

Abhinav C

Email: 200020001@iitdh.ac.in

Mobile: +91 8903683937

GitHub: github.com/abhinav937

LinkedIn: Abhinav Chinnusamy

EDUCATION

- **Indian Institute of Technology, Dharwad** Karnataka, India
Bachelor of Technology - Electrical Engineering *August 2020 - March 2024*
***Courses:** Intro to Power Electronics, Electrical Machines and Power Electronics Lab, Design of PhotoVoltaics, Electronic Design Lab, Batteries for Electric Transportation, Introduction to Electric Vehicle Architecture*

SKILLS SUMMARY

- **Tools:** KiCad, Altium, Matlab, Simulink, LTSpice, PLECS, SIMetrix
- **Equipments:** Scopes, AFGs, Current Probes, Multimeters, LCR meters, SMD microscopes
- **Boards:** Arduino, Raspberry Pi, ESP
- **Soldering:** Hot Air, Reflow oven
- **Languages:** English, Tamil, Hindi(Elementary)

PROJECTS

- **Research and Development Project:** E-Fuse, Solid state circuit breaker for Electric vehicles and DC homes
Tech: SiC Devices, onboard controller. (Ongoing)
- **GaN based Half bridge inverter:** Designed a half-bridge inverter using Infineon's IGLD60R190D1 CoolGaN and 2EDF7275K EiceDriver. The configuration can handle voltages up to 400V and currents up to 6A, occupying a footprint of 4278 sq. mm. (May 2023)
- **Smart Meter(AC/DC):** Designed current and voltage sensor boards with bi-directional sensing capabilities, seamlessly integrated them with an Atmega 2560. Developed a data logging system using an ESP-01 module to transmit data to ThingSpeak for real-time monitoring. Implemented a custom web interface to display the collected data and incorporated fault protection mechanisms (Apr 2023)
- **RP2040 dev-board:** Designed a development board using RP2040 in KiCad and fabricated the hardware. (October 2022)

ACHIEVEMENTS

- **RT-Thread IoT Contest:** Selected for final stage of the contest and received RISC-V hardware board(CH32V208) as a token of appreciation. (2023)
- **3rd Pos. PCB Design Hackathon, IPTIF, IIT Palakkad:** Designed a schematic and PCB of Boost converter for 250W PV applications. (10V-23V DC to 24V DC). (2022)
- **Mixed Signal Circuit Design and Simulation Marathon, FOSSEE.:** Simulated a buck converter circuit in eSim and got cash reward for the simulation. (2022)
- **Certificate of Completion, Circuit Building, ELAN&NVISION, IIT Hyderabad:** Designed and simulated buck converter and inverter circuits with provided specifications. (2022)