Communication Systems

Lecture - 2

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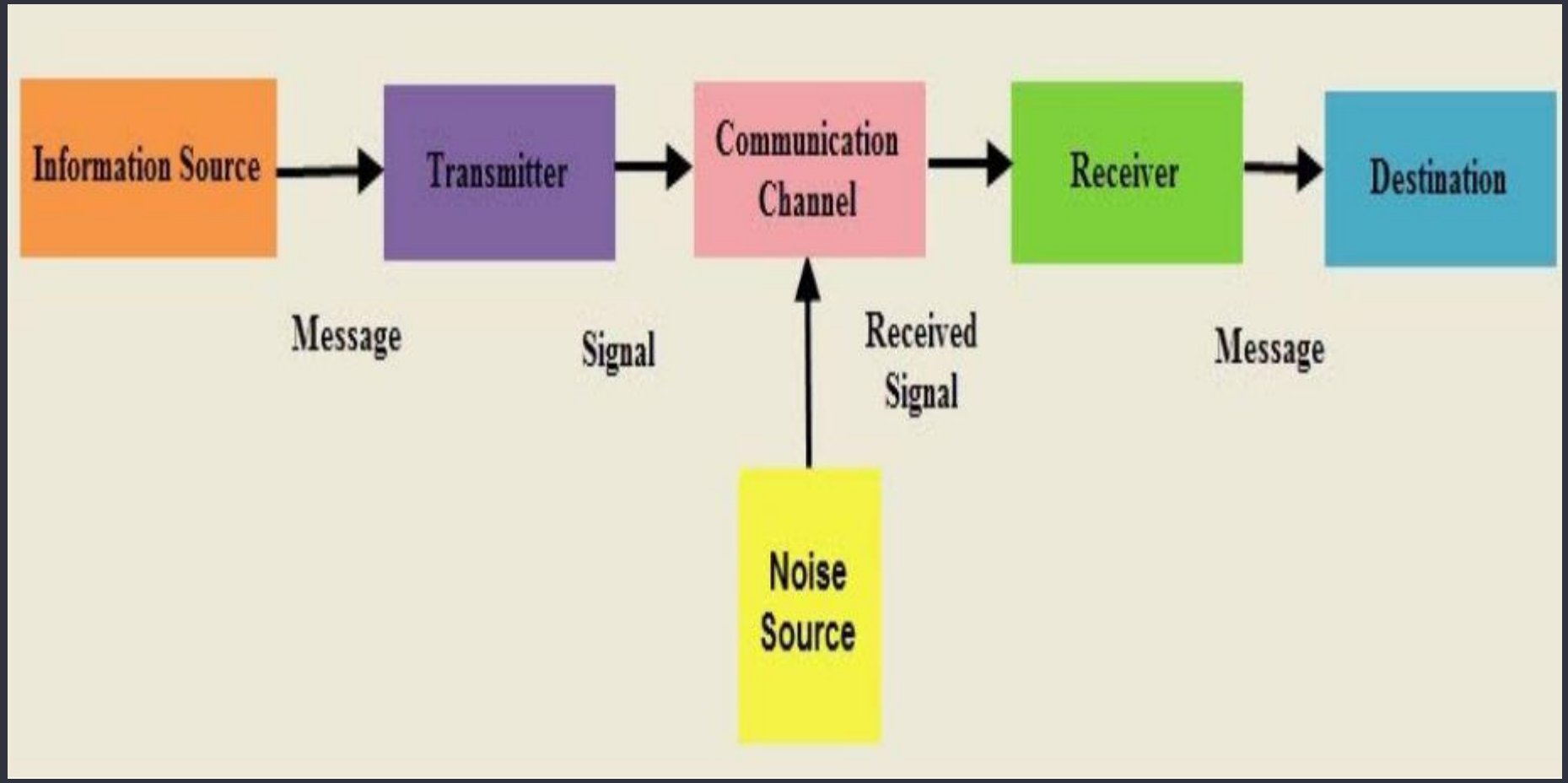
Information Source
Transmitter
Communication Channel
Receiver
Destination
Message
Signal
Received Signal
Message
Noise Source

Signal: Information converted into electrical form and suitable for transmission is called signal.

Types of signal or communication

1. Analog signal
2. Digital Signal
3. Radio Signal

Analog signal (Analog communication)

- A signal in which information is changed to a voltage or current that varies continuously and smoothly over a range of values is called an Analog signal .
- In analog communication the out voltage varies in accordance with input voltage variation.
- In this communication ,the output voltage have an infinite number values .
- Due to many - valued output , the analog operation is less reliable .

Example

- The loudness and pitch of a sound determine the amplitude and frequency , respectively of the waveform of the voltage produced by microphone on which the sound falls .
- Analog electronics deals with the processing of analog signals , e.g, in radio and television systems .

Digital signal (Digital communication)

- A signal that can have only two discrete values is called a digital signal .
- In digital signal , information is converted into pulse produced by switching action ON or OFF , e.g., logic gates .
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- Digital operation is more reliable than many –valued analog operation .
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