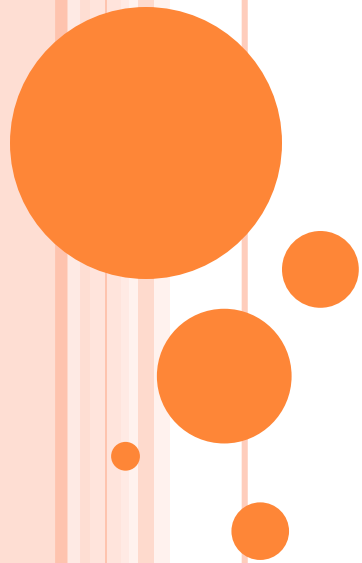
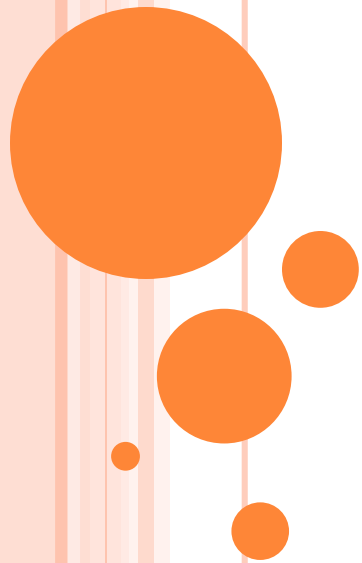


# **BASIC OF ELECTRONIC COMMUNICATION**



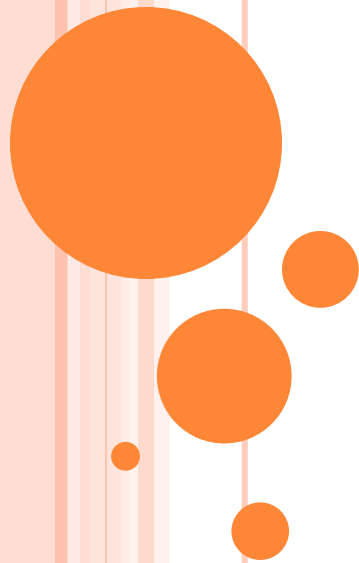
**By :- Abhishek Bauriya**  
**Roll No. 47**

# BASIC OF ELECTRONIC COMMUNICATION



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- ✓ Types of signals
- ✓ Basic communication systems
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- ✓ Noise
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# INTRODUCTION

Communication : A communication system is the process of exchanging information. (i.e. used as conveying thoughts, ideas and feelings to one another.)

Examples :

1. Satellite communication
2. cable TV
3. mobile telephones etc.



# TYPES OF SIGNALS

- Signal can be of two types namely
  1. Analog signals
  2. Digital signals



- **Analog signal** : It is the signal in which the signal magnitude varies in a smooth way without any break with respect to time.
- **Digital signal** : It is the signal in which the signal magnitude has a constant level for some period of time, then it changes suddenly to another constant level.

Examples : Binary signal, Hexadecimal signal etc.



# BASIC COMMUNICATION SYSTEM

**Input transducer**

Information signal or input



**Transmitter**

Information into electrical form



**Communication Channel or medium**

Noise



**Receiver**

Recovered information in electrical form



**Output transducer**

Information in the original form

# *NOISE IN COMMUNICATION SYSTEM AND TYPES*

Definition : Noise is an unwanted electrical disturbance which gives rise to audible or visual disturbances in the communication systems, and errors in the digital communication.



# Noise

## External

- Atmospheric
- Man-made
- Extraterrestrial

## Internal

- Shot noise
- Thermal noise
- Transit noise
- Flicker noise
- Partition noise



# EXTERNAL NOISE

**Atmospheric noise** : This noise are originated from sputtering, cracking, loud speakers of radio is due to atmospheric noise.

**Extraterrestrial noise** : Noise originating from the sun and the outer space is known as Extraterrestrial noise .

**Man-made noise (Industrial noise)** : The man made noise is generated due to the make and break process in a current carrying circuit.

