

SMART DOOR

RFID BASED AUTOMATIC DOOR SYSTEM

NEED OF A SMART LOCK

- ▶ Traditional Locks are generally a combination of **a key and a padlock**. In such cases, the key is generally unique and thus only a particular key can be used to open the padlock.
- ▶ But these keys can be easily copied by expert thieves and thus lack proper security of our items.
- ▶ Even without keys, the doors can be broken by applying huge amount of mechanical force and the owner has no idea of the same.
- ▶ Moreover with the help of technology, why not use a lock which requires no effort to open & also is more secure to use.

FEATURES OF A SMART DOOR

- ▶ Automated Opening and Closing System
- ▶ Authentication based Entry System
- ▶ Intrusion Detection System
- ▶ Intrusion Alert System
- ▶ Dual Lock System
- ▶ Visitors Entry System
- ▶ Resetting System
- ▶ Access Control System
- ▶ Voice/Gesture based access System (Version 2.0)

EXPLAINING FEATURES

▶ Automated Opening and Closing

- ▶ Whenever a person is inside the house and reaches a minimum distance to the door, the door will open on itself.
- ▶ After a certain time period, say 20 seconds, the door will automatically close.
- ▶ If the person is outside, it will wait for the user to identify himself to the system using his RFID.

▶ Authentication based Entry System

- ▶ The RFID sensor present outside the door shall open the door only when a user with a valid RFID shows his/her ID to the Sensor present on the door.

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▶ Intrusion Detection & Alert System

- ▶ Any user without a valid RFID won't be allowed to enter into the other side. Such a user will be referred as a **Intruder** by the System.
- ▶ If the same Intruder tries to access the area thrice, a **buzzer** is used to alert the neighbors.
- ▶ A message will be sent to the registered **Administrator** that someone tried to access his/her private area.

▶ Dual Lock System

- ▶ In case a user loses his RFID, he can simply enter inside the area by typing a password which will give him access to the designated area.

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▶ Visitors Entry System

- ▶ Any visitor, if presses the bell will send the message to the user inside the private area.
- ▶ If the user wants the visitor to access his area, he can simply allow and the visitor will be provided entry inside that area.

▶ Resetting System

- ▶ In-case the person loses the RFID, he can reset it later with a new RFID
- ▶ Password will be used to confirm the resetting of registered RFID
- ▶ A Message will be sent to the registered mobile that the RFID has been reset.

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▶ Access Control System

- ▶ If a user wishes that a particular RFID should be allowed to access the area, he can manually add that RFID at any point of time.
- ▶ Access will be given to that particular RFID after the system is updated.

▶ Voice/Gesture based access System

- ▶ A particular Gesture shown by an individual can be used to open the door. It works similar to Patterns in mobile phones
- ▶ Voice of all the registered users can be used to unlock the door.



THANKS

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