SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

An Autonomous Institution

Accredited by NAAC – UGC with 'A' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

COURSE NAME :19EE603 IoT for Electrical Engineers
III YEAR /VI SEMESTER

Unit 3- Communication Interface

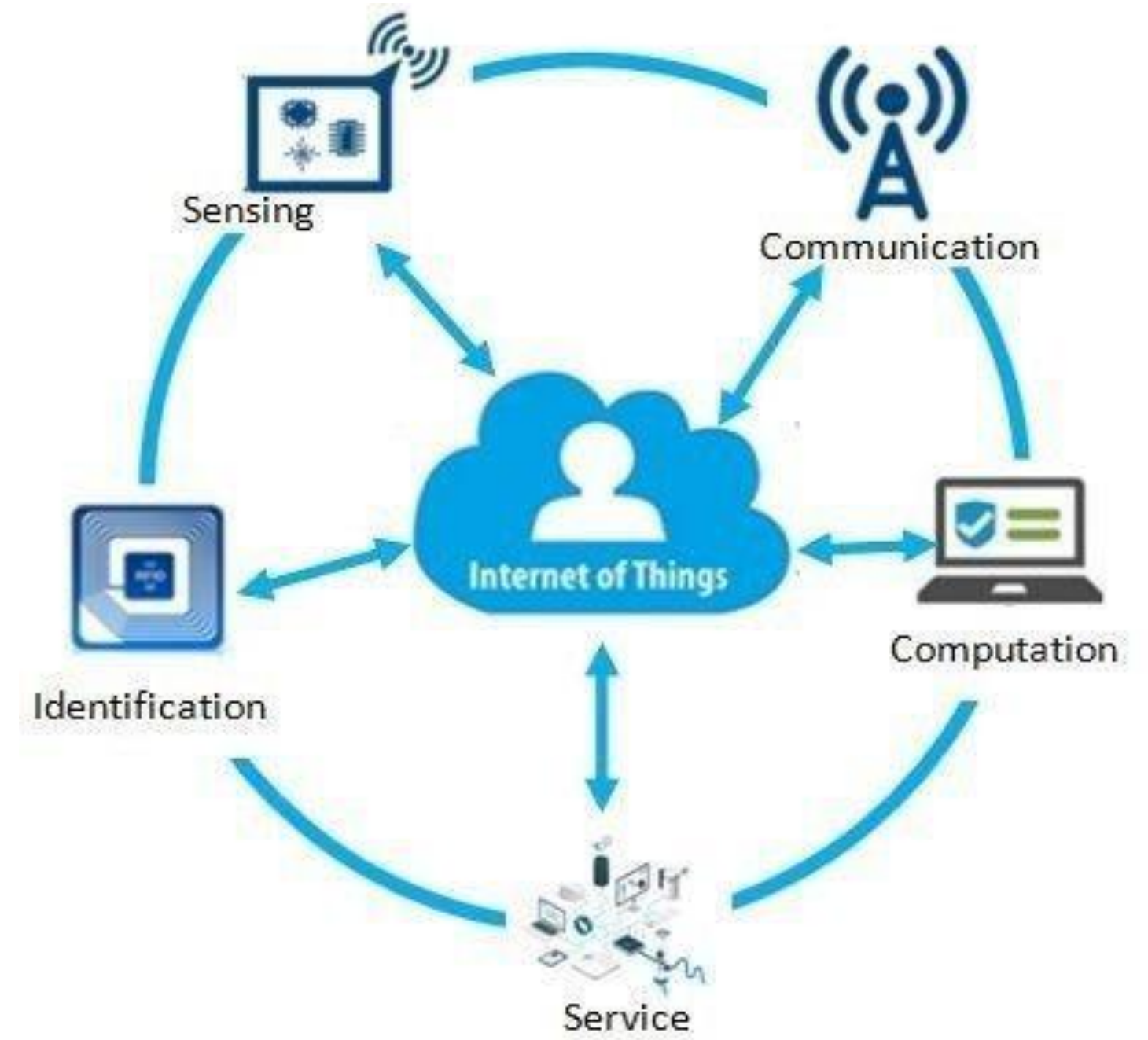## Fundamental Elements of Communication and Interface

WHAT IS COMMUNICATION IN IOT?

