ATAL Academy

Online Faculty Development Programme

On

AI-Assisted VLSI Design Tools, Techniques and Applications

(7th – 12th December 2026)

Topics to be covered in FDP

1. Introduction to VLSI Design
2. Fundamentals of AI tools and its usage in Semiconductor Industry
3. Overview of VLSI Design using AI Tools
4. AI-Assisted Functional Verification and Formal Methods
5. VLSI Software Testing and Validation
6. AI Hardware Accelerators and Energy Efficient Architecture
7. AI Tools usage in Data Analytics for VLSI Applications
8. Applications of AI in VLSI Systems
9. Research Opportunities in Defence Electronics in AI era
10. AI Powered PDK Engineering
11. Analog Front End for Biomedical Sensors
12. Defence Warfare Advantages of AI
13. Drug Use Prevention and Early Intervention in Higher Education Institutions

FDP Registration: No Registration Fee

Registration can be done only through AICTE–ATAL portal.

https://atalacademy.aicte.gov.in/login

"Sign Up" and create a login as "Participant" Login using your newly created login credentials, update your profile and click on "FDPs" Link. You can register by clicking on the "+" sign on FDP on 'AI "Assisted VLSI Design: Tools, Techniques and Applications". It is required to upload scanned copy of your ID Card and NOC from Head of the Institution at the time of online registration.

Last Date for Registration: 30th Nov. 2026

Confirmation to the Participants: 2nd Dec 2026

Organizing Committee

Chief Patron

Sri P. Ram Mohan Rao

President, VAE

Sri V.M. Pardha Saradhi,

Secretary, VAE

Patron

Sri P. Balaji, CEO, VCE

General Chair

Dr. S.V. Ramana

Principal, VCE

Coordinator

Dr. E. Sreenivasa Rao

Professor & Head

Department of ECE, VCE

Email: vce.ece.hod@gmail.com

Co-coordinator

Dr. P. Sathish

Associate Professor

Dept. of ECE, VCE

For further details please contact

Dr. P. Sathish

Mobile: +91-9177545484

p.sathish@staff.vce.ac.in

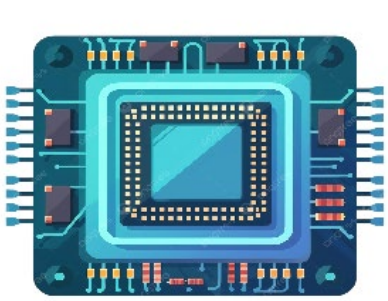
A One Week Online AICTE Training and Learning (ATAL) Academy

Faculty Development Programme

On

AI-Assisted VLSI Design Tools, Techniques and Applications

(7th – 12th December 2026)



Organized by

Department of Electronics and Communication Engineering

Vasavi College of Engineering

(Autonomous under UGC)

Affiliated to Osmania University

9-5-81, Ibrahimbagh

Hyderabad – 500031

Telangana State, India.

www.vce.ac.in

About the Institute

Vision: Striving for a symbiosis of technological excellence and human values.

Mission: To arm young brains with competitive technology and nurture holistic development of the individuals for a better tomorrow

Founded in 1981 by Vasavi Academy of Education, Vasavi College of Engineering (VCE) represents a rich tradition of excellence in technology-based education. A premier-league institution among the affiliates of Osmania University, VCE owes its vision to Sri Pendekanti Venkata Subbaiah, a veteran statesman of Independent India. VCE has been conferred with Autonomous Status by the University Grants Commission (UGC), New Delhi and Osmania University, Hyderabad for a period of six years with effect from the Academic Year 2014- 15, for all the UG and PG Programmes and extended for period of 10 years. The College is implementing Choice Based Credit System (CBCS). Accredited by NAAC with A++ Grade.

About the Department

Department Vision: Striving for excellence in Teaching, Training and Research in the areas of Electronics and Communication Engineering and fostering Ethical values.

Department Mission: To inculcate a spirit of scientific temper and analytical thinking and train the students in contemporary technologies in Electronics & Communication Engineering to meet the needs of the industry and society with Ethical values.

ECE Department is one of the department which is functioning since the establishment of Vasavi College of Engineering in the year 1981. ECE department is reaccredited by NBA in the year 2021 for a period of 3 years and given three years extension up to 30th June 2027. with 13 laboratories, including four advanced labs**.** The undergraduate program has a sanctioned intake of 180 students**,** The department is also offering one M.E Programme with specialization in "Embedded systems & VLSI Design" with an intake of 12. The department sanctioned wih FIST and MODROBS from AICTE Newdelhi. The Department also has been undertaking sponsored research projects and consultancy.

About the FDP

This Faculty Development Program (FDP) provides a comprehensive understanding of integrating Artificial Intelligence (AI) into VLSI design. It covers key stages of the VLSI design flow, including logic synthesis, physical design, verification, and testing, enhanced through machine learning techniques. Participants will explore modern EDA tools, AI frameworks, and optimization strategies for power, performance, and area (PPA). The program also highlights emerging trends such as generative AI in chip design and AI-based hardware accelerators. Hands-on sessions and case studies enable practical exposure, empowering participants to apply AI-driven methodologies in advanced semiconductor design and research.

Resource Persons

The resource persons are from renowned Institutes/organizations such as NITs, BITS, Defense laboratories and Industries.

Eligibility

The faculty members, Research scholars & PG Students of the AICTE approved institutions, Industry professionals nominated by Heads of the Institutions

Certification

The certificates shall be issued to those participants who are registered on ATAL portal https://www.aicte.gov.in/atal and attend the program with **minimum 80% attendance** and score **minimum 70% marks in the test**.

ATAL Academy

AICTE Training And Learning (ATAL) Academy recognized the need to train the young generation in skill sector, faculty & technicians in their respective disciplines.Also.AICTE felt that Training with latest tools and technologies is vital to keeping an institute competitive and more productive. Thus, AICTE Training and Learning (ATAL) was established with a mission to empower faculty to achieve goals of Higher Education such as access, equity and quality. ATAL Academy has started unique faculty development programs in various thrust areas of modern technology. 405 offilne programs have been sanctioned to various institutions for the year 2025-2026, which will be benefitting several faculties, research scholars & PG students.





Vasavi College of Engineering (Autonomous)
Hyderabad, Telangana State – 31.