Sanskar Jain

2023486, Email: sanskar23486@iiitd.ac.in
DOB: April 06, 2005
Address: Rampura Mohalla, Hisar, Haryana, 125001

Education

Indraprastha Institute of Information Technology, Delhi Bachelor of Technology- Electronics & VLSI Engineering 2023-2027	CGPA: 6.87 (till 3rd semester)
USM Public School, Nangloi, Delhi CBSE Standard 12 PCM 2021-2022	Percentage:84.8%
O.P. Jindal Modern School, Hisar, Haryana CBSE Standard 10 2009-2020	Percentage:96%

Skills

Expertise Area	System on Chip(SoC), Circuit Design and Analysis, PCB Design, Object Oriented Programming, Data Structures and Algorithms
Programming Language	Python, C, C++, Verilog, Embedded C, Java
Tools and Technologies	Xilinx Vivado 2019.1, KiCAD, LTSpice, VSCode, Thonny, IntelliJ, Git, Github
Programming Electives	Introduction to Programming(Python), Data Structures and Algorithms(C++), Computer Organisation, Advanced Programming(Java)
Electronics Electives	Digital Circuits, Basic Electronics, Embedded Logic Design(Xilinx Vivado & SDK), Circuit Theory and Devices(LTSpice & KiCad), Signals and Systems, Integrated Electronics(BJT,MOSFET)
Math Electives	Linear Algebra, Probability and Statistics, Multivariate Calculus, Differential Equations

Projects

RISC Assembler and Simulator in Python (Mar'24 – May'24)
Guide: Dr. Tammam Tillo, IIITD Team Size - 4
GitHub: https://github.com/Sushant-4444/CO_PROJECT

Tech Stack: Python, Assembly, Terminal

1. Designed a custom assembler to convert the given instruction set architecture (ISA) to binary.

2. Designed a simulator to load binary data in the memory and track the progress of all instructions and registers.

3. Can handle floating point numbers.

Angry Birds Game (Sep'24 – Dec'24)
Guide: Dr. Sambuddho Chakravarty, IIITD Team Size - 2
Github: https://github.com/vaibhavkumar06/angry_birds2

Tech Stack: Java, LibGDX, Object Oriented Programming

1. Created a clone of the popular PC game Angry Birds.

2. Implemented OOP principles such as Serialisation, Design Patterns, Exception Handling, Junit Testing and Encapsulation.

3. Designed UML and Use Case Diagrams for the game.

AC to DC Converter Circuit with PCB Implementation (Oct'24 – Nov'24)

Guide: Dr. Pragya Kosta, IIITD Team Size - 3

Tech Stack: KiCad, LTSpice, Soldering

1. Designed and implemented a PCB-based AC to DC converter, stepping down 220V AC to 5V DC using a transformer and bridge rectifier.

2. Ensured successful voltage regulation and circuit functionality by powering an LED indicator.

Analog Audio Equalizer and Amplifier (Mar'25 - Apr'25)

Guide: Dr. Abhijit Mitra, IIITD Team Size – 3

Tech Stack: Analog Circuit Design, BJT/ MOSFET Amplification

1. Designed and implemented a three-stage analog audio amplifier system using BJT and MOSFET components, with separate input, tone control, and output stages.

2. Engineered the output stage to drive an 8-ohm speaker with minimal distortion and efficient power delivery.

Short-Range Analog Walkie Talkie System (Mar'25 – Apr'25)

Guide: Dr. Alok Mittal, IIITD Team Size – 4

Tech Stack: STM32 Cube IDE

1. Designed a wireless digital walkie-talkie system using STM32 microcontroller and nRF24L01 RF modules for real-time short-range audio communication over a 2.4 GHz link.

2. Implemented audio signal processing pipeline with microphone input, ADC conversion, I2S DAC output, Class D amplification, and push-to-talk (PTT) functionality for seamless transmit/receive switching.

Positions of Responsibility

- Member of Electroholics Club (Jan'24– Present)
- Member of Trivialis Club (Aug'24–Present)

Awards and Achievements

- JEE Mains 2023 qualified with a rank of 31093 and 97.3 percentile.
- JEE Advanced 2023 qualified with a rank of 25959.

Interests and Hobbies

- Badminton
- Inter College Quizzing

Declaration: The above information is correct to the best of my knowledge.
Sanskar Jain
Date: May 10, 2025