

Propagation of Electromagnetic wave part4 Lecture-21

TDC PART -1

PAPER 1(GROUP B)

Chapter -6

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Uses of Electromagnetic waves

- They are used to transmit short or long or FM wavelength radio waves. They are used to transmit TV or telephone or wireless signals and energies. They are responsible for the transmission of energy in the forms of microwaves, visible light, infrared radiation, ultraviolet light, gamma rays and also X-rays.



Radio waves

- Radio waves are used for communication such as television and radio.
- Radio waves are transmitted easily through air. They do not cause damage if absorbed by the human body, and they can be reflected to change their direction. These properties make them ideal for communications.



Microwaves

- Microwaves are used for cooking food and for satellite communications.
- High frequency microwaves have frequencies which are easily absorbed by molecules in food.



Infrared

- Infrared light is used by electrical heaters, cookers for cooking food, and by infrared cameras which detect people in the dark.



Visible light

- Visible light is the light we can see. It is used in fibre optic communications, where coded pulses of light travel through glass fibres from a source to a receiver.



Ultraviolet radiation

- Ultraviolet radiation can kill bacteria that are present in water - this sterilises the water and makes it safe to drink.
Ultraviolet radiation is also good for the skin as it helps to make vitamin D.
However, too much exposure to UV can cause skin problems.

