

# Android Based Human Monitoring and Image Tracking with SMS Alert

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**Abstract:** The security of one's belongings once an individual leaves his/her home is invariably a priority with increasing range of incidents of thieving, theft etc. several automatic systems has been developed that informs the owner in a very remote location concerning any intrusion or arrange to intrude within the house. 8051 has been extensively employed in past comes. However, this paper appearance into the event of associate humanoid application that interprets the message a mobile device receives on attainable intrusion associated afterwards a reply (Short Message Service) SMS that triggers an alarm/buzzer within the remote house creating others awake to the attainable intrusion. In the EXISTING SYSTEM M2M style used computer as terminal User rather than microcontroller. AT commands, a decrypt module that decodes the text message. In planned SYSTEM, Home Security is enforced. If any interrupt happens, instantly it's detected and controller communicates to the humanoid Phone via SMS. The system can watch for the reply from the mobile user for a few amount of your time to trigger the buzzer, if there was no reply then system can mechanically trigger buzzer. within the MODIFICATION section of the project, digital camera is connected to trace the Person and therefore the image is hold on within the server, so humanoid user will see the photographs from their mobile.

**Keywords:** Short Message Service, Android Application, M2M Design, Video police investigation

## 1. INTRODUCTION

Video Surveillance systems have increase their needs of dynamism in order to allow the different users (operators and administrators) to monitor the system selecting different QoS depending on the system status and to access live and recorded video from different localizations, for example ,from their mobile devices. More concretely, in IP surveillance systems some resources involved are limited or expensive so dynamic reconfiguration could become competitive advantage for system integrator and designers able to offer flexible applications adaptable to users' needs. Advances in programming paradigms have allowed increasing the dynamism and suppleness of distributed environments. Concretely, Service-Oriented approaches offer suggests that of developing decoupled applications in heterogeneous networks by shaping the thought of service A service, within the SOA context, is associate entity that receives and sends messages through well-defined interfaces, permitting building a lot of complicated applications that increase the worth of the system. this idea may be applied to QoS-aware (Quality of Service) systems, so as to ease the configuration and reconfiguration of applications. Besides, humanoid could be a software system stack for

mobile devices that has associate package, middleware and applications that may be appropriate for the event of the end-user police investigation application.

In this project we tend to gift a QoS-aware service-based design for police investigation systems, and a model of this design, wherever a video police investigation application is developed over the humanoid platform.

Recently police investigation systems became a lot of necessary for everyone's security. The embedded closed-circuit television, oft utilized in a home, associate workplace or a works, uses a sensing element triggered to show on a camera. Some styles use differing kinds of sensing elements to realize dependability by suggests that of the various options of every sensor. during this paper we tend to extend our previous style not solely by victimisation each multiple PIR sensing elements and unhearable sensors as a sensor cluster, however additionally by victimisation the MVM. Unhearable receivers and transmitters square measure situated at opposite ends. However, to cut back the interference from different frequencies in unhearable signals, we tend to use a secret writing

signal to boost the flexibility to tell apart the random interference. to boost system dependability within the experiment, we tend to specialise in the way to improve the shortcomings of the unhearable sensing element. Some analysis explores the influence of attenuation in air and noise of unhearable signals by employing a secret writing signal, whereas some provides improvement of the unhearable signal by victimisation totally different secret writing signal varieties. different analysis uses the appliance of a secret writing signal to extend resolution and distinction of pictures. {yet associate other yet one more one more approach builds a 3D image with an unhearable sensing element within the PN code that solves the matter with time delay. to boost the dependability of the unhearable sensors cluster, we tend to propose adding to the amount of bits with secret writing to cut back the chance of code breaking.

## 2. RELATED WORK

**In paper [1]** GSM based security system are much more stout than an ordinary security system. The ordinary systems are simply based on the concept of sensors. They sound an alarm on detecting movement. This system of technology has now lost its appeal as it has become a common sighting in metros where these alarms go off unnecessarily.

**In paper [2]** this demonstration shows a new concept for securely downloading keys in RFID devices, with an Android NFC enabled mobile. A dual interface RFID is compatible with this deployed ecosystem but also includes trusted computing facilities, and is compliant with the ISO 14443 standard. They use such a device, running a trusted SSL/TLS stack, in order to perform HTTPS operations supervised by an Android mobile phone.

