IOT AND ITS USE CASES

**1.IoT-Based Pest Control**

Semios, which uses sensors and machine vision technology to track pest populations in orchards, vineyards, and other agricultural settings. And then there is IoT Box Systems, a company that makes connected bait stations, traps, and cages that inform the user when they have caught an animal.

**2.Optimizing the Power Grid**

Bord Gáis Energy’s Whitegate power plant, a 445-MW gas combined-cycle plant 25 miles east of Cork, Ireland. There are 141 sensors across the plant that provide round-the-clock monitoring and diagnostics of existing hardware.

**3. Imbuing Jet Engines with Artificial Intelligence**

Bombardier last year showed off its new C-Series jetliner, which boasted Pratt & Whitney’s Geared Turbo Fan (GTF) engine and its 5,000 sensors producing as much as 10 GB of data each second

**4. Growing Better Grapes for Better Vino**

sensors across the vineyard upload data on such metrics as soil humidity, air humidity, sunshine, and intensity of sunshine, temperature and rainfall to the cloud.

**5. Saving the Bees**

IoT technology could help beekeepers better combat [honeybee colony collapse disorder](javascript:void();), in which honeybee stocks have died off at rapid rates. Andreas Nickel, a Germany-based SAP development project manager and recreational beekeeper, built a beehive scale that sends an alert to his cellphone or computer when a major change in hive weight takes place

**6. Making Trash Collection More Efficient**

a wireless autonomous sensor that uses ultrasound to tell how full a trash bin is. The information is transmitted to a Urbiotica software platform that links up with systems meant to optimize trash collection routes. The sensor is helpful in cases where waste is being produced at rates that are slower or more variable.

**7. Thwarting Illegal Fishing**

the Port installed Dell Edge Gateways, with V5 Systems solar video surveillance technologies to better track who was coming in and out of the port. Both the South Terminal and Palmers Island Lighthouse are using these technologies to monitor fishing practices and to better understand the health of the underwater environment.

**8. Doing Away With Dangerous Police Chases**

a system called [StarChase](javascript:void();) that eliminates the need for police to engage in dangerous high-speed chases of suspects. An air compressor launcher on the front of the patrol car fires a sticky GPS locator with a transmitter. Police can then remotely track the vehicle versus chasing it, apprehending the suspect when the vehicle stops.

**9. Using Drones to Help Save the Rainforest**

The drones will allow the handful of rangers to quickly investigate reports of deforestation, a major improvement over having to travel into remote parts of the jungle over unpaved roads.

**10. Redefining Field-Based Intel for the Oil and Gas Industry**

Exara is helping industrial companies gather, analyze, store and relay data from oil field equipment resulting in cost savings, reduced maintenance costs, lengthened machinery lifespan and more efficient performance for workloads in demanding environments.

**11. Using Sensors to Make Driving Safer**

Zendrive have developed technology that uses sensors built into smartphones to gauge driver behavior. Once sufficient data is collected, the app can offer coaching to make drivers safer. The company is targeting both insurance companies **12. Wearables**

Wearable technology is the hallmark of IoT applications and one of the earliest industries to deploy IoT. We have fit bits, heart rate monitors and smartwatches these days.

**13.Smart Home Applications**

The smart home is probably the first thing when we talk about the IoT application. The example we see the AI home automation is employed by Mark Zuckerberg. Alan Pan's home automation system, where a string of musical notes uses in-house functions.

**14. Health care**

IoT applications can transform reactive medical-based systems into active wellness-based systems. Resources that are used in current medical research lack important real-world information. It uses controlled environments, leftover data, and volunteers for clinical trials.

**15. Smart Cities**

Smart city uses technology to provide services. The smart city includes improving transportation and social services, promoting stability and giving voice to their citizens.

**16. Agriculture**

To feed a large population, agriculture needs to marry technology and get the best results. There are many possibilities in this area. One of them is Smart Greenhouse.

**17. Industrial Automation**

It is one of the areas where the quality of products is an essential factor for a more significant investment return. Anyone can re-engineer products and their packaging to provide superior performance in cost and customer experience with IoT applications. IoT will prove as a game-changer.

**18. Smart Retail**

IoT applications in retail give shoppers a new experience. Customers do not have to stand in long queues as the checkout system can read the tags of the products and deduct the total amount from the customer's payment app with IoT applications' help.

**19. Hacked Car**

A connected car is a technology-driven car with Internet access and a WAN network. The technology offers the user some benefits such as in-car infotainment, advanced navigation and fuel efficiency.

**20. Smart Supply Chain**

Customers automate the delivery and shipping with a smart supply chain. It also provides details of real-time conditions and supply networks.