

2 hours/week

Class: ME IT

Subject: ME-ITC- 102: IT Infrastructure design

S.No.	Prerequisite/ Bridge course:	Duration (Week /Hrs)	Modes of Learning	
1	Basic Knowledge of netwroking techniques	1 hour	Self Learning/ Revision	

Class Room Teaching

Sr. No	Module No.	Topics Planned (Technology to be used)	Teaching Aids Required	Planned /Completion Date	Remarks
1	Module 1	Enterprise design network:Understanding network requirement analysis, design	Power point presentation, Chalk & Board	16-8-17	
2	Module 1	Architecture and design process of network- Routing Network management, performance	Power point	23-8-17	
		and security	Chalk & Board		
		Architectural models:		30-8-17	
3	Module 1	topological,flow model,functional model	Power point presentation, Chalk & Board		

	Module	1	Addressing and routing architecture, network		6/9/2017	
	Wiodule	1	architecture, performance architecture	Power point presentation, Chalk & Board		
			Borderless network architecture. Network design: Designing the		13-9-17	
5	Module	1	network topology and solutions-Top down approach	Power point presentation, Chalk & Board		
			Network structure model:Hierarchical network model, enterprise		13-9-17	
6	Module	1	wide network, architectural model-Enterprise edge area, E-Commerce,Internet connectivity to			
			remote,enterprise branch and enterprise data center module	Power point presentation, Chalk & Board		
			High availability Network services-Workstation to		20-9-17	
7	Module	2	High availability protocols, route, server redundancy, load balancing, linkmedia redundancy	Power point presentation, Chalk & Board		
8	Module	2	Enterprise LAN design Rule, 100Mbps, Fast		20-9-17	
	Would	2	bit ethernet design rules, 10GE media types	Power point presentation, Chalk & Board		
					27-9-17	
9	Module	2	Understanding working of router, hub, bridge, routers 2/3 switch	Power point presentation,		
				Chalk & Board		

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10	Module	2	Campus LAN Design best	Power point	4/10/2017	
10	module	2	practice with problems	presentation, Chalk & Board		
11	Module	2	Server Farm design, DMZ	Power point	11/10/2017	
	inouure	2	design, campus LAN	presentation, Chalk & Board		
12	Module	2	QoS consideration, Multicast traffic	Power point	18-10-17	
12	Would	2	considerations	presentation, Chalk & Board		
12		2	Data Center design:Architecture		25-10-17	
15	Module	2	model,Service layers model of cloud computing	Power point presentation, Chalk & Board		
			Cloud reference		1/11/2017	
14	Module	3	architecture framework, cloud data center building blocks	Power point presentation, Chalk & Board		
15	Module	3	Cloud data center technology, architecture trust in cloud data center-	Power point presentation,	1/11/2017	
			The elements of cloud	Chalk & Board	8/11/2017	
16	Module	3	visibility, the elements of cloud protection cloud control, compliance and SLA	Power point presentation, Chalk & Board		
			Telecomm.infrastructure		8/11/2017	
17	Module	3	standard for Data centers, ANSI/TIA-942 Telecomm.Infrastructure standard for Data centers	Power point presentation, Chalk & Board		
18	Module	3	NSI/NECA/BICSI-002 data center design and implementation Best Practices(CASE STUDY)	Power point presentation,	15-11-17	
				Chalk & Board		

19	Module	3	Purpose of TIA-942 design elements- Cabling design, Facility design, Network design(CASE STUDY)	Power point presentation, Chalk & Board	15-11-17	
20		2	Relationship of spaces, Data Center topology		15-11-17	
20	Module	3	center tiers Basic Data center design example(CASE STUDY)	Power point presentation, Chalk & Board		
21			University Paper Discussion	Discussion and	15-11-17	
Remark:						
Course:					•	
No. of (lectures planned)/(lecture taken): 20						

Text Books:

1. Network analysis, Architecture and Design, 3rd Edition, Morgan Kaufman, James.D, Cisco Official Guide

2.Cisco Cloud Computing- Data Center strategy, architecture and solutions bu Kapil Bakshi-Cisco Systems white paper **Reference Books:**

1. Storage Network management and retrieval by Dr. Vaishali Khairnar, Nilima Dongre, Wlley India. 2. Storage Area Network Essentials: A complete guide to understanding and implementing SANs by Richard Barker, Paul.M Wlley India

Digital Reference:

3.1 www.nptel.ac.in

Sd/-

Name & Signature of Faculty

Signature of HOD

Sd/-

Sd/-Signature of Principal / Dean (Academics)

Note:

1. Plan date and completion date should be in compliance

Courses are required to be taught with emphasis on resource book, course file, text books, reference books, digital references etc. 2.

Planning is to be done for 15 weeks where 1st week will be AOP, 2nd -13th for effective teaching and 14th -15th week for effective university 3. examination oriented teaching, mock practice session and semester consolidation.

According to university syllabus where lecture of 4 hrs/per week is mentioned minimum 55 hrs and in case of 3 lectures per week minimum 45 4. lectures are to be engaged are required to be engaged during the semester and therefore accordingly semester planning for delivery of theory lectures shall be planned.

5. In order to improve score in NBA, faculty members are also required to focus course teaching beyond university prescribed syllabus and measuring the outcomes w.r.t learning course and programme objectives.

6. Text books and reference books are available in syllabus. Here only additional references w.r.t. non -digital/ digital sources can be written (if applicable)

7. Technology to be used in class room during lecture shall be written below the topic planned within the bracket.