# LINUX PROGRAMMING LAB
# (Common to CSE & IT)

| III B. Tech. - I Semester | L | T | P | C |
|---|---|---|---|---|
| Course Code: A3CS24 | | - | 3 | 2 |

## COURSE OVERVIEW:
In this course basics of shell programming are dealt. Shell programs to understand the operating environment of Linux are practiced. An exposure to system calls types of process and inter process communication issues are dealt with practical exercises.

## COURSE OBJECTIVES:
1. To familiarize basic concepts of shell programming
2. To demonstrate use of system calls
3. To demonstrate Inter process communication

## COURSE OUTCOMES:
At the end of the course students will be able to:
1. Use shell script to create files and handle text documents
2. Create child processes, background process and zombies

# SYLLABUS

**LIST OF EXPERIMENTS:**
1. Study and Practice on various commands like man, passwd, tty, script, clear, date, cal, cp, mv, ln, rm, unlink, mkdir, rmdir, du, df, mount, umount, find, unmask, ulimit, ps, who, w.
2. Study and Practice on various commands like cat, tail, head , sort, nl, uniq, grep, egrep,fgrep, cut, paste, join, tee, pg, comm, cmp, diff, tr, awk, tar, cpio.
3. a) Write a Shell Program to print all .txt files and .c files.
   b) Write a Shell program to move a set of files to a specified directory.
   c) Write a Shell program to display all the users who are currently logged in after a specified time.
   d) Write a Shell Program to wish the user based on the login time.
4. a) Simulate **cat** command.  b) Simulate **cp** command.
5. a) Simulate **head** command. b) Simulate **tail** command.
6. a) Simulate **mv** command.  b) Simulate **nl** command.
7. Write a program to handle the signals like **SIGINT, SIGQUIT, SIGFPE**.
8. Implement the following IPC forms
   a) **FIFO**              b) **PIPE**
9. Implement **message queue** form of IPC.
10. Implement **shared memory** form of IPC.
11. Write a Socket program to print system date and time (Using TCP/IP).