



Survey on Real Time Vehicle Theft Identify and Control

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ABSTRACT: In the proposed embedded based automobile security system face detection system is used to detect the face of person and compare it with predefine database. When the vehicle owner is outside from the vehicle and someone try to theft the vehicle then by using FDS camera captures the image. After that the captured image compared with the predefine database. When person is valid then door will be open and if person is invalid then door will be open and if person is invalid then buzzer will be ON. Here we used GSM system for communication purpose. Although the person is valid or invalid by using GSM SMS will be send to the owners mobile.

KEYWORDS: Vehicle system; FDS camera; ARM Processor; Histogram Processing; GSM;

I. INTRODUCTION

Many people makes the assumption that car theft can occur in seedy areas of town but it can occur in anywhere. The use of vehicle becomes important in the world and also preventing it from the theft is required. Vehicle manufacturers also provide the security features of their products by advanced technologies. Biometric and non-biometric technologies were used commonly but sometimes there systems password will be hacked. In our system, we will use Face Detection System (FDS) for preventing theft of cars. In this System camera captures the image, who is going to try to open door of car that image compared with the predefined database. If the person is valid then door will be open and if the person is invalid then buzzer will be on. Also the SMS will be sent to the owner's mobile phone.

II. RELATED WORK

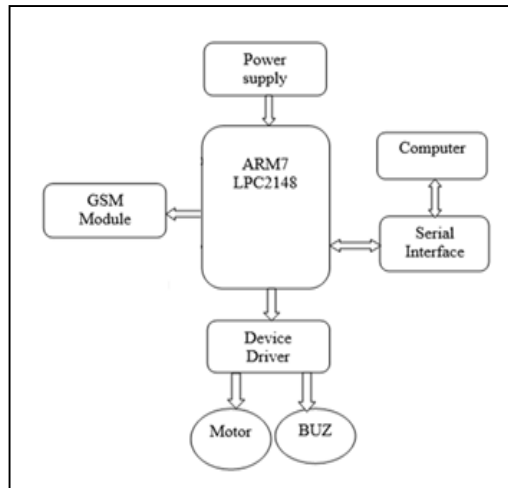
Now a day vehicle theft are increasing all over the world. So to prevent from these thieves most of the vehicle owners uses security system. The commercially biometric and non-biometric system are available easily. It can be used very commonly in anywhere for security purpose. But in those system password can be hacked. So, here we can develop a system that is based ARM-7 and operated using GSM technology. This is a vehicle theft control embedded system. In this we used the global system for mobile communication is the most popular system established in 1982 and it operating 900 MHz frequency's system is now considered as 3G (3rd generation) mobile communication systems.

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A. WORKING

The block diagram consist of ARM 7 (LPC2148), Power Supply, GSM Module, Motor, Buzzer, PC, MAX232 and Driver IC. Firstly, we can start the system and initialise UART of ARM 7. By using Face Detection System (FDS) we can identify valid or invalid person. If person is valid then send command to ARM 7 to open the door and if person is invalid then buzzer will be on. After ARM 7 will send the SMS by using GSM module to owner's mobile phone.

