

# Pavithra A

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## EDUCATION

### PES University Electronic City Campus

Bachelors of Electronics and Communications Engineering [2023-2025]

Bengaluru

CGPA - 8.27

### Ramaiah Polytechnic

Diploma in electronics and communication[2019-2022]

Bengaluru

CGPA - 8.45

## RELEVANT COURSEWORK

- Digital VLSI Design
- Analog Circuit Design
- Computer Architecture
- Linear Integrated Circuits
- Computer Aided Digital Design
- Machine Learning
- Digital Signal Processing
- Low Power VLSI
- Verification of Digital Systems
- RISC-V Architecture
- Memory Design & Testing

## PROJECTS

### Router 1X3 Design and Implementation | Verilog

- The design includes FIFO buffers, FSM control logic, and synchronizer modules to manage data routing between multiple output channels.
- August-2024

### Implementation of Single-Cycle RISC-V processor | Verilog

May 2024

- Constructed a single cycle RISC-V processor for RV32I base instruction set architecture

### Low power optimization for level shifter (180nm) | Cadence Virtuoso

Apr 2024

- Implemented a 10T level shifter and calculated the average power, later optimised the circuit to reduce average power

### Design of a 6T-SRAM cell | Cadence Virtuoso

Apr 2024

- Designed the cell along with peripherals to meet the required specifications
- Used the gpdk-180nm technology

### RTL to GDSII flow for Linear Feedback Shift Register | Yosys, iVerilog, OpenLane, Gtkwave, Magic

Nov 2023

- Performed RTL design and simulation, synthesis, physical design and verification

### Layered Testbench for sequential and combinational circuits | EDA Playground, System Verilog

Nov 2023

- Wrote a layered testbench for JK Flip Flop and half adder
- Testbench included transaction, generator, driver, environment, interface, monitor & scoreboard

## TECHNICAL SKILLS

**Coding Languages:** Python, C, Verilog, System Verilog, ALP for RISC-V architecture

**Tools:** Cadence Virtuoso, Xilinx Vivado, EDA Playground, Quartus Prime Lite, OpenLane, Ripes

## CERTIFICATIONS

### Trainee at Maven Silicon

(June 2024 - February 2025)

### Standard cell library design workshop-2024

Jan 2024

- Designed standard cells for logic gates (NAND, NOR,AND)