AN INTELLIGENT LUGGAGE TRACKING SYSTEM USING GSM AND GPS

Mr.Venkatesan.M[1],Anbarasu.A[2],Balajikrishnan.G.S[3],Harishbabu.A[4],Jothieshwaran.M[5]

[1]Assistant Professor, Department of Electronics and Communication Engineering, Adhiyamaan College of Engineering, Hosur, Krishnagiri district, Tamil Nadu, India.
[2-5]UG Scholor, Department of Electronics and Communication Engineering, Adhiyamaan College of Engineering, Hosur, Krishnagiri district, Tamil Nadu, India.

venkateshace82@gmail.com[1], aanbuanbuanbarasu@gmail.com[2], gsbalajikrishnan@gmail.com[3], harisharul09@gmail.com[4], jothieshwaran2599@gmail.com[5]

***Abstract*—**The baggage global positioning framework is intended to follow the gear and sacks which gets lost or burglary from public and different territories. The gear global positioning framework chips away at sending SMS through GSM modem which is set up with the Arduino Uno board alongside GPS module. the be shipped off proprietor when the sack is robbery. Google map is made through which we can follow the area of the pack as it moves. As the markers are dropped which in a manner gives us the area of the pack as it moves from the proprietor.

***Keywords*—Arduino Uno, GPS, GSM, LCD, Mobile**

I. INTRODUCTION

A smart gear global positioning framework is given successfully, continuous baggage The Arduino uno based baggage global positioning framework is intended to discover the specific area of gear. The framework incorporates a GPS modem and GSM. The Arduino gets the area of the gadget from the GPS recipient and show it on the character LCD. This framework is a significant instrument for following every gear at a given timeframe and now it is getting progressively well known for individuals having It is the equipment segment appended to the vehicle having either a GPS/GSM modem. The unit is designed around an essential modem that capacities with the following programming by getting signals from GPS satellites or radio broadcast focuses with the assistance of receiving wire. The regulator modem changes over the information and sends the gear area information to the worker. Fixed Based Station: Consists of a remote organization to get and advance the information to the server farm. Base stations are outfitted with following programming and geographic guide helpful for deciding baggage area.

II. RELATED WORK

"Luggage Tracking System Using IoT" manages baggage global positioning framework is intended to distinguish the baggage which gets misplaced from general society and different regions. At the point when individuals travel, there is consistently a danger of burglary of the baggage and sacks which is the place where the proposed framework comes into account. The gear following framework chips away at a disturbing premise where an alert is set up with the Arduino Uno board and a GPS module. Additionally, the alert is turned on when the sack is burglary and goes outside a specific reach. At long last, a guide is made through which we can follow the area of the sack in this, the IoT segments are being utilized like Arduino Board and a GPS Module to follow the pack and a frontend or versatile application is made to screen [1]."Smart Luggage Tracker" gives a significant proviso in the Aviation business is gear misusing. Baggage is regularly lost or lost and instances of harm to things are normal. In this article, we proposed and executed a baggage following and handle framework utilizing RFID label which gets put away on cloud worker. This calculation is exceptionally secure and the subtleties of travelers and carriers are gotten in it. A model at the two areas of registration and registration are developed. Authentic-time area is additionally identified and gotten in a cloud worker. Every traveler has an extraordinary RFID code that must be entered on the site to know the definite area and status of their baggage. Subtleties incorporate the specific season of appearance of gear, area, net weight when stacking. This data allows the traveler to make an essential move if the gear has been lost, taken or altered [2]."Smart Bag with Theft Prevention and Real-Time Tracking" builds up the examinations identified with brilliant pack. This innovation improves that the pack can be actuated exclusively by the owner and likewise area can be followed utilizing GPS and GSM.

III. EXISTING METHOD

This article consists of a microcontroller called AVR which goes about as the fundamental segment for input and yield gadgets. Notwithstanding it utilizes a camera to keep the pack secure. The System chips away at a

disturbing premise where an alert is set up with Arduino board and GPS and the caution is turned on when the baggage is lost or goes outside from a specific reach.

