20 iot applications

1:Smart Factories: To create a smart factory, IoT solutions are essential. Connected IoT devices such as cameras for machine vision and sensors are needed throughout a manufacturing facility to check the status, gather data, analyze it and use insights to optimize operations. In addition to data-collecting devices, however, software compiles IoT data and allows users to monitor and control all aspects of automated production.

2:Smart video surveillance: It is a IOT-based application as it uses Internet for various purposes. The proposed system intimates about the presence of any person in the premises, also providing more security by recording the activity of that person. While leaving the premises, user activates the system by entering password.

3:Smart cities: IOT technology lies at the heart of a smart city, improving the lives of the citizens within it. The IoT-enabled smart city can reroute traffic around congestion in real time, automatically schedule repairs for failed infrastructure like street lighting or bridges, and intelligently manage energy use and pollution right across the built environment

4:Air quality monitoring system: IOT Based Air Pollution Monitoring System in which we will monitor the Air Quality over a webserver using internet and will trigger a alarm when the air quality goes down beyond a certain level, means when there are sufficient amount of harmful gases are present in the air like CO2, smoke, alcohol, benzene and NH3. It will show the air quality in PPM on the LCD and as well as on webpage so that we can monitor it very easily.

5:Structural Health Monitoring :IOT used to measure the various parameters of structures like a stain, crack width, vibration, moisture, and others. In the case of vibration analysis, structural vibration measured by using sensors

6:Smart Retail: The IOT is enabling retail stores to evolve into smart stores, which obtain data about customers' tastes, needs, and habits in real time. This enables retailers to predict customers' behavior and provide them with the products or services they want and need.

7:Smart Irrigation: In the agriculture field, sensors are used like soil moisture. In this system, there is a switch used to turn off the water supply if the system fails. Other parameters such as the moisture sensor demonstrate the threshold price and the level of water in the soil.

8:Smart lock: The smart lock is expected to handle a heavy flow traffic as well as maintain a solid functionality in the given environment. It is essential that the door only unlock itself for authorized people in the space between the stairwell, elevator and the door.

9:Smart lighting: Smart lighting is a technology driven concept that links three main features of solid state lighting (SSL) technologies, universal communication interfaces and advanced control ,by parameter of light intensity we can either increase or decrease intensity

10:Waste management: IOT can greatly optimize collection services and reduce operational costs for cities, transitioning waste management into data-driven collection processes, Waste collection is an essential city service, yet existing waste management systems are resource-intensive, inefficient, and outdated.

11:Water quality management :An IoT water quality monitoring system keeps you informed about your building’s water quality at all times. Turbidity sensors placed inside your pipes measure the clarity of your water (whether it’s murky or opaque) using beams of light, High turbidity indicates the presence of particles, and is a sign that your water needs to be tested

12:Supply chain control: IOT devices are a major benefit for all aspects of supply chain management: Reassurance that goods are located where stakeholders say they are, both at rest and in motion. Early identification of issues with goods getting lost or delayed. Real-time shipment and inventory visibility and tracking

13:Smart Workplace: Using IoT in an office can drastically reduce energy usage by implementing a smart lightning solution or automated window shades This can control light intensity and color and help to cut down waste. As soon as the sensor understands that there is no one in the room, it will automatically turn off the light.

14:Smart Logistics :Smart logistics solutions, powered by Sigfox's global IoT network, allow the industry to visualize location and manage critical goods in real time. The new IoT supply chain streamlines field operations, reduces inefficiencies and delivers better insights that improve client service levels.

15:Connected Vehicles: The Internet of Things (IoT) is the network of connected devices (also known as “smart devices”) and other items embedded with electronics, software, sensors, and network connectivity which enable these devices to exchange data.

16:Energy Management: A process that includes planning & management of your energy consumption patterns in commercial & industrial sectors. Energy management Solution takes complete control of your energy data at a fundamental & granular level while reducing your energy costs.

17:Companion Robots: IoT network can also be robots ,Such robotic extensions add advantages of mobility and cognition to the IoT network, IoT and robotics technologies resulted in innovative applications like intelligent transport and companion robots.

18:Predictive maintenance: IoT-based predictive maintenance enables more efficient use of existing assets by providing the ability to predict machine failures and reduce maintenance issues. It can help identify the causes of delays, whether they're internal or external, and help set up processes to address these causes.

19:Industrial process automation/optimization: The Internet of Things (IoT) continues to gain traction in all kinds of industries and applications. Industrial Automation refers to the use of various control devices like computers, robots, and information technologies for handling and controlling different processes and machines in an industry.

20:Smart Metering: Smart metering is the monitoring of resource consumption, such as energy, water, gas, etc., through modern metering devices connected to the Internet via IoT technology .Smart meters have become the top IoT device among utility companies in the last several years. These devices attach to buildings and connect to a smart energy grid, which allows these companies to more effectively manage energy flow into buildings