

## **Title:** How IoT Works

### **Introduction:**

The Internet of Things (IoT) enables connected devices to collect, share, and act on data via the internet. This report explains the fundamental operation of IoT systems, focusing on data flow from sensors to user applications.

### **Components and Process:**

1. **Sensors:** Sensors measure specific environmental parameters like motion, temperature, light, and pressure.
2. **Gateway:** Sensors send data to a gateway, which prepares it for transmission.
3. **Cloud/Server:** Data reaches the cloud server through the internet, where it is analyzed.
4. **Mobile Application:** Users can view and interact with processed data on a mobile app.

### **Example:**

A smart thermostat measures and adjusts a house's temperature based on data sent from sensors to the cloud server and analyzed results.

### **Conclusion:**

IoT enables real-time data-driven actions and has vast applications in smart homes, healthcare, and industry.