

Department of Electronics and Communication Engineering, NIE Mysuru

The Department of Electronics and Communication Engineering at NIE Mysuru successfully conducted a **3-Day Hands-on Workshop on Multi System Architecture** in collaboration with the VLSI Virtuoso Club from 24/02/2026 to 26/02/2026. The event was held at the Programming Lab, NRN Block, and aimed to bridge the gap between theoretical concepts and practical implementation in modern processor architecture.

The workshop was led by **Dr. Manju R**, Associate Professor and Head of the Department of Information Technology, Government Engineering College, Barton Hill, along with her student resource persons, Adarsh and Krishanan. The event was coordinated by **Ms. Shruthi R**, Assistant Professor, Department of ECE, NIE Mysuru, who also serves as the Faculty Coordinator of the VLSI Virtuoso Club.

The program was designed to provide participants with practical exposure to key concepts in multi-system architecture. Over the course of three days, students engaged in a structured learning experience combining lectures and hands-on sessions.

On Day 1, participants were introduced to the fundamentals of Instruction Set Architecture (ISA) and the gem5 simulator, followed by practical sessions to familiarize themselves with the simulation environment.

Day 2 focused on pipelining concepts and the implementation of pipeline hazards, enabling students to understand performance optimization techniques in processor design. On Day 3, the sessions covered cache memory mechanisms, replacement policies, and the basics of Network-on-Chip (NoC), complemented by a lab session that reinforced these concepts through practical exercises.

The workshop successfully enhanced students' understanding of system-level design by integrating theoretical knowledge with hands-on application. Participants gained valuable experience in using simulation tools, analyzing processor behavior, and understanding advanced architectural concepts such as pipelining, caching, and NoC.



The National Institute of Engineering, Mysuru



Dept. of Electronics and Communication Engineering

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VLSI Virtuoso Club

Presents

3-DAY HANDS-ON WORKSHOP on Multi System Architecture

WORKSHOP SCHEDULE

- ✓ Day 1: Foundations & gem5 Basics
- ✓ Day 2: Pipelining & Practical Simulation
- ✓ Day 3: Cache & NoC Concepts

SPEAKER



Dr. Manju R

Associate Professor in Information Technology
Government Engineering College Barton Hill

- 📅 Date: 25th to 27th February 2026
- 🕒 Time: 10AM to 4:30PM
- 📍 Venue: Programming Lab, NRN Block

Faculty coordinator

Prof. Shruthi R

Assistant Professor

VLSI Virtuoso Club Coordinator

Student coordinators

Mourya P - 9148103758

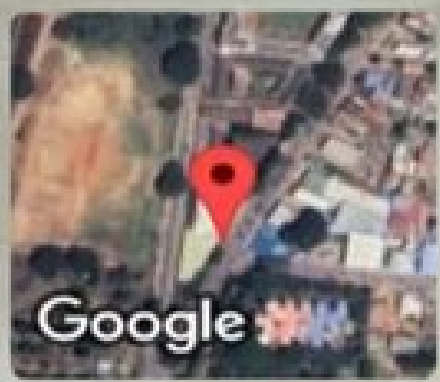
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