A Faculty Development Program

on

AI/ML Approaches for Efficient VLSI Circuit Designs

[02 Dec - 13 Dec, 2024]

under the aegis of
Electronics & ICT Academy IIT Roorkee

Supported by

Ministry of Electronics & Information Technology
Government of India

Experts from Academia/Industry

Registration Fee

Fees: ₹ 500/participant, non refundable (Applicable for all)

Note: Refund will be done in case of course cancellation only, with in 20 working days

Certificates to participants by E&ICT Academy IIT Roorkee

Online Mode: Jaypee Institute of Information Technology, Noida

Why this course ?

This FDP on AI/ML Approaches for Efficient VLSI Circuit Design provides valuable opportunities for students and researchers in electronics, electrical, and computer science to acquire foundational AI concepts and explore advanced innovations. Designed to promote R&D in AI/ML and VLSI, the program equips academics with AI/ML methodologies to tackle complex VLSI design challenges, driving efficient and effective circuit design progress.

Objectives of the course

- Understand AI/ML techniques to manage complex VLSI design projects effectively.
- Learn to identify and mitigate design-phase errors to improve final product reliability.
- Explore AI/ML algorithms for analyzing datasets, recognizing design patterns, and optimizing circuit performance.
- Gain insights into optimizing resource allocation in VLSI, balancing power, performance, and area (PPA) metrics for efficient designs.
- Explore applications of AI/ML in accelerating VLSI design workflows for faster project completion.

Course Features

- 40 Hours of Lectures & Hands-on (Hybrid Mode)
- Lectures from Expert Speakers, Hands-on from industry experts
- Expert talks from the industry
- Access to learning material and video lectures
- Certificate by E&ICT Academy IIT Roorkee

Focus Area

- Recent Advancements in VLSI Design and its Applications.
- Possible use cases of AI/ML in VLSI design.
- Machine learning approach for energy harvesting low power circuit
- Reconfigurable Deep Learning AI accelerators
- Hardware Security in VLSI.
- Physical Design (RTL to GDS)
- Neuromorphic Computing: Mapping Neural Networks to Hardware, and more!

Prerequisites

- No experience is required, but fundamental knowledge of any programming language would be helpful

Registration Link

https://forms.gle/v72EAStBW4puC7CC8

How to make payment

https://eict.iitr.ac.in/instruction-for-payment/
Conference Code: EICTIITR-FDP-24-15

Principal Investigator

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Course Coordinators

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