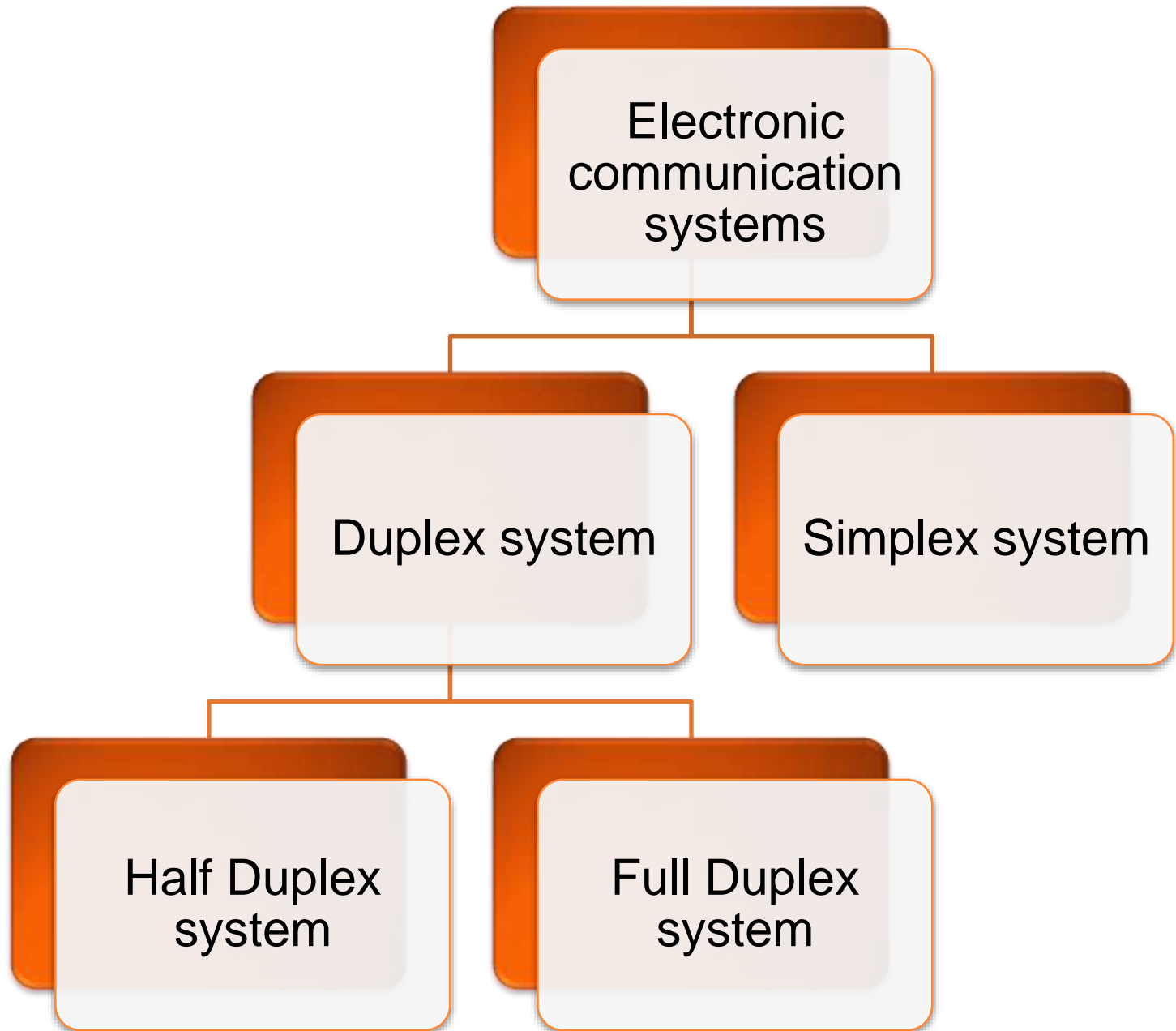


# INTERNAL NOISE

The noise generated within the electronic devices or circuits is called as internal noise.

