## MC722: Computer Architecture

Prerequisite: MC404

## **Description:**

An introduction to architecture and organization of computers. Technologies and historical perspective. Performance measures. Instruction sets. Memory. Arithmetic logic units. Basic design of a processor. Pipeline. Memory hierarchy: cache and virtual memory. Input/Output devices.

## **Programme:**

- 1. An introduction to architecture and organization of computers
- 2. Performance measures
- 3. Instruction sets
- 4. Memory
- 5. Arithmetic logic units
- 6. Basic design of a processor
- 7. Pipeline
- 8. Memory hierarchy: cache and virtual memory
- 9. Input/Output devices
- 10. Parallel Processing

## **Recommended Literature:**

I. David A. Patterson & John L. Hennessy. Computer Organization & Design, The Hardware/Software Interface. Morgan Kaufmann