IV. BLOCK DIADRAM

The current plan is an inserted application. It is constantly checking a moving baggage and report the situation with gear on interest. For doing an Arduino is interfaced sequentially to a GSM modem and GPS recipient. A GSM modem is utilized to send scope and longitude of the gear from a far-off spot. The GPS modem gives the information i.e., the scope and longitude demonstrating the situation of the baggage. The GPS modem gives numerous boundaries as the yield, yet just the National Marine Electronics Association NMEA information coming out is perused and shown on to the LCD. A similar information is shipped off the versatile at the opposite end from the spot of the gear's position is requested. An EEPROM is utilized to store the information got by GPS recipient. That is utilized for identifying directions of the gear, GSM module is utilized for sending the directions to client by SMS. Furthermore, a discretionary 16x2 LCD is likewise utilized for showing status messages or organizes. It has utilized GPS module GY-NEO6MV2 and GSM module SIM 900A.The equipment interfaces to microcontroller are LCD show, GSM modem and GPS collector. specific portable showing the situation of the vehicle regarding scope and longitude when a solicitation by client is shipped off the number at the modem. A program has been built up that it is utilized to find the specific situation of the vehicle and furthermore obvious explored track of the moving vehicle on Google map

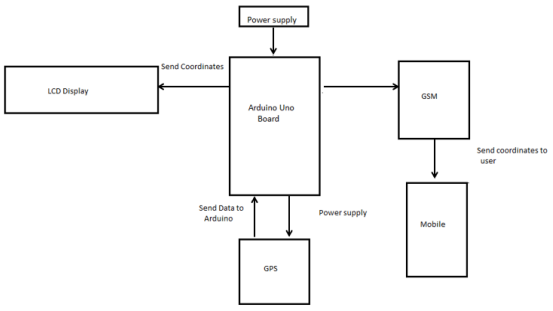

Fig. 4.1 Block Diagram of GPS and GSM Based Luggage tracking system

CIRCUIT DIAGRAM

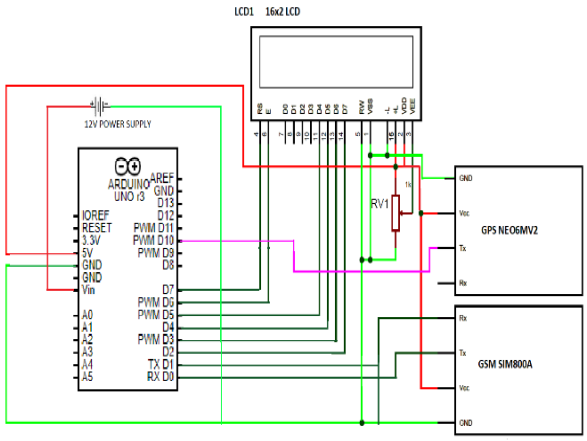

Fig. 4.2 Circuit Diagram of the System

V. PROPOSED SYSTEM

The Proposed System comprises of an Arduino UNO as a microcontroller which controls all info and yield gadgets. This venture utilizes a unique mark to keep the gear secure. It is safer than other biometrics. It accompanies GSM which causes us to locate its area when GPS is neglected to recover the information and it is one way correspondence and it doesn't need outsider software. On the off chance that any unapproved individual gets to the baggage it gives an alert sound and it sends its area to the cell phone through SMS. The RFID tag is additionally utilized in this venture to give an extraordinary ID to the baggage. The interesting id gets put away in the cloud. Notwithstanding it, the framework likewise accompanies an IoT cloud where it stores the area subtleties of the gear when an unapproved individual gets to the gear or if there should be an occurrence of misfortune or burglary.

VI. EXPERIMENTAL RESULTS

In this paper, GSM module used to send and get message from another GSM number. On the off chance that the proprietor of the gear needs to know their baggage area, they need to send discover message right off the bat. Around then, GSM module was attempting to send back to the proprietor cell phone number. In this theory, GPS module likewise contains so that message contains the area of their gear scope and longitude. On the off chance that the proprietor needs to see on Google map, it shows the area of their baggage. Subsequently, the client effectively knows their gear area when the baggage was taken. In the event that the nothing message is sending the proprietor; the activity is performed by the code so LCD was showing "Hello there". Initially, this framework

needed to stand by somewhat second to dynamic GSM module and GPS module. After dynamic framework, it needed to show the outcome.

