Founder Chairman
Dr. Ponguru Narayana

President
Mr. K. Puneet

Chief Patron
Dr.B. Dattatraya Sharma
Director of NEPC

Patron
Dr. V. Ravi Prasad
Principal

Co-Patron
Dr. K. Vishwaksena Reddy
Dean - Planning & Development

Convener
Dr. Y. Neeraja
Professor & Head, Department of ECE

Co-Ordinator
Dr. K.H.Shakthi Murugan
Assoc.Professor, Department of ECE

Co-Coordinator
Dr.B.Malakonda Reddy
Assoc.Professor, Department of ECE

ORGANIZING COMMITTEE

Dr. P. SREENIVASULU, Professor
Mrs.P.MANJULAMMA, Assistant Professor
Mrs.Ch.PADMAVATHI, Assistant Professor
Mr.R.RAVI RAMAN, Assistant Professor
Mr.M.V.S.SUDHEER BABU, Assistant Professor
Mrs.G.KALYANI, Assistant Professor
Mr. S. BRAHMAIAH, Assistant Professor
Mrs.V. DEVIKA, Assistant Professor
Mrs.M. DIVYA VANI, Assistant Professor
Mrs.K. MARY, Assistant Professor
Mrs.SK ASMA SULTHANA, Assistant Professor
Mr.CH. MOHAN SIVA PRASAD, Assistant Professor
Mrs.SK.NAHEEN, Assistant Professor
Ms.E.LAKSHMIKUMARI, Assistant Professor
Ms.E.SOWJANYA, Assistant Professor
Ms.B.SANDHYA, Assistant Professor

Resource Persons

Dr V.Ramesh Kumar
Assistant Professor,
Dept of ECE,IIIT, Sricity

Dr.Vikramkumar Pudi
Asst Prof, Dept of Electrical Engg,
IIT,Tirupathi

Dr.P.V.Arun
Assistant Professor, Dept of ECE,
IIIT, Sricity

Dr B Naresh Kumar Reddy
Assistant Professor, Dept of ECE,
NIT, Trichy

Dr.Prateek Kumar Sharma,
Asst Prof, Dept of Electrical Engg,
IIT,Tirupathi

Mr. G Saiteja Reddy
Senior ASIC Design Engineer – NVIDIA,
Hyderabad

Mr.Ch.Murali
Senior VLSI Engineer,
Questglobal, Hyderabad

Dr.K.Vasudeva Reddy
Principal Engineer
Global Foundries, Bengaluru

Dr.K.Viswanath Reddy,
CPU Performance Architect,
Intel, Bengaluru

Dr.K.Sravani
Principal Engineer
Global Foundries, Bangalore

NARAYANA
ENGINEERING COLLEGE::GUDUR
(AUTONOMOUS)

ESTD : 2001

Dhurjati Nagar, Gudur, Tirupati Dist., AP - 524101

Six Day ATAL FDP

RECENT ADVANCEMENTS AND CHALLENGES IN APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN VLSI

Date : 15th to 20th June 2025

AICTE TRAINING & LEARNING ACADEMY
ATAL

Organized by
Department of ECE

Contact Details

Co-ordinator
Dr.K.H.Shakthi Murugan
Associate Professor
Department of ECE
Mobile: 9500700332
E:mail-khsmecenecg@gmail.com

ABOUT THE INSTITUTION

Narayana Engineering College is established in the year 2001, enjoys the reputation as one of the best Engineering colleges in Andhra Pradesh, founded by the far-sighted eminent educationist and philanthropist, Society, Nellore. It serves the prime objective of imparting technical education to the students. The mission of the institute is two-fold – to educate and prepare the students as dynamic, competent, valued and also knowledgeable professionals who shall lead the nation to reach the forefront of leadership in the field of engineering and technology.

The Institution is located on National Highway (NH-5) in an area of 40 acres of picturesque land at Dhurjati Nagar, Gudur, Andhra Pradesh. NECG is permanently affiliated to JNTU Anantapur. The institution is ISO certified And got Autonomous status on 2020. The college has spacious, well deigned, adequately furnished and ventilated classrooms which provide ingenious ambience to the students for integrated learning practice.

