Nishat Jakati

Electrical and Electronics Engineer graduated in 2024 with experience in power electronics, microcontrollers, and PV arrays. Proficient in C, C++, MATLAB Simulink, and Revit, with internship experience in PLC and SCADA. Strong soft skills in volunteering, mentoring, and leadership.

Contact

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Education

UG : Dec 2020 - Jun 2024
B.E - Electrical and Electronics (8.09)
KLE Technological University, Hubballi

Pre- University : June 2018 - July 2020
Science (82.5 %)
SMPU College, Dharwad

High School : June 2017 - July 2018
10th Grade (89.12 %)
Basel Mission English Medium High School

Skills

- MATLAB Simulink
- PLC
- SCADA
- Power Electronics
- Microcontrollers
- C, C++ programming languages
- Analog and Digital Circuit Analysis

Work Experience

Engineer - Teamlease (Ericsson)
Sep 2024 - Present

- Collaborated on AT&T projects, utilizing Revit software for creating detailed building information models.
- I have worked on over 20 telecom modeling projects, creating as-built models of towers and equipment rooms using point cloud data, site photos, and IFC. Proficient in Cloud Compare, Point Cloud, Google Earth, and Revit
- Ensured precision in design documentation, enhancing project efficiency and communication.

Internships and Certificates

Automation Intern - Atpro Systems and Controls
Feb 2024 - May 2024

- Experienced in industrial automation with a focus on PLC and SCADA systems. Proficient in CIMPLICITY and PAC Machine Edition, with a strong background in system optimization, troubleshooting, and programming.

Minor Program - School of Computer Science and Engineering
Jun 2021 - Jun 2024

- Learnt basics of Database Management Systems (DBMS), Object Oriented Programming (OOPs), Cloud Computing.

Certified Course in Battery Management Systems

- Learned battery fundamentals, including types, State of Charge (SOC), and State of Health (SOH).
- Gained insights into BMS architecture, battery monitoring, protection, and balancing techniques.

Academic Projects

Aug 2022 - Nov 2022

Speed Control of PV assisted DC motor.

- **Objective** : Design a Closed loop system to control the speed of DC Motor.
- **Learnings** : **MATLAB Simulink, PV array, Renewable resources, DC - DC power converter designing, Semiconductor devices, DC Machines, Control systems, PID controller.**
- **Outcome** : Designed and tuned PID controller for a MOSFET-based boost converter interfacing a PV array and DC series motor, automatically adjusting duty cycles to maintain desired motor speed based on solar insulation. Performance analysis was simulated in MATLAB and verified using C programming.

Feb 2023 - May 2023

Prototype and Design of Flexible braking patterns in Eddy Current Braking

- **Objective** : Design a Hardware prototype to analyze Eddy Current Braking System.
- **Learnings** : **PCB designing, Hardware designing, Power electronics, ESP32 microcontroller, Closed loop System, Automotive Electronics, Analog and Digital Circuit Components.**
- **Outcome** : Developed and tested a prototype Eddy Current Braking (ECB) system for both IC engine and electric vehicles, integrating electromagnets, power converter(Buck-boost converter) and a Microcontroller (ESP32) to control braking profiles. Demonstrated potential benefits and complementary use with traditional mechanical brakes.

Aug 2023 - Nov 2023

Design of an Intelligent Energy Management System for Standalone PV/Battery DC Microgrids

- **Objective** : Design a EV Charging Station with Energy Storage System.
- **Learnings** : **EV charging, Bidirectional Converter, Energy Management, Multiple control systems, Battery Management System.**
- **Outcome** : Developed and simulated a standalone EV charging station using PV energy with a bidirectional converter for efficient ESS management. Ensured constant bus voltage and optimized energy distribution through dynamic adjustment of charging/discharging rates using a central controller in MATLAB/Simulink.