VIT®

Vellore Institute of Technology

(Deemed to be University under section 3 of UGC Act, 1956)

School of Electrical Engineering
Jointly Organizes with
School of Computer Science and Engineering
& School of Mechanical Engineering

Value Added Program (Hybrid)

VAC2514 Artificial Intelligence in Semiconductor Industry Applications

Sponsored by

BRITISH COUNCIL

Registration

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ABOUT VELLORE INSTITUTE OF TECHNOLOGY

VIT was established with the aim of providing quality higher education on par with international standards. It persistently seeks and adopts innovative methods to improve the quality of higher education on a consistent basis. The campus has a cosmopolitan atmosphere with students from all corners of the globe. Experienced and learned teachers are strongly encouraged to nurture the students. The global standards set at VIT in the field of teaching and research spur us on in our relentless pursuit of excellence. In fact, it has become a way of life for us. The highly motivated youngsters on the campus are a constant source of pride. Our Memoranda of Understanding with various international universities is our major strength. They provide for an exchange of students and faculty and encourage joint research projects for the mutual benefit of these universities. Many of our students, who pursue their research projects in foreign universities, bring high quality to their work and esteem to India and have done us proud. With steady steps, we continue our march forward. We look forward to meeting you here at VIT.

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About the Value Added Program

The Value-Added Program on Artificial Intelligence in Semiconductor Industry Applications offers students and professionals a unique opportunity to explore the intersection of cutting-edge technologies. This program is designed to provide comprehensive insights into how Artificial Intelligence (AI) is revolutionizing the semiconductor industry through smart automation, predictive analytics, process optimization, and intelligent chip design. With the increasing complexity of semiconductor manufacturing and the demand for high-performance, energy-efficient chips, AI is becoming an essential tool to enhance yield, reduce defects, and accelerate time-to-market. Overall, the value-added program bridges academic knowledge with industrial demands, preparing participants to meet emerging technological trends.

Registration

- ✓ Participants provided with a certificate
- ✓ Attracting Prizes to Quiz Winners (End of Every Session)
- ✓ No registration fee for participants

Date: 02.08.2025, 09.08.2025, 30.08.2025, 06.09.2025, 13.09.2025 (Subject to change based on Academic Calendar)

Time: 9 AM- 5PM

Event Details

Technical Sessions

**Schedule will be communicated*

Contact

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Topics to be Covered

Artificial Intelligence

Introduction to AI in Semiconductor Applications
Machine Learning Techniques for EDA (Electronic Design Automation
Deep Learning for Wafer Defect Detection
Generative AI for Layout Synthesis and Process Optimization
Reinforcement Learning in Semiconductor Fabrication Automation and Hands-on Session

Semiconductor Revolution

Overview of Semiconductor Physics and Materials
Chip Packaging and Thermal Management
Defect Types and Failure Analysis in Semiconductor Devices
Emerging Semiconductor Technologies (e.g., FinFET, GaN, SiC)
Modeling and Simulation Tools

Industrial Applications

Trends in AI-driven Semiconductor Startups and R&D
Automation Industry: Semiconductor-based sensing and feedback systems
Industrial IoT: Chip Connectivity
Semiconductor on : Automotive Industry, Consumer Electronics