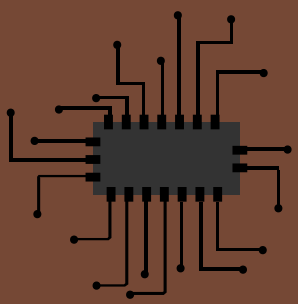
Adyapan School

VLSI



Duration - 2 months

Industry
Certification

Skill India
N·S·D·C National Skill Development Corporation
Transforming the skill landscape

Skill India Certified

250+
Partner Companies

Adyapan School

Master VLSI from fundamentals to fabrication.

From circuits to silicon - become industry-ready.

This immersive VLSI program takes you beyond foundational concepts into real-world chip design and implementation. Learn digital design, CMOS technology, RTL design, verification and physical design flows through hands-on projects and guided simulations. With a strong focus on industry-standard tools and design methodologies, you'll graduate with the ability to design, analyze and optimize integrated circuits, and confidently contribute to modern semiconductor development.

8	30+	20,000+
MODULES	PROGRAM OFFERINGS	STUDENTS

250+ PARTNERED COMPANIES

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adyapanschool.com

Adyapan School

ABOUT ADYAPAN SCHOOLS

Where education meets real-world impact

Not just a course — a platform to launch your career.

Adyapan Schools was built with a single conviction: learning works best when it happens in the real world. We partner with top companies, mentors, and industry platforms to ensure every student graduates with a portfolio of work that speaks louder than a certificate.

Our programs combine rigorous coursework with live client projects, giving you the skills and proof-of-work that employers actually want.

MISSION

To equip ambitious learners with practitioner-level digital marketing skills through mentor-led, project-based education that bridges the gap between learning and earning.

VISION

To be India's most trusted launchpad for the next generation of marketing leaders — defined not by degrees but by the real work.

Adyapan School

Everything you need to grow fast

PROGRAM HIGHLIGHTS

Live Industry Projects

Work on campaigns for real brands alongside your coursework. Build portfolio projects that prove your expertise to employers.

1-on-1 Mentorship

Dedicated mentors from Google, Microsoft, Mastercard and more. Get personalized guidance and industry connections.

AI-Powered Marketing

Learn cutting-edge AI tools alongside evergreen fundamentals. Stay ahead of the curve in a rapidly evolving landscape.

Dual Certification

Earn both a Course Completion and Internship Certificate — accredited by Skill India Digital Hub and NSDC.

Internship Guarantee

Graduate with an internship completion certificate from a live brand project. Concrete, resume-ready proof of work.

Industry Network

Join a network of alumni at Amazon, Google, Adobe, Microsoft. Access exclusive hiring events and referral opportunities.

Adyapan School

CURRICULUM

8 weeks. 8 modules. Infinite impact.

WEEK 1

Foundations of VLSI Design

- Discussion of Curriculum
- Overview of VLSI technology and real-world applications
- Introduction to digital logic design & Boolean algebra
- Sequential vs combinational circuits and truth-table logic
- Basic semiconductor physics & MOS transistor theory
- Introduction to EDA Playground and Verilog basics

WEEK 2

Advanced Digital Design & Verification

- RTL design methodologies and pipelining concepts
- Finite State Machines (FSMs) and Algorithmic State Machines (ASMs)
- AMBA protocols and peripheral interfaces
- Introduction to System Verilog and Linux commands for EDA flows
- UVM basics and coverage-driven verification

WEEK 3

Layout Design & EDA Tools

- VLSI layout design principles and industry tools overview
- Design rules, layout constraints, and DRC checks
- Parasitic extraction and post-layout simulation concepts
- Code & functional coverage in VLSI design

CURRICULUM

8 weeks. 8 modules. Infinite impact.

WEEK 4

Analog & Mixed-Signal Design

- Fundamentals of analog circuit design and SPICE simulation
- Designing basic analog blocks (amplifiers, filters)
- Mixed-signal integration in VLSI systems
- Introduction to testing & verification (BIST, Scan Chains, DFT)

WEEK 5

ASIC and FPGA Design

- ASIC vs FPGA architectures and methodologies
- FPGA programming flow - synthesis, implementation & verification
- Hardware description languages in FPGA design
- Hands-on project

WEEK 6

Verification & Testing Techniques

- Advanced verification methodologies using UVM
- Testbench architecture and functional coverage
- JTAG interface and boundary scan principles
- Automated test pattern generation and debug strategies

Adyapan School

CURRICULUM

8 weeks. 8 modules. Infinite impact.

WEEK 7

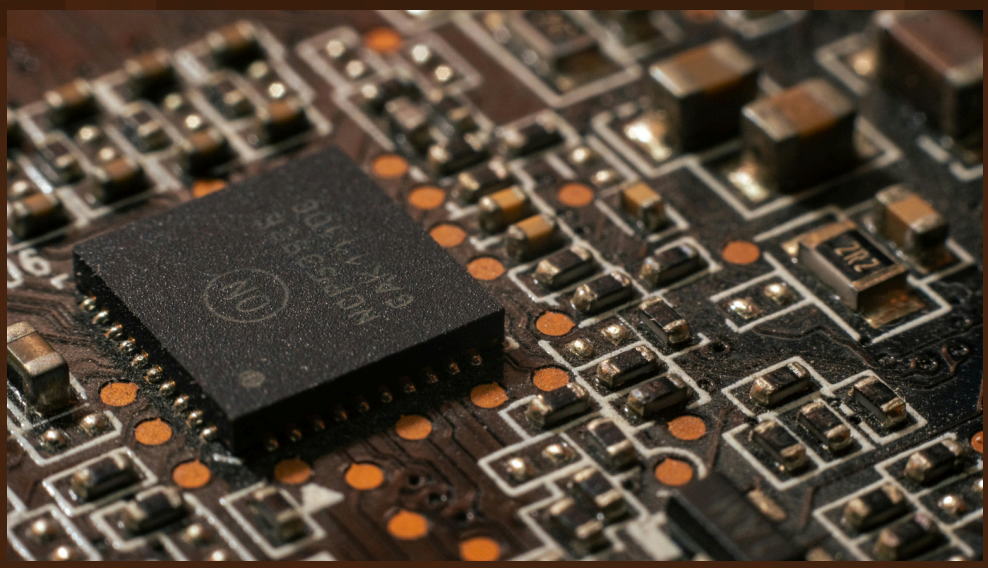
AI Integration & Neuromorphic Design

- Introduction to neuromorphic computing and AI-driven VLSI
- Hardware accelerators for AI inference and training
- VLSI architectures for CNNs, RNNs & DNNs
- Design considerations for AI on-chip systems

WEEK 8

Future Trends & Capstone Project

- Edge AI and IoT integration with VLSI
- Low-power and high-performance chip design strategies
- Industry case studies on ASIC fabrication & semiconductor startups
- Career Pathways in chip design and EDA tool engineering
- Capstone Project



Adyapan School

WHO THIS IS FOR

This course is perfect for

- Students & Career Starters
- Aspiring VLSI Design & Chip Design Engineers
- Electronics, ECE & Electrical Engineering Students
- Professionals in Semiconductor & Embedded Industry
- Engineers Transitioning to ASIC/FPGA Design
- Hardware Design, Verification & Semiconductor Enthusiasts

CERTIFICATIONS

ALUMNI NETWORK

Our alumni work at world-class companies

Amazon | Adobe | Google | Autodesk | Microsoft | Deloitte

Your career switch is one click away.

Ready to begin? Apply at adyapanschool.com or email us at support@adyapan.com

Apply Now