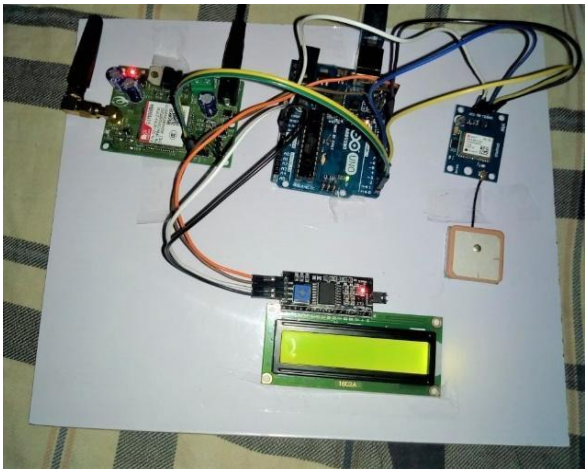

Fig. 6.1 Result of entire system

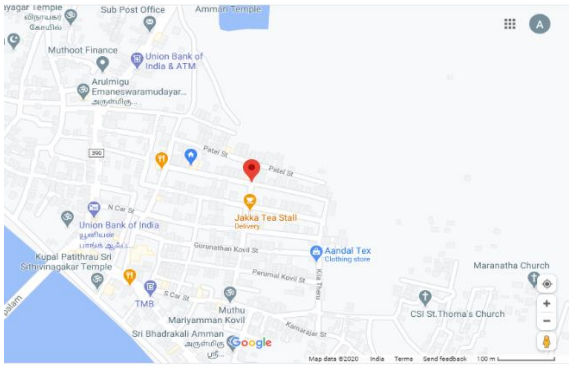

Fig. 6.2 Result for the Luggage Location on Google map

VII. CONCLUSION

The undertaking named "luggage Tracking System using GSM and GPS" is a model for baggage following unit with the assistance of GPS recipients and GSM modem. Baggage Tracking System brought about improving in general profitability with better armada the executives that thus offers better profit from your ventures. Better booking or course arranging can empower you handle bigger positions loads inside a specific time. Gear following both if there should arise an occurrence of individual just as business reason improves wellbeing and security, correspondence medium, execution checking and builds efficiency. So, in the coming year, it will assume a significant part in our everyday living. We have finished the undertaking according to the necessities of our venture. At long last the point of the venture for example to follow the gear is effectively accomplished

REFERENCES

[1] Marinetti, Luca, Luigi Patron, and Antonio Vilei. "Evolution of wireless sensor networks towards the internet of things: A survey." Software, Telecommunications and Computer Networks (SoftCOM), 2011 19th International Conference on. IEEE, 2011.

[2] De Donno, Danilo, Luca Catarinucci, and Luciano Tarricone. "A battery-assisted sensor enhanced RFID tag enabling heterogeneous wireless sensor networks." Sensors Journal, IEEE 14.4 (2014):1048-1055.

[3] Madakam, Somayya, R. Ramaswamy, and Siddharth Tripathi. "Internet of Things (IoT): A Literature Review." Journal of Computer and Communications 3.05 (2015): 164.

[4] Catarinucci, Luca, et al. "An IoT-Aware Architecture for Smart Healthcare Systems." Internet of Things Journal, IEEE 2.6 (2015): 515-526.

[5] Redondi, Alessandro, et al. "An integrated system based on the wireless sensor networks for patient monitoring, localization and tracking." Ad Hoc Networks11.1 (2013): 39-53.

[6] Asaad M. J. Al-Hindawi, Ibraheem Talib, "Experimentally Evaluation of GPS/GSM Based System Design", Journal of Electronic Systems Volume 2 Number 2 June.