NITTTR BHOPAL

EEE-8/2025-2026
Embedded Systems and VLSI Design
08-09-2025 to 12-09-2025
NITTTR Bhopal

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Rationale

The Programme on "Embedded Systems and VLSI Design" is designed to enhance the knowledge and skills of faculty members in two critical and rapidly evolving areas of electronics and computer engineering. Embedded systems and VLSI design form the foundation of modern digital devices and applications, ranging from consumer electronics to industrial automation and smart systems. This FDP aims to bridge the gap between academic learning and industry practices by providing participants with exposure to the latest tools, technologies, and trends in embedded development and VLSI design. Through expert lectures, hands-on sessions, and interactive discussions, the programme will enable faculty to integrate contemporary topics into their curriculum, promote interdisciplinary research, and better guide students in cutting-edge projects aligned with industry demands.

Programme Outcomes

After completing this programme, participants will be able to

1. Perform Hands-on Expereiments with industry-relevant tools and platforms such as Arduino, Raspberry Pi, Xilinx, and Cadence.

2. Improve Curriculum Delivery, thereby empowering faculty to incorporate advanced topics into teaching and upgrade academic content to meet current industry standards.

Programme Content

"Embedded Systems and VLSI Design" will cover a comprehensive range of topics aimed at strengthening both theoretical understanding and practical skills. The programme includes an introduction to embedded system architectures, microcontrollers, and real-time operating systems, along with hands-on sessions on programming and interfacing using platforms like Arduino, Raspberry Pi, and ARM Cortex. Participants will explore system design methodologies, low-power techniques, and the complete VLSI design flow including CMOS fundamentals and HDL programming with tools such as Xilinx and Cadence. The FDP will also delve into emerging applications like IoT integration, AI at the edge, and

Target Group

Faculty of Electronics and allied Engineering disciplines

Coordinator & Co-Faculty

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e-Prashikshan
An Online Training Portal of NITTTR Bhopal
www.eprashikshan.com

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