COMMUNICATION IN IOT

- IoT Communication defines the infrastructure, technologies and protocols used to connect IoT devices to each other, gateways and cloud platforms.
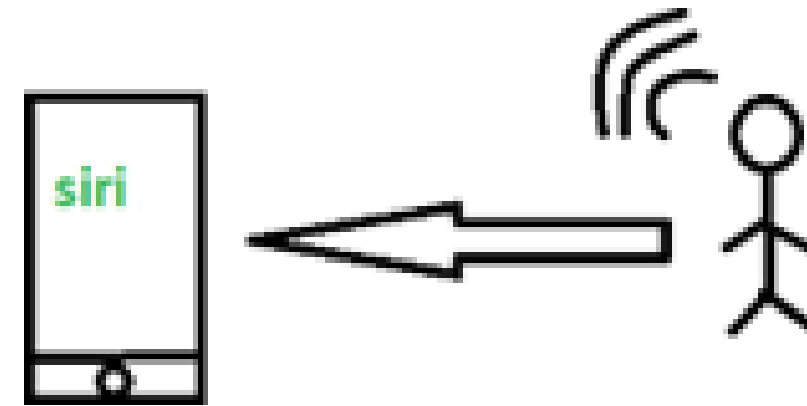
TYPES OF COMMUNICATIONS IN IOT

Human to Machine (H2M):

In this human gives input to IOT device i.e as speech/text/image etc. IOT device (Machine) like sensors and actuators then understands input, analyses it and responds back to human by means of text or Visual Display.
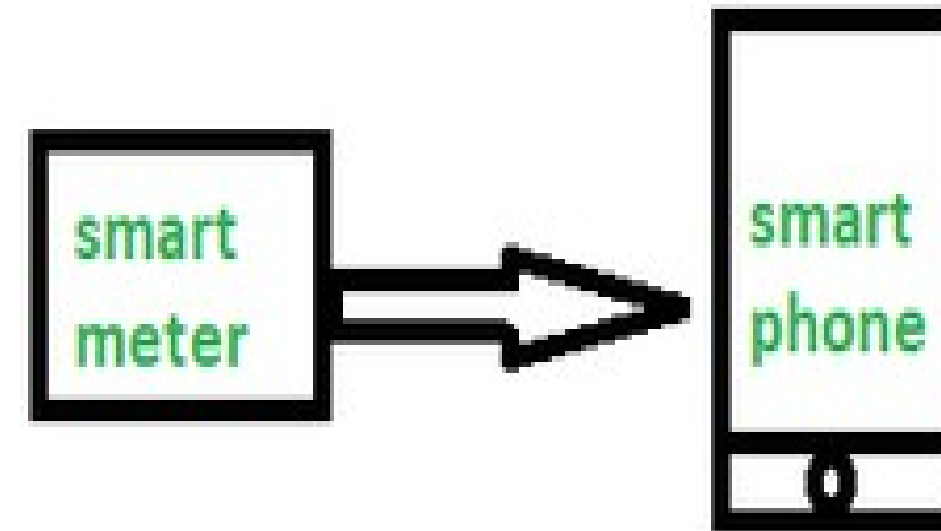
MACHINE TO MACHINE (M2M)

- The process of exchanging information or messages between two or more machines or devices is known as Machine to Machine (M2M) communication.

- It is the communication among the physical things which do not need human intervention.
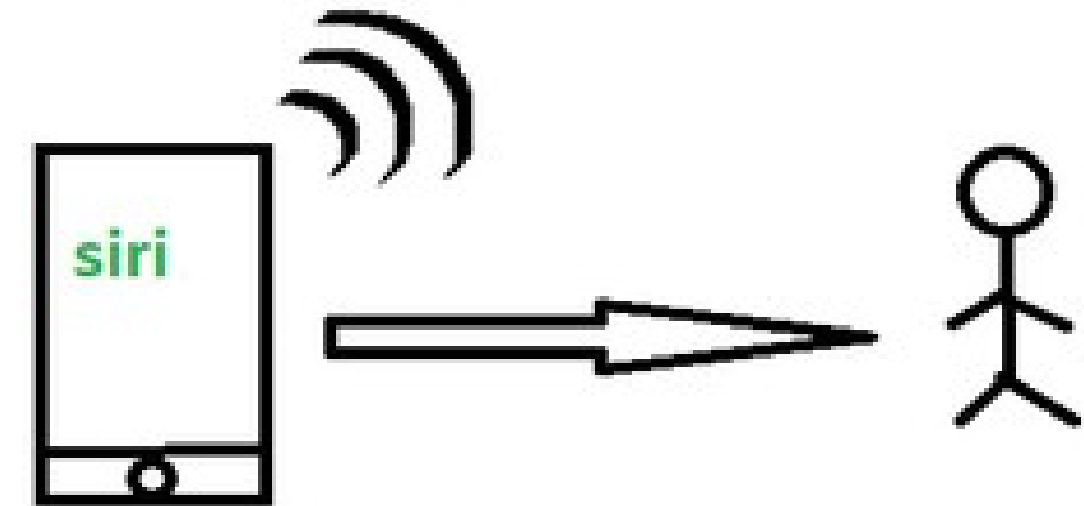
MACHINE TO HUMAN (M2H)

- In this machine interacts with Humans. Machine triggers information (text messages /images /voice/signals) respective / irrespective of any human presence.