ABOUT THE DEPARTMENT

The Department of Electronics and Communication Engineering (ECE) at Narayana Engineering College, Gudur, is a center of excellence with two specialized wings: Electronics- VLSI Design Technology (EVT), focusing on advanced chip design and embedded systems, and Electronics and Communication -Advanced Communication Technology (ECA), emphasizing next-generation communication systems and networking. It has total intake of 300 including ECE(150), EVT(60), ECA(60). With expert faculty, state-of-the-art laboratory facilities and industry collaborations, the department is dedicated to producing skilled professionals equipped to excel in the dynamic fields of electronics and communication.

The department has inaugurated a student association called "e-Brains," under the aegis of which activities like Certificate Courses, Value-Added Courses, Technical Quizzes, Project Exhibitions, Guest Lectures, Tech Fests, etc., are conducted for the benefit of students.

The faculty and students are also associated with professional bodies like IEEE, ISTE, IEI, and IETE to enhance their research activities. Further, the students of the department are encouraged to take up in-plant trainings, summer internships, and project work at industries, and the department ensures that all the eligible students are placed on campus in top MNCs. The Department of Electronics and Communication Engineering (ECE) is accredited by the National Board of Accreditation (NBA) for 3 years (upto 30-06-2026).

VISION AND MISSION OF THE DEPARTMENT

Vision of the Department

To produce technically competent Electronics & Communication Engineers with a motive to meet the needs of the industry and evolving society through advanced research, professional ethics and lifelong learning.

Mission of the Department

- To enrich the technical skills of the students through effective teaching-learning practices, continuous assessment methods and eminent faculty.
- To continuously enhance creative thinking, research ability and innovative skills of students through training on core and multidisciplinary technologies and skill enhancement programs.
- To inculcate leadership qualities, ethics, social responsibility and gratitude through outreach programs.

ABOUT THE PROGRAMME

This six-day ATAL Faculty Development Programme, "Recent Advancements and Challenges in Applications of Artificial Intelligence in VLSI," provides a comprehensive exploration of AI's transformative role in VLSI design. Participants will begin with foundational AI/ML concepts and their integration into the VLSI design flow. The programme progresses to AI-driven optimization for physical design, power, and performance. Day three focuses on AI for VLSI verification and testing, including deep learning and fault diagnosis. Participants will then delve into advanced AI architectures like neuromorphic computing and graph neural networks. The programme addresses critical challenges such as data scarcity, scalability, security, and reliability. Finally, participants will explore emerging trends, including quantum computing, and engage in a hands-on workshop to implement AI algorithms for VLSI tools. This FDP equips faculty with cutting-edge knowledge and practical skills, fostering research and enhancing teaching capabilities in the dynamic field of AI-enabled VLSI.

OBJECTIVES

- To provide a comprehensive understanding of AI/ML fundamentals and their relevance to VLSI design.
- To explore and demonstrate the application of AI techniques for optimizing various stages of the VLSI design flow.
- To introduce advanced AI methodologies for VLSI verification, testing, and fault diagnosis.
- To familiarize participants with emerging AI architectures and their potential in VLSI, including neuromorphic computing and graph neural networks.
- To address the challenges and limitations of applying AI in VLSI, including data scarcity, scalability, security, and reliability.
- To provide hands-on experience in implementing AI algorithms for VLSI design tools and to explore future trends like quantum computing's impact on VLSI.

REGISTRATION FORM

Six Day ATAL FDP

RECENT ADVANCEMENTS AND CHALLENGES IN APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN VLSI

1. Name :.....
2. Designation :.....
3. Department :.....
4. Institution :.....
5. Qualification :.....

   (Degree, Specialization)
6. Teaching Experience :.....
7. Address for Correspondence:

   .....

   .....

   .....
8. E-mail ID:.....
9. Mobile Number:.....

Declaration: The information furnished in the registration form is true to the best of my knowledge. I agree to abide by the rules and regulations governing the course. If selected, I shall attend the course entire duration; I also undertake the responsibility to inform the coordinator sufficiently in advance, in case i am unable to attend the course.

Date:

Place:

Signature of the Applicant

Signature of the Institution Head (with Institution Seal)