SONALI ALEX

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OBJECTIVE

M.Tech student in VLSI Design with a strong foundation in circuit and digital logic design. Passionate about semiconductor advancements, secure cryptography, and energy-efficient chip design. Seeking an opportunity to apply research, problem-solving, and collaborative skills in a dynamic SoC development environment. .

EDUCATION

MTech in VLSI Design, Amrita Vishwa Vidyapeetham, Amritpuri

2024 - present

CGPA: 8.9

BTech in Electronics and Communication Engineering, CUSAT, Kochi

2020 - 2024

GPA: 8.04

SKILLS

Technical Skills

Digital logic design, FPGA design, HDL(Verilog), STA, Computer Architecture(Basics), C

Tools Soft Skills ModelSim, Xilinx Vivado, LTspice, MATLAB, Keil uVision5, Cadence

Communication, Presentation, Adaptability

PROJECTS

Image Cryptography Using Ceasar Cipher

• Implemented image encryption in Verilog using an enhanced Caesar Cipher. Applied cipher shift and pixel-wise masking to secure the image, ensuring improved data protection.

Pneumonia Detection and Classification Using Image Processing

• Developed a system integrating segmentation and classification to enhance the accurate diagnosis using CXR images.

INTERNSHIP

Research and Development Intern

Oct 2021

Luxin Autonomy Ltd

Kochi, Kerala

• Engaged in an internship focused on sensors within the electric scooter industry to enhance the performance, safety and efficiency.

Communication Intern

June 2023

All India Radio

Kochi, Kerala

• Assisted in radio production, gaining practical communication skills and hands-on experience.

LEADERSHIP

- Sponsorship Head Dhishna (TechFest CUSAT)
- Outreach Head IEEE CUSAT SB