



Course Overview

Course Details

Course Name: Computer Networks: From LANs to the Internet

Instructor: Arun Kumar

Created On: 16 June, 2025

Updated On: 16 June, 2025

Price: 6500 INR

Duration: 8 weeks

Modules: 6

Language: English, Hindi

Level: Intermediate

Certifications: Yes

Course Description

This course unravels the magic of computer networks. We explore the layered architecture of networking, primarily through the lens of the TCP/IP model. You'll learn about everything from the physical cables to the application protocols that power the web. We cover IP addressing, subnetting, routing, and the critical differences between TCP and UDP. You will understand the role of essential services like DNS and DHCP that make the internet work seamlessly.

What You'll Learn:

- The TCP/IP and OSI layered models.

- The function of switches, routers, and hubs.
- IP Addressing (IPv4/IPv6) and Subnetting.
- Transport Layer protocols: TCP and UDP.
- Application Layer protocols: HTTP, DNS, DHCP, FTP.
- Fundamentals of network security.

Who Is This Course For?

Essential for computer science students and anyone pursuing a career in networking, cloud computing, or cybersecurity. No prior networking experience is assumed.

Course Curriculum Details

Module 1: Module 1: Introduction to Networks

1 Lessons

1. Network Models (OSI, TCP/IP) 30min

Module 2: Module 2: The Physical & Data Link Layers

2 Lessons

1. Transmission Media 20min

2. Ethernet and MAC Addresses 30min

Module 3: Module 3: The Network Layer

2 Lessons

1. IP Addressing and Subnetting 45min

2. How Routers Work 25min

Module 4: Module 4: The Transport Layer

2 Lessons

1. TCP vs. UDP 30min

2. Ports and Sockets 25min

Module 5: Module 5: The Application Layer

1 Lessons

1. DNS, HTTP, and HTTPS 40min

Module 6: Module 6: Network Security

1 Lessons

1. Firewalls and Basic Security Principles 30min

This curriculum is subject to minor adjustments to ensure the most up-to-date and effective learning experience.