The Internet of Things (IoT) is the next phase of the industrial revolution. Technology allows physical devices to be brought into the digital domain.

IoT is the fusion of the "real world" with the "digital world," allowing for easy communication between people, objects, and processes.

With the Internet of things, objects can be activated and controlled remotely through an internet network infrastructure creating opportunities for integration between the physical world and computer systems in a secure manner. IoT applications in real life are changing the way we go about every societal function.

IoT is not science fiction anymore. The power of internet connectivity has gone beyond smartphones and computers. Now, the internet allows physical objects to record, monitor, and exchange data with little human intervention. Today we'll take a look at the 10 best internet of things applications (IoT applications) that are revolutionizing different industries!

Top 10 Real-World IoT Applications

The list of IoT apps will grow as technology evolves in the years ahead. In the near future, IoT will likely be used with artificial intelligence (AI) to give smart solutions for every worldly tech issue. Here we introduce 10 important real-world IoT applications examples!

1. Smart City

A smart city, or "City of the Future" is a popular internet of things application concept that classifies technology as responsible for improving urban infrastructure to make urban centers more efficient, cheaper, and better to live in. It also aims to improve economic growth and help maintain environmental sustainability.

The concept of "Smart City" addresses planning and public administration through the automation of services in a creative and sustainable way. Smart cities improve and modernize many sectors, including government services, transport and traffic management, energy, healthcare, water, innovative urban agriculture, and waste management.

2. Smart Home

Smart homes are the trendiest among this list of IoT applications. Smart homes control home appliances including lights, alarms, and water flow from taps, while promoting home security and safety through elaborate, smart security systems.

With smart homes, homeowners have access to control and monitor home processes through their smartphones, tablets, and laptops. Imagine you forgot to turn off your oven — you might be able to simply turn it off through your phone.

Smart homes allow you to manage all your home devices from one place.

3. Smart Self-Driving Cars

Self-driving and operating cars used to be a thing of the future - now it’s our present. You can use smart car technology to control certain functionalities through your smart device.

Central computers installed in the car receive data from sensors installed throughout the car to determine engine oil level, radiator water temperature, etc.

You can even monitor the state of the car, including its location, oil levels, gas, and more through a phone app.

4. IoT in Farming

Farmers can use intelligent IoT farming applications to optimize many time-

consuming farm operations, presenting opportunities to revolutionize the farming industry. IoT can help you determine the best time to harvest crops, generate soil chemistry-based fertilizer profiles, and detect soil nutrients and moisture concentrations.

With smart farming, a series of sensors are installed throughout the agriculture, including the livestock to monitor the animals' health information.

Pynco Agriculture Sensors is one example of a smart farm technology that helps farmers predict weather data and monitor crop and livestock status.

5. Fitness Trackers

IoT-connected devices help you optimize your fitness goals and track progress. Fitness trackers track your daily activities like sleeping patterns, heart rate, patterns of activity, statistics of workouts, calories burned, and more. These devices do all this through sensors that collect data from your skin.

6. IoT-Connected Factories

Smart factories use IoT technology (also known as the Industrial Internet of Things) to gather data on industrial processes and devices to form strategic plans and create more efficiencies. Machine equipment and factory items are connected to sensors to improve analytics. Such technology can help factories reduce energy consumption, improve asset tracking, and find equipment issues early to protect profits and improve supply chain productivity.

7. IoT Hospitality and Tourism

The IoT has great potential to optimize hospitality and tourism operations. Staffing is a large expense for hotels and motels in the hospitality industry, but IoT can automate certain interactions to reduce staffing burdens. For example, mobile electronic keys allow hotel guests to access and check into their rooms without having to interact with a staff member.