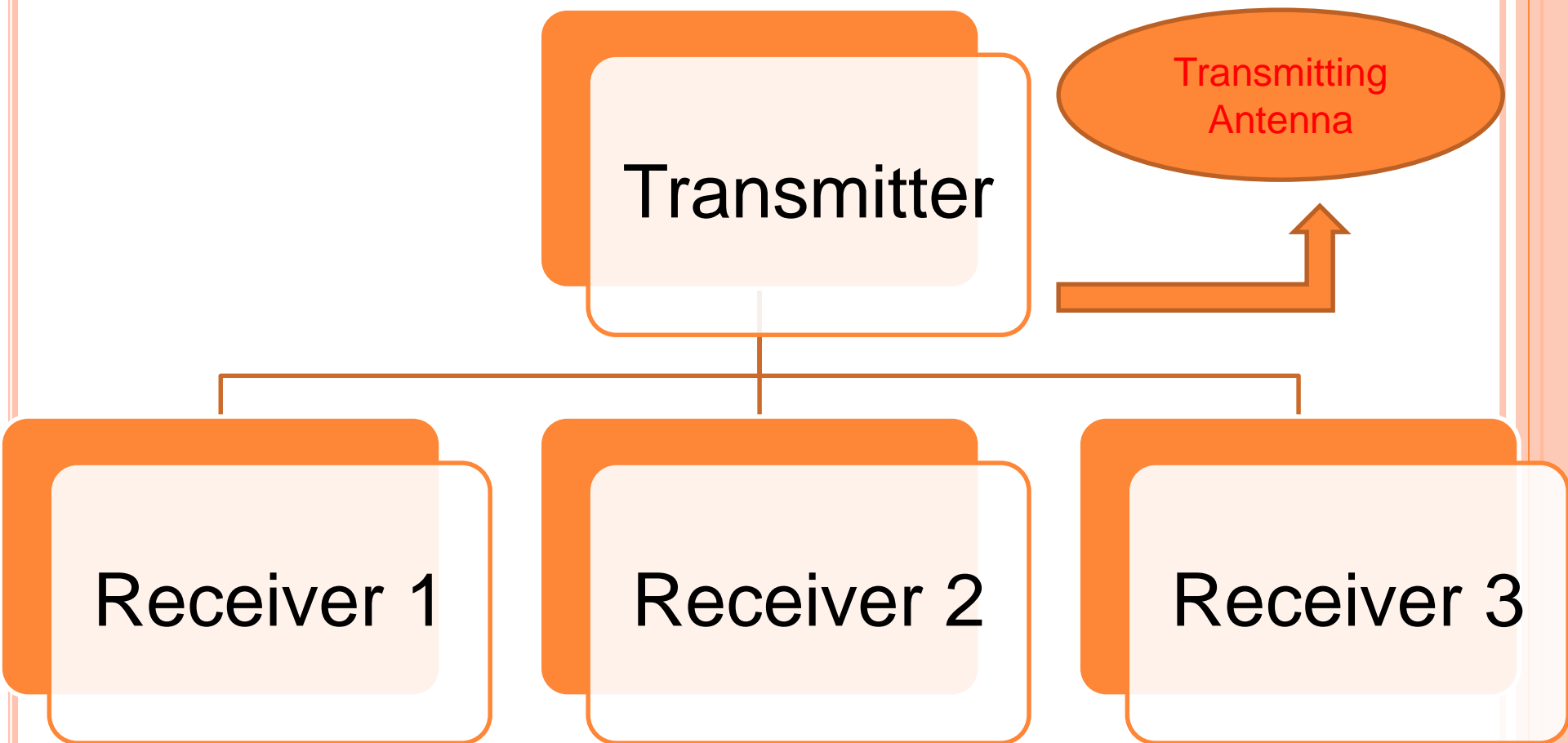


# TYPES OF ELECTRONICS COMMUNICATION



# SIMPLEX SYSTEMS

- In these system information is communicated in only one direction.
- Examples: Radio, TV broadcasting system.



**Half duplex systems :** These system are bidirectional i.e. they can transmit as well as receive but not simultaneously.

Examples: Walky talky set.

**Full duplex systems :** These system are truly bidirectional i.e. they allow the communication to take place in both directions simultaneously.

Examples: Telephone systems.



# APPLICATIONS OF COMMUNICATION SYSTEMS

Simplex (One way) :

- AM and FM broadcasting
- Cable TV
- Fax
- Pagers
- Telemetry

Duplex (Two way) :

- Telephones
- Two way radio
- Radar
- Sonar
- Amateur radio



# **REFERENCES**

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Thank You

