***Practical Session Plan***

***Faculty: Prof. Monica Khanore***

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CLASS | | | | | | | **TE Electronics, Semester VI** | | | | | | |
| Academic Term | | | | | | | **Jan – May 2021** | | | | | | |
| Subject | | | | | | | **Computer Communication Networks Laboratory (ELXL 602)** | | | | | | |
| ***Evaluation System*** | | | |  | | | | | ***Hours*** | | | ***Marks*** | |
| Practical Examination | | | | | -- | | |  | |
| Oral Examination | | | | | -- | | |  | |
| Term work | | | | | -- | | | 25 | |
| Total | | | | | -- | | | 25 | |
| ***Time Table*** | | | | ***Day*** | | ***Batch*** | | | ***Time*** | | | | |
| ***Tuesday*** | | ***B*** | | | ***11.30am-1.30 pm*** | | | | |
| ***Wednesday*** | | ***A*** | | | ***11.30am-1.30 pm*** | | | | |
| ***Thursday*** | | ***D*** | | | ***11.30am-1.30 pm*** | | | | |
| ***Friday*** | | ***C*** | | | ***11.30am-1.30 pm*** | | | | |
| ***Title of Experiments*** | | | | | | | | | | | | | |
| ***Sr. No.*** | ***Title*** | | | | | | | ***Module*** | | | | | ***Attained POs*** |
| 1 | Implementation of IP Commands | | | | | | | Network Layer | | | | | PO1, PO5 |
| 2 | Implementation of bit stuffing and unstuffing algorithm | | | | | | | Data Link Control | | | | | PO1, PO5 |
| 3 | Simulation of Dijkstra’s Algorithm | | | | | | | Network Layer | | | | | PO1, PO5 |
| 4 | Using Wireshark Capture to Examine TCP, UDP, DNS, HTTP, HTTPS, ARP, ICMP, ICMP6 packets | | | | | | | Transport Layer and Application Layer | | | | | PO1, PO5 |
| 5 | Implementation of Socket programming | | | | | | | Transport Layer and Application Layer | | | | | PO1, PO5 |
| 6 | Acquiring IP address of the machine | | | | | | | Network Layer | | | | | PO1, PO5 |
| 7 | Use of the IP address and the subnet mask to find various addresses | | | | | | | Network Layer | | | | | PO1, PO5 |
|  | | | | | | | | | | | | | |
| ***Overall (all experiments together) mapping with POs*** | | | | | | | | | | | | | |
|  | | | | | | | | | | | ***Programme Outcomes*** | | |
| HI | | | | | | | | | | | PO1, PO5 | | |
| MI | | | | | | | | | | |  | | |
| LI | | | | | | | | | | |  | | |
| ***Newly added experiments*** | | | | | | | | | | | | | |
| 1 | | Use of the IP address and the subnet mask to find various addresses | | | | | | | | | | | |
| ***Practical Session Plan*** | | | | | | | | | | | | | |
| ***Batch*** | | | ***Dates*** | | | | | | | ***Remarks*** | | | |
| ***Planned*** | | ***Actual*** | | | | |
| ***Experiment No. 1***  Implementation of IP Commands | | | | | | | | | | | | | |
| A | | | 24-02-21 | | 24-02-21 | | | | |  | | | |
| B | | | 23-02-21 | | 23-02-21 | | | | |  | | | |
| C | | | 26-02-21 | | 26-02-21 | | | | |  | | | |
| D | | | 25-02-21 | | 25-02-21 | | | | |  | | | |
| ***Experiment No. 2***  Implementation of bit stuffing and unstuffing algorithm | | | | | | | | | | | | | |
| A | | | 24-02-21 | | 24-02-21 | | | | |  | | | |
| B | | | 23-02-21 | | 23-02-21 | | | | |  | | | |
| C | | | 26-02-21 | | 26-02-21 | | | | |  | | | |
| D | | | 25-02-21 | | 25-02-21 | | | | |  | | | |
| ***Experiment No. 3***  Simulation of Dijkstra’s Algorithm | | | | | | | | | | | | | |
| A | | | 24-03-21 | | 24-03-21 | | | | |  | | | |
| B | | | 23-03-21 | | 23-03-21 | | | | |  | | | |
| C | | | 26-03-21 | | 26-03-21 | | | | |  | | | |
| D | | | 25-03-21 | | 25-03-21 | | | | |  | | | |
| ***Experiment No. 4***  Using Wireshark Capture to Examine TCP, UDP, DNS, HTTP, HTTPS, ARP, ICMP, ICMP6 packets | | | | | | | | | | | | | |
| A | | | 21-04-21 | | 21-04-21 | | | | |  | | | |
| B | | | 20-04-21 | | 20-04-21 | | | | |  | | | |
| C | | | 23-04-21 | | 23-04-21 | | | | |  | | | |
| D | | | 22-04-21 | | 22-04-21 | | | | |  | | | |
| ***Experiment No.5***  Implementation of Socket programming | | | | | | | | | | | | | |
| A | | | 01-05-21 | | 01-05-21 | | | | |  | | | |
| B | | | 01-05-21 | | 01-05-21 | | | | |  | | | |
| C | | | 01-05-21 | | 01-05-21 | | | | |  | | | |
| D | | | 01-05-21 | | 01-05-21 | | | | |  | | | |
| ***Experiment No. 6***  Acquiring IP address of the machine | | | | | | | | | | | | | |
| A | | | 01-05-21 | | 01-05-21 | | | | |  | | | |
| B | | | 01-05-21 | | 01-05-21 | | | | |  | | | |
| C | | | 01-05-21 | | 01-05-21 | | | | |  | | | |
| D | | | 01-05-21 | | 01-05-21 | | | | |  | | | |
| ***Experiment No. 7***  Use of the IP address and the subnet mask to find various addresses | | | | | | | | | | | | | |
| A | | | 05-05-21 | | 05-05-21 | | | | |  | | | |
| B | | | 05-05-21 | | 05-05-21 | | | | |  | | | |
| C | | | 05-05-21 | | 05-05-21 | | | | |  | | | |
| D | | | 05-05-21 | | 05-05-21 | | | | |  | | | |

**Term Work:**

Lab session includes Seven experiments and a Case study( Power point Presentation) on any one of the suggested topics.

1. The experiments will be based on the syllabus contents.

2. Minimum Seven experiments need to be conducted, out of which at least Four Experiments should be software- based ( C/C++ , Scilab, MATLAB, LabVIEW, etc).

3. Each student (in groups of 3/4) has to present a Case study (Power point Presentation) as a part of the laboratory work.

The topics for Presentation / Case-study may be chosen to be any relevant topic on emerging technology. (“Beyond the scope of the syllabus”.)

Power point presentation should contain minimum of 15 slides and students should submit a report (PPT+Report ) carry minimum of 10 marks . The Term work assessment can be carried out based on the different tools and the rubrics decided by the concerned faculty members and need to be conveyed to the students well in advanced

|  |  |
| --- | --- |
| **Submitted By** | **Approved By** |
|  |  |
| Prof. Monica Khanore | ii) Prof. D. V Bhoir Sign: |
|  |  |
| Sign: | ii) Prof. K. Narayanan Sign: |
|  |  |
|  | iii) Prof. Shilpa Patil Sign: |
|  | iv) Prof. Monica Khanore Sign: |
|  |  |
| **Date of Submission:** | **Date of Approval:** |
|  | |
| **Remarks by PAC (if any)** | |
|  | |
|  | |