FACULTY OF ENGINEERING & TECHNOLOGY

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Topics Covered

Wireless Communication
Types of Wireless Communication
IR wireless communication,
satellite communication,
broadcast radio,
Microwave radio,

Wireless Communication

In the present days, wireless communication system has become an essential part of various types of wireless communication devices, that permits user to communicate even from remote operated areas. There are many devices used for wireless communication like mobiles. Cordless telephones, Zigbee wirelss technology, GPS, Wi-Fi, satellite television and wireless computer parts. Current wireless phones include 3 and 4G networks, Bluetooth and Wi-Fi technologies.

Types of Wireless Communication

The different types of wireless communication mainly include,
IR wireless communication,
satellite communication,
broadcast radio,
Microwave radio,
Bluetooth,
Zigbee etc.

Satellite Communication

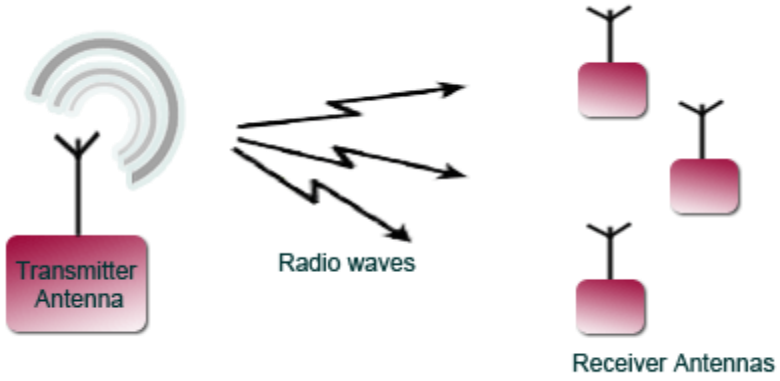
Satellite communication is one type of self contained wireless communication technology, it is widely spread all over the world to allow users to stay connected almost anywhere on the earth. When the signal (a beam of modulated microwave) is sent near the satellite then, satellite amplifies the signal and sent it back to the antenna receiver which is located on the surface of the earth. Satellite communication contains two main components like the space segment and the ground segment.The ground segment consists of fixed or mobile transmission, reception and ancillary equipment and the space segment, which mainly is the satellite itself.

Infrared Communication

Infrared wireless communication communicates information in a device or systems through IR radiation . IR is electromagnetic energy at a wavelength that is longer than that of red light. It is used for security control, TV remote control and short range communications. In the electromagnetic spectrum, IR radiation lies between microwaves and visible light. So, they can be used as a source of communication

Broadcast Radio

The first wireless communication technology is the open radio communication to seek out widespread use, and it still serves a purpose nowadays. Handy multichannel radios permit a user to speak over short distances, whereas citizen's band and maritime radios offer communication services for sailors. Ham radio enthusiasts share data and function emergency communication aids throughout disasters with their powerful broadcasting gear, and can even communicate digital information over the radio frequency spectrum.



Microwave Communication

Microwave wireless communication is an effective type of communication, mainly this transmission uses radio waves, and the wavelengths of radio waves are measured in centimeters. In this communication, the data or information can be transfers using two methods. One is satellite method and another one is terrestrial method.

In terrestrial method, in which two microwave towers with a clear line of sight between them are used, ensuring no obstacles to disrupt the line of sight. So it is used often for the purpose of privacy. The frequency range of the terrestrial system is typically 4GHz-6GHz and with a transmission speed is usually 1Mbps to 10Mbps.