

# A Faculty Development Program on Artificial Intelligence & Its Applications in VLSI

8th Jan - 13th Jan , 2024

under the aegis of



Electronics & ICT Academy  
IIT Roorkee

Supported by

Ministry of Electronics & Information Technology  
Government of India



Experts from Academia/Industry

Expert Lecture From IIT Roorkee

Principal Investigator

Prof. Sanjeev Manhas, E&ICT  
Academy , IIT Roorkee

Course Coordinators

Dr. Rupali Singh

Head, Department of Electronics & Comm. Engg.  
SRMIST Delhi-NCR Camus, Ghaziabad  
&

Mr. Nishant Srivastava

Assistant Professor, ECE Dept. , SRMIST  
Delhi-NCR Campus, Ghaziabad

Online Mode: SRM Institute of  
Science & Technology, Delhi- NCR  
Campus d Ghaziabad

## Why this course ?

This course will give the basics and research areas of AI with applications to VLSI Design. It will help to upgrade the expertise and capabilities of the faculty members of various engineering institutions in India. Experts cover a range of contemporary computing topics and provide a strong theoretical basis, as well as develop critical analysis and practical skills. This FDP aims to impart knowledge and train on fundamentals of engineering aspects of AI and insights in recent applications of AI in VLSI.

## Objectives of the course

- To provide a forum to exchange views, ideas, and principles in the field of AI and VLSI.
- To present learning on AI applications in VLSI
- To promote and facilitate interdisciplinary research endeavors, and partnerships among faculty members specializing in the domains of VLSI.
- To facilitate the effective integration of AI, and VLSI concepts into participants' teaching curricula.

## Course Features

- 40 hours of Lectures and hands-on from Expert Speakers and industry/Academia experts
- Expert talks from the industry/Academia
- Access to learning material and video lectures
- Certificate by E&ICT Academy IIT Roorkee

## Focus Areas

- Introduction to AI, Machine Learning, and its applications.
- Mathematical foundations of machine learning for VLSI Design and its applications
- ML-based Regression, Classification, and its applications in VLSI
- Semiconductor Devices- Modeling and AI and
- Machine learning for Power optimization
- AI in addressing manufacturability challenges in VLSI design
- Physical design automation

## Prerequisites

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

## Registration Link

<https://forms.gle/ykQwZQgYeTfbuoWr6>

## Registration Fee

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

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

## How to make payment

<https://eict.iitr.ac.in/instruction-for-payment/>

Conference Code: EICTIITR-FDP-24-02

## Course Coordinators

- Prof. Sanjeev Manhas, ECE Department, IIT Roorkee
- Dr. Rupali Singh, Head, Department of Electronics & Comm. Engg., Department of Electronics & Comm. Engg.
- Mr. Nishant Srivastava, Assistant Professor, ECE Department, SRM Ghaziabad.

## Reach Us:

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