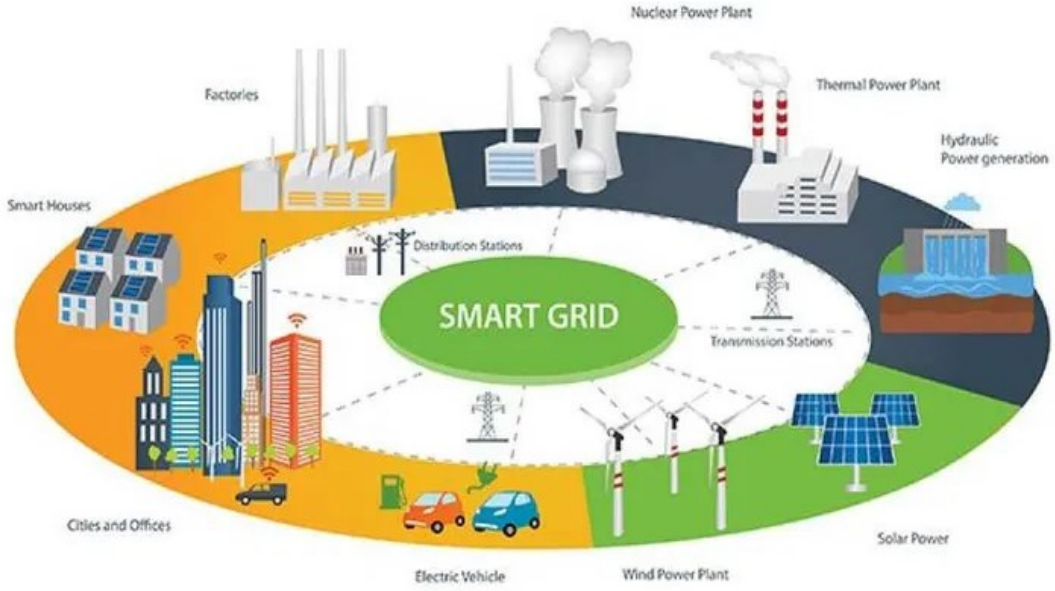
From the guest's smartphone, they can request room service, share any room issues like a lack of towels, helping hotels gain useful information more quickly.

8. Retail IoT

Similar to the industrial sector, the retail sector can find savings, efficiencies, and innovation using the internet of things technology. Retail IoT can accomplish a lot, including improved customer experience, accurate and real-time product tracking, improved staff strategy, and overall efficient inventory management.

Retailers can also monitor customer shopping patterns with the IoT, identifying their purchase history, trends, and location information to better inform customer strategies.

9.



The smart grid is the IoT that attends to energy systems. Utility companies use smart grid technologies to find energy efficiencies through various means, including monitoring energy consumption, predicting energy shortages and power outages, and gathering data on how different individuals and companies use energy.

The average individual can also use insights from the smart grid to assess their own energy use and find efficiencies in their household.

10. IoT Applications for Health Monitoring

The COVID-19 pandemic showed the world that entire healthcare sectors require serious upgrading, including enhanced modernization, efficiency, and flexibility. If a patient cannot attend a doctor's appointment, how else can they receive care?

The IoT provides a path through attaching sensors to patients at home. Through these sensors, doctors can monitor and track a patient's progress, and alerts can inform doctors of any emergencies, like a heart attack, for example.

Frequently Asked Questions (FAQs)

1. Is Alexa an IoT?

IoT refers to any device that uses wi-fi to transmit data, so Alexa certainly qualifies! Alexa uses artificial intelligence to help you control certain home devices, like speakers, lights, and locks.

2. Which is the Best IoT Platform?

These days, there is a growing number of IoT platforms. Some popular ones include Oracle IoT, Google Cloud IoT, Amazon AWS IoT Core, and Microsoft Azure IoT Hub.

3. Is Apple Watch an IoT Device?

The Apple Watch is certainly an IoT device, as it uses wifi to perform many control tasks, like fitness tracking, call operations, and more!

4. What Devices are IoT?

Countless devices that you see in your day-to-day use IoT technology. Some examples include smart fridges, smartwatches, fitness trackers, smart surveillance systems and door locks, and smart cars.

Conclusion

The Internet of Things (IoT) is the latest technological innovation that has the power to improve environmental sustainability, enhance security, improve business efficiencies across various sectors, and of course, promote convenience within everyday tasks and operations.

Now that you know some of the top IoT application examples, it’s time to try your hand at your own IoT applications in real world practicality! Check out these IoT tutorials to get your feet wet with smart technology today!