

Nishant Prashar

7876792609

nishantprashar394@gmail.com

www.linkedin.com/in/nishant-prashar-39639b145/

IIT Mandi

EDUCATION	Dual Degree (M.Tech Research + PhD) in VLSI <i>IIT Mandi</i>	<i>CGPA :8.67</i>
	Bachelor of Technology in Electronics & Communication <i>NIT Hamirpur , 2024</i>	<i>CGPA :9.14</i>
	Intermediate <i>DAV Nadaun, 2020</i>	<i>Percentage:95.8%</i>
	Matriculation <i>Kendriya Vidyalaya Nadaun, 2018</i>	<i>Percentage:93.0%</i>

EXPERIENCE **Summer Research Internship Programmer 2023**
IIT Gandhinagar

Gained hands-on experience with Cadence Virtuoso for designing and simulating circuits, implemented In-Memory Computing (IMC) in a 6T SRAM array to perform operations such as dot product and multiplication, and developed an analog IMC using DPDICE cells to execute 2x4 bit multiplication.

PROJECTS **Analog IMC using DPDICE cell**

Developed a method to perform 1x4 bit multiplication in a DPDICE cell, extended it to 2x4 bit multiplication, and utilized Cadence Virtuoso to implement the memory array and peripheral components.

Implementation of RISC-V Processor using CHISEL

Implemented a 32-bit RISC-V processor core using Chisel HDL, including the development and verification of key modules such as the ALU, control unit, and register file. Verification was conducted using GTKWave to ensure functionality and performance of the processor core.

Designing of ALU in Cadence Virtuoso

Designed an ALU along with SRAM memory stack using Cadence Virtuoso in TSMC 65nm technology, which can perform some basic operations like addition, multiplication, subtraction etc.

SKILLS **Languages:** C, Python, Verilog, VHDL

Tools: Cadence Virtuoso, Tanner EDA Tools, Keil μ Vision, MATLAB, LTSpice

**RELEVANT COURSE-
WORK** VLSI Design, Electronic Device Modelling, Computer Architecture and Organization, Digital Electronics, Linear Integrated Circuits

HOBBIES Athletics, Football, Yoga