

# Access Control Systems

**Control who accesses your Premises - when, where, and how.**

Today's we face a huge number of security threats, from theft, to vandalism, to violent crime and even terrorism. Whether you are a healthcare provider, school, university or a business you will be constantly seeking ways to achieve better security across your sites. There are many different actions that have to be taken into account when assessing your current security options and making sure you have the best solution possible.



JK TECHNOLOGIES

## **Limiting Access to Staff**

From visitors to employees and vehicle, it's important to control who accesses a space. ACS provides multiple ways to prove identity before access, all of which can be reprogrammed electronically to restrict or allow new levels of access. Visitor management systems replace simple visitor card with professional looking printed smart card. The visitor's provided identification, e.g. business card or driver's license is scanned & retained by the visitor management system.

## **Controlling Facility Entry Points**

It enables you to determine which individuals are authorized to open specific doors. This is especially critical when there are hazardous, high-security, engineering, private, or other restricted areas. Many organizations also use it to control entry to parking lots. Gates can be secured using electric strikes or magnetic locks. Optical turnstiles offer an attractive way of controlling access without an intimidating look. Stainless steel and glass turnstiles attractively compliment building architecture.

## **Credential and Reader Options**

Electronic access control cards can be preprinted with organization logos, graphics and other information. Access control fobs are available in many different colors and

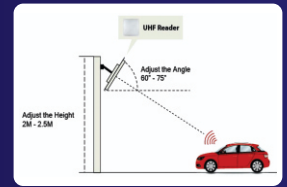
## **Access Control System (ACS) Benefits**

- **Automated Ticketing systems**
- **Real time Vehicle counting**
- **Video Surveillance system**
- **Automatic Number Plate Recognition Readers (ANPR)**
- **Dual Number Plate Authentication**
- **Blacklist & Whitelist Management**

shapes. Card and readers are offered in a wide variety of technologies, sizes, styles and formats to architecturally compliment adjacent areas and fit into existing structures. Badge printers and digital cameras allow you to generate your own credentials at one or multiple locations. Higher security needs can be addressed with smart cards, non-standard bit patterns, biometric readers (fingerprint, iris scan, vein geometry, etc.) or via multi-factor authentication. Multi-factor authentication can be accomplished via keypad / proximity reader combinations, biometrics, etc.. Common biometric reader options are fingerprint, iris scan, facial recognition and vein geometry. Readers can communicate via traditional hardwired or newer blue tooth or wifi technologies.

## Features – Access Control System (ACS)

- **24 hour Unmanned Operation** Once the system is set up,
- **No manual monitoring is needed,**
- **Cars with valid tags will automatically be allowed into the premise,**
- **No need for any button pushing or monitoring of the gate; it is a fully automated standalone system,**
- **UHF Technology** the RFID technology used is UHF. This adds to the convenience of all the users, &
- **There will be no need to swipe a card or enter a passcode. The reader will be able to pick up the id tag which can be located anywhere in the car from up to five meters away.**



## Reasons your premises needs an Access Control System (ACS)

So what are the main reasons behind upgrading to an electronic access control system?

### Protection of Staff

With security threats on the rise, we couldn't think of a more important time to upgrade the way in which you secure your premises. Access control will ensure that those who wish to enter your premises will not be able to do so unless they can present a security token with the correct credentials to grant them entry. The security token will then act as a key for an individual to access different areas of your building.

### Stop Intruders

An access control system makes it very difficult for intruders to gain access to your building at any point and smart access control solutions will deter criminals. Those without the correct credentials or ID card will simply not be able to gain entry. Choosing the right locks and doors to form part of your access control system is key to ensuring that you can deter criminals and prevent them forcing entry. Of course using access control with a full CCTV security system that secures perimeters and the whole of your building will make this more effective. Read more here.

### Reporting

The reporting functionality on access control systems will serve to make your life easier and allow you to fully understand who has entered the building, the exact time they entered and will provide a full audit trail of the route they took whilst on the premises. Many users of access control systems use the reporting functionalities to streamline their administration and attendance tasks. You

can easily use the reports to compile a list of every person who was in the building at specific time on a certain day. You can print a report off for employees who may have entered the building after 9am to view a full list of who may have been late on a particular day – the options are endless with access control reporting capabilities.

### Departmental based ID Cards

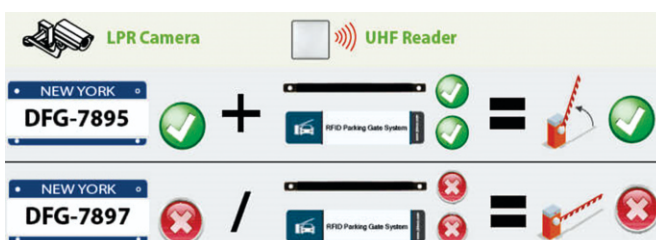
An access control system will come in some form of security token, be it an ID card or one of the other many options on the market that you could consider. These can be individually programmed with user credentials by department. For example you could have HR, Marketing, Sales, Managerial, and Administration – this way access rights can be grouped by each department only giving them access to areas that are relevant to their job. For example the Marketing team would never need access to the pay role cupboard that contains sensitive and private information.

