

CASE STUDY

RFID based Parking Management System to Cybercity, Magarpatta

Key Facts

Organization - Cybercity, Magarpatta

Location - Pune, India

Applications - RFID based Parking Management System

Solutions - Vehicle Access Management

Access Control - Employee Management

Access Control - Visitor Management

Vehicle access Management

The parking Lots are divided into two parts.

1. At Basement
2. At Podium of Cyber City

- Multiple entry and exit points at both basement and podium of Cybercity
- Physically separate entry points for four wheelers and two wheelers through the same gate
- Separate parking space (Podium) and entry for buses and cabs
- Parking is currently managed by issuing tokens to vehicles
- Vehicle has to be parked in the slot mentioned in the token
- Tokens are collected at the exit and are sent physically to the entry gates for re-issue
- Color code for tokens of different companies
- If tokens are exhausted vehicle is not allowed inside the premises

Background

Infronics provided the solution for Automated Parking Management system for Cybercity, Magarpatta. Magarpatta Cyber city is located in PUNE with an Huge infrastructure developed to cater the needs of IT Companies. It is having 11 Tenants (IT Companies) with it. The requirement is to automate the parking management system.

The Challenge

Magarpatta Cyber city is looking for automation of their parking system and Personnel Access for Employees which they are managing manually. The process which currently following by Magarpatta is as stated below.

Existing Process

They structured access control in three groups.

1. Vehicle Access
2. Employee Access
3. Visitor Access.

Access control –Employee Management

- Multiple entry and exit points for employees and visitors
- Employees are allowed access without registration at Cybercity based on Company ID card

Access Control – Visitor Management

- Three entry and exit points for visitors
- Visitors are registered at Visitor entry and exit gates
- Visitors are escorted within the Cybercity premises

These are the following problems which need to be resolved:

- Manual process involved in managing the parking lot

- Count of available parking space not readily available
- No access control system for personnel tracking
- Manual registration for visitors

The Solution

Magarpatta Cybercity is looking for an automated Parking lot management and Personnel access control solution.

Solution features of Parking lot management

- ID card (RF)based entry to parking lot
- Display of available parking space at Entry points
- Availability would be based on parking space allotted to a company
- Automatic Boom Barrier movement based on availability and authentication

Solution features for access control

- ID card (RF) based entry for employees
- Turnstile entry / exit gates for employees

Solution features for visitor management

- Photo ID cards for visitors
- Registration of visitor in PC application which helps easy tracking

Workflow of the Solution :(Vehicle parking management Process)

- Employees to be issued Printed RFID cards for accessing the Cybercity
- Display of available parking space to be available at each entry. Display would have company name and available space.
- Readers to be positioned at all gates for employees to flash their ID card
- Separate reader for Four wheelers and two wheelers
- Employee to flash ID card in front of RFID reader
- Vehicle would be allowed based on availability and authenticity of ID with synchronization from backend systems
- Manual checking of vehicles at entry by security guards subsequent to which employee will swipe his card
- Automatic control of Boom Barrier to allow the vehicle entry/exit on authentication

- Entry /Exits would be based on real time transaction
- Parking to be done in any of the parking slots allotted to the company
- For exit the employee need to flash the ID card at the exit reader
- In case of power failure all boom barriers will be in open state

Employee Access Control Management- Process

- Employees to be issued Printed RFID cards for accessing the Cybercity
- Employee to Flash ID card in front of RFID reader
- Access to be provided based on authenticity of ID
- Turnstile controlled gates for entry and exit
- Five Entry and exit location for employees

Visitor Management – Process

- Photo ID card with barcode to be issued for each visitor
- Card to contain information of visitor, visitor photo, company to be visited, name of person to be met, date of issue, etc.
- Bar Code to be scanned on exit of visitor
- Three gates for entry and exit of visitors

The Benefits

The Automated Parking Management system for Cybercity, Magarpatta solution would provide following immediate benefits:

- ID card (RF)based entry to parking lot
- Display of available parking space at Entry points
- Availability would be based on parking space allotted to a company
- Automatic Boom Barrier movement based on availability and authentication
- ID card (RF)based entry for employees
- Turnstile entry / exit gates for employees
- Photo ID cards for visitors
- Registration of visitor in PC application which helps easy tracking