

ABOUT

Aspiring Physical Design & STA Engineer with a strong foundation in RTL-to-GDSII flow, Cadence Xcelium, Innovus, Tempus, and Genus. Eager to apply my skills in power planning, floorplanning, timing closure, PNR, clock tree synthesis, and signoff analysis while continuously learning and contributing to the growth of the company. Looking forward to an opportunity where I can enhance my expertise and support innovative VLSI design projects.

EDUCATION

Name of course	Passing Year	Name of institute	CGPA / %
B.TECH (Electronics and communication Engr.)	2025	Institute Of Technology & Management, Gwalior	7.09
Class XII, M.P. BOARD	2021	Govt. Excellence No.1 HSS School, Bhind	70.4
Class X, M.P. BOARD	2019	Sadhana Vidhya Niketan, Bhind	71

TECHNICAL TRAINING

- **Trainee – COE for Chip Design, NIELIT Noida** **Feb'25 – May'25**
- Learning complete RTL-to-GDSII flow, including synthesis, floor planning, placement, routing, and signoff
 - Gaining hands-on experience with industry-standard EDA tools for physical design, timing analysis, and verification
 - Developing a strong understanding of ASIC design methodologies, semiconductor fabrication, and real-world chip development

WORKSHOP

- **Chip Design: Behavioral to Layout, AVB IIITM, Gwalior** **17th – 23rd May'2024**
- Gained Hands On Experience On FPGA Board
- Learned About Vlsi Fundamentals: RTL TO GDS FLOW
- Gained Hands On Experience Over Cadence Tools
- Designed a 8-bit Counter With Cadence EDA TOOLS
 - Designed and implemented an 8-bit synchronous counter using Cadence Innovus
 - Performed floorplanning, placement, routing, clock tree synthesis (CTS)

COURSES AND CERTIFICATIONS

- CADENCE: RTL TO GDS FLOW V4.0 (NOV-2024)
- SEMICONDUCTOR FABRICATION 101, PURDUE UNIVERSITY GLOBAL (DEC-2024)
- VLSI FOR BEGINNERS, NIELIT CALICUT (NOV-2024)
- ARDUINO CERTIFIED, SPOKEN TUTORIAL, IIT BOMBAY
- PCB FABRICATION, INSTITUTE OF TECHNOLOGY & MANAGEMENT, GWALIOR
- CAMBRIDGE BEC ENGLISH PRELIMINARY, (A2 LEVEL)

PROJECTS

- **IR BASED HOME AUTOMATION** **Jul'23 –Dec'23**
Developed an IR-based home automation system to control appliances remotely, enhancing convenience and energy efficiency.
- **IOT BASED HOME AUTOMATION** **Jan'24 –Jun'24**
Developed an IoT-based home automation system using ESP8266 and relay modules, controlled via a smartphone for remote management of home appliances, enhancing convenience and energy efficiency
- **SMART DOOR LOCK USING ESP-32 CAM & TELEGRAM** **Jul'24 – Dec'24**
Designed and implemented a smart door locking security system using the ESP32-CAM microcontroller and Telegram API, enabling enhanced monitoring and convenience through remote access

- **Physical Design of DTMF Receiver** **March'2025**
 - Implemented physical design flow for a **Dual-Tone Multi-Frequency (DTMF) Receiver** using Cadence Innovus
 - Executed floorplanning, power planning, placement, routing, and CTS, power analysis, and rail analysis
- **Clock Analysis & Optimization** **Feb'2025**
 - Analyzed clock gating techniques in Cadence Genus to reduce dynamic power
 - Studied clock latency & uncertainty impact on timing closure

TECHNICAL SKILLS

- **VLSI Design Flow:** RTL-to-GDSII, Synthesis, Floorplanning, Placement & Routing,
- **Physical Design Tools:** Cadence Innovus, Tempus (STA), Genus (Synthesis), Virtuoso
- **Timing Analysis:** Setup/Hold timing, Clock Tree Synthesis (CTS), SI Analysis
- **Programming & Scripting:** Verilog, Tcl, Shell Scripting, Linux Commands
- **EDA Tools Exposure:** Cadence (Innovus, Tempus, Genus, Virtuoso, Xcelium)

INTERNSHIPS

- **Microchip Embedded Developer Virtual Internship ,Aicte-Eduskills** **April'23 to Jul'23**
Explored and debugged pre-designed embedded system modules in a virtual environment, enhancing problem-solving and analytical skills
- **Industrial Automation Virtual Internship, Aicte-Eduskills** **Oct'24 to Dec'24**
Explored basics of PLC programming, SCADA systems, and automation processes.

TECHNICAL & EXTRACURRICULAR SKILLS

- **Programming Competencies:** Verilog, Shell Scripting, Tcl
- **Operating Systems:** Linux, Ubuntu, Windows
- **Soft Skills:** Problem-solving, Analytical Thinking, Collaboration, Technical Communication
- **Volunteer In Volleyball Competition | Kronos 2023 | ITM-GWALIOR**
- **Runner -Up In E-Sports Competition |Kronos 2023 | ITM-GWALIOR**
- **Video – Editing | After Effects 2023**