

MEDHINEE PADORTHY

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🌐 [Medhinee Padorthy](#)

🔗 [Github/Medhinee-Padorthy](#)

EDUCATION

National Institute of Technology Karnataka

Btech in Electronics and Communication Engineering - CGPA - 8.92
Minors in AI - CGPA - 9.25

Nov 2022 - present

Surathkal

Narayana E Techno School

PUC - Percentage - 92.4%

2020 – 2022

Bangalore

Narayana Olympiad School

SSLC - Percentage - 96.6%

2019 – 2020

Bangalore

COURSEWORK

- Digital System design
- Machine Learning
- VLSI design
- Microprocessors
- Deep Learning
- Analog Electronics

PROJECTS

Low Power Thermometer Code to Digital Converter 🔗

Feb 2025 - April 2025

- **Tools:** Cadence Virtuoso
- Designed a 15:4 thermometer to binary converter using Wallace Tree.
- Developed and compared 10T vs. 28T full adder cells using Cadence Virtuoso.
- Achieved low power with 10T design.

32-Bit RISC-V Processor Design 🔗

Feb 2025 - April 2025

- **Tools:** OpenROAD
- Designed and implemented a 32 bit RISC-V processor using RTL-to-GDSII ASIC design flow in OpenROAD with an average power consumption of 15.2 mW, achieving optimized layout and performance metrics.
- The project involved synthesis, floor planning, placement, routing, and final GDSII file generation, ensuring critical path optimization and meeting area constraints.

FPGA-Based Electronic Voting Machine 🔗

Jan 2024 - March 2024

- **Tools:** Xilinx Vivado, Nexys 4 FPGA.
- Designed behavioural model of EVM that takes votes, checks for validity, counts valid votes of authenticated voters simultaneously and shows vote count. Authentication is an external input.
- The EVM is designed for maximum of 4 candidates.
- Executed verilog code for the model on xilinx vivado and verified on Nexys 4 FPGA.

HYDROSURE: Smart Irrigation System 🔗

Sep 2023 - Dec 2023

- **Tools:** Logisim.
- Automated irrigation using sensors, encoders, logic circuits

SKILLS

Languages: C, Python, Verilog, ARM assembly language

Tools/Frameworks: LTspice, Logisim, Keil microVision, Xilinx Vivado, Cadence Virtuoso, Ngspice, Python Jupyter Notebook, OpenROAD

Soft skills: Teamwork, Communication

ACHIEVEMENTS

Secured **99.15** percentile in JEE Mains 2022

Attained **561** Rank in KCET 2022

Attained **1437** Rank in COMEDK 2022

Extracurricular Activities

- NEP Member of Smile Club, NITK
- Guided juniors in JEE Mathematics