

## Ubiquitous Internet of Things

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### Abstract

The Internet of things (IoT) is a promising technology connecting the world. The IoT can integrate with sensing technology to collect sensing signals and data in the environment. The sensing signals and data are transferred to and stored in the cloud. Fig. 1 shows the concept of the IoT. Through the IoT, anything and anyone can communicate and exchange information with each other anywhere anytime through any network for any service. The development of 5G/6G mobile communication accelerates the promotion of comprehensive IoT applications. In this paper, the latest progress of the IoT is presented in terms of innovation and creation. Fig. 2 shows the architecture of the IoT. The IoT devices and systems are studied for smart home/city, health monitoring, intelligent factory, and smart service applications. The IoT in conjunction with devices, users, big data, artificial intelligence, RFID, and sensors builds powerful capability in multidisciplinary fields. Novel IoT components based on anti-metal interference technology are proposed. The IoT devices and systems developed can be deployed in various facilities such as hospitals, factories, and warehouses. Thanks to the rapid advances in the IoT technologies, the communication between human-to-human, things-to-things, and human-to-things is achieved to establish the era of the ubiquitous IoT.

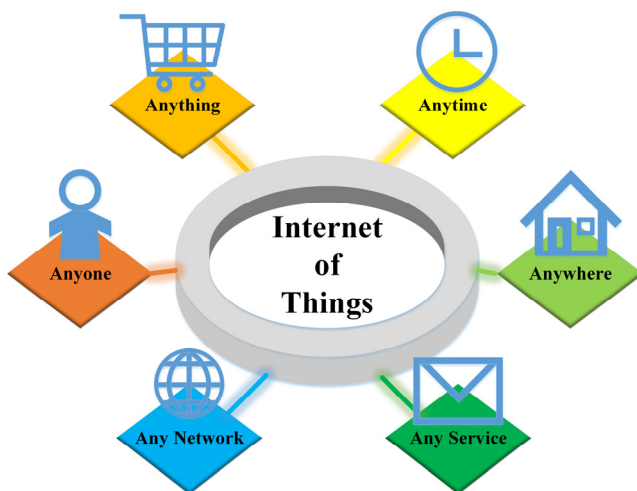


Fig. 1 Concept of IoT

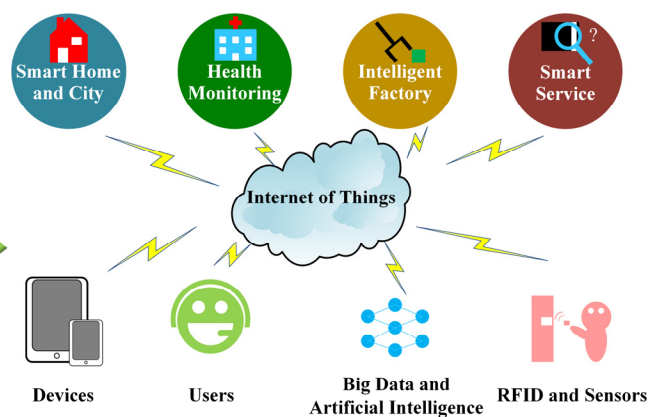


Fig. 2 Architecture of IoT