III. CIRCUIT DIAGRAM

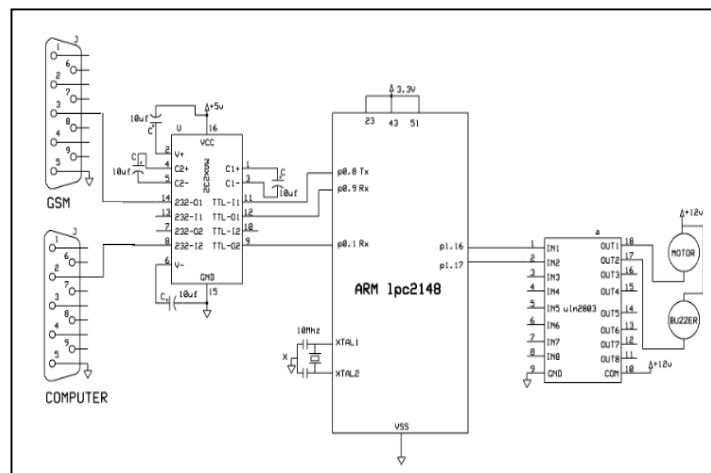


Fig. Circuit Diagram

B. DESCRIPTION:

The circuit diagram consists of ARM 7, GSM module, Personal Computer (PC), MAX232, Buzzer and Motor. GSM is Global System for Mobile Communication. It is used to send the message to owner's mobile phone according to the processing of ARM 7 i.e. if image of the person is valid then door will be open through motor and SMS will be sent to the owner's mobile by using GSM module. As well as the image is invalid then also the SMS will be sent to owners mobile. The ULN2803 IC is used for interfacing the buzzer and motor. Max232 IC is used for serial communication. The computer is used here for MATLAB processing. Face Detection is done with the help of histogram processing.

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IV. HISTOGRAM PROCESSING

The frequency of each gray level present in the image is called as 'Histogram Processing'. In the histogram number of bins represent by the image type. Those image type in the histogram of binary using two bins. In figure1 two binary images shown which is looking like check board in black boxes and this black boxes specified binary '0' as well as white boxes specified binary '1'. Two images are almost same but different in size that is figure1 (a) 11*10 as well as figure (b) 10*11 and they are having different 1's and 0's at different locations. The frequency of both the images are (bin 0 & bin1) same. They reflects that histogram of two different images in figure1 (a) & (b) are same. Gray scale images of histogram will be using 256 bins.

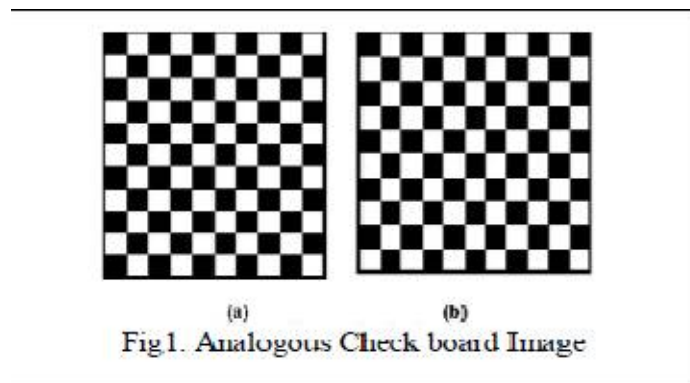


Figure2 represent the sample histogram of the input image. The peak at each bin shows the frequency of that particular of bin. Histogram face image is use any real life test images.

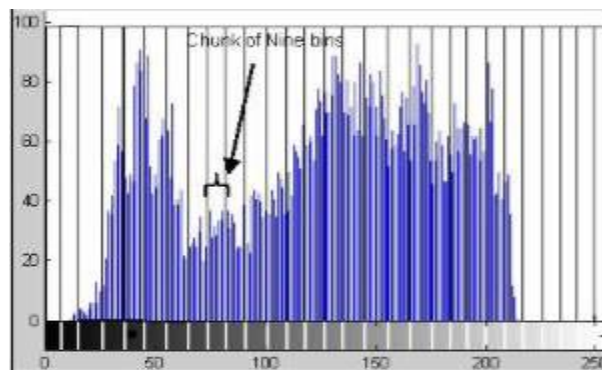


Fig-2. Histogram of an Image.

V. ALGORITHM

1. Start.
2. Initialize UART of ARM7.
3. Start MATLAB Application.
4. Click picture or set the input image.
5. Apply image processing on the input image.

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6. Check for valid person.
7. If person is valid, send command to ARM7.
8. ARM7 will drive the motor to open door.
9. If person is invalid, send command to ARM7.
10. ARM7 will send the SMS using GSM module.
11. Repeat step 4.

