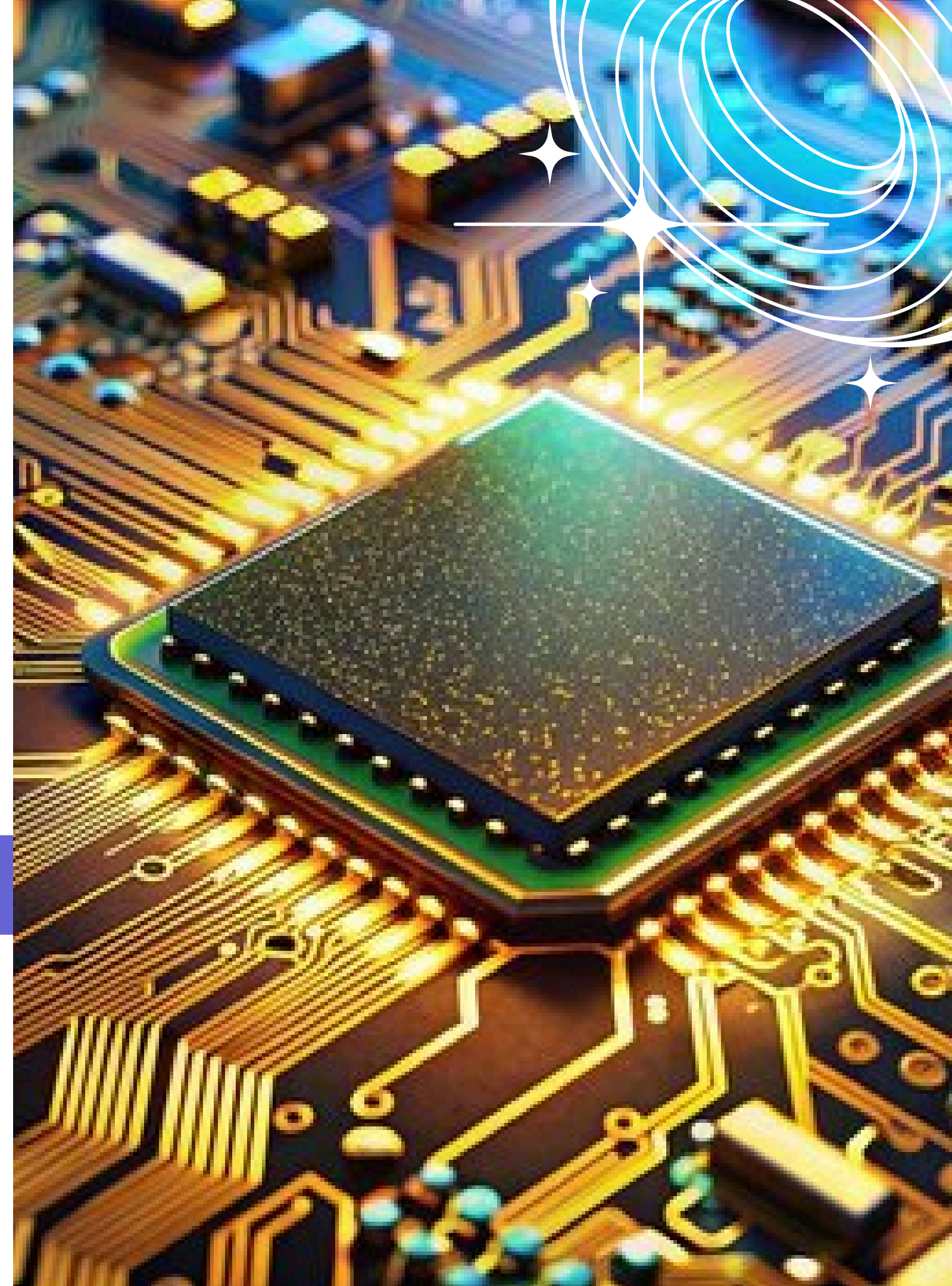


Job-Oriented VLSI Design Training with Live Project

Master VLSI in 10 Days – Skills That Industry Demands

15-25 April 2026 | 7:00 PM Daily | Online-Google Meet

India – 7:00 PM | Saudi Arabia – 4:30 PM | Dubai – 5:30 PM |
Malaysia – 9:30 PM | London – 2:30 PM | New York – 9:30 AM





