



C-DAC & Gujarat Technological University
M.E. Computer Engineering
(Wireless Mobile Computing)
Gandhinagar

Semester: I

Subject Name: OS Programming

Subject Code: 2715302

Course Content:

Introduction to OS & Overview of architecture, Processes Management, CPU Scheduling, POSIX Threads, Inter Process Communication - Data Exchange and Synchronization with shared memory, message queues, semaphores, Memory management, Virtual Memory and Paging, Virtual File System, Pipes & FIFOs, system programming in linux , Linux Architecture, Programming in Linux Shell Programming, Building and customizing Linux Kernel, Introduction to Device Drivers, Writing Simple drivers, Adding System calls, Customizing and configuring cross-tool chain ,Porting Linux on Target Hardware

Text Books:

1. Operating Systems: A Design-Oriented Approach by Charles Crowley
2. Beginning Linux Programming by Richard Stone/Wrox

Reference Books:

1. Milankovic M., "Operating System: Concept & Design", McGraw Hill
2. Silberschatz A. and Galvin: "Operating System Concepts", Wiley.
3. Tanenbaum A.S., "Operating System Design & Implementation"/Practice Hall
4. Dhamdhare: Operating System TMH
5. Linux Device Drivers by Corbet and Rubini/ O'Reilly
6. Understanding the Linux Kernel by Bovet and Cesati /O'Reilly
7. Linux Kernel Development by Robert Love/Que
8. Building Embedded Linux Systems by Karim Yaghmour /O'Reilly
9. Optimizing Linux Performance by Phillip G. Ezolt /Prentice Hall
10. Distributed Operating Systems concepts and design - P.K.Sinha(PHI).
11. Advanced Operating System – Singhal
12. Distributed Systems concepts and design-G.Coulouris,J.Dollimore & T.Kindberg