ITE6001 Network Management

LTPJC 3 0 0 4 4

Pre-req: Nil

Objectives:

- To introduce the principles and practices of network management models and protocols.
- To study the recent trends in network management technologies.

Expected Outcome:

On completion of this course, student should be able

- To understand and apply principles of network management models, protocols and technical aspects of network systems.
- To manage the networked systems using SNMP protocol.
- To apply network management tools for various applications.

Module	Topics	L Hrs	SLO
1	Network management overview: Goals, Organization and functions – Network Management Architecture and Organization - Current Status and Future of Network management.	4	2
2	Basic foundations: standards, models and language: Network management standards - Network management Models - Organization, Information, Communication and Functional Models.	8	2
3	SNMPv1: SNMP Model - Organization Model - System Overview - Information Model - Communication and Functional Models.	8	2,5
4	SNMPv2: Major changes in SNMPv2 - System architecture - Structure of Management Information – MIB – SNMPV2 protocol.	7	2,5
5	SNMPv3: Key features – Architecture – Applications – MIB – Security – User-Based Security Model -Access Control.	7	2,5
6	RMON: What is Remote Monitoring? – RMON SMI and MIB – RMON1 – A Case Study on Internet Traffic.	5	2
7	Network management tools: System utilizes for Management – Basic tools, SNMP tools and Protocol Analyzer.	3	17
8	Recent Advancements in Network Management – Expert Talk.	3	17
# Mode: Flipped Class Room, [Lecture to be videotaped], Use of physical and computer models to lecture, Visit to Industry Min of 2 lectures by industry experts		45	

Text Book

 Mani Subramanian, "Network Management – Principles & Practice" – Pearson Education Ltd, 2010.

Reference Books

- 1. William Stallings, "SNMP, SNMPv2, SNMPv3, and RMON 1 and 2," Pearson Education, 2012.
- 2. Richard Burke J, "Network Management-Concepts and Practice: A Hands-on Approach", Pearson Education, 2011.

Compiled by: Dr.G.Usha Devi