-Enabled Automatic Door-Locking System (Prototype) June – July 2023

- Engineered a fingerprint-based door-locking system using **Fingerprint Sensor R305**, **Arduino UNO R3**, and **Servo Motor SG51R**.
- Increased system accuracy by 25% by optimizing sensor data processing and hardware alignment.
- Reduced power consumption by 18% by integrating energy-efficient components and programming logic.

Combinatory LED Circuit Simulation (Prototype) August 2021

- Simulated and implemented LED control circuits using **Arduino UNO R3**, logic programming, and current-limiting resistors.
- Enhanced simulation accuracy by 10% using Tinkercad for schematic validation.
- Delivered a functional prototype within a 3-week timeline, adhering to project specifications.