

**B. P. Poddar Institute of Management & Technology**

**Department of Computer Science & Engineering**

**Academic Year: 2017-18, Semester: Even**

**List of experiments as per MAKUT**

**Network Lab**

**Code: CS692**

**Contact: 3P**

**Credits: 2**

• IPC (Message queue)

• NIC Installation & Configuration (Windows/Linux)

• Familiarization with

o Networking cables (CAT5, UTP)

o Connectors (RJ45, T-connector)

o Hubs, Switches

• TCP/UDP Socket Programming

• Multicast & Broadcast Sockets

• Implementation of a Prototype Multithreaded Server

• Implementation of

o Data Link Layer Flow Control Mechanism (Stop & Wait, Sliding Window)

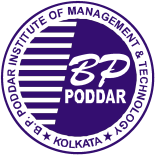
o Data Link Layer Error Detection Mechanism (Cyclic Redundancy Check)

o Data Link Layer Error Control Mechanism (Selective Repeat, Go Back N)

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(Soumi Tokdar) (Dr. AnanyaKanjilal)

(Faculty) (HOD, Dept. of CSE)



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**Academic Year: 2017-18, Semester: Even**

**List of experiments conducted including beyond Syllabus (CS-692)**

| **Topic in Syllabus** | **Assignments** | **CO** | **PO/PSO** |
| --- | --- | --- | --- |
| • NIC Installation & Configuration (Windows/Linux)  • Familiarization - Networking cables (CAT5, UTP) Connectors (RJ45, T connector) ,Hubs, Switches | 1)Looking up internet address  2)Implementation of port scanner  3)Implementation of ping programming | CO1 | PO1,PO2,PO3,PO8,PO9,PO10,PO11,PO12  PSO1,PSO2 |
| • TCP/UDP Socket Programming | 4)Program on connectionless CLIENT-SERVER using java/C  5)Program on connection oriented CLIENT Server using java/C | CO2 | PO1,PO2,PO3,PO4,PO8,PO9,PO10,PO11,PO12  PSO1,PSO2 |
| • Multicast & Broadcast Sockets | 6)Program on Multicas/Broadcast SERVER-CLIENT | CO5 | PO1,PO2,PO3,PO4,PO8,PO9,PO10,PO11,PO12  PSO1,PSO2 |
| •Implementation of a Prototype Multithreaded Server | 7)Program on connection oriented Concurrent (Multithreaded)SERVER using C BSD socket. | CO5 | PO1,PO2,PO3,PO4,PO8,PO9,PO10,PO11,PO12  PSO1,PSO2 |
| • Implementation of  Data Link Layer Error Detection Mechanism (Cyclic Redundancy Check) | 8)Program to Implement Error Detection mechanism using CRC | CO3 | PO1,PO2,PO3,PO4,PO8,PO9,PO10,PO11,PO12  PSO1 |
| • Implementation of  o Data Link Layer Flow Control Mechanism (Stop & Wait, Sliding Window)  oDataLink Layer Error Control Mechanism  SelectiveRepeat,GoBackN | 9) Implement Stop and Wait ARQ.  10) Implement data link layer error control using Go-Back-N ARQ/Selective repeat ARQ. | CO4 | PO1,PO2,PO3,PO4,PO8,PO9,PO10,PO11,  PSO1 |
| • IPC (Message queue) | 11) Implement IPC using message Queue | CO2 | PO1,PO2,PO3,PO4,PO8,PO9,PO10,PO11,PO12  PSO1,PSO2 |
| •Beyond Syllabus | 12)Traffic Analysis using Wire-shirk | CO6 | PO1,PO2,PO5,PO12 PSO2 |
| 13) Implement Hamming code as a error correction algorithm. | CO3 | PO1,PO2,PO3,PO8,PO9,PO10,PO11,PO12 PSO1 |
| •Micro Project |  |  |  |

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**FACULTY HOD**

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