# AICTE Training and Learning (ATAL) Academy





Sponsored
Online Faculty Development Program
On

VLSI Design Techniques and its Applications in AI/ML (VDTA-AIML 2021) 15th-19th November, 2021

# Organized by

Department of Electronics and Communication Engineering Thapar Institute of Engineering and Technology, Patiala-147 004, Punjab India



#### **Coordinators**

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# **Highlights of FDP**

### This online FDP will cover the following:

- Introduction to VLSI and its uses in AI/ML
- EDA Solutions for ASIC Design: Semi-Custom Design Flow demonstration ( RTL to GDSII Flow)
- Basics of Design for Testability (DFT) and its need in VLSI circuits
- Basics of Scan Chain in VLSI Circuits
- Artix-7 FPGA architecture
- Vivado design flow
- Create and integrate IP cores into design flow using IP Catalog
- Resource Optimizations in FPGA
- Use Logic Analyzer to perform on-chip verification
- An embedded system targeting the ARM processor of Zynq located on Zed Board using Vivado and IP Integrator.
- AI and ML Applications using PYNQ.

### **Eminent Speakers**

Dr. Aarti Noor Managing Director CDAC, Noida, India



**Dr. Sanjay Singh**Principal Scientist
Intelligent Systems Group,

CSIR-CEERI, Pilani, Raj.



Dr. Vinay Kumar Associate Professor ECED, TIET, Patiala



Mr. Ankur Sangal Senior Application Engineer Coreel Technologies, India



Mr. Mayank Singh Application Engineer Coreel Technologies, India



#### **Registration Fee**

There is NO REGISTRATION FEE to attend this online FDP. Participants are requested/willing to attend this online FDP should have the laptop/desktop with high speed of quality internet connections and other audiovisual facilities, as required for online training.

## **Eligibility of participants**

The faculty members of the AICTE approved institutions, research scholars, PG scholar, participants from Government, Industry (Bureaucrats/ Technicians/ Participants from Industry etc.) and staff of host institutions is eligible to attend the program.

# **Registration Process**

Interested participants who want to attend this online FDP need to make mandatory online registration on the ATAL portal (https://atalacademy.aicte-india.org/login). Note: Last date of online registration is 7/11/2021. Shortlisted candidates will be announced through email within 2-3 days of online registration.

### Certification

Online test will be conducted on the last day and those who score more than 60% marks will be termed as successful candidates. Those who have attendance 80% or more and also score more than 60% in the test will be issued a "Digital Certificate by the ATAL Academy".

#### **About the TIET**

Thapar Institute of Engineering and Technology (TIET), was founded by Mr. Karam Chand Thapar in 1956. Mr. Thapar, one of the great captains of Indian Industry established this institute to provide close interaction with industry, and a strong emphasis on basic and applied research. It was granted full autonomy and the status of deemed-to-be-university by the University Grants Commission in 1985. The campus is housed in a 250 acre land in the heart of Patiala.

For more details, please visit: www.thapar.edu



# **About the ECE Department**

The Department of Electronics and Communication Engineering was established in 1975. It aims to produce quality professionals in this field to compete globally and excel by carrying out basic and applied research in emerging areas by forging strong industry-institute interaction. All programs of department of ECE are AICTE approved. The B.E. Electronics and Communication Engineering Program is accredited by the NBA and Accreditation Board for Engineering & Technology (ABET).

For more details, please visit:

http://eced.thapar.edu/