



# SNS COLLEGE OF ENGINEERING

Kurumbapalayam(Po), Coimbatore – 641 107

Accredited by NAAC-UGC with 'A' Grade

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## Department of AI & DS

### Course Name – Internet of Things & AI III Year / V Semester

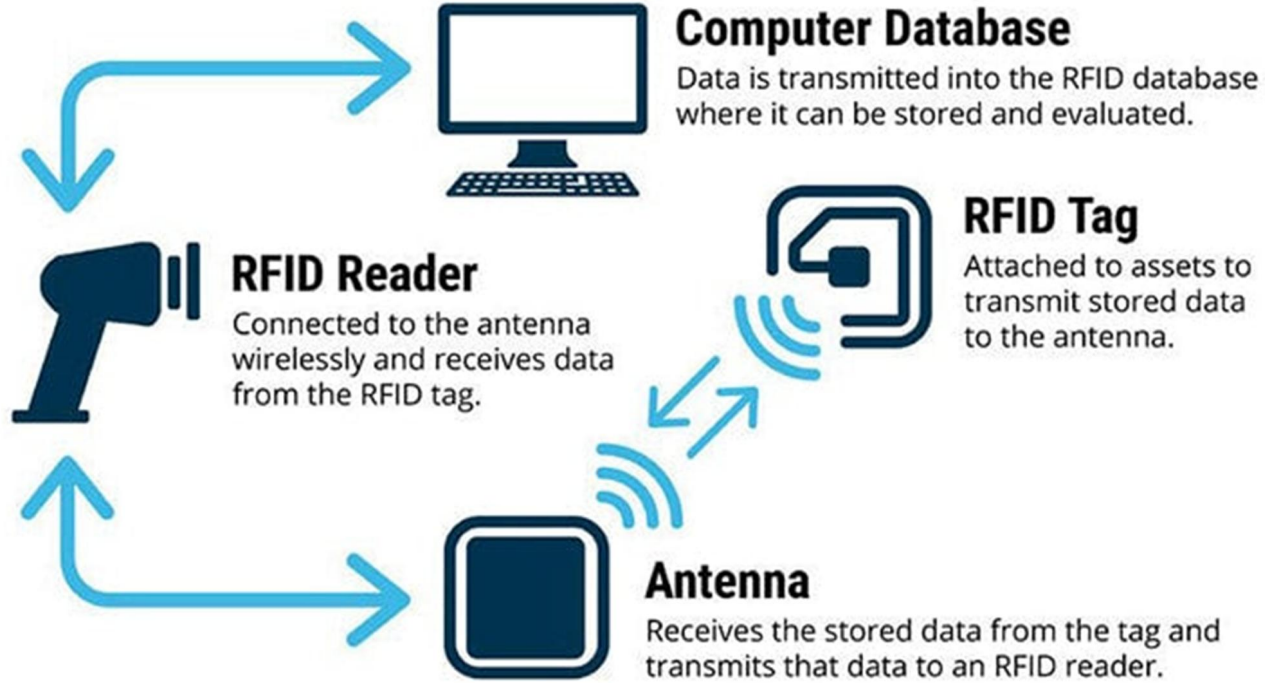
#### CONNECTIVITY TECHNOLOGIES AND COMMUNICATION PROTOCOLS



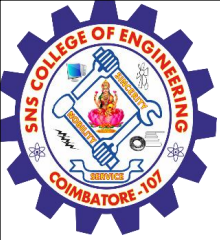
# Key componets of RFID



- RFID tag
- RFID antenna
- RFID reader
- RFID station







- **Readers**

- The reader is a device which has one or more antennas that send and receive electromagnetic signals back from RFID tags
- There are two types of readers:
- **Fixed readers**, when the reader and antenna are installed in a specific place where RFID tags pass. For example, you can check out at [Amazon Go](#) without going to a cashier. You just walk through an RF zone and the reader receives the tag data.
- **Mobile readers**, which are handheld devices that can be carried anywhere.



# RFID TAGS TYPE



- **Active RFID tags:** tags that have their own power source and can read in a range of 100+ meters
- **Passive RFID tags:** tags that don't have a power source. Electromagnetic energy from the reader powers a passive RFID tag. This gives them a read distance from close contact to 25 meters.
- passive tags are most often used in RFID applications. You can embed them into an adhesive label or into the object itself. Passive tags are low-cost, so they are better in situations where you won't reuse them.
- Passive tags are used to scan at a distance from a few inches to a few feet.