IOSR Journal of Electronics and Communication Engineering (IOSR-JECE)
e-ISSN: 2278-2834,p- ISSN: 2278-8735,
PP 24-26
www.iosrjournals.org

"Soldier Tracking Health Indication Using ARM Processor"

Chaure Manohar, Desale Pramod, Mahajan Akash, Prof.A.V.Gangurde
Department of Electronics & Telecommunications, Pune University, India

Abstract : *The proposed work of this project is to develop a system that can be supplemented with real-time wireless monitoring systems which are designed and implemented through GPS network and are able to record and transmit bio-signals of soldiers. The aim of this project is to provide a medical monitoring for the soldier at any time and any place and to design a soldier tracking system using GSM and GPS to provide wireless system for monitoring the parameters of soldier such as Body temperature & heartbeat.*

I. Introduction

One of the fundamental challenges in military operations lies that the soldiers are not able to communicate with control room station. In addition, the proper navigation between soldier organizations plays important role for careful planning and coordination. So in this paper we focus on tracking the location of soldier from GPS, which is useful for control room station to know the exact location of soldier and accordingly they will guide them. Also high speed, short range, soldier to soldier wireless communication to relay information on situational awareness.

II. Proposed System

The proposed of work of this project is to developed a system that can be supplemented with real time wireless monitoring systems which are design an implemented through GPS networks that are able to record and transmit bio-signals of soldiers. The aim of this project is to provide medical monitoring for the soldiers at any time any place and to design a soldier tracking system using GSM and GPS to provide a wireless system for monitoring the parameters of soldier such as body temperature, heart beat sensor, acceleration sensor. For the emergency situation, indication purpose the buzzer system is improved in this project.

Present system

To design a soldier tracking system using GSM and GPS to provide a wireless system for monitoring the parameters of soldier such as body temperature, heart beat sensor, acceleration sensor. For the emergency situation, indication purpose the buzzer system is improved in this project. This all system operate on ARM processor like to be LPC 2138.

3.1 Proposed Methodology

Our project methodology consist of three module as below-
1) ARM based all interfacing devices.
2) ARM interfacing for LCD display.
3) GPS-GSM transceiver Module.

1) ARM based all interfacing devices:

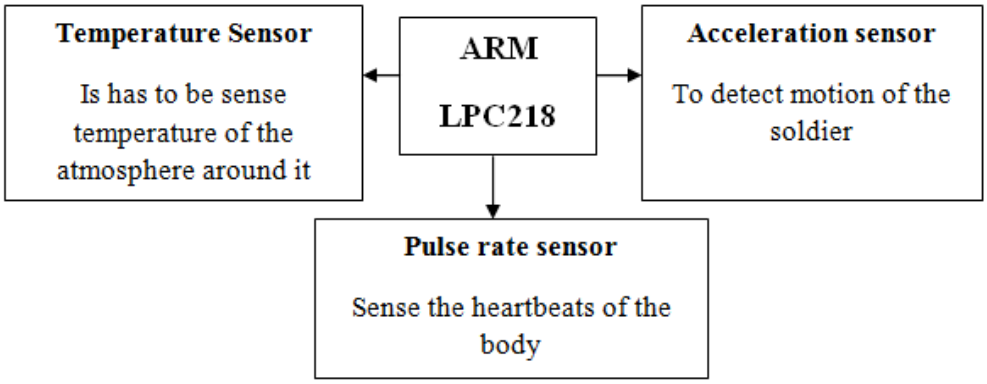


Fig.1*: Block diagram of ARM based all interfacing devices*

2) ARM interfacing for LCD display:

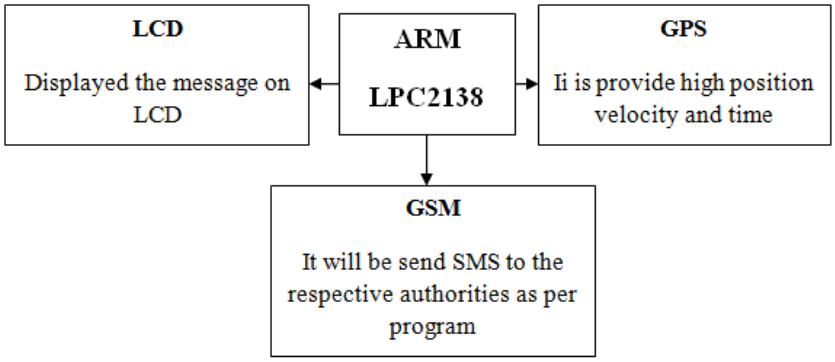


Fig.2: *Block diagram of ARM interfacing for LCD display*

3) GPS- GSM transceiver Module:

We are using our project direct module is connected to microcontroller via RS-232.

