Computer Networks : Introduction

By,

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My Research Interests

- Cross Layer in Mobile Ad hoc Networks
- Cryptography and Network Security
- Content Centric Networks
- Wireless Sensor Networks
- Next Generation Networks (IMS)
- IPv6 Integration

Interested in My Research Domains ??

Interested in Publications (National / International) ?

If You have any New Ideas ??

Rationale

- The field of Data Communication and Computer Networks has grown considerably to make Human Life Better.

  Communication Anytime from Anywhere !!

- Continuous Improvements in the Technologies Make this Field a Very Attractive Area for Academic and Industry Research.

Objectives

□ To Understand the Principal of Protocol Architecture.

□ To Understand the Different Kinds of Networking Topologies and their structure and design.

□ To Understand the Principles of Computer Systems, Computer Communications and Computer Networks.
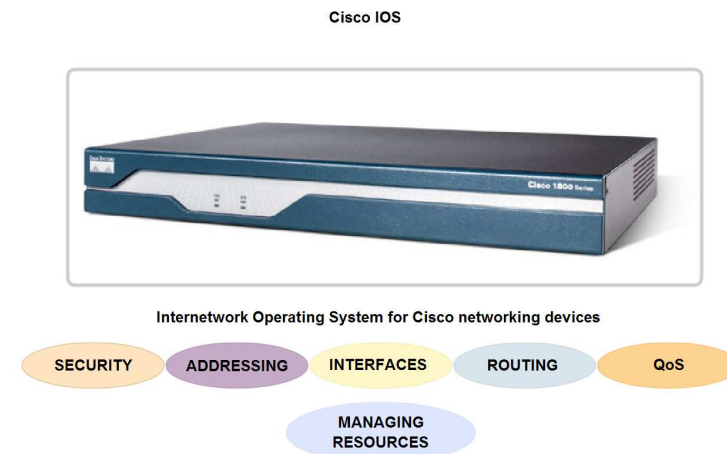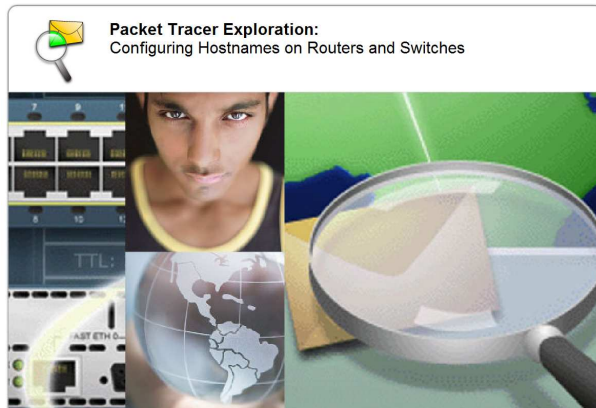
Syllabus: Computer Networks [CMP 474.3]

1. Introduction to Computer Network
2. Reference Model
3. Physical Layers
4. Data Link Layers
5. Network/ Internet Layer Protocols and Addressing
6. Transport Layer and Protocols
7. Congestion Control and Quality of Service
8. Application Layer and Protocols
9. Network Management and Security

Industry Standard

LABS

- Network Simulator (NS2)
- Cisco Packet Tracer
- Cisco 1700 Series Router and Cisco 2900 Series Switch

Packet Tracer Exploration:
Configuring Hostnames on Routers and Switches

Cisco IOS

Internetwork Operating System for Cisco networking devices

SECURITY   ADDRESSING   INTERFACES   ROUTING   QoS

MANAGING RESOURCES

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2. Behrouz A. Furouzan, "*Data Communication and Computer Networks*", Tata McGraw-Hill , 2004
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4. William A. Shay, "*Understanding Data Communications and Networks*", Thomson Asia, Singapore, 2001.
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Other References

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3. IEEE Journals
4. Request For Comments (RFCs)

Thank You

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