### Integration

One of the biggest advantages that you should take into consideration when thinking about access control are the integration capabilities it offers. Many organizations be it public or commercial use a variety of systems throughout their organisation, many of which need different forms of tokens to be controlled. Access control ID cards can be programmed to integrate with existing systems.

### Communication System

- Fiber and UTP Cable
- Fiber media Convertor
- Network Switch



## Access Control System (ACS) Components

Access control systems in use today typically have the following common components:

### Automatic Vehicle Identification Systems

Automatic Vehicle Identification systems (AVI) which include hands free windshield and license plate tags which are in actuality an electronic permit. These tags identify vehicles authorized to access the facility on a regular and/or scheduled basis. The technology is based on Radio-Frequency Identification (RFID). A vehicle's tag may be authorized for 24/7 access or limited to a schedule. The vehicle is granted access when the tag is read and access is allowed at that time. A log of entries and exits may be kept in a computer data base. Smart cards or magnetic strip cards can likewise be used.

### UHF Long Range Reader

UHF Long Range Reader to read the E-Tags placed at vehicle's windshield. It sends the tag's data to Access Controller which decides to grant or block the access of vehicle. It can also be replaced by short range RFID reader where applicable.

### RFID Smart Card Readers

RFID card readers will be mounted on gates or lanes. Its operation starts when a user with the active tag or smart card drive through the UHF reader located at the entrance of the gate and lane. The UHF reader will recognize the tag. The barrier will lift up for access upon valid recognition. If not, access will be denied.

### Smart Cards / e-Tag

User will be provided RFID cards or e-tag with unique serial number. Against each card and e-tag user credentials will be stored in backend system.

### Automatic Boom Barrier

Electromechanical Boom Barrier also called Road Barrier, which is operated by Access Controller using E-TAGs and smart card.

### Mounting Pole

Mounting pole for UHF reader. It is also used to mount RED/Green Traffic Light or CCTV Cameras if required.

## Access Control System (ACS) Software

The access control system software is the component that ties all the other ones into a comprehensive security system. The software is what facilitates the interaction between the security system and the business owners, employees, and authorized visitors. Access control system software varies in their intricacies but they all essentially do the same thing: allow users to enter their credentials, create permission

properties and procedures, and review accountability information of the overall security system. This system software communicates from an access control server computer that serves as the central database and file manager for the security system. This is typically a standard computer that is dedicated solely to the security system.

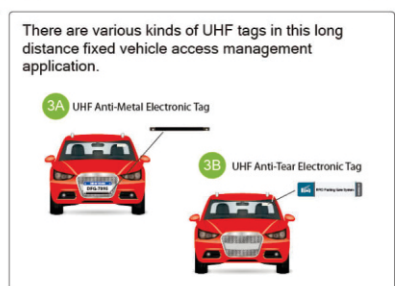
### Access Control Server Computer

The access control server computer is the "brain" of the access control system. The access control server computer serves as the central database and file manager for the access control system; and is responsible for recording system activity, and distributing information to and from the access control field panels.

Normally, a single access control server computer can be used to control a large number of card-reader controlled gates. The access control server computer is usually a standard computer which runs special access control system application software. In most all cases, the computer is dedicated for full-time use with the access control system.

### License Plate Recognition (LPR) Camera

LPR technology is an application of computer video image recognition technology in license plate identification area. This technology through the license plate crawling, image pre-processing, feature extraction, license plate character recognition technology to identify the license plate number, color and other information.



## Access Control System (ACS) Benefits

### Automated Ticketing systems

The Ticketing System will be programmed to the clients premises policies and integrated with the ticketing dispenser machines and Payment software systems.

### Real time Vehicle counting

Real time information of all vehicles in premise can be displayed and this information can be used to allocated parking space efficiently.

### Video Surveillance system

CCTV can be integrated with this management system in creating a secured parking space to help create a safer environment.

### Automatic Number Plate Recognition Readers (ANPR)

The ANPR system enables monitoring of every car entering & exiting the premises, monitoring the complete activity of the premises LPR technology is an application of computer video image recognition technology in license plate identification area. Its operation starts when the vehicle is located at the entrance of the parking lot, the LPR Camera will scan on the license plate character, and its recognition technology will identify the license plate number, color and

other information. If the number on the license plate is valid, the car park barrier will lift for access, otherwise, no access will be allowed.

### Dual Number Plate Authentication

(UHF at the entrance of the premises, both of the UHF reader and LPR Camera will start to recognise the UHF Tag and the number and LPR Based Two Level Authentication System for Vehicles)

Dual number plate authentication is a Multi-factor authentication to use of several authentication techniques together. Once the vehicle is located plate on the vehicle. If the verification of the number plate and the UHF tag is valid, the car park barrier will lift for access, otherwise no access will be allowed.

### Blacklist & Whitelist Management

The System management Software includes Role and Black and White Lists.

If the cars are pre-set on the white list, including \_re trucks, police cars, and privileged cars, can enter and exit the lanes free of charge. Otherwise, cars on the black list are not allowed to enter or exit the lanes.

