

Car Monitoring using Bluetooth Security System

F. R. M. Rashidi, M. H. Ariff and M. Z. Ibrahim

Faculty of Electrical and Electronics Engineering, Universiti Malaysia Pahang, 25000 Kuantan, Pahang, Malaysia.

ABSTRACT

Security system nowadays become a need for vehicles and available with many modern features. This car security system comes with extra secure access and intelligent alarming. The system only can be accessed and configured by owner using Bluetooth module communication via mobile phone to turn it on or off. In this project, when the alarm is triggered, an intruder alert message will be sent to the user's phone through Bluetooth communication. After the certain time, the alarm system will be triggered and by that time the user have already surrounded the compound and the probability of the intruder to be caught is higher. PIR sensor of the system will continuously monitor movement or present of human in the car. The Bluetooth module will sent intruder alert message as PIC microcontroller receive signal from PIR sensor. The PIC is programmed to wait approximately seven minute before activated the siren. The alarm system status is indicated using LED's indicator to avoid owner accidentally turned it off.

KEYWORDS:

Car Monitoring; PIR sensor; Bluetooth Security System and PIC Microcontroller

ACKNOWLEDGMENT

The authors wish to thank Ir. Zulkeflee Khalidin, Dean of Electrical & Electronics Engineering Department, University Malaysia Pahang, Malaysia, for the facilities he made available for this work.

REFERENCES

1. K.V.S.S.S.S. Salram, N. Gunasekaran, and S. Rama Reddy, "Bluetooth in Wireless Communication ", IEEE Communications Magazine, June 2002, pp. 90-96.
2. G. Lamm, G. Falauto, J. Estrada, and J. Gadiyaram, "Bluetooth wireless networks security features", Proc. IEEE Workshop Information Assurance and Security, 2001, pp.265 -272 .
3. R. Nüsser and R. Pelz, "Bluetooth-based wireless connectivity in an automotive environment", Proc. IEEE Vehicular Technology Conf.— Fall, vol. 4, 2000, pp.1935 -1942
4. P. D. Garner, "Mobile Bluetooth Networking: Technical considerations and applications", The IEE, Michael Faraday House, 2003, pp. 274-276.
5. Albert S. Huang and Larry Rudolph, Bluetooth Essential for Programmers, Cambridge University press, New York, 2007.