Training Overview

This intensive 10-day online VLSI Design training course is designed to provide a complete understanding of the semiconductor chip design flow—from RTL coding to physical design and verification. The course combines theoretical concepts with hands-on exposure to industry tools such as Cadence, Synopsys, and Mentor Graphics. Learners will gain practical skills in Verilog HDL, synthesis, timing analysis, and backend design, making them job-ready at a beginner level. Whether you aim to enter the semiconductor industry or strengthen your electronics design skills, this course provides a strong foundation aligned with real industry workflows.



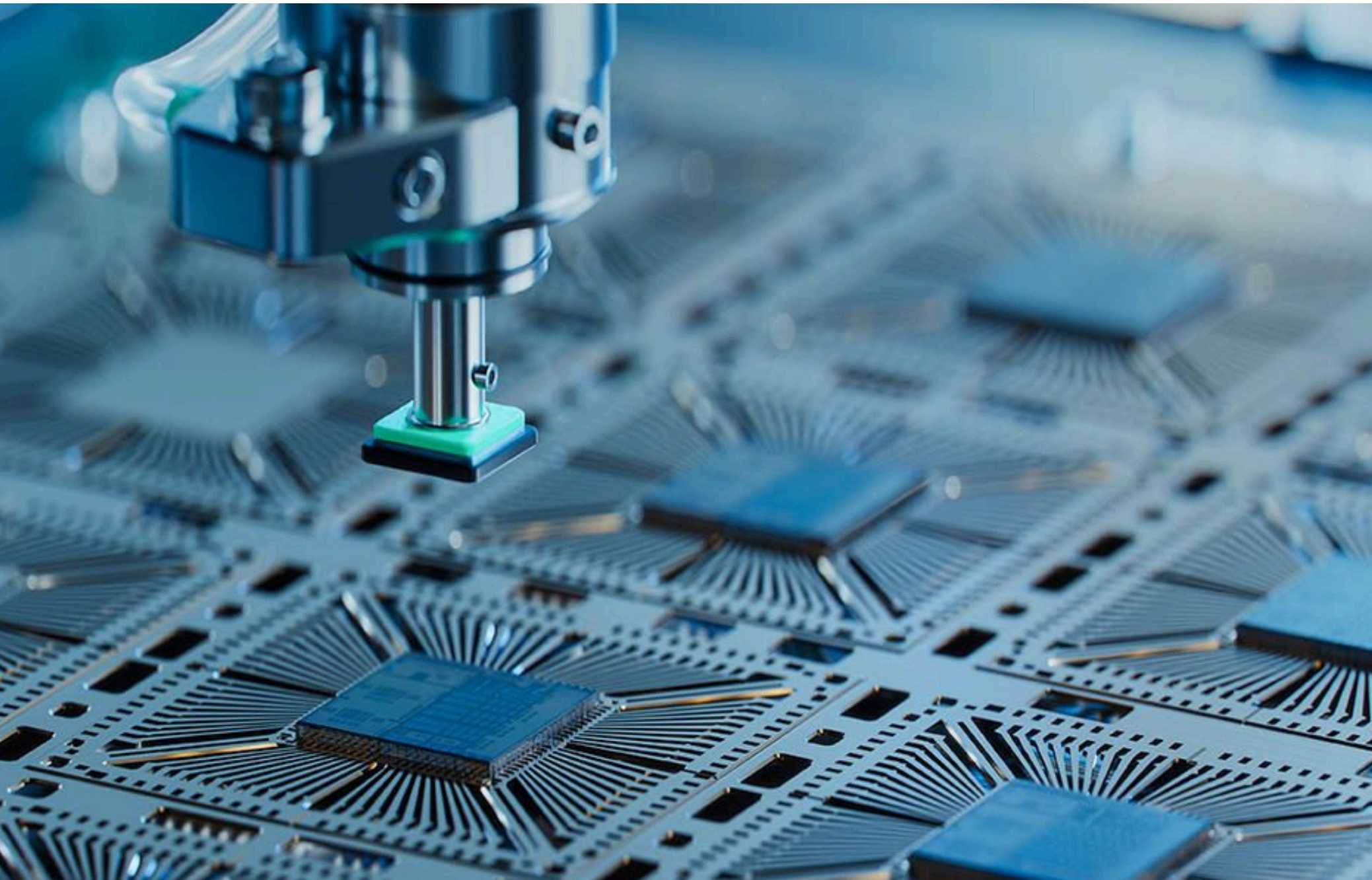
VLSI powers modern electronics and enables applications in:

