

# Data Communication Network

# Data Communication Systems

- Data communications are the exchange of data between two devices using one or multiple forms of transmission medium using a predetermined transmission mode.
- Systems that facilitates this movement of data between devices or end-points are called data communication networks.
  - Five (5) components make up a data communication network.
  - Devices can be both hardware and software.

# Components of a Data Communications Network

1. Data
2. Sender
3. Receiver
4. Transmission Medium
5. Protocol



# Data

- Communication of data means a message or data will be transmitted from one device and will be received in the destination or target device.
  - Data or message can be of various forms such as text, audio, video, image or combinations of these forms etc.

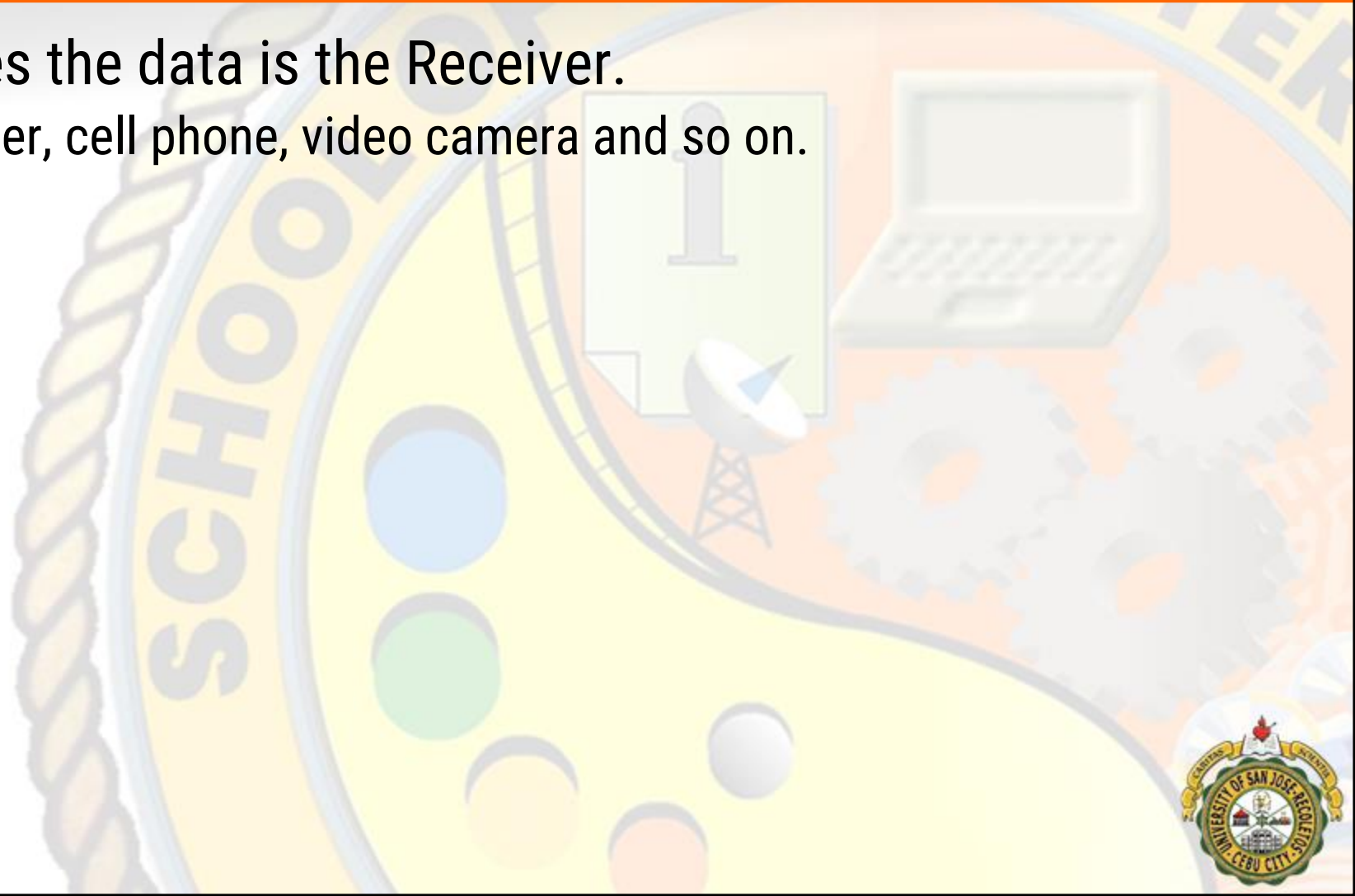


# Sender

- The device that sends the data or message to the destination or target is the Sender.
  - Can be a computer, cell phone, video camera and so on.

# Receiver

- The device that receives the data is the Receiver.
  - Can again be a computer, cell phone, video camera and so on.



# Transmission Medium

- In a data communication network, the transmission medium is the physical path for the data to travel to its destination.
- Sender sends the data at one end of this path and the Receiver receives from the other end of the path.
  - Transmission medium could be like twisted-pair cable, coaxial cable, fiber-optic cable etc.

# Protocol

- A set of rules that applies on the full data communication procedure.
- An agreement between the two devices to successfully communicate with each other.
  - For example, how to send the data, how the data will be traveling, how to ensure that full data has received, how to handle errors in transmission etc.
- Both devices follow the same set of rules or protocol so that they understand each other.





# End of Topic