

AUTOMATIC INTRUDER SPOTTER(AIS)

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Abstract

Home security is the most vital aspect for every house owner either in an individual house or in an apartment. To get the absolute peace of mind you are at home or out of the home you must ensure that your home is installed with the perfect home security monitoring system. This wireless home security system can be used to provide security for residential, industrial and for all domestic and commercial purposes using GSM module. The basic component of a home security system are motion detectors. In this paper we emphasis to add more functionalities to the existing standard system design.

1. INTRODUCTION

Nowadays clearly putting our trust in locking of the doors and shutting of the windows is not even tad bit enough to keep our possessions and ourselves guarded from the criminals who will stop at nothing to steal from us. We might not be alert or not even be at that place every time to defend ourselves from such a surprise attack. The sooner the better – It is better to be alerted when intrusion is happening rather than after it has happened. If somehow we are able to know about an ongoing intrusion occurring, then we will have a chance to guard our possessions

and ourselves from the criminals who will stop at nothing to steal from us. Therefore, we need to know ASAP (As Soon As Possible) about an intruder situation, if it happens.

2. RELATED WORK

IOS-based home automation security system using General Packet Radio Service (GPRS). The home devices and the iOS application are connected to the cloud which acts as the server. The system used video cameras, microphones, and motion sensors to provide security to the home. The video cameras are motion triggered and can be viewed by the user on



their GPRS enabled devices using the client application or over a web browser. Accessing the security system over the web browser opens it up to a different set of browsing-related security issues like session hijacking, cookie stealing, and cross site scripting. Here a multi-layer home security system (HSS) has been developed which maintains six levels of security and necessary control responses against unwanted burglars and intruders. As a part of this development, the first security level uses Near Field Communication (NFC) tag, the second level uses a secured password system and the third level uses fingerprint authentication. After that, a GSM module embedded with the proposed HSS sends the logged password to a remote server via M2M communication. The server encrypts the password and notices the homeowner via an android based mobile application whether the person is an authenticated person or not. In the final stage of security, if an intruder wants to enter the room by breaking the password without NFC tag and fingerprint encryption, a Passive Infrared (PIR) motion sensor will work and sounds a buzzer for alarm. Therefore, the automatic and embedded operation of the proposed HSS makes it more secure,

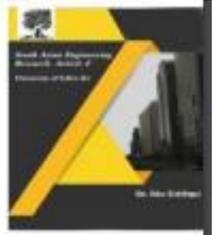
reliable and robust than other traditional systems.

3. IMPLEMENTATION

Nowadays clearly putting our trust in locking of the doors and shutting of the windows is not even tad bit enough to keep our possessions and ourselves guarded from the criminals who will stop at nothing to steal from us. We might not be alert or not even be at that place every time to defend ourselves from such a surprise attack. The sooner the better – It is better to be alerted when intrusion is happening rather than after it has happened. If somehow we are able to know about an ongoing intrusion occurring, then we will have a chance to guard our possessions and ourselves from the criminals who will stop at nothing to steal from us. Therefore, we need to know ASAP (As Soon As Possible) about an intruder situation, if it happens.

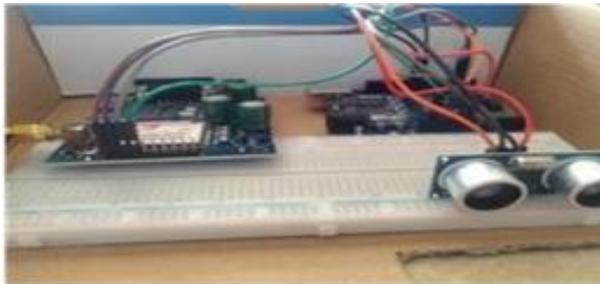
4. EXPERIMENTAL RESULTS

We proposed an anti-intruder system using Arduino UNO and ultrasonic sensor. The ultrasonic sensor helps to detect the presence of human being. The ultrasonic sensor will be kept near to the doorways, windows, near cupboards. When the home is empty or at night time the owner will turn ON the



device. If any human movement is detected the call based alert will be sent to the owner.

- Low cost.
- If the owner leave doors or windows unlocked or if he hide a key to his house outside where it can be easily found then also the theft can be detected easily.
- High efficiency.
- It protects your valuables from the thefts.
- Uninterrupted functionality.



5. CONCLUSION

Currently, awareness of the need for social innovation is constantly increasing in Russian society. Examples of social innovation at the federal level in recent years include monetization of benefits for the disabled, war veterans and servicemen, as well as remote projects and inclusive education designed to enhance social cohesion and the level of education. However, social innovation is not widespread in Russia, for a number of reasons. First of all, it can be asserted that in the majority of countries with a relatively low level of development, one finds the innovative potential of individuals and organizations significantly underutilized. One possible reason for this is the nature of the institutionalization of social practices in these areas, which often blocks innovative action among the general population, instead supporting passive behavior. Contrastingly, in other



regions the existing institutions do not block but support and stimulate innovative behavior. This “path dependency problem” is well known. Besides this, other barriers to implementing social innovation include a topdown/autocratic approach to governance, a lack of transparency, lack of engagement by the general population, and a tendency to ‘cut-and-paste’ solutions from abroad into contexts they are not suited to. We should recognize the fact that old paradigm of government aid is inadequate. What we need instead are creative and innovative solutions for fostering sustainable growth, securing jobs, and increasing competitiveness.

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