**In paper [3]** the most advanced idea of Domesticity, in which the comprehensive controlling and monitoring of all home appliances are done by simple instant message service. Moreover, globally available GSM is the cheapest wireless medium for any time communication with your deployed device. Above all, embedded designing on FPGA emerged a new way of technology which allows coupling of multi-dimensional features of system in to a single chip package.

**In paper [4]** This research work investigates the potential of 'Full Home Control', which is the aim of the Home Automation Systems in near future. The analysis and implementation of the home automation technology using Global System for Mobile Communication (GSM) modem to control home appliances such as light, conditional system, and security system via Short Message Service (SMS) text messages is presented in this paper.

**In paper [5]** In this paper, a low-power consumption remote home security alarm system developed by applying WSN and GSM technology

is presented. It can detect the theft, leaking of raw gas and fire, and send alarm message remotely.

**In paper [6]** The security of one's belongings when a person leaves his/her house is always a concern with increasing number of incidents of theft, robbery etc. Many automated systems have been developed which inform the owner in a remote location about any intrusion or attempt to intrude in the house. 8051 has been extensively used in past projects.

**In paper [7]** Homes of the future are expected to be "digital" homes wherein almost all aspects of a home could be controlled using advanced computer technology. One important component of the digital home is the home security system (HSS) that helps to monitor and control various elements related to home security. HSS may be classified into different types including passive systems (PS), phone based systems (PBS), web-based systems (WBS), and hardware-based systems (HBS).

**In paper [8]** Home security and control is one of the basic needs of mankind from early days. But today it has to be updated with the rapidly changing technology to ensure vast coverage, remote control, reliability, and real time operation.

**In paper [9]** an intelligent security system that provides a high level of home security using visual surveillance is developed and explored in this paper. This will be very much useful in home and company automation. The main processing unit is a cortex ARM processor with Linux operating system and the board we are using is Beagle Bone Black (BBB).

**In paper [10]** the aim of this research is to design and implement a cost effective and yet flexible and powerful home security system using the GSM technology. A mobile based home security system is needed for the occupant's convenience and safety. The system is designed to detect burglary, leaking of harmful gas; smoke caused due to fire and after detecting suspicious activity it sends a alarm message to the owner number.

## 3. PROPOSED SYSTEM

In the projected system we tend to area unit fabricating an unhearable device and PIR device. Unhearable device is employed to notice the human movement and PIR device is employed to notice the temperature of the person. Once these Sensors area unit detected, the net camera is initiated to capture the image unauthorized movement. In the modification method, we tend to area unit generating AN automatic conscious of the administrator regarding the unauthorized movement. We tend to also are developing a golem application that is employed to look at the image of the Unauthorized User from the Server's information.



### 3.1 MODULES DESCRIPTION

#### LIST OF MODULES:

- I. User Registration
- II. Reference Image Capturing
- III. Back Ground Subtraction algorithmic rule
- IV. Server
- V. Alert SMS
- VI. Image Capturing by mechanical man

#### 3.2.1. USER REGISTRATION

This method is registered by providing Name, Mobile range, Address for communication & different personal info. User access the most server through mechanical man implementation to fetch out the image of the malefactor. Mechanical man SDK put in during a mechanical man mobile platform of the user. The mechanical man committal to writing is regenerate into DEX file and so united into a mechanical man Enabled transportable.

#### 3.2.2. REFERENCE IMAGE CAPTURING

Web camera is connected with the place that is to be monitored. Once the admin locks the door, he are shift on the net camera device for capturing the image. The net camera captures the primary image that is unbroken because the Reference image for any procedure method. This reference image is usually compared with ensuing following pictures for the sake the persona non grata detection by applying Motion detection algorithmic rule.

#### 3.3. BACK GROUND

##### SUBTRACTIIONALOGRITHM RULE:

Back Ground Subtraction algorithmic rule is applied to search out the Motion during an explicit area. The net camera is unbroken for any method. The reference image that is taken by the camera is compared with the any pictures taken by the camera. If same image persist, the no alert is initiated, if some movement or the motion is detected by the net camera, at once, the triggers Back Ground Subtraction algorithmic rule, for any method. This Back Ground Subtraction algorithmic rule is effective in process the subtraction the

current suspected image with the previous Reference image. If there's any element modification with reference to the reference image, at once it alerts the server.

#### SERVER

The main server can have the info of the admin's mobile range and additionally the server is connected with the transportable for causation Alert SMS to the admin's mobile. If there's any element modification when applying Back Ground Subtraction algorithmic rule, at once system alerts main server to initiate JSMS package to send SMS to the admin's Mobile furthermore as begin recording all the frames within the main server.

#### ALERT SMS

If motion detection is confirmed, at once system initiates the transportable connected with the server for causation Alert SMS to the Admin's Mobile range. we tend to use JSMS package for causation SMS to the Parent's Mobile. Admin are receiving AN Alert SMS "Motion Detected" in their transportable.

#### IMAGE CAPTURING BY MECHANICAL MAN

Once when receiving the alert SMS to the admin's mobile, admin can then login through his mobile to access Main Server via mechanical man package that is put in in his mobile. Admin will see whether or not, the extremely malefactor has entered in or the real individuals entry via Image that is recorded by the net camera then when initiating Alert SMS. The admin will decide then when either to neglect, if any real person has entered, or take action if malefactor has entered. to make a decision this admin not needed to come back directly, he will see through his transportable via mechanical man association.

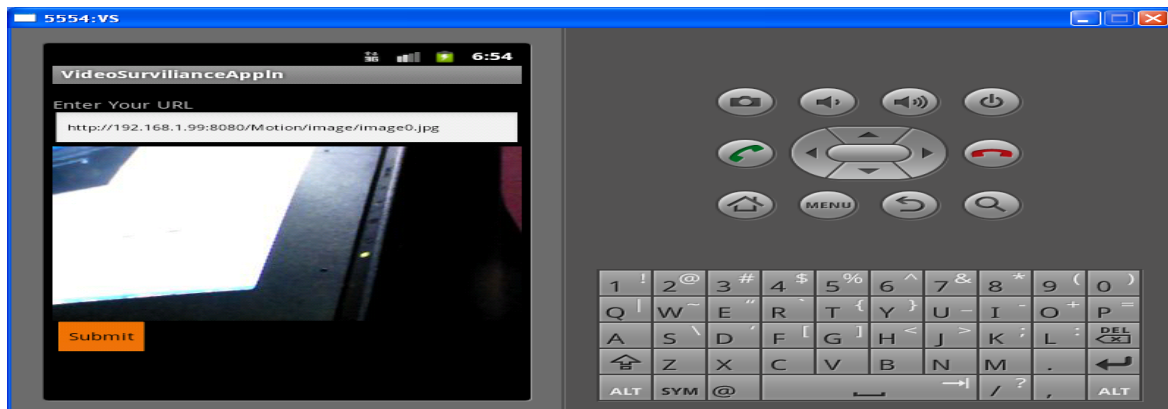
#### 4. EXPERIMENTAL SETUP AND RESULT

Software requirement of this project includes ECLIPSE as front end and TECHNO POLICE as backend while hardware requirements include

Windows OS, RAM 512 Mb, Android OS, Pentium IV processor and Bluetooth.

This page represents the result of this project:

For catching the video of the theft.



This paper proposes an android application for informing any intrusion in a house. It provides SMS feature and an alarm which alerts the owner of the house.

## 5. CONCLUSION

This project is principally developed for securing a high confidential place to avoid mischievous activities like larceny. The confidential space ought to be police investigation. As way as a corporation thinks about the monetary place is closely watched by the several department. Distribution personnel aren't enough to secure the places. Rather than distribution personnel, internet camera will be connected within the several places. thus it incessantly observes the activities happening within the specific place. For the economic thought of a corporation, this project is developed. Price thought is that the main issue of an oversized organization. By victimization this approach a corporation is economically benefitted.

The strategies mentioned higher than aren't giving importance to the protection and intimation for the computer file. Thus we have a tendency to projected system; the moving object is known victimization the image subtraction technique. The background image is deducted from the foreground image. From that the moving object is known. Here we are able to sight the precise image of the moving object.

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