PRESENTATION ON WIRELESS EHTERNET PROTOCOL

WHAT IS WIRELESS ETHERNET PROTOCOLS?

Computer Network Computer Engineering MCA. Wireless LANs refer to LANs (Local Area Networks) that use high frequency radio waves instead of cables for connecting the devices. It can be conceived as a set of laptops and other wireless devices communicating by radio signals.

How does wireless Ethernet work?

A WiFi connection transmits data via wireless signals, while an Ethernet connection transmits data over cable. No cables are needed to access a WiFi connection, providing greater mobility for users who can connect to a network or the Internet while moving freely around a space.

WIRELESS LAN PROTOCOL

- Wireless LANs refer to LANs (Local Area Networks) that use high frequency radio waves instead of cables for connecting the devices.
- It can be conceived as a set of laptops and other wireless devices communicating by radio signals. Users connected by WLANs can move around within the area of network coverage. Most WLANs are based upon the standard IEEE 802.11 or WiFi.
- Wireless connectivity entails the use of high frequency radio waves which are transmitted through an access point. An access point is a hardware device that is used as a hub to propagate wireless signals.
- WLAN protocols originated from the 802.11 standard protocol developed by the IEEE (Institute of Electrical and Electronic Engineers) Standards Committee.

CONFIGURATION OF WIRELESS LANS

- **Wireless Access Point (WAP)** – WAPs or simply access points (AP) are generally wireless routers that form the base stations or access points. The APs are wired together using fiber or copper wires, through the distribution system.
- **Client** – Clients are workstations, computers, laptops, printers, smart phones etc. They are around tens of metres within the range of an AP.

TYPES OF WLAN PROTOCOLS

- **802.11 Protocol**- Speeds is 54Mbps. It has a high frequency of 5GHz range
- **802.11b Protocol** - Frequency range of 2.4GHz .Speed is 11Mbps.It uses Carrier Sense Multiple Access with Collision Avoidance (CSMAICA) with Ethernet protocol.
- **802.11g Protocol** - This protocol combines the features of 802.11a and 802.11b protocols. Frequency ranges 5GHz. Speed is 54M
- **802.11b Protocol** - Frequency range of 2.4GHz and supports speed 11Mbps .It uses Carrier Sense Multiple Access with Collision Avoidance (CSMAICA) with Ethernet protocol.
- **802.11n Protocol** - It has a frequency of 2.4 or 5 GHz. It provides very high bandwidth up to 600Mbps and provides signal coverage. It uses Multiple Input/Multiple Output (MIMO), having multiple antennas at both the transmitter end and receiver ends.