- This type of communication is most commonly used where machines guide humans in their daily life.

WHAT IS IoT NETWORK?

- IoT Network refers to the communication technologies used by Internet of Things (IoT) devices to share or spread the data to other device or interfaces available within reachable distance. There are various types of IoT networks available for IoT devices / IoT sensors to communicate.

- It is critical to choose proper networking protocol for given requirements in order to be able to collect data at real-time and access insights through IoT applications.

Application Layer

Transport Layer

Internet Layer

Network / Links Layer
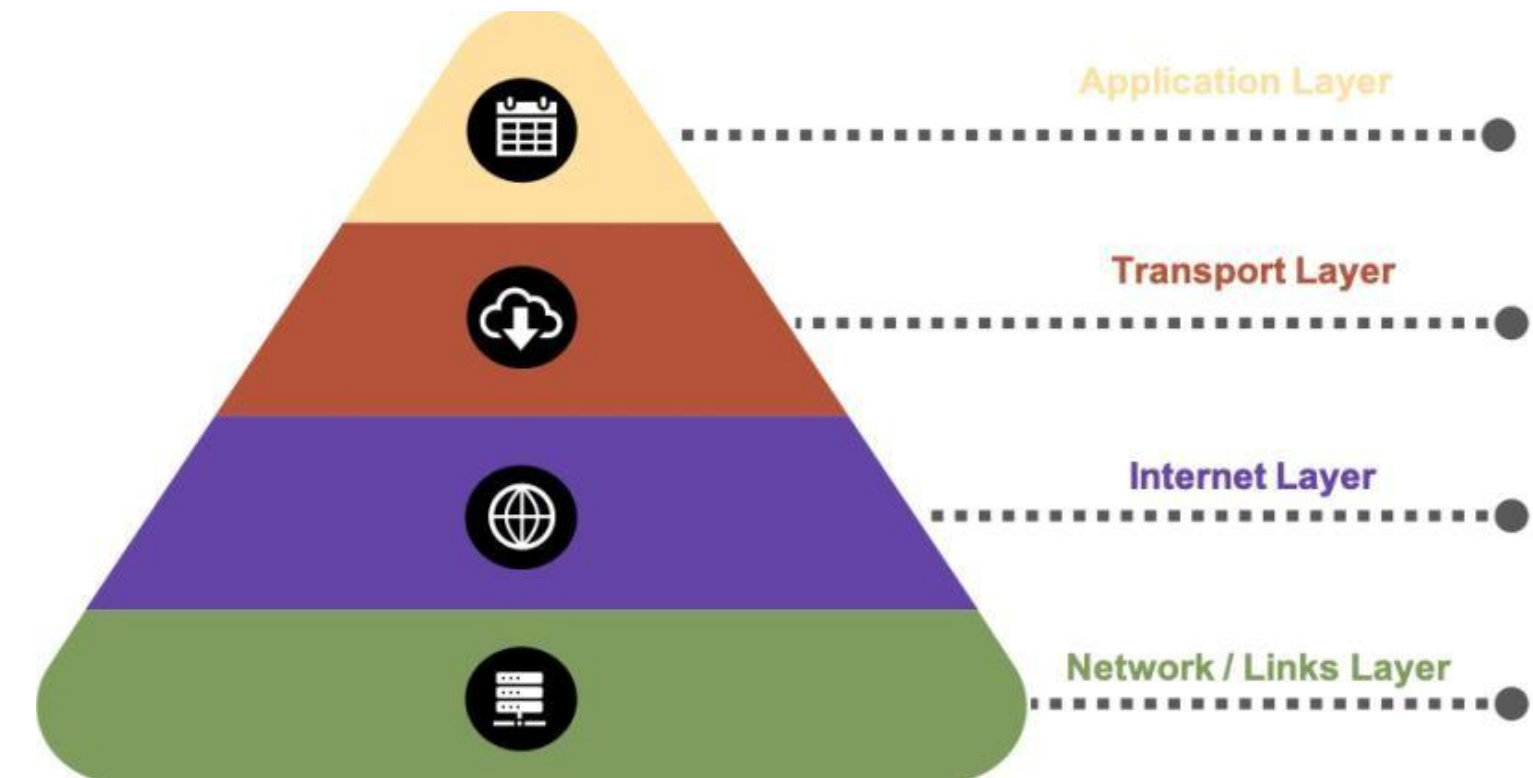
Assessment

WHAT ARE THE NETWORKING DEVICES USED IN IOT?

References

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- Patranabis, D., "Sensors and Transducers", PHI Learning Private Limited, New Delhi, 3rd Edition, 2009.
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- Tripathy, B.K., Anuradha, J., "Internet of Things (IoT): Technologies, Applications, Challenges and Solutions", CRC Press, 2018.