- Smartphones & consumer devices
- Microprocessors & computer systems
- Automotive & EV electronics
- 5G & IoT communication
- Medical & embedded systems
- AI chip design & hardware accelerators





Industry & Job Relevance of this training



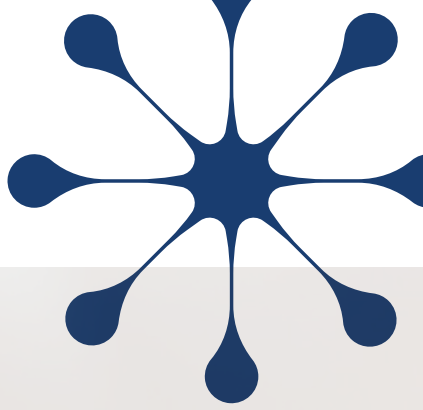
The semiconductor industry is one of the fastest-growing sectors globally, with increasing demand for skilled VLSI engineers. After completing this course, learners can explore roles such as:

- VLSI Design Engineer
- Verification Engineer
- Physical Design Engineer
- RTL Design Engineer
- Timing/STA Engineer

Top hiring companies:

Intel, Qualcomm, NVIDIA, AMD, TSMC, Samsung, Texas Instruments, etc

Training Module



Day 1: Introduction to VLSI & Industry Flow

- Overview of VLSI design and applications
- Moore's Law, scaling trends
- Full chip design flow (Spec → RTL → GDSII → Fabrication)
- Frontend vs Backend
- Introduction to tools (Cadence, Synopsys, Mentor Graphics)

Day 2: CMOS Technology Basics

- MOSFET operation (NMOS, PMOS)
- CMOS inverter and logic gates
- Switching characteristics & Power dissipation (dynamic, static)
- Process technology nodes (7nm, 14nm, etc.)

Day 3: Digital Design Fundamentals

- Combinational circuits
- Sequential circuits (flip-flops, latches)
- Timing concepts (setup, hold, propagation delay)
- Clocking strategies

Day 4: Verilog HDL (RTL Design)

- Verilog syntax and constructs
- Behavioral vs structural modeling
- Writing RTL for combinational & sequential circuits
- Testbench basics & Simulation using tools (ModelSim / VCS)

Day 5: Advanced RTL & Design Practices

- FSM design (Moore & Mealy) & Coding guidelines for synthesis
- Blocking vs non-blocking assignments
- Parameterization and reusable RTL

Day 6: Synthesis (RTL to Gate-Level)

- Introduction to synthesis flow
- Constraints (SDC – timing constraints)
- Area vs speed trade-offs & Netlist generation
- Tools: Synopsys Design Compiler / Cadence Genus

Day 7: Static Timing Analysis (STA)

- Timing paths (setup & hold analysis)
- Clock skew and uncertainty
- Timing violations and fixes
- Tools: PrimeTime basics

Day 8: Physical Design (Backend Flow)

