Subject Code : P8CSE3A

REAL TIME AND EMBEDDED SYSTEM

Unit I

INTRODUCTION: Introduction to Embedded systems – Processor and memory organization-Devices and buses for Device Networks – Device drivers and Interrupt servicing mechanism.

Unit II

RTOS : RTOS – Programming tools – Case studies- Hardware- software Co0design in an Embedded system

Unit III

REAL TIME SYSTEMS : Basic Real time concepts – Computer hardware – Language issues – Software life Cycle

Unit IV

REAL TIME SPECIFICATIONS: Design techniques – Real-time kernels – Intertask communication and synchronization – Real –time memory management

Unit V

MULTIPROCESSING SYSTEMS : Multiprocessing Systems - Hardware/Software integration- Real time Applications

Text Book(s)

1. Raj Kamal, 'Embedded Systems Architecture, Programming and Design', Tata Mc-Graw-Hill,2003
2. Phillip A.Laplante, "Real –Time Systems Design and Analysis, An Engineer's Handbook", Prentice-Hall of India,2002

References

1. R.J.A.Buhr, D.L.Bailey, "An Introduction to Real Time Systems: Design to networking with C/C++", Prentice- Hall, International, 1999.
2. Grehan Moore and Cyliax, "Real Time Programming: A guide to 32 Bit Embedded Development Reading: Addison- Wisley-Longman", 1998.
3. Haeth, Steve, "Embedded systems Design", Newnes,1997.