

M.Tech(CS) : Group B
Paper Code : MT23B
Paper Title: Embedded Systems

SYLLABUS

1. Introduction to Embedded systems

Introduction, Embedded Systems and their Characteristic, Real Time Systems, Classification and Requirements of Embedded Systems, Embedded Systems Design World - a View, Major Components of an Embedded System

2. Microprocessor and Micro controller Basics

Introduction, Basic of Microprocessor, Microprocessor design options, Microcontroller Basics, Microcontroller Characteristics & applications, Examples of microcontrollers, Programming microcontrollers

3. Embedded Programming Basics

Introduction, Example Embedded Program, Compiling, Linking and Locating, Downloading and Debugging

4. Embedded Operating System Features

Introduction, Embedded Operating System, RTOS design issues, Real time kernels, Performance Characteristics of RTOSs, An example RTOS: VxWorks

Reference Book:-

- (a) Raj Kamal, "Embedded System Programming", Tata Mc Graw Hill
- (b) Jonathan W. Valvano, "Embedded Micro Computer System"
- (c) Frank Vahid, "Embedded System Design"