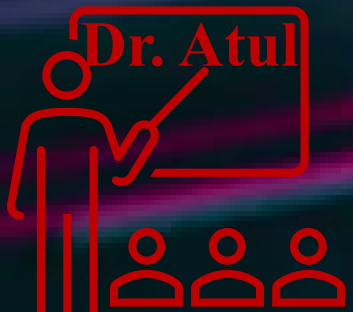


# Fundamentals of Communication Systems



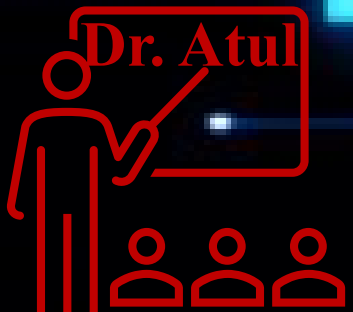
# Wireless Communication Systems

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# Overview

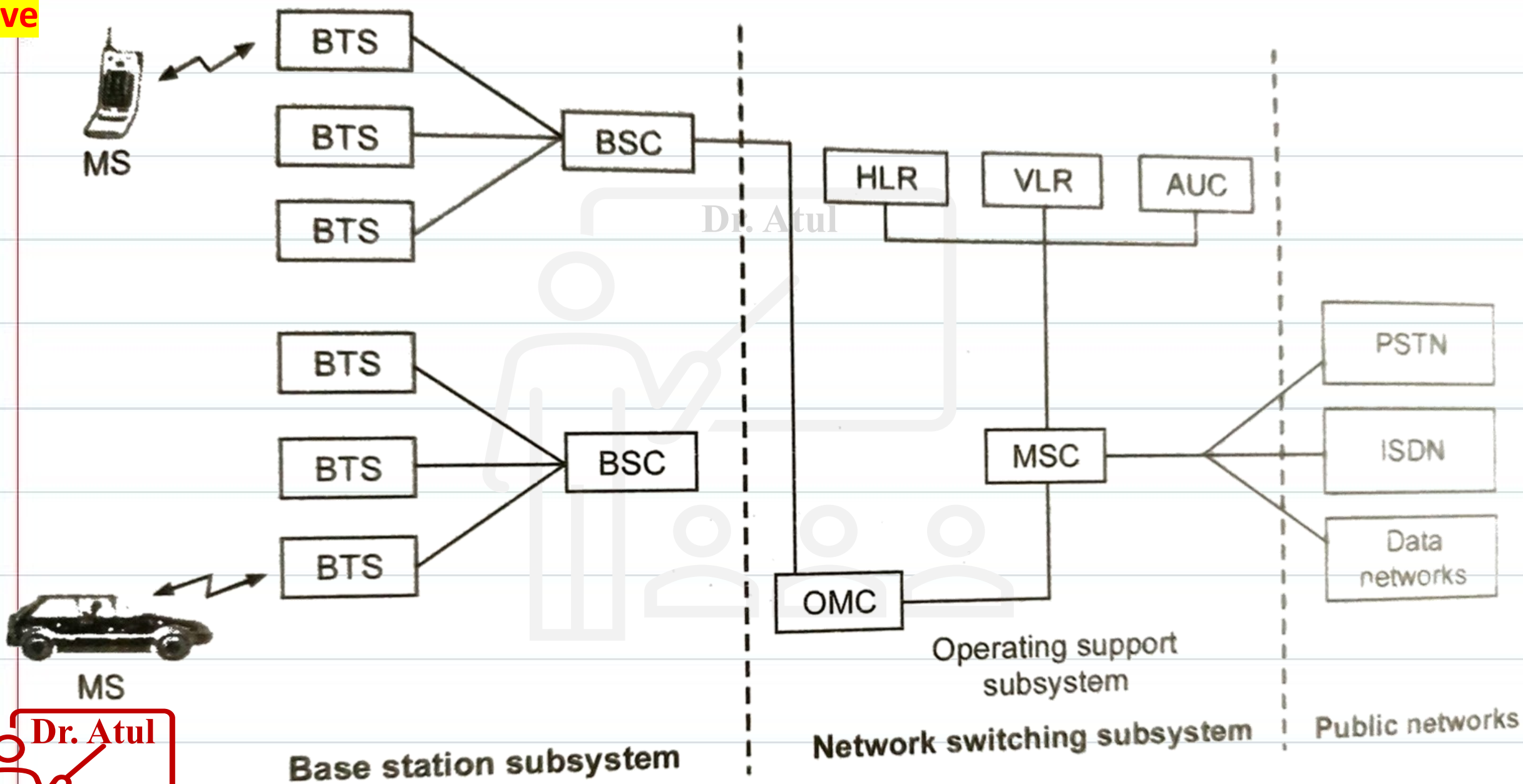
- It is a method of transmitting information from one point to other without using any physical connection.
- Examples of wireless communication are cellular communication using mobile phone, TV remote control, Bluetooth, wifi, television, satellite and radar etc
- Transmission and reception in wireless communication is established with the help of Antennas.
- Electromagnetic waves are used to carry signals in wireless medium
- Wireless systems are mobile, less costly, easy to install, reliable and can be established in remote areas.



