**Samineni Ashritha**

**PROFILE**

An enthusiastic electrical student, having interest to learn technical areas such as IoT and Smart grids. Seeking knowledge through projects and have passion for constant improvement.

**EDUCATION**

* **B.Tech** **Electrical and Electronics Engineering**

**CGPA – 8.07 / 10 2019-2023**

Amrita Vishwa Vidyapeetham

* **Class 12** – 95.6% **2019**

Institution: Narayana Junior college, Hyderabad

* **Class 10** – 100% **2017**

Institution: Aryabhatta Concept School (SSC), Warangal

**PUBLICATIONS**

**Modeling & Speed Control of Segway Equipped with BLDC Motor in MATLAB/Simulink**

Significance of BLDC motor in the incorporation with Segway is analyzed, with respect to speed control. MATLAB Simulink platform was used to design, simulate and analyze the speed control of the BLDC motor for the Segway keeping the safety parameters in consideration.

**Sharing Energy among Homes, EVs and Grid in Indian Scenario**

An alternative design for direct energy sharing between residences, EVs, and the

grid. This approach is statistically analyzed, by considering the veracious data of harvested, and consumed energy of homes, and the state of charge of the EVs.

**Smart Microgrids with H2G/G2H Power Sharing in Indian Scenario**

Focused on mismatch caused between production and consumption of energy and the conversion losses. Designed an alternative wherein nearby home explicitly share energy with each other to balance local energy harvesting and demand in microgrids.

**PROJECTS**

**Designing, Modelling & Analysis of Segway**

Segway is the first mode of transportation that can balance, stand, and walk like a human. In this project, the dynamic stability principle and inverted pendulum theory are used to design a fully functional self-balancing vehicle that can transport a human load.

**Solar Powered Pumping System**

An off-grid solar-based pumping system using the asynchronous machine for irrigation is designed in which maximum power of the PV generator to a centrifugal pump with fixed water flow and pressure is transferred.

**Air pollution Monitoring System**

An IOT based Air pollution monitoring system is developed which measures the quality of air. The system is developed in such a manner where an alarm is triggered as well as LED is blinked when the air quality goes down beyond a certain level.

**TECHNICAL SKILLS**

MATLAB, Arduino, IoT, Proteus

**TECHNICAL INTERESTS**

Smart Grid, MATLAB, IoT

**ACHIEVEMENTS & HONOURS**

Co-secretary of Narthana- The Dance Club

Senior Executive in Vidyuth- EEE Forum

National level dance event- Disha Bharat

**HOBBIES**

Dance, Art

**LANGUAGES**

English

Telugu

Hindi