- Floorplanning & Placement
- Clock Tree Synthesis (CTS)
- Routing
- Introduction to tools (Cadence Innovus)

Day 9: Physical Verification & Signoff

- DRC (Design Rule Check)
- LVS (Layout vs Schematic)
- Power integrity (IR drop, EM)
- Signal integrity basics & Tape-out process

Day 10: Industry Project & Career Exploration

- Mini project: RTL → Synthesis → Basic PD flow
- Debugging real design issues
- Career paths (Design Engineer, Verification Engineer, Physical Design Engineer)

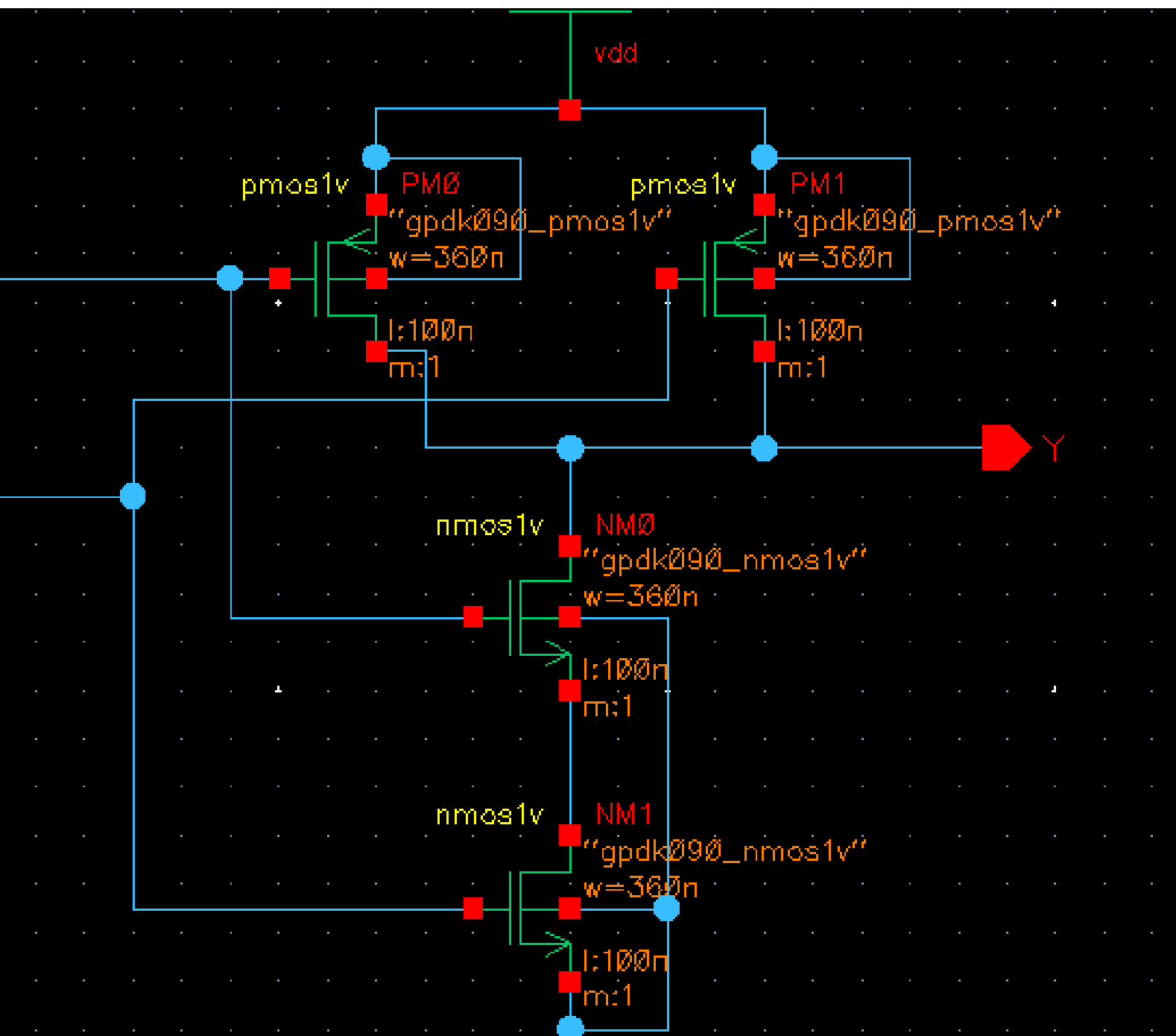


Key Benefits of the Training Course

- Learn complete VLSI design flow (Frontend + Backend)
- Hands-on experience with Verilog RTL coding & simulation
- Exposure to industry-standard EDA tools
- Understand timing analysis & synthesis concepts
- Work on a mini industry-based project
- Get career guidance for VLSI roles
- Learn industry-relevant design methodologies
- Improve problem-solving and debugging skills
- Understand real chip design challenges & workflows
- Build a strong foundation for VLSI interviews
- Enhance your resume with project experience
- Network with peers and mentors
- Step-by-step guidance from beginner to industry level
- Boost confidence to apply for internships & jobs in VLSI

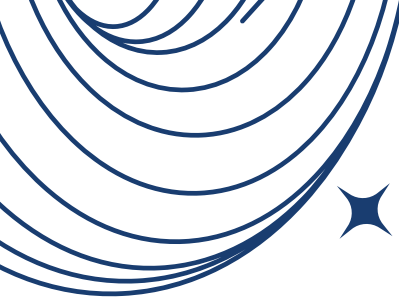


Who can Join?