# Cellular Communication

- Cellular communication is also known as mobile communication or mobile telephone system.
- Cellular communication is generally performed with the help of GSM system architecture
- In GSM System architecture every hardware mobile equipment (ME) which have SIM card is called Mobile station (MS).
- The Complete architecture is divided into three parts
  - Base station subsystems
  - Network switching subsystem
  - Public Networks





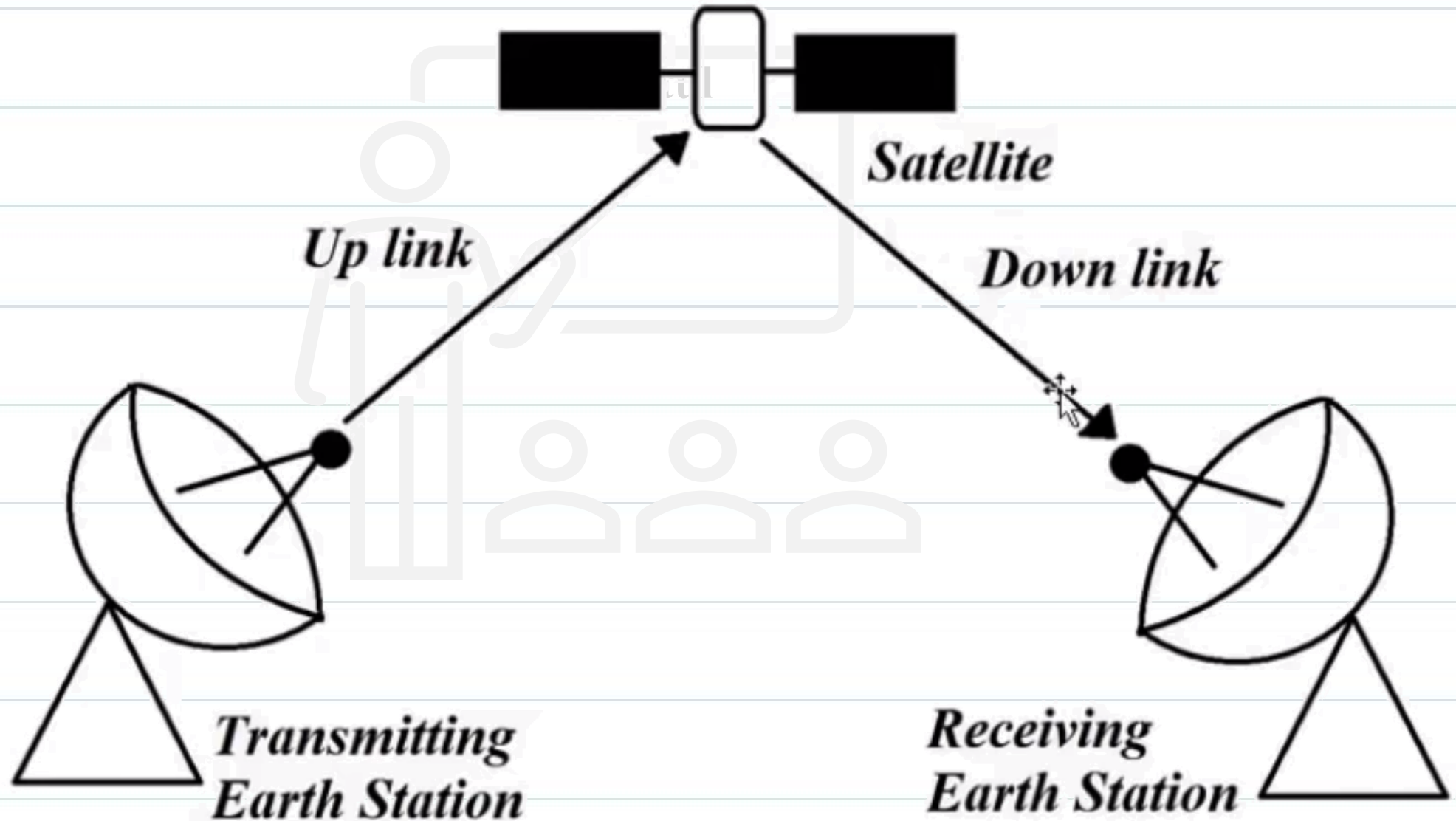


# Satellite Communication

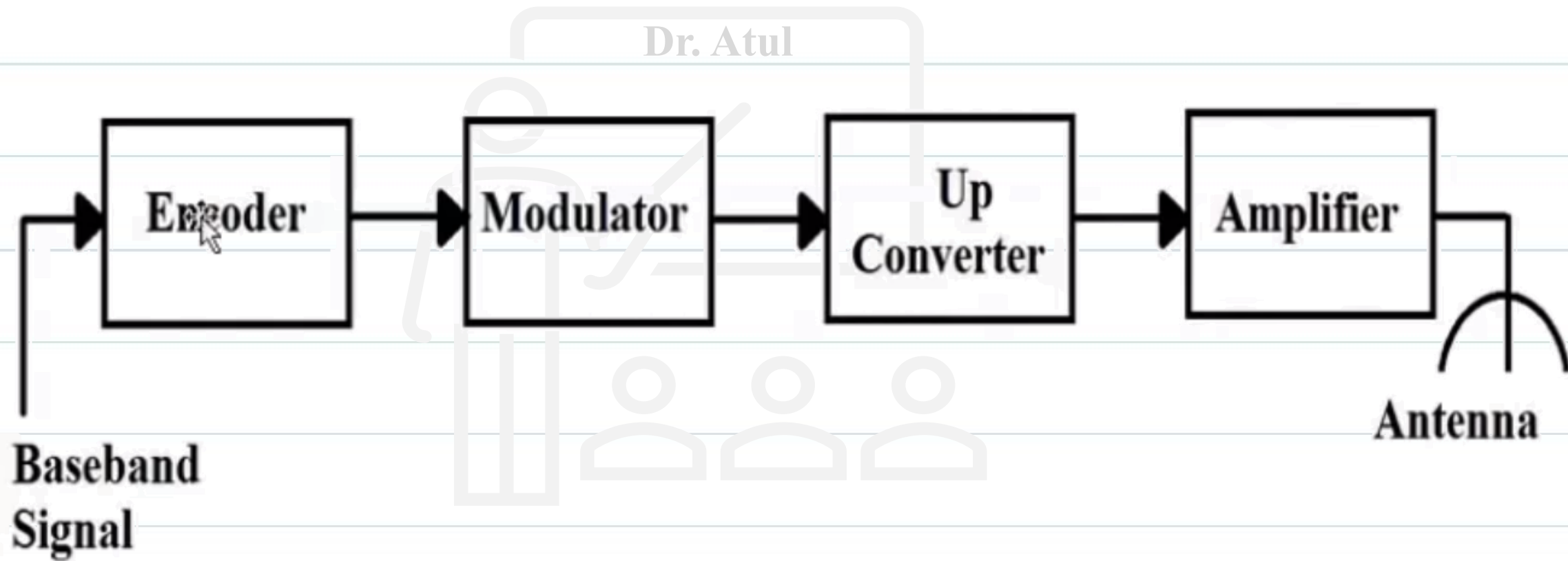
- Satellite communication is the use of artificial satellites to provide communication links between various points on Earth.
