



TCET/FRM/IP-02/10

Revision: A

Semester Plan
(Practical / tutorials / Assignment)

Semester: **BE(VII)**

Course: **BE(ETRX)**

Batches: **BE (E1/E2/E3/E4)**

Subject: **EXC 704-Computer Communication Networks**

Class: **(BE-ETRX)**

Batch Size: **20 students**

Laboratory faculty In-Charge: : **Mr. Vaibhav V Gijare**

Lab Assistant / Attendant: **Ms.Sarita Tiwari**

(Lab Attendant 114)

Note: **Experiments are planned as per University Curriculum**

Basic Experiments

Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Planned Date E1-E2 E3-E4	Completion Date	Remarks
1	Understanding fundamentals, types of networks, Topologies, OSI Layers, etc of Computer Network	26/7/17 25/7/17		
2	Understanding various hardware and software components of Computer Network	2/8/17 1/8/17		
3	Serial communication	30/8/17 12/9/17		
4	Implementation of modem commands	30/8/17 12/9/17		

Design /Development Experiments

Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Planned Date E1-E2 E3-E4	Completion Date	Remarks
1	Testing of different IP commands like ping, ipconfig, ipconfig/all arp, etc	9/8/17 8/8/17		
2	Testing of different IP commands like trace route ,route print ,arp, etc	16/8/17 5/9/17		
3	Implementation of a network scenerio and report writing on CISCO packet tracer	6/9/17 19/9/17		
4	Design & Configure networks using CISCO packet tracer	20/9/17 3/10/17		
5	Visit TCET-server room and prepare a report	13/9/17 26/9/17		
6	A. Comparative analysis of Network Simulation Software's like network simulator/Wire /Shark /Ethernet/TCP dump B. Comparative analysis of Network Simulation Software's like Boson, NetSim and OPTNET C. Design a network using different topologies. D. Design & Implement LS & DV algorithms like RIPv1, RIPv2, OSPF and BGP.	4/10/17 10/10/17		

Experiments / Tutorials / Assignment

I.

Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Planned Date	Completion Date	Remarks
1	Assignment 1: Based on Module 1and 2 Topic: Introduction to Network Architectures, Protocol Layers	11.08.17		

	& service models, and Physical layer services & Systems			
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2	Assignment 2: Based on Module 3 & 4 Topic: Data Link layer protocol, and Network layer services & Protocols	1109.17		
3	Assignment 3: Based on module 5&6 Reliable & Unreliable Transport layer protocols, and Principles of Network Applications	06.10.17		

II. Case Study

Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Planned Date E1-E2 E3-E4	Completion Date E1-E2 E3-E4	Remarks
1	Design a network using different topologies	9/8/17 8/8/17		
2	Design & Implement LS & DV algorithms like RIPv1, RIPv2, OSPF and BGP	6/9/17 19/9/17		
3	Design with an example CIDR or VLSM [IP address, sub netting, etc]	4/10/17 3/10/17		

III. Mini Project

Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Type of Project	Modes of Learning	Reference
1	To implement ip commands	Research	Technical paper	Students must refer and study technical papers / articles from journals such
2	To configure a switch	Research	Technical paper	
3	To configure a Router	Research	Technical paper	
4	To configure a switch & router and design a network system	Research	Technical paper	

IV. Bridge Course

Bridge courses Objective: Bridging of gaps with respect to prerequisites and industry skills or to carry out research in that particular

Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Planned Date	Completion Date	Remarks
1	Photonic integrated circuits Prof. T. Srinivas Department of Electrical Communication Indian Institute of Science, Bangalore Course Duration: July 24, 2017 - August 18, 2017 Short Term: 4 weeks Last Date for Enrollment: July 24, 2017	24/07/17-27/07/17 31/07/17-01/07/17 07/08/17-12/08/17		
		14/08/17-19/08/17		
		21/08/17-26/08/17		
		28/08/17-02/09/17		
		04/09/17-09/09/17		
		11/09/17-16/09/17		
		18/09/17-23/09/17		
		24/09/17		

V. Project

Sr. No	TITLES Experiments / Tutorials / Assignment (Planning with use of Technology)	Type of Project	Modes of Learning	Reference
1	Adaptive Backoff algorithm for congestion control in IoT	Research	Technical paper Publication and Presentation	Students must refer and study technical papers / articles from journals such as; IEEE, Elsewire, etc
2	Wireless sensor based system for farm field monitoring & plant protection	Multidisciplinary	Technical paper Publication and Presentation	

No. of Practical		No. of Assignments		No. of Tutorial	
Planned	Conducted	Planned	Conducted	Planned	Conducted
Basic Experiment : 04		3		NIL	
Design Base : 07					
Group Learning : 03					
Bridge Course : 01					
Minor Project : 03					
Project :: 02					

DOSLNE:

DOSLE (engaged in some other dates):

Group activities are required to be added with the practical related to course to enhance the learning activity of the student in the course. Group activity includes: Group presentation, new experiment design, mini projects etc.

Note:

- The practical plan date and completion date shall be in compliance. For any non-compliance reason(s) required to be stated in remark column.
- Learning objective and outcome shall be clearly stated with each of experiments/ tutorials/ assignments and are required to be mapped at the end of the semester.
- Entry for DOSLE (engaged on some other date) shall be done with proper mapping to DOSLNE.

Name & Signature of Faculty

Signature of HOD

Signature of Principal / Dean Academic

Date: 24/07/2017

Date:

Date: