

ABSTRACT

This project is to develop an automatic security gate pass system to ensure the security over one protected area. The system will scan the incoming sedan car with a RFID reader to confirm his identity through a PLC analysis. Only identified person can proceed to the area. If the identity is not certified, the vehicle will not be allowed to enter and will be asked to leave the area with a predetermined route.

When the entrance site is free from vehicle, a green LED will light up. Thus, a vehicle can proceed to the scanning area if a green LED is light up. If there's a vehicle A is currently proceeding the scanning procedure, a red LED will light up. If there's a vehicle B comes, it needs to wait until vehicle A leave the scanning area.

RFID is used to scan the identity of the incoming vehicle number plate. If it is recognize, the entrance will open and the vehicle is allow to enter the protected site. If an unrecognized vehicle detected, the vehicle is prohibited to enter the areas and a motor beneath the scanning area will operate, and it will send the vehicle away from the area.

To leave the protected area, the vehicle needs to proceed to the exit path. Once the exit door is open, the vehicle is free to leave the area. A voice playback circuit is implementing into the system. Three different voice messages will be sent out all these three conditions.