Tutorial-2

1) Make a list of at least three IOT devices you are aware of and briefly explain application of those devices.

   Answer:

   - Smart door locks

     Smart locks enable a homeowner to enter their home or grant access to others without the need for a standard key in a smart home. Instead, the user wirelessly verifies and mechanically unlocks the door using their smartphone or a key fob. Home security is enhanced with smart locks, which are an extension of home automation. Smart locks enable a homeowner to enter their home or grant access to others without the need for a standard key in a smart home. Instead, the user wirelessly verifies and mechanically unlocks the door using their smartphone or a key fob. Home security is enhanced with smart locks, which are an extension of home automation.

   - Smart watch

     The goal of a smartwatch is to provide users with information in a convenient, easy-to-view format, and it does so by connecting to the user's smartphone and displaying notifications, calendars, maps, and other information on its small, circular screen.

   - Smart refrigerator

     The Smart refrigerator offers multiple smart and interactive features, including the option to watch TV via the screen on the front of the door. The interactive fridge with screen also allows you to look up your favourite recipes, view digital calendars and leave notes for family members or housemates.

Workshop 2

Individual/Group work

You are supposed to think of an IoT system, visualise it and verbally explain:

Advanced automated Door

i. The purpose of the system.

- o Only Entry to Authorized Personnel.
- o No need of security guards. (Less use of manpower)
- o Touch free use. (Voice)
- o Anti-theft system with alarm.

ii. What does it do?

- o Opens automatically when the authorized person comes.
- o Is installed with camera for more security.
- o Is installed with sensors to detect the vehicle and persons
- o Detects the number plate and checks it in the database stored in cloud.

iii. What kind of problem is this system trying to solve?

- o Inefficient manpower.
- o Effortless door open.
- o Protects from burglary and theft.

iv. How is it going to use cloud computing?

- o Number plates details and vehicle details are stored in cloud database.
- o Voice is stored in cloud and is compared with the present input voice.
- o Camera footage is also stored in cloud.

v. What could be the possible challenges and solutions for your system?

o Pricing

o Frequent maintenance.

o Mis understanding of voice commands. (Unrecognized)

o Sensors and motor problem.

Low energy consumption

You will have 30 minutes for research.

You are required to pitch your idea within 5 minutes.