

## **Operating Systems**

- Exercise 1: Create two threads, both incrementing a global value called 'myglobal' 20 times which is initially 0 and analyze the result
- Exercise 2: Extend exercise 1 to implement mutex
- Exercise 3: Extend exercise 1 to implement semaphores
- Exercise 4: Solve producer consumer problem with pthreads using semaphores
- Exercise 5: Develop a program with race condition problem
- Exercise 6: Develop a program which solves the race condition problem using semaphores and mutex
- Exercise 7: Develop a program, which creates 2 processes (p1 & p2). Code in process p1 needs to be executed first and then it has to go to process p2. Implement this using semaphore