Ghandhinagar, India |
VEDANT PATEL
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PROJECTS

CAPTAIN, TEAM KAIZEN

At PDEU (University)

A multidisciplinary group of students collaborated to build a hyper-efficient electric prototype vehicle. Achieved mileage of 350+ Km/KWh.

My contribution :

BLDC-motor Controller :

- Developed a custom BLDC motor controller using an STM32 discovery board.
- Specifications: Operated at 48V, 20A with 6-step commutation logic.
- Utilized bootstrapping for High-side MOSFETs to optimize performance and efficiency.

PCB designs :

- First, EMC-protection circuit for DC/DC converter module (PQDE6W-Q48-S12-D).
- Second, BLDC-motor controller

16-bit CPU (logic circuit simulation) :

- Logisim simulation of 16-bit CPU.
- implemented Arithmetic and logical operations.

Micro-stripped patch antenna:

- Simulated an IEEE design paper of F-Shaped Slot Triple-Band Antenna for WLAN/WiMAX Applications.
- Replicated the Ansys simulation results.
- Optimized the design proposed in the paper for 20% better results.

EDUCATION

B.TECH, PANDIT DEENDAYAL ENERGY UNIVERSITY

Information and Communication Technology MAY 2025

CGPA 9.67 (Till 5th semester)

S.S.DIVINE

HSEB-Gujarat April 2021

Percentage : 80%

SKILLS

Verilog, HDL
Logisim, Multisim, easyEDA
Arduino