



#### SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

#### **An Autonomous Institution**

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A' Grade Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

# DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING-IOT Including CS&BCT

COURSE NAME: 19SB402- NETWORKING AND CYBERSECURITY

II YEAR / III SEMESTER

Unit I- NETWORK AND OSI LAYER

**Topic: Wireless Transmission** 



#### Wireless Transmission



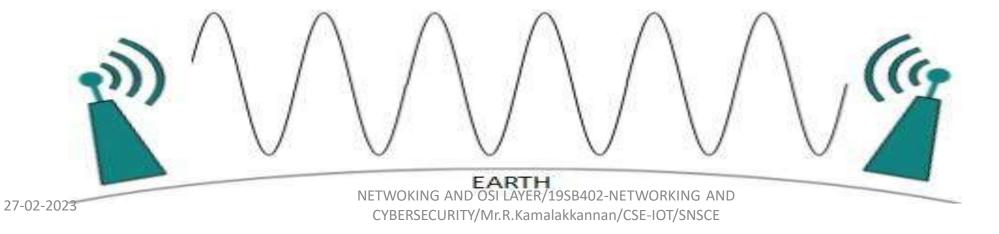
- ➤ It is a unguided Media.
- ➤ No Physical link, between two devices.
- ➤ Wireless Communication (signals).
- > signals Sent over via air.
- > Antennas (Receive, seat Signal).
- ➤ Analog Signal.
- $\triangleright$  Converter used (for A -> D |D A).
- > Electromagnetic Spectrum.
  - $> 10 10^{-1} ->$ Raid waves.
  - $\gt 10^{-3}$  ->micro waves.
  - $\gt 10^{-5} \rightarrow \text{interred}.$
  - $> 10^{-7}$  -> Ultra violet( $10^{-7}$   $10^{-9}$ )
  - $> 10^{-9} 10^{-11} -> X \text{ rays.}$
  - $> 10^{-11} 10^{-3} -> Gamma rays.$



#### **Wireless Transmission Cont..**



- $\triangleright$  Radio Wavelength -> 1mm 100,000km.
- ➤ Radio frequency range -> 3Hz to 300GHz.
- $\triangleright$  Microwave wavelength -> 1mm 1meter.
- > Frequency range -> 300MHz to 300Ghz.
- ➤ Infrared Transmission wavelength -> 700nm to 1mm.
- > Frequency range -> 300GHz 430THz.







## **Any Queries**





### Thank You!