

# GPS SYSTEM FOR WORK ADMINISTRATION

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**Abstract—** There are various systems for tracking the position of a vehicle tracking a human being. The main aim of our project is to track the people working on field and administrate the work done by the people. GPS(Global Positioning System) is used to track the location and time information of the person with minimum cost.

**Index Terms—** Gps system, Global Positioning System.

## I. INTRODUCTION

Human tracking system plays a critical role in many applications such as Surveillance. The aim of our project is to track the people on the work timing on field and also monitoring the work done by people by taking the images . Global System for Mobile Communication (GSM) tracking system is alike GPS system which can be used for providing real time location and reporting of person. This system works as the person having the tracker which is having GPS Technology, GSM technology and battery and a camera which is compatible for this system. The SIM with GPRS enabled facility from that the person who wants to their persons will be able to see location with the help of GPS technology and GSM Technology. The system uses the information with the help of GPS and GSM Modem and also having SIM with GPRS facility. Now a days tracking a human being has become a very crucial job, so to solve this problem its necessary to make a system which will be cost efficient and also based on GPRS and GSM on mobile phones rather then using an GPS receiver. The positioning of system is used for variety of applications such as including sea, Navigation, person tracking, surveying and mapping etc. Our proposed design is cost-effective, Reliable and has the function of accurate tracking.

## II. LITERATURE SURVEY

### A. Detailed Survey

The GAO Personnel Tracking System[2] is a fully integrated personnel tracking solution that can monitor personnel in real-time. The system is powered by three key components: GAO Personnel Tracking Software, GAO RFID

Wearable Tags, GAO RFID Readers. which tracks people only in restricted.

Real time tracking and management of vehicles has been a field of interest for many researchers and a lot of research work has been done for tracking system. In the hardware and software of the GPS and GSM network were developed. The Proposed GPS/GSM Based System Has the two parts, first is a mobile unit and another is controlling station. The System processes, interfaces, connections, data transmission and reception of data among the mobile unit and control stations are working successfully. These results are compatible with GPS technologies. In , a vehicle tracking system is an electronic device, installed in a vehicle to enable the owner or a third party to track the vehicle's place. This paper proposed to design a human tracking system that works using GPS and GSM technology as used for vehicle tracking system. This system built based on embedded system, used for tracking and positioning of any people by using Global Positioning System (GPS) and Global system for mobile communication (GSM) and a Camera on a Arduino chip set. This design will continuously watch a moving people and report the status as well as capture the images of the current working done by the people and report to the administrator.

### B. Motivations

- To design a system to tract employees working on field.
- To make assure that work is done properly.
- Minimize the cost of the resources used.
- Able to be used by small industries people.

## III. EXISTING SYSTEM

1.The GAO Personnel Tracking System is a fully integrated personnel tracking solution that can monitor personnel in real-time. The system is powered by three key components:

1. GAO Personnel Tracking Software
2. GAO RFID Wearable Tags
3. GAO RFID Readers

These three components work together to locate personnel and can be customized to address the needs of any business environment. In three simple steps, the GAO Personnel Tracking System empowers you to know exactly where your personnel are to ensure workplace safety, security, and accountability. Here's how:

STEP1: Wearable GAO RFID Tags are given to all of your personnel.

STEP2: GAO RFID Readers are installed at strategic points in your business environment such as entrances, exits, and area-wide zones so that they can “read” the signals being broadcasted by the GAO RFID Tags worn by your personnel.

STEP3: Each GAO RFID Tag assigned to your personnel transmits data. This information is then imported into the GAO Personnel Locating Software. Through an intuitive interface, you can track and locate personnel from a PC, remotely on your web browser, or even on a mobile device.

2. Accuware Whereabouts is a system that tracks the location of people and assets by following the movements of mobile devices, both globally, anywhere in the world, and indoors, with room-level accuracy. WiFi-enabled devices running the Whereabouts tracking app can be tracked, including Android wearables, smartphones and tablets, as well as Smart Tags and Combo Tags. In addition, Android devices, such as smartphones and tags, fitted with video cameras may be tracked indoors using camera positioning.

Flaws in current system

- GAO system is able to track person in a restricted areas.
- GAO system is not able to capture images.
- Accuware Wearabouts system is more costly and includes android wearable which increases cost of the device.

#### IV. PROPOSED METHOD

The proposed system to track the people working on field rather than in a particular region. The main reason to create this system is to make sure that the worker working on field are not giving any excuse for the incompleteness of work or giving any excuses about skipping their work. This allows the administrative to keep a perfect track of the work that is done on field by sitting in a room. GPS system using GSM and GPRS is used to keep the track of the location of the people and Camera is used to capture the images of on field work which will assure the administrative that the work is done perfectly. This system also keep the track of the attendance system of the employees.

C. Requirements in proposed system

There are no requirements as such when compared to existing system. In proposed system we just need to use the existing resources effectively as all requirements for setting up the device that will be used in designing the application in an effective way.

