

# *The Smart Car Parking*

Internet of Things (IoT)

September  
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## *How it's going to work...*

### “OUTSIDE” (Navigation) - Settings

- Most difficult part of corporate office car parking, where the officials are spending more time, which could be eliminated, if we use such IoT on Smart Car Parking
- The sensors will identify the filled and empty car parking to guide the officials towards right direction and Parking lot
- Parking area may be flat (or) MLCP (Multi-level car parking)...it works
- Officials may soft-block the parking lot for few minutes on the way parking to avoid conflicts with others & the system may release the parking in stipulated time, if it's not used, can be leveraged by others

# The Smart Car parking - Diagram



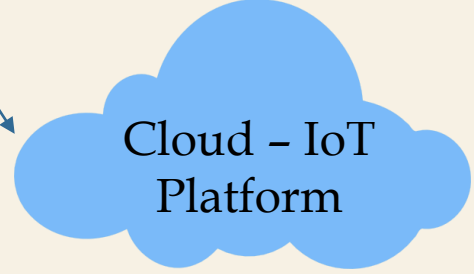
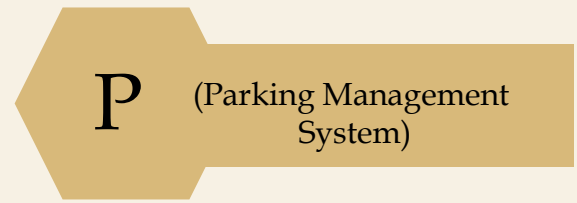
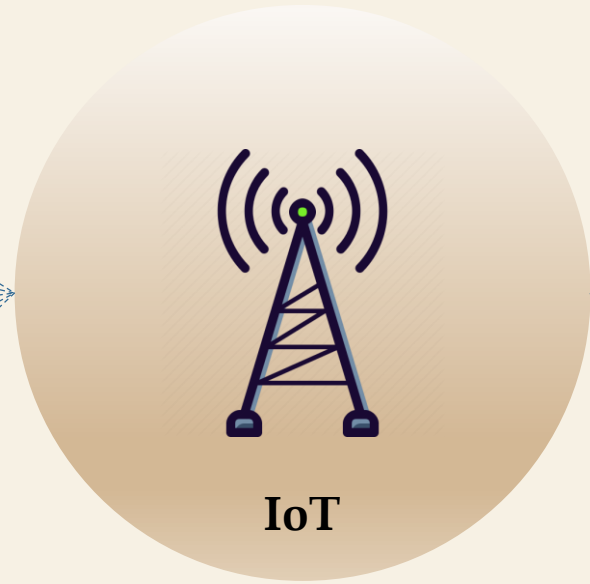
Vacant Car Parking



Vacant Car Parking



Magnetic vehicle detector

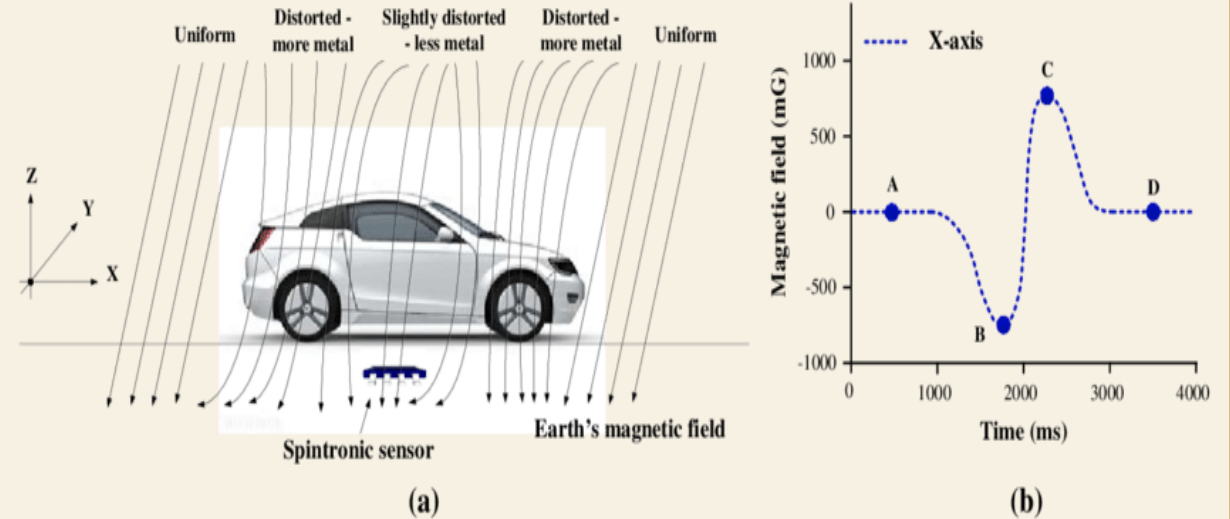


A **magnetometer** is an instrument with a sensor that measures magnetic fields and it's capable of detecting fluctuations in the Earth's field.

Cars have strong magnetic fields due to the built in monitors and because it is built from material the affect the magnetic field (for example: if you have more metal stuff on the truck/car more "magnetic" field will go though your this body). So to monitor whether a car is in a parking spot, you only need to detect the change of magnetic fields with a magnetometer. Hence, whenever a car parks near a board with a magnetometer, the change in magnetic fields will alert the owner of the device that the space is occupied.

IoT devices help to minimize the power consumption and cost of communicating the data by the parking owners. Moreover, the devices are small and can be embedded in the floor of the parking spot which makes it unnoticeable.

IoT parking sensor which has up to 10 years of battery life and only takes 5 minutes to install with no wiring or civil works. This saves a lot of money for companies as there is no need to installed cameras or optical sensors, hire personnel to watch cameras and to keep up with maintenance.



Moreover, it even saves energy as the magnetometer is interrupt-based, which means that it only wakes up from sleep mode whenever there is a change in the magnetic field. So the device isn't active 24/7. This type of data can be communicated in different ways.

Reference Source: <https://shop.sodaq.com/blogs/sodaq-insights/iot-innovation-top-5-in-depth-cases-of-iot-in-busi/>



## *Threats associated*

Parking garages usually used either cameras, optical sensors or pressure to see if parking spots are available. But there was a need of IoT devices to make a smart parking system

But if there are a lot of restrictions in your parking that do not let sensor signals go through, you can install IoT devices that forward the data over the cellular network and then to your integrated data platform.



*Thank You!*