1.	Title of the course	Operating Systems Laboratory
2.	Course number	CS305P
3.	Structure of credits	0-0-3-2
4.	Offered to	UG
5.	New course/modification to	Modification To CS3193/8
6.	To be offered by	Department of Computer Science and Engineering
7.	To take effect from	July 2022
8.	Prerequisite	Nil
9.	**Course Objective(s):** To provide a hands-on experience of various operating system concepts of process creation and management, memory management and message passing, storage management and file systems.	
10.	**Course Content:** Introduction to Operating System (OS) services, and data structures used in OS services modeling; Process management: Process creation, context switching, scheduling, clock management, process suspension and resumption; Process synchronisation: Semaphores and mutual exclusion; Message passing: Interprocess communication and high-level message passing using ports; Deadlock characterisation, detection and avoidance; Memory management: Low-level memory management, buffer pool, virtual memory management; Storage management: Disk structures, file systems implementation, file management techniques, and input-output sytems.	
11.	**Textbook(s):** 1. Comer D, *Operating System Design: The Xinu Approach*, CRC (2015).	
12.	**Reference(s):** 1. Love R, Linux System Programming, O' Reilly (2017). 2. Silberschatz A, Galvin P and Gagne G, *Operating System Concepts with Java*, John Wiley and Sons (2008).	