

# Abhinav C

Email: 200020001@iitdh.ac.in

Mobile: +91 8903683937

Github: [github.com/abhinav937](https://github.com/abhinav937)

LinkedIn: Abhinav Chinnusamy

## EDUCATION

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- **Rasi International School** TamilNadu, India  
*Higher Secondary Certificate; HSC: 91.4%* *July 2018 - March 2020*
- **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

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

## PROJECTS

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- **B.Tech Project:** Grid-connected 3-Phase Inverter, The grid-connected 3-phase inverter transforms variable DC output from renewables into stable AC power, synchronizing it with the grid's frequency and phase for seamless integration. (Ongoing)
- **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)
- **RP2040 dev-board:** Designed a development board using RP2040 in KiCad and fabricated the hardware.(October 2022)

## ACHIEVEMENTS

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- **PCB Design Hackathon(3rd POSITION), 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 Participation, Circuit Building, ELAN&NVISION, IIT Hyderabad.:** Designed and simulated buck converter and inverter circuits with provided specifications.(2022)

## WORK EXPERIENCE

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- **Intern, Sundram Fasteners Limited (TVS)** TamilNadu, India  
Learnt the process of Lead acid battery manufacturing *Summer 2022*  
Studied power loss in 2MVA 11KV/433V transformer