**Sree Nandhan SK**

**PROFILE**

An enthusiastic Electrical and Electronics Engineering graduate , seeking an opportunity in Embedded Systems, Electric Vehicle, and related fields as a product development trainee with opportunity for professional and personal development.

**EDUCATION**

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

**CGPA – 7.82 / 10 2019-2023**

Amrita Vishwa Vidyapeetham

* **Class 12** – 83.4% **2019**

Institution: Bannari Amman Public School, Sathyamangalam

* **Class 10** – 98% **2017**

Institution: Bannari Amman Public School, Sathyamangalam

**TECHNICAL INTERESTS**

Embedded systems

Electric Vehicle

**PROJECTS**

**Range Extended Electric Vehicle - SAEIndia**

Role: Team Captain and Powertrain engineer.

Lead the team of 25 members, including mechanical and electrical students.

Designed powertrain system and low voltage system of the vehicle.

Duration/Period: 2021-ongoing

Objective: To build a axial flux PMDC powered HEV with 48V traction system voltage and a max power output

of 17KW and to build a integrated 8.6 KW range extender.

Tools or techniques used: MATLAB, Renesas Master controller, Excel, Dyno testing of motor, data logging,

Motor controller, Model Based System Design

Outcome: Experience in design of electrical architecture for HEV, MATLAB modeling of HEV. Knowledge and experience in programming master control unit of EV and implementing CAN protocol. Exposure to design engineering, stages of product development, planning and material procurment. Practice on team management and leadership skills.

**Generic framework for ECU Development**

Role : Team member

Duration : July 2022 – Ongoing

Objective : To create a generic ECU framework that could be used for any vehicle with minimal changes.

Tool or Techniques used: MATLAB simulink and AUTOSAR blockset, C language, STM Nucleo Development

board, Excel, Presentation

Outcomes: Acquired deeper understanding of ECU working and requirements. Understood Model Based

System Design techniques. Understanding of need and use case of AUTOSAR. Ability to develop and Deploy

software in embedded boards.

**TECHNICAL SKILLS**

FPGA, Xilinx Artix-7 FPGA, Embedded C, Busybox, MATLAB, AUTOSAR, C

**INTERNSHIP**

**Embedded system development with SHAKTI Microprocessor** , IIT Madras

Duration/Period: September-October 2021

Objective: To be introduced to the design flow of RISC-V microprocessor and building applications using framework provided, conducted in collaboration with NIELIT and IIT Madras, an initiative of GOI

Tools or techniques used: FPGA, Xilinx Artix-7 FPGA, Embedded C, Busybox .

Outcome: understanding of hardware and software integration and design of RISC-V based custom

processor.

**Racing drone design**

Duration/Period: Feb-March 2021 (1 Month)

Objective: To design a high performance, light weight drone.

Outcome: Experience in drone design, cost Vs performance optimization, parts procurment.

**CERTIFICATIONS**

Computer Architecture and Organization (NPTEL)

Embedded Systems Design (NPTEL)

**LANGUAGES**

English, Tamil