Bluetooth and QrCode Visitor Access Solution



1. Summary

With the continuous enhancement of enterprise management modernization consciousness, the common sense door lock system has been far from meeting the needs of enterprises, intelligent access control system arises at the historic moment. Due to its own advantages, intelligent access control system is widely used in all kinds of important applications, which greatly improves the work efficiency of managers and the security level in the management area.

QR Code+Bluetooth visitor access control system is a comprehensive digital management system based on dynamic QR Code and mobile phone Bluetooth, which provides a new idea for managers to enter and exit, and brings great changes to the access control system:

- 1. Major changes in media, rely on mobile phone as access control, break away from traditional keys and cards.
- 2. Intelligent access management, effectively preventing the entry of foreign miscellaneous personnel to disrupt the normal office or life order.
- 3. Conveniently and flexibly arrange the authority and opening time of temporary personnel for each door, and strengthen the authority control.
- 4. Real-time monitoring of personnel access and reply to improve the safety and management level.
- 5. Improve the corporate image and realize the corporate brand promotion.
- 6. Integrated design involving enterprises and users who implement access control management operation.

2. QR Code

2.1 Building Visitors (without Mobile APP)

2.1.1 Qequirement

There are many enterprises in modern intelligent buildings, and the number of people in and out is endless. The traditional personnel management method is often single, and there are obvious system FLAW:

1. The traditional visitor management adopts manual registration, and the security personnel cannot verify the authenticity of the registration information of outsiders.

- 2. It takes a long time to fill in the visitor form manually, the handwriting is illegible, and it is difficult to save for a long time.
- 3. There is a lack of personnel control equipment, and all personnel can enter and leave the building at will. There is a great potential safety hazard.
 - 4. In case of safety problems, relevant responsibilities cannot be distinguished.

Building QR Code visitors management system is the management of access control and lift control authority from entering the building to the final end, and carries out comprehensive access management for visitors entering the building. On the basis of not interfering with the normal work and visit of personnel, the control of personnel access areas has been strengthened, and the security and prevention capability of the whole building has been improved.

2.1.2 Implementation mode

- 1. When a visitor arrives at the front desk on the first floor of the building, the front desk staff registers the visitor's identity information, mobile phone number and the company or floor to be visited. The visitor's identity information can be read by the ID card reader.
- 2. Transfer the entered visitor information to the visited company or floor for review.

3. After audit:

- 1) Automatically send a multimedia message with QR code image to the visitor's mobile phone.
- 2) Automatically send a text message to the visitor's mobile phone. The content of the text message includes the QR code URL. The visitor clicks the URL to open the QR code image.

The QR code contains the access door information with permission and the effective time of the QR code.

4. The visitor directly scans the QR code reader with the QR code, the door lock is opened, and the visitor passes. Visitors' door opening events and snap photos are uploaded to the access control server in real time for inspection.

2.2 Community Visitors (with Mobile APP)

2.2.1 Requirment

With the increasing popularity of intelligent access control, people need to carry more and more smart cards, and it is also very common to forget to carry cards. At the same time, forgetting to take the card also brings a lot of inconvenience to people's life. Using mobile APP to open the door makes it convenient for residents to pass in and out. "Mobile phone in hand, Easy access".

Community visitors have also been another big problem for residents and owners: Now there are more and more large residential areas with dense population, and visitors are difficult to manage. It is imperative to implement the residential visitor system. When residents have visitors, there is no need for the security personnel to ask for registration confirmation and other operations. Only the owner needs to operate on the mobile APP, send the authorized QR code to the visitor's mobile phone, and set the effective time and the number of times to open the door, so as to achieve accurate authorization, which is convenient and safe.

2.2.2 Implementation mode

- 1. The community owner downloads and installs APP--aSphinx/iSphinx(ps: access control management client) on the mobile phone, and registers the account through ID number and mobile phone number.
- 2. The software compares whether the ID number and mobile phone number are the same as the information registered in the existing personnel data, if it is the same, the registration is successful. After successfully registration, the user account is automatically bound to the personnel information in the access control software. The owner changes the nickname and login password after the initial login.
- 3. After successfully registration, the app will generate QR code for the owner, which can be scanned on the QR code reader to open the door.
- 4. When the mobile phone is equipped with Bluetooth function, when it is 2-8 meters away from the Bluetooth card reader, you can open the door by shaking it; Gate event records are uploaded to the access control server in real time for inspection.
- 5. When a visitor comes, the owner can generate a visitor QR code for the visitor and send it to the visitor through WhatsApp and other social software. The QR code can set the visit time, and the access authority is the same as that of the owner.
 - 6. When visitors receive the QR code, they can directly use the QR code to scan

the door and upload the event record of the door to the access control server in real time $_{\circ}$

3 Function Features

- ◆ Visit reservation registration: When the respondent knows the specific time of the visitor's visit, he/she can make reservation registration on behalf of the respondent through WEB and mobile APP, simplify the visitor registration process and reduce the registration time.
- ◆ Support multiple certificate types: ID、Driver's license、Passport, etc. Visitor information can be read directly by ID card reader or automatically identified by ID card scanner, and manual modification is supported. The original identity information can be saved to the system for verification.
- ◆ Send QR code to mobile phone: After the visitor makes an appointment, the system will automatically send the QR code with relevant permissions to the visitor's mobile phone, and visitors can use the QR code to enter and exit within the valid time.
- ◆ Visitor record printing: the system can print the visitor list containing the visitor's photo, basic information, the person visited and other information.
- ◆ APP record query: Visitors can query reservation records and visitor records through mobile APP.
- ◆ Visitor data statistics: The visitor system has complete visitor record query and statistics, which can specify to view the visit records of a certain day, a certain period of time, a certain department and a certain respondent, and can print reports.

4 Datasheet

- Support card and NFC
- ❖ Wiegand Output: WG26\WG34
- **A** Card (Optional):

Proximity: KKID, HID, AWID, EM; 125KHz Mifare: Mifare S50, Mifare S70; 13.56MHz

- ❖ Voltage:4-15V DC;
- ❖ Current: 220mA;
- **❖** Card Read Distance: ≤5cm:
- **❖** Card Read Speed: ≤200ms;
- QR Code Read Distance:0-20cm;
- ❖ QR Code Read Direction: 360 °





❖ Self-contained LED light source, anti-strong light interference;

• Working Temperature: $-20^{\circ}\text{C} - 70^{\circ}\text{C}$;

❖ Working Humidity:5%—95%;

❖ Dimension: 86*86*42mm (L*W*H)

❖ Weight: 128g