RFID Based Vehicle Park Management System

RFID is a very useful technology in automation of Car Parking System in a Building, office or complex. This cutting edge technology so user friendly that ordinary security Guards can be trained to use them effectively in no time.

Pre-programmed   UHF   RFID readers are used to read the registration tags fixed on the vehicles which automatically displays all relevant details of the vehicle as well as its status to the operator, based on which he can decide to allow or deny the entry.

From simple to use stand alone systems to fully integrated vehicle entry control systems can be offered, depending upon the requirement.

Managing the parking of cars within a complex presents many challenges. Where ever these issues are not effectively addressed it results in:

- Unnecessary arguments among members due to wrongly parked vehicles.

- Visitors enter the complex, posing as owner & park in parking area designated for owners.

- No tracking of Cars Entry or Exit whereby drivers take the car out at their will, between the time gaps for personal use or misuse.

- Since there is no way to authenticate a vehicle's ownership, hence difficulty in determining if it's parked at its designated place or not.

- No distinction between visitor's or owner's car as a result owners feel distressed when they have to establish their identity to a new security guard every time.

- Whether at the gate or in a wrong parking slot, there is no easy way to find the identity of a car unless you check with the list.

- Car to Driver correlation is impossible thus generally there is no way to establish that the car is being taken out by an authorized driver.

The Advantages:

- Security guards now have clear and authentic information on the vehicle approaching the entry gate.

- Guards can identify individual residents and greet them.

- Drivers of the residents can be identified, Driver misuse of vehicles can be controlled.

- Number of vehicles inside the premises at any given time can be established.

- Checks to ensure vehicles are parked at designated parking bays can be done.

- Periodic records and report can be generated.

- Drivers too can be issued RFID based ID's and can be tied to a car. Hence detecting a car movement with authorized driver. For each entry or exit, there will be record of its driver as well.

RFID System Components: The standard components of the RFID infrastructure required are suitably selected RFID tags, readers, and customized software.