CSE223: Operating System Lab

Programme: B.Tech. (CSE) Year:3rd Semester : I
Course :Core for CSE and CCE Credits :2 Hours : 30

Course Context and Overview (100 words):

This course will introduce basic concepts of operating system. Students would be able to apply the theoretical knowledge in practical lab experiments. The main focus will be to explore different operating systems like Linux, windows etc. To implement main algorithm related to key concepts in the operating systems.

Prerequisites Courses:

CSE218: Computer Organization & Architecture

Course outcomes (COs):

On completion of this Laboratory course, the students will have the ability to:
CO1: Understand the working of Linux operating system.
CO2: Implement and analyze Process management concepts.
CO3: Implement and analyze Memory managementconcepts.
CO4: Implement and analyze I/O management concepts.

Course Topics:

Contents	Lab Sessions
1. To analyze and implement process and threads.	1
2. To analyze and implement inter process communication	2
3. To analyze and implement process synchronization	1
4. To analyze and design CPU scheduler	1
5. To study and analyze memory management techniques	1
6. To analyze and design memory allocation policies	1
7. To implement page replacement algorithms	1
8. To implement and analyze the basic file management techniques	1
9. To implement I/O management techniques	1

Text Books

1. Silberschatz, A., Galvin, P.B. and Gagne, G., Operating System Concepts, John Wiley (2004) 7th ed.

2. Stallings, Willam, Operating Systems Internals and Design Principles, Prentice Hall (2009) 6th ed.
3. Alon Cox, Beginning Linux Programming, 2nd Edition, 2001

Evaluation Methods:

Item	Weightage
Lab Evaluations	40
Mid Semester Evaluation	20
Project+ Final Examination	40

Prepared By:
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