

# Unit-1

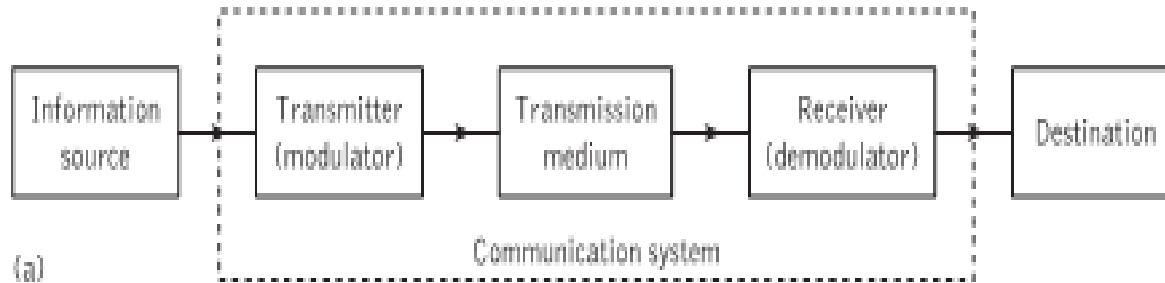
## Lecture -1

Introduction to Communication systems

# Introduction to General Communication

- To convey the message in the signal form from information source over the transmission medium to destination.
- Having Three main components:
  - Transmitter ( Tx)
  - Transmission Medium
  - Receiver (RX)

# Block Diagram of General Comm. system



- Tx : To generate the msg. and convert it into a form suitable for transmission over the information channel
- Rx : Receiver receives the msg from information channel & convert into desirable form.

- Information Channel :

Guided Medium

Unguided Medium

➤ Unguided Medium :

Atmosphere is an unguided type of channel where information spread in space

Having advantage like better directional resolution with smaller Tx and Rx aperture.

Having Disadvantages like atmospheric effects, high noise at Rx, low efficiency, required accurate tracking etc.

## ➤ Guided Medium :

Channel which guided the E.M. waves through them  
e.g. Two wire lines, Coaxial cables, waveguides etc.

Having advantages of privacy, no weather dependance, low attenuation, low dispersion etc.