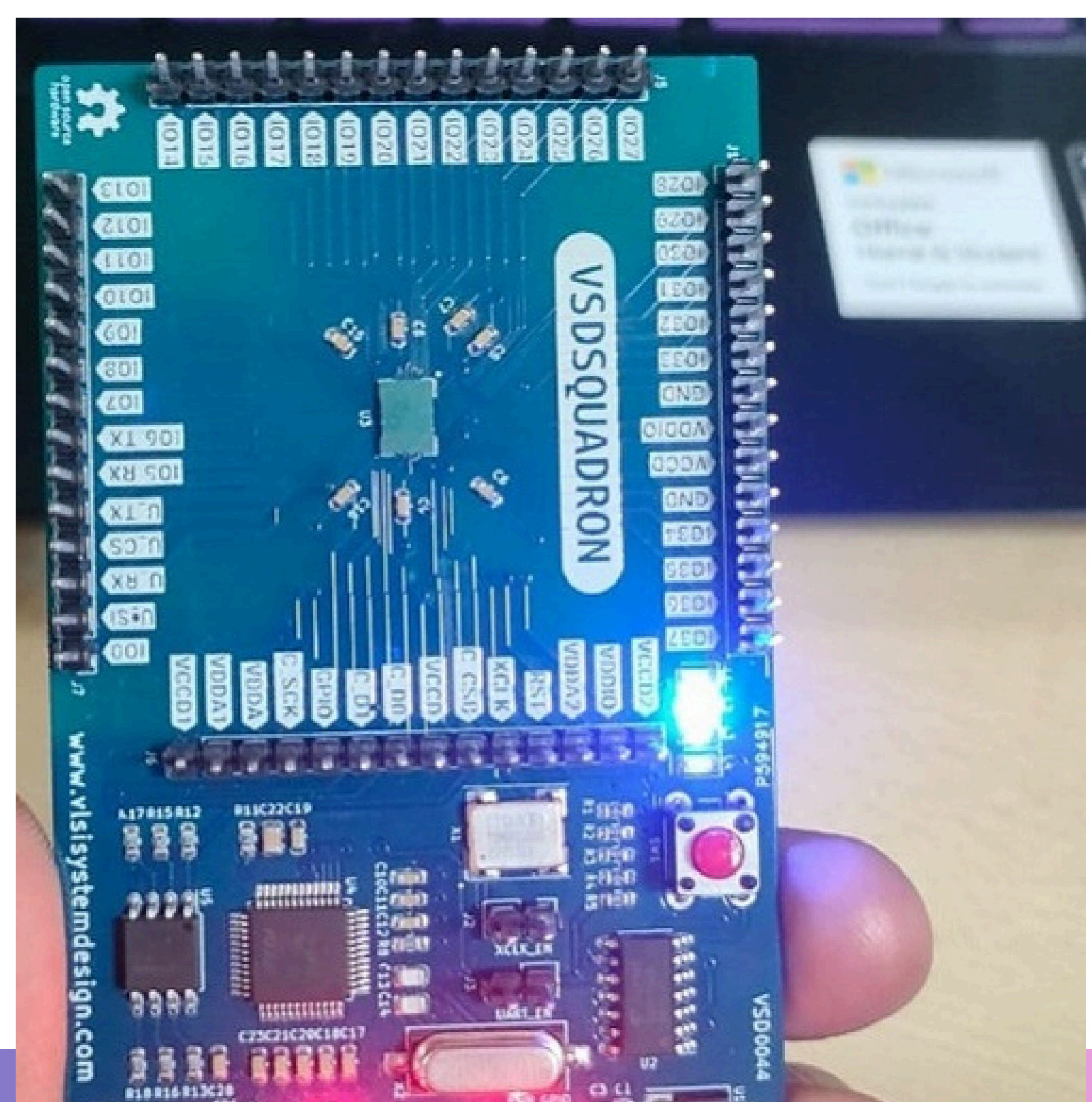
This course is ideal for

- B.Tech / B.E students (Electronics, Electrical, ECE, EE, EEE)
- Diploma students in electronics-related fields
- M.Tech students in VLSI / Embedded Systems
- Beginners interested in semiconductor industry
- Professionals looking to switch into VLSI domain