D. Advantages of proposed system

- Easy tracking of employee working on field.
- Gives assurance that work is done properly.
- Less cost as compared to existing system.

E. Explanation about our system

Given in fig. 1 is the flowchart of the System circuit, showing different states of the

Of the system and FIG 2 defines the flow of the website. As the device is switched on the software system notes the start

time of the device. Arduino system controls GPS, GSM and Camera which commands GPS to trace the location of the employee and camera takes the images and using GSM GPRS system they are send to the administrative authority of the company. In the flow of website the admin keeps the track of device which are active an track of working employees.

FIG 1.

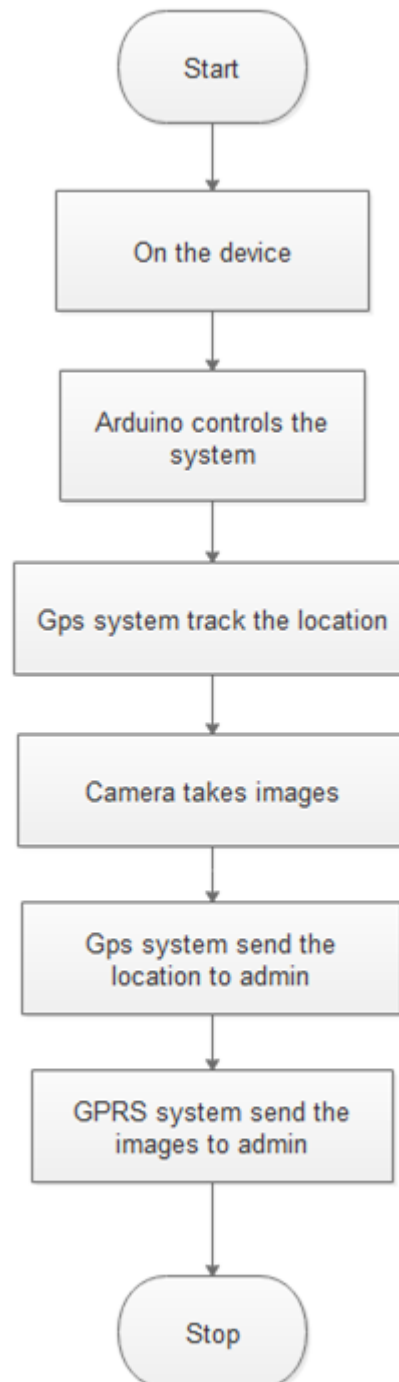


FIG 2

## CONCLUSION

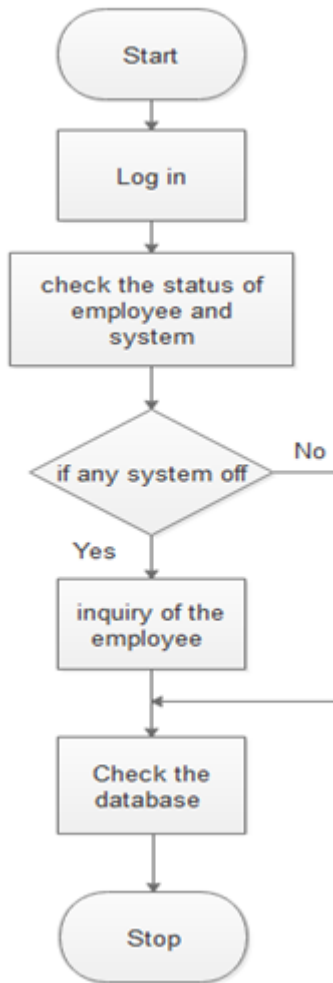
This research paper proposes a novel launching system which is proposed after deeply analyzing the existing system and understanding the flaws in it. The described system overcomes all the flaws of the existing system and brings an era of revolutionary system which is cost effective, easy to track the employee as well as work done by employee and easy to use. It will be definitely beneficial for the small companies.

## ACKNOWLEDGMENT

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## REFERENCES

- [1] Accuware Whereabouts  
<https://www.accuware.com/products/remote-device-tracking/>
- [2] GAO <http://gaorfid.com/people-locating-rfid-system/>
- [3] <http://www.bluenion.com/solutions.php?id=8>
- [4] Tracking Groups of People  
<https://cs.gmu.edu/~zduric/WebPages/Papers/ZD-CVIU1999-0119.pdf>
- [5] DESIGN AND DEVELOPMENT OF GPS-GSMBASED TRACKING SYSTEM WITH GOOGLMAP BASED MONITORING
- [6] <https://testingfourclub.wordpress.com/tutorial/arduino/gps-tracker-with-google-maps/>
- [7] <http://circuitdigest.com/microcontroller-projects/vehicle-tracking-system-using-arduino-gps-and-gsm>
- [8] Building an Advanced Invariant Real-Time Human Tracking System.



F. Flaw in our system:

Battery life is effected as device is going to be used for a long time.