

## Internet Protocol

- Layered Network Architecture
  - Basic concept of layering
  - Open System Interconnection Reference model
    - Interconnection between OSI model layers
    - Information exchange process
    - Functions of OSI layers
  - TCP/IP model
    - Difference between TCP/IP model and OSI model
    - Overview and layers of TCP/IP reference model
    - TCP/IP related protocols
    - Structure of TCP/IP software in OS
- IPv4
  - Introduction
  - Classful Addressing
  - Classless Addressing
  - Special addressing
  - Network address translation
- IPv6
  - Problems with IPv4
  - Difference between IPv4 and IPv6
  - Basic IPv6 protocol
  - IPv6 features – Address auto configuration, QoS, Security, Mobility, Neighbour discovery
  - Transition Plans
- Network Interface Layer
  - Multiprocessing
  - Buffer Management
  - Software Extraction using semaphores

### BOOKS:

- ◆ Data Communications And Networking-*Forouzan*
- ◆ Inter-networking with TCP/IP, *Douglas E. Comer, Vol. II*