Internet of Things (IoT)



Review Questions

Review Questions

- **What are Smart Objects?**
- Smart Objects (Intelligent Objects) are objects that are equipped with positioning and communication technologies & are integrated into a communication network, called Internet of Things (IoT).



What are applications of IoT in different domains?



Figure 4.1 IoT in different domains

Review Questions

- List the key features of IoT.
  - **AI, Connectivity, Sensors, Active Management, and Small Device**

- Which one of the following key features of IoT act as defining instruments that transform IoT from a standard passive network of devices into an active system capable of real-world integration?

  A. AI B. Connectivity **C. Sensors** D. Active Engagement

- Which one of the following key features of IoT devices measures a physical quantity(like temperature, humidity, etc.) and convert it into signal, which can be read and interpreted by the microcontroller unit?

  A. AI B. Connectivity **C. Sensors** D. Active Engagement

- Which of the following is the networking of smart objects, where a huge number of devices intelligently communicating in the presence of internet protocol?

  A. AI **B. IoT** C. Blockchain D. Cloud Computing

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- List the advantages of IoT.
  - Improved Customer Engagement, Technology Optimization, Reduced Waste, and Enhanced Data Collection
- List the disadvantages of IoT.
  - Security, Privacy, Compatibility, Challenges of collecting and managing data
- Which of the following is not advantages of IoT?

  A. Improved Customer Engagement C. Enhanced Data Collection

  B. Technology Optimization **D. Security Threat**
- Which of the following is the most frequently raised challenges that of IoT has been facing?

  A. Security B. Privacy C. Complexity **D. All**

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- List the four components of IoT architecture.
  - **Sensing Layer, Network Layer, Data Processing Layer, and Application Layer**

- Matching: Match components of IoT Architecture with their functions

A		B
1. Sensing	**D**	A. Takes data collected in sensing layer & analyses the data to make decisions
2. Network	**C**	B. Implements and presents the results of the data processing layer
3. Data Processing	**A**	C. Acts as a communication channel to transfer data to connected devices
4. App Layer	**B**	D. Identify phenomena in devices' peripheral & obtain data from real world

- **Internet of things(IoT)** is networking of smart objects, where a huge number of devices intelligently communicating in the presence of internet protocol?

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- Which of the following component of IoT architecture is small, memory-constrained, often battery-operated electronics devices with onboard sensors and actuators that identify any phenomena in the devices' peripheral and obtain data from the real world?

A. Sensing B. Network C. Data Processing D. App Layer

- Which of the following component of IoT architecture acts as a communication channel to transfer data, collected in the sensing layer, to other connected devices?

A. Sensing **B. Network** C. Data Processing D. App Layer

- Which of the following component of IoT architecture takes data collected in the sensing layer and analyses the data to make decisions based on the result?

A. Sensing B. Network **C. Data Processing** D. App Layer

- Which of the following component of IoT architecture implements and presents the results of the data processing layer to accomplish disparate applications of IoT devices?

A. Sensing B. Network C. Data Processing **D. App Layer**

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- Which of the following categories Sensor in IoT devices measure the change in motion as well as the orientation of the devices?

A. Motion B. Environmental C. Position D. All

- Which of the following categories Sensor in IoT devices are embedded in IoT devices to sense the change in surrounding parameters in the device's peripheral to help take autonomous decisions according to the changes of a device's peripheral?

A. Motion **B. Environmental** C. Position D. All

- Which of the following categories Sensor in IoT devices deal with the physical position and location of the device like magnetic sensors that usually used as digital compass and help to fix the orientation of the device display and GPS sensors used for navigation purposes in IoT devices?

A. Motion B. Environmental **C. Position** D. All

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- Which of the following is not main capabilities of a typical IOT device?
  - A. Sense & record data
  - B. Perform light computing
  - C. Connect to a network & communicate the data
  - **D. None**

- **More questions on IoT will be added …**

Draw Architecture of IoT with its components.

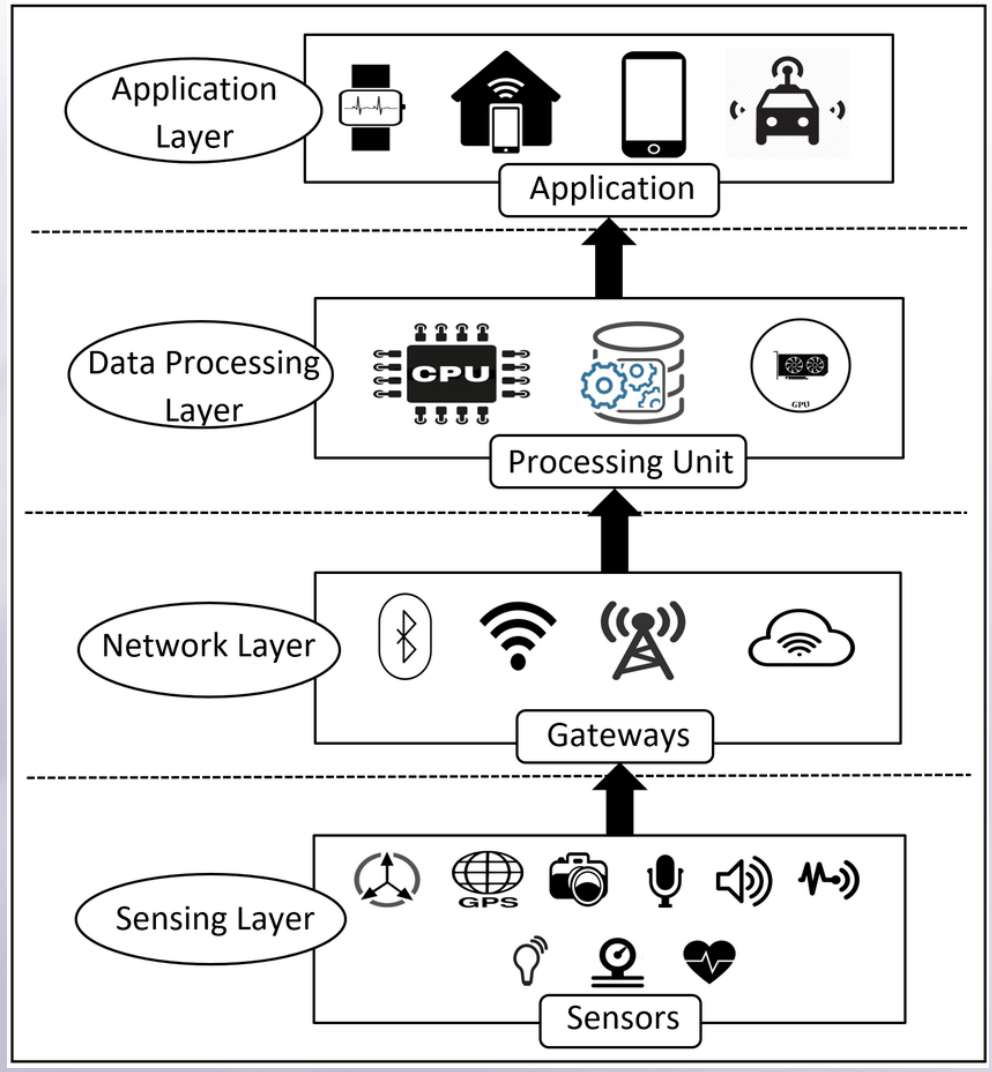


Fig 4.2. Architecture of IoT