Ease of Designing and Affordability of IoT devices

Ease of Designing

- Design for connected devices for IoT Applications, Services and business processes

- Designer considers the ease in designing the devices physical, data link, adaption layers and gateway

Ease of Designing

- Means availability of sensors, actuators, controllers and IoT devices

- Low in cost and hardware

- Use preferably open source software components and protocols

Ease of Designing

- Device hardware should embed minimum of components

- Use ready solutions for ease in designing local devices personal area network

- Ensure the secure connectivity with the Internet

Affordability of IoT devices

- For example, RFID or card

- The card: An embedded microcontroller, memory, OS, NFC peripheral interfaces, access point based device activation, RF module and transceiver and all that at low cost

Affordability of IoT devices

- For example, Wireless sensors use Mote (mobile terminal)

- Mote: Low cost devices with open source OS (tiny OS) and software components

- Provides ease and affordance in the WSN networks

Devices of smart homes and cities

- Use ZigBee IP or

- BT LE 4.2 (dual mode or single mode) or WiFi

- Due to their affordability,

- Ease of designing, usage and low cost

Summary

We learnt

- Ease of designing with availability of sensors, actuators, controllers and IoT devices

- Low in cost and hardware, and

- Use preferably open source software components and protocols

Summary

We learnt

- RFID or Mote ease availability makes them affordable Low in cost and hardware

- Use of ZigBee IP or

- BT LE 4.2 (dual mode or single mode) or WiFi due to standard protocols

End of Lesson 6 on
Ease of Designing and Affordability of IoT devices