Mindluster Platform

About the course Computer Networking Fundamentals

This Computer Networking Fundamentals course is designed to give learners a solid foundation in the essential concepts of modern networking. Whether you are a beginner or looking to strengthen your IT skills, this course will guide you step by step through key topics such as network types, topologies, the OSI and TCP/IP models, IP addressing, subnetting, and common network protocols like HTTP, DNS, and FTP. You will also explore how data is transmitted across networks, understand the basics of routing and switching, and gain insights into network security principles. Throughout the course, you will learn through clear explanations and practical examples that make complex concepts easy to understand. By the end of this course, you will be able to identify network components, troubleshoot basic connectivity issues, and build a strong base for advanced networking studies or IT career paths. This course is ideal for students, beginners, and anyone interested in starting a career in networking or information technology.

Computer Science Category's Courses

Course Lesson(50)

Lesson 1 :
Lec 1 Computer Networks and Security Full Syllabus for GATE UGC NET DSSSB NIELIT University exam

Lesson 2 :
Lec 2 Introduction to Computer Network OSI MODEL in easiest Way in Hindi Need of OSI model

Lesson 3 : **LAN MAN WAN PAN CAN Computer Networks**

Lesson 4 : **Lec 3 TCP IP Protocol Suite Internet Protocol Suite OSI vs TCP IP**

Lesson 5 : **Lec 4 Physical layer in computer networks in hindi Functions of Physical layer OSI**

Lesson 6 :
Lec 5 Topologies in Computer Networks Part 1 All imp points of Mesh Star Hub Bus Hybrid

Lesson 7 :
Lec 6 Topologies in Computer Networks Part 2 All imp points of Mesh Star Hub Bus Hybrid

Lesson 8 :
Lec 7 Manchester encoding and differential Manchester encoding in Hindi Computer Network

Lesson 9 :
Lec 8 Various Devices In Computer Networks Hardware and Software Devices Communicating devices

Lesson 10 : **Lec 9 Types Of Cables in Computer Networks Coaxial twisted pair fibre optic cable**

Lesson 11 : **Lec 10 Repeaters in Computer Networks Physical layer devices**

Lesson 12 : **Lec 11 Hub in Computer Networks Physical layer devices**

Lesson 13 : **Lec 12 Bridges In Computer Networks Physical and data link layer device**

Lesson 14 : **Lec 13 Switch Hub Bridge Explained What s the difference**

Lesson 15 : **Lec 14 Routers in Computer Networks Physical data link and network layer device**

Lesson 16 :
Lec 15 Collision Domain Vs Broadcast Domain Repeater Hub Bridge Switch Router Networks

Lesson 17 : **Lec 16 What is Circuit Switching in Computer Networks in Hindi**

Lesson 18 : **Lec 17 Packet Switching In Computer Networks Imp for GATE and UGC NET**

Lesson 19 :
Lec 18 Datagram Switching Vs Virtual Circuit Switching in Packet Switching Computer Networks

Lesson 20 : **Lec 19 What is Message Switching In Computer Networks**

Lesson 21 : **Lec 20 Unicast Broadcast Multicast in Computer Networks**

Lesson 22 : **Lec 21 Data link layer in computer Networks and its Responsibilities**

Lesson 23 : **Lec 22 Stop and Wait ARQ protocol Data link layer**

Lesson 24 : **Lec 23 Go Back N ARQ Automatic Repeat Request Data Link layer**

Lesson 25 : **Lec 24 Selective Repeat ARQ Automatic Repeat Request Data Link Layer**

Lesson 26 :
Lec 25 Various Flow Control Protocols Stop Wait GoBackN Selective repeat in Data Link Layer

Lesson 27 : **Lec 26 Framing in Data Link Layer Bit Stuffing vs Byte Character Stuffing**

Lesson 28 : **Lec 27 Introduction to Error detection and Correction Computer Networks**

Lesson 29 : **Lec 28 Single Bit Parity along With Hamming Distance Concept Error Control**

Lesson 30 :
Lec 29 Cyclic Redundancy Check CRC for Error Detection and Correction Computer Networks

Lesson 31 : **Lec 30 Hamming Code for Error Detection Correction both with easiest examples**

Lesson 32 : **Lec 31 Various Media Access Control Protocols in Data Link Layer Computer Networks**

Lesson 33 : **Lec 32 What is Pure Aloha in Hindi MAC Layer Protocol**

Lesson 34 : **Lec 33 Pure Aloha Vs Slotted Aloha with all imp points in Hindi Computer Networks**

Lesson 35 : **Lec 34 Carrier Sense Multiple Access in Computer Network CSMA Computer Networks**

Lesson 36 : **Lec 35 Carrier Sense Multiple Access Collision Detection CSMA CD Computer Networks**

Lesson 37 : **Lec 36 CSMA CA in Computer Network Full Explanation**

Lesson 38 : **Lec 37 GATE Question on CSMA CD GATE 2015**

Lesson 39 : **Lec 38 Ethernet Frame Format IEEE 802 3 in Data Link Layer**

Lesson 40 : **Lec 39 Token Ring IEEE 802 5 in Computer Networks**

Lesson 41 : **Lec 40 Network Layer Responsibilities of Network Layer OSI Model Computer Networks**

Lesson 42 :
Lec 41 Class A in IP addressing with Example in HINDI Classful Addressing Network Layer

Lesson 43 :
Lec 42 Class B in IP addressing with Example Classful Addressing in hindi with most easiest way

Lesson 44 : **Lec 43 Class C in IP addressing with Example Classful Addressing Network Layer**

Lesson 45 :
Lec 44 Class D Class E in IP addressing with Example Classful Addressing Network Layer

Lesson 46 :
Lec 45 Find Range Network Id Host Broadcast address with Numerical Examples in Hindi

Lesson 47 : **Lec 46 Disadvantages of Classful Addressing IP addressing Computer Networks**

Lesson 48 : **Lec 47 What is Classless Addressing CIDR in Hindi CIDR vs Classful Addressing**

Lesson 49 : **Lec 48 Subnetting in Classful Addressing with Examples in Hindi Computer Networks**

Lesson 50 :
Lec 49 Variable Length Subnet Masking VLSM in Hindi with Examples Computer Networks

Related courses

Linear Algebra for Computer Scientists

Insertion Sort

Bubble Sort

GCSE Computer Science

Random Access Memory

Binary Trees

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