- There are two types of artificial satellites used in satellite communication: passive and active satellites.
- Apart from communication, satellites are also used for oil exploration, forest surveys, finding underground water, exploring mineral wealth, weather forecasts, and disaster warnings.
- Satellites have made communication faster and cheaper than before.



# Block diagram of Satellite communication

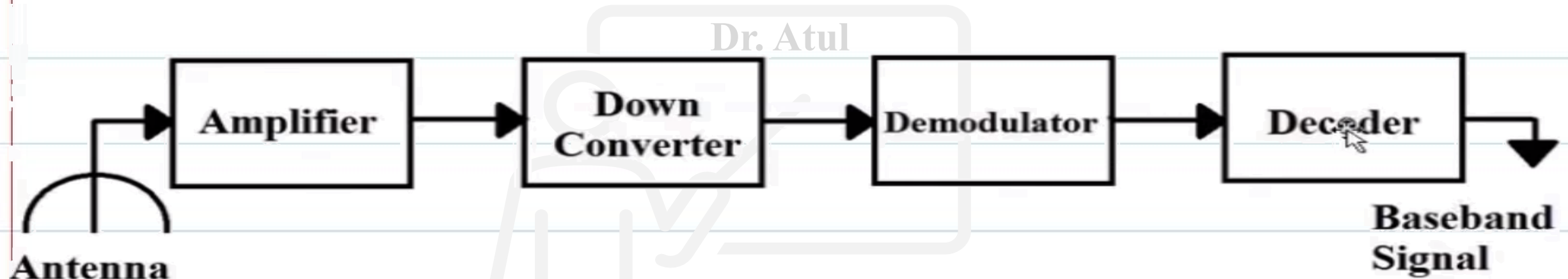


# Block diagram of Satellite Transmitter





# Block diagram of Satellite Receiver



# Thanks for watching

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