VI. FLOW CHART

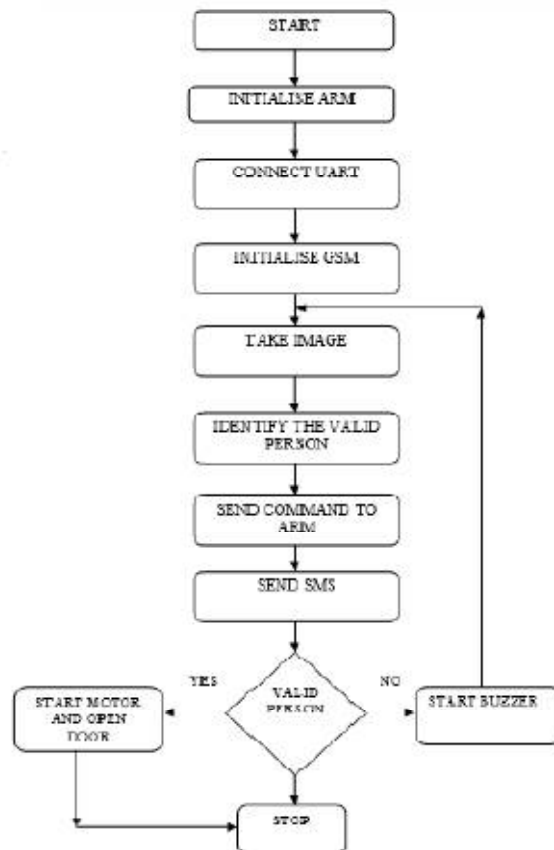


Fig- Flow Chart

VII. FEATURES

- Less cost and compact in nature.
- Reliability
- Portability: This system is very easily different vehicles.
- It is wireless control implemented a system.
- It is possible to send the SMS to police control room.



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VIII. CONCLUSION

This method describes that camera captures owner's image and if the owner's relatives or friends want to start the vehicle it will not start. To overcome these disadvantages, we can extend this paper by storing multiple faces into the database. If any person wants to open the door of vehicle, the camera compares the person's image and compare with the all stored images. If the result is matched the door will open otherwise, SMS will send through GSM to the owner's mobile.

REFERENCES

- [1] GSM- Evolution towards 3rd generation systems, Z. Zvonar, Peter Jung, Karl Kammerlander.
- [2] Anitha Chowdary Veeravalli, B.Ratna Kumar(2013) IJESR Volume-3 Issue-2 Feb 2013A.
- [3] D.Narendar Singh Associate Professor, M.tech,Ph.d Department of Electronics and Communication Engineering Anurag group of Institutions, Hyderabad , A.P, India IJLTET Vol. 2 Issue 1 January 2013.
- [4] K.Tejaswi (M.Tech), IJLTET Vol. 2 Issue 1 January 2013.
- [5] V. Balajee Seshasayee, Sri Sairam Engineering College, Department of Electronics and Communication Engg., Chennai 600044. Advance in Electronic and Electric Engineering. ISSN 2231-1297, Volume 3, Number 6 (2013), pp. 733-738
- [6] Saranya V, Assistant professor, Department of Electronics and Communication Engineering Bharathiyar Institute of Engineering for Women. National Conference on Research Advances in Communication, Computation, Electrical Science and Structures (NCRACCESS-2015)
- [7] Sabitha tamilanjani V, PG scholar, Department of Electronics and Communication Engineering Bharathiyar Institute of Engineering for Women. National Conference on Research Advances in Communication, Computation, Electrical Science and Structures (NCRACCESS-2015)
- [8] Priti K. Powale, ME-Second year EXTC Department G.H.R.C.E & M Amravati – India. Volume 2, Issue 1, January 2014
- [9] G. N. Zade, Prof. G.H.R.C.E & M Amravati – India. Volume 2, Issue 1, January 2014.