

Computer Networks : Introduction



By,

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My Research Interests

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- ❑ Information Security Management and Governance
- ❑ Software Defined Networks
- ❑ Cloud Computing
- ❑ 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]



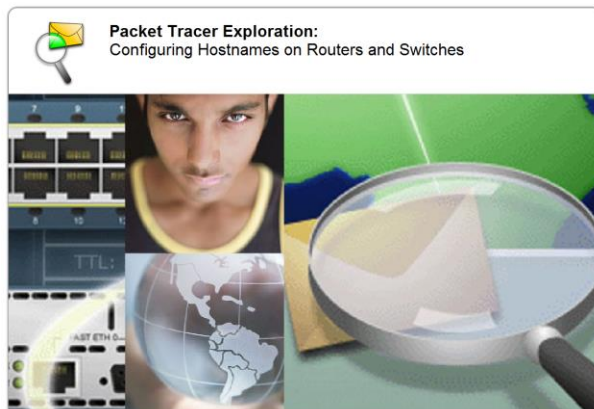
1. Introduction to Computer Network
2. Reference Model
3. Physical Layers
4. Data Link Layers
5. Network/ Internet Layer Protocols and Addressing
6. Transport Layer and Protocols
7. Congestion Control and Quality of Service
8. Application Layer and Protocols
9. Network Management and Security

Industry Standard



LABS

- ❑ Cisco Packet Tracer [New Version]
- ❑ Cisco 1900 Series Router and Cisco 2900 Series Switch
- ❑ Cisco Enrollment
- ❑ GNS3



Cisco IOS



Internetwork Operating System for Cisco networking devices



References

1. Andrew S. Tanenbaum, "*Computer Networks*", Fourth Edition, Prentice Hall, 2003.
2. Behrouz A. Furouzan, "*Data Communication and Computer Networks*", Tata McGraw-Hill , 2004
3. James F. Kurose, Keith W. Ross, "*Computer Networking A Top Down Approach*", Pearson International Edition, 2008.
4. William A. Shay, "*Understanding Data Communications and Networks*", Thomson Asia, Singapore, 2001.
5. William Stalling, "*Data and Computer Communication*", Pearson Education, 2002.

Other References

1. MIT Digital Library [<http://dspace.mit.edu>]
2. MIT Open Courseware [<http://ocw.mit.edu>]
3. IEEE Journals
4. Request For Comments (RFCs)

Thank You

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