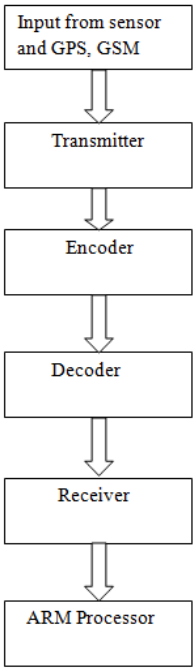
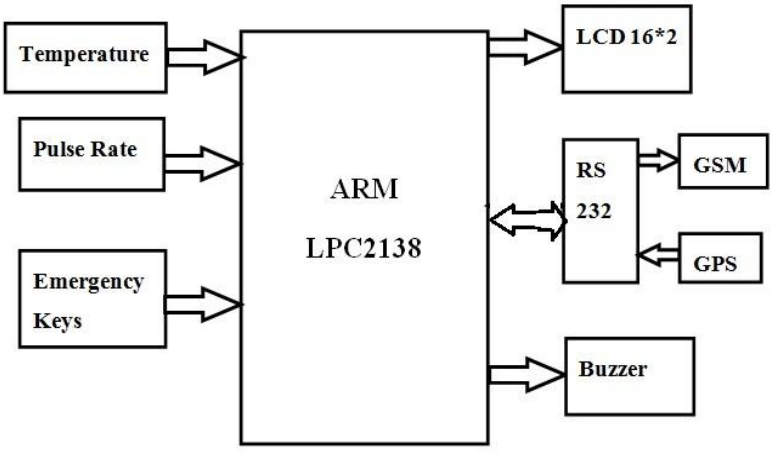
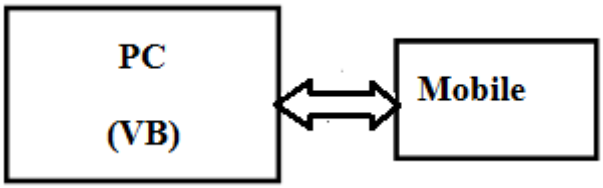


Fig.3: *Block diagram GPS-GSM transceiver module*

III. Figures And Tables



Soldier unit



Base unit

***Fig.4:** Block diagram*

IV. Conclusion

Soldiers Security and safety: GPS tracks position of soldier anywhere on globe and also health system monitors soldier's vital health parameters and environmental situation which provide security and safety for soldiers. Continuous Communication: Soldiers can communicate anywhere using RF, DS-SS, and FH-SS which can help soldier to communicate among their squad members whenever in need. Less complex circuit and less power consumption: Use of ARM processor and low power requiring peripherals reduce overall power usage of system. Modules used are smaller in size and also lightweight so that the can be carried around.

So in this way concept of tracking and health monitoring system is very useful for soldiers when they are in military field during war. And also for base station so that they can get real-time view of soldier's on field displayed on PC.

References

Examples follow:

[1]. M.V.N.R. Pawan Kumar, Ghadge Rasika Vijay, Patil Vidya Adhikrao, Bobade Sonali Vijay Kumar, "Health monitoring and tracking of soldier using GPS", E-ISSN:2321-9637,Vol.2, Issue.4, April2014.

[2]. Shruti Nikam,Supriya Patil,Prajakta Pawar, V.S. Bendre, "GPS Based Soldier Tracking And Health Indication System", Issn:2278-8875, Vol.2, Issue.3, March 2013.

[3]. Mr. Palve Pramod, "GPS Based Advanced Soldier Tracking With Emergency Messages And Communication System",Issn: 2091-2730,Vol.2, Issue.6, Oct-Nov 2014

[4]. Alexandrous Plantelopoulous, Nikolaos, G. Bourbakis, "A Survey On Wearablesensor Based System For Health Monitoring And Prognosis", Vol.40, Issue.1, January