

# PAVITRA S G

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## EDUCATION

### 10TH

Coorg public school

Overall Grade: 83.6

Gonikoppal, coorg , Karnataka  
Jun 2019 - May 2020

### 12TH/PUC

Coorg public school and pre university college

Overall Grade: 88.30

Gonikoppal, coorg, Karnataka  
Jun 2020 - Apr 2022

### ENGINEERING

J.S.S. ACADEMY OF TECHNICAL EDUCATION BANGALORE

Overall Grade: 8.30

Aug 2022 - Present

## PROJECTS

### Efficient implementation of Elliptic curve scalar multiplication over a generic prime field $GF(p)$

Jssateb

Oct 2024 - Dec 2024

Developed and optimized scalar multiplication techniques for elliptic curves over a generic prime field  $GF(p)$ . Implemented algorithms such as double-and-add, windowed methods, and Montgomery ladder to enhance performance and security. Focused on reducing computational complexity and improving execution speed while maintaining resistance to side-channel attacks. Ensured compatibility with cryptographic standards for secure communications.

Verilog

RTL coding

Xilinx Vivado

Cadence

### A Tiny ECC Processor

JSS Academy of Technical Education

Feb 2025 - Present

Designed and implemented a lightweight Elliptic Curve Cryptography (ECC) processor optimized for resource-constrained embedded systems. Focused on low-power and area-efficient architecture to support essential ECC operations, including point addition and scalar multiplication over  $GF(p)$ . Achieved performance optimizations through hardware-level parallelism and pipelining techniques. Verified functionality and efficiency using HDL simulation tools.

FPGA

Verilog

Cadence

Xilinx Vivado

RTL coding

Computer Architecture

Microcontroller

## SKILLS

Python

Verilog

RTL Coding

Network Security

Digital Electronics

MATLAB

Simulink

Computer Architecture

## LANGUAGES

- English
- Kannada
- Hindi


# CERTIFICATIONS

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**Future and Computing Systems Workshops**  
IISc Bengaluru

**PCB Design Workshop**  
JSS Academy of Technical Education

Feb 2023 - Feb 2023

 Powered by xcelerator