

# Networking Fundamentals

Concepts	Reference Articles
What is a Network or Networking?	
Data Transmission Modes - Simplex, Half Duplex, Full Duplex	<a href="https://www.geeksforgeeks.org/transmission-modes-computer-networks/">https://www.geeksforgeeks.org/transmission-modes-computer-networks/</a>
Types of Networks - PAN, LAN, MAN, WAN, GAN, VPN	<ul style="list-style-type: none"> <li>• <a href="https://www.geeksforgeeks.org/types-of-computer-networks/">https://www.geeksforgeeks.org/types-of-computer-networks/</a></li> <li>• <a href="https://www.javatpoint.com/types-of-computer-network">https://www.javatpoint.com/types-of-computer-network</a></li> </ul>
What is Network Topology?	<a href="https://www.geeksforgeeks.org/types-of-network-topology/">https://www.geeksforgeeks.org/types-of-network-topology/</a>
Types of Network Topologies - Star, Ring, Bus, Mesh, Tree, Hybrid	
Networking Devices - Hub, Repeater, Bridge, Switch, Routers, Network Interface Card (NIC), Gateway, MODEM	<a href="https://www.geeksforgeeks.org/network-devices-hub-repeater-bridge-switch-router-gateways/">https://www.geeksforgeeks.org/network-devices-hub-repeater-bridge-switch-router-gateways/</a>
OSI Reference Model (7 Layers of Data Transmission) - Understand the working of each layer and protocols	<ul style="list-style-type: none"> <li>• <a href="https://www.cloudflare.com/learning/ddos/glossary/open-systems-interconnection-model-osi/">https://www.cloudflare.com/learning/ddos/glossary/open-systems-interconnection-model-osi/</a></li> <li>• <a href="https://www.javatpoint.com/osi-model">https://www.javatpoint.com/osi-model</a></li> </ul>
TCP/IP Model - Understand the working of each layer in comparison of OSI model and different protocols working in each layer OSI and TCP/IP Comparison	<ul style="list-style-type: none"> <li>• <a href="https://www.javatpoint.com/computer-network-tcp-ip-model">https://www.javatpoint.com/computer-network-tcp-ip-model</a></li> <li>• <a href="https://www.geeksforgeeks.org/tcp-ip-model/">https://www.geeksforgeeks.org/tcp-ip-model/</a></li> </ul>
What is IP Address, MAC Address, Port Address?	<a href="https://www.tutorialspoint.com/ipv4/ipv4_addressing.htm">https://www.tutorialspoint.com/ipv4/ipv4_addressing.htm</a>
What is IP addressing? How it works? IP Address Classes - Class A, B, C, D and E	<ul style="list-style-type: none"> <li>• <a href="https://www.geeksforgeeks.org/introduction-of-classful-ip-addressing/">https://www.geeksforgeeks.org/introduction-of-classful-ip-addressing/</a></li> <li>• <a href="https://www.tutorialspoint.com/ipv4/ipv4_address_classes.htm">https://www.tutorialspoint.com/ipv4/ipv4_address_classes.htm</a></li> </ul>
Important Protocols to focus on - DNS, Working of DNS (Important), DHCP, TCP and UDP, SMTP, ARP, ICMP, POP3 and IMAP, FTP, HTTP and HTTPS, Telnet	<ul style="list-style-type: none"> <li>• <a href="https://www.tutorialspoint.com/internet_technologies/internet_protocols.htm">https://www.tutorialspoint.com/internet_technologies/internet_protocols.htm</a></li> <li>• <a href="https://www.geeksforgeeks.org/types-of-network-protocols-and-their-uses/">https://www.geeksforgeeks.org/types-of-network-protocols-and-their-uses/</a></li> </ul>
What is a Subnet and Subnetting? What is the need of Subnetting? How is it done? - Subnetting of IP addresses of different classes	<ul style="list-style-type: none"> <li>• <a href="https://www.solarwinds.com/resources/it-glossary/subnetting">https://www.solarwinds.com/resources/it-glossary/subnetting</a></li> <li>• <a href="https://www.javatpoint.com/subnetting-in-computer-networks">https://www.javatpoint.com/subnetting-in-computer-networks</a></li> </ul>

## Some Networking Playlists – YouTube

### Hindi

Technical Guftagu	<a href="https://www.youtube.com/playlist?list=PLBGx66SQNZ8ZvdloctCTWB3ApXQpQGEin">https://www.youtube.com/playlist?list=PLBGx66SQNZ8ZvdloctCTWB3ApXQpQGEin</a>
-------------------	---

### English

Practical Networking	<a href="https://www.youtube.com/playlist?list=PLIFyRwBY_4bRLmKfP1KnZA6rZbRHtxmXi">https://www.youtube.com/playlist?list=PLIFyRwBY_4bRLmKfP1KnZA6rZbRHtxmXi</a>
Network Direction	<a href="https://www.youtube.com/playlist?list=PLDQaRcbiSngF5U8ffMgZzS7fq1rHUI3Q8">https://www.youtube.com/playlist?list=PLDQaRcbiSngF5U8ffMgZzS7fq1rHUI3Q8</a>
Abhishek Veeramalla	<a href="https://www.youtube.com/playlist?list=PLdpzxOOAlwvKv4MFW35XRskZbQbrt6ep-">https://www.youtube.com/playlist?list=PLdpzxOOAlwvKv4MFW35XRskZbQbrt6ep-</a>