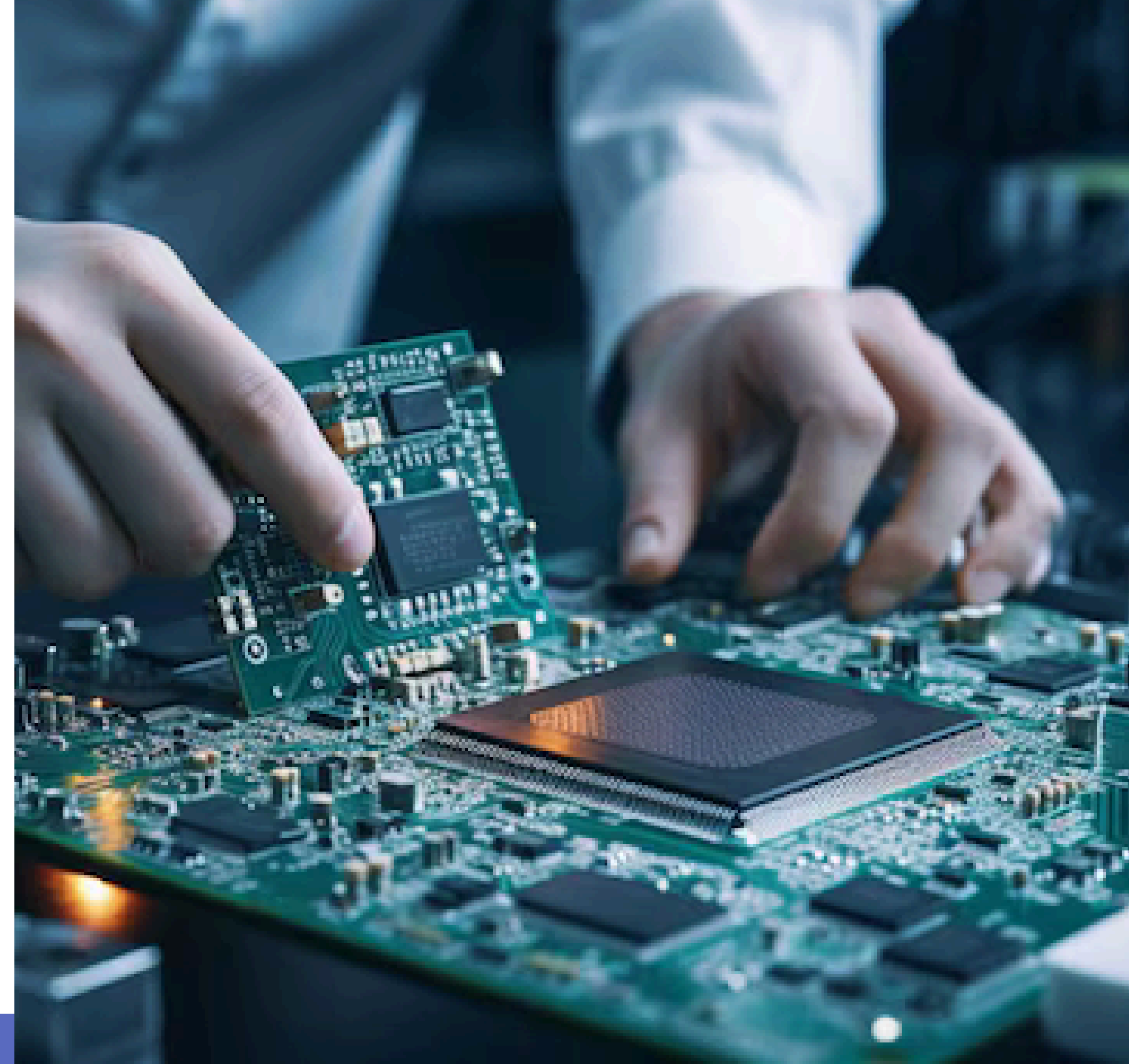
Training Features & Fee

- **Certificate of completion**
- **Live interactive sessions**
- Recorded lectures access
- Lecture PPTs & study material
- Hands-on project experience
