SUDHANSHU KAPOOR

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|Skill-Profile| LinkedIn- profile |

CAREER OBJECTIVE

An electrical engineer with a passion for EVs and battery technology, seeking to work on leading technology projects and add value through my technical and managerial expertise. Pursuing a position in the automotive industry in which I can utilize and build upon my current knowledge of modern automotive manufacturing and engineering.

EDUCATION

Master's Certification in Electrical Vehicle Design, Skill Lync (2022 - present)

B. Tech in Electrical Engineering, SYSITS College Ratlam (8.60 CGPA) (2019 - 2022)

Higher Secondary Education (12^{th}), Madhvanand Academy Jaora (72%) (2020 - 2021)

Diploma in Electrical Engineering, GT polytechnic College Jaora (7.0 CGPA) (2016 - 2019)

Secondary School Education (10^{th}), Saint Paul's Convent School (7.8 CGPA) (2015 - 2016)

EXPERIENCE

Intern at Numeros Motors, (2023) (March- August)

Department: Energy Storage System

Intern at Numeros Motors, (2023) (September- Nov)

Department: Electrical Integration

Graduate Engineer Trainee (December- Current)

Department: Electrical Integration

TECHNICAL SKILLS

- **Programming / Simulation:** MATLAB, Simulink, Simscape, Busmaster
- **Ev-** HEV, Electric powertrain, BMS, MBD
- **Communication Tool:** CAN
- **Others:** MS Office.

PROJECTS

1) **Adaptive Cruise Control:**

- Created a Adaptive Cruise Control Feature as per the requirements using MALTAB & Simulink in Model Based Development.
- All model related processes are done SLDD creation, Requirement Tagging, C- code generation, Traceability, Model Advisory check, MIL & SIL testing.

2) **Vehicle Direction Determination:**

- Created a vehicle Direction Determination feature of ADDAS as per the requirements using MATLAB & Simulink in Model based Development.
- All model related processes are done SLDD creation, Requirement Tagging, C- code generation, Traceability, Model Advisory check, MIL & SIL testing.

3) **Design and simulation of Buck converter for Auxiliary load in EV:**

- System-level configuration and model parameters of Buck converter are Modelled.
- It takes unregulated Dc voltage as input and gives regulated Dc as output.
- Parameters are calculated by assumption of some parameters and based on Duty cycle we get the desired output voltage.

4) **Energy Analysis of Electric Vehicle:**

- System-level configuration and model parameters of Electric vehicle are modelled.
- This model is driven by Dc motor power by battery which is controlled by Power converter.
- Various parameter are obtained while studying drive cycle input compared with the output velocity, analysis of energy and state of charge estimation.
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5) To Calculate the voltage, current and SOC from 10 cell series battery pack:

- Simulation of thermal effects and compare life cycle performance at various temperatures, charge and discharge rates using MATLAB is done.
- Increase in ambient temperature affects the ageing of battery and C-rates affects the SOC and cell temperature.

TRAININGS/ INTERNSHIPS

- 15 Days Vocational Training at Diesel Traction Training Centre Diesel Shed, Ratlam Western Railways.
- 15 Day Vocational Training at MPEB (MPPKVVCL), Ratlam (M.P.)

EXTRACURRICULAR ACTIVITIES

- Captain of volleyball team || B. tech college
- Participated in college events || B. tech college
- Part of SPC music Band || In School

LANGUAGES

English, Hindi.