- Career guidance session

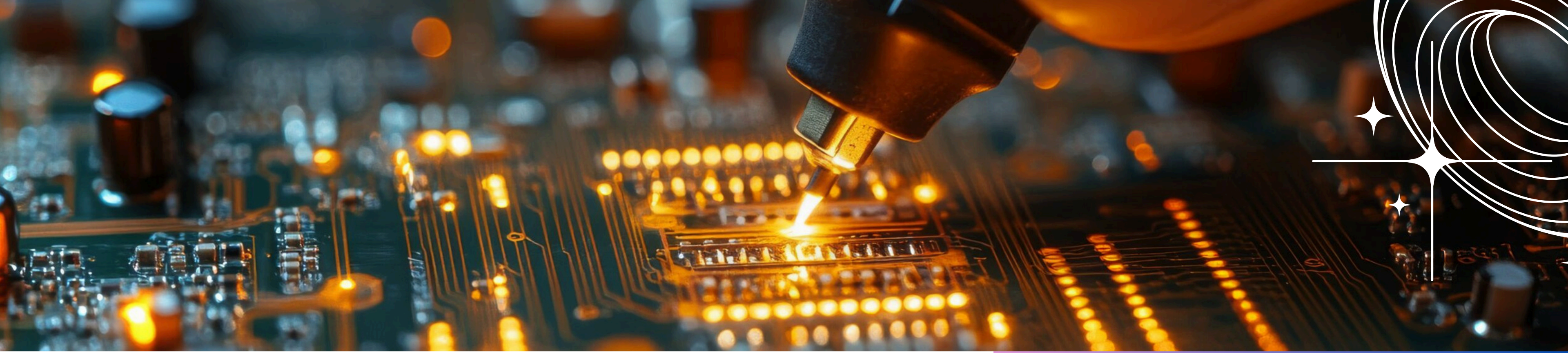


- **Indian Students : ₹2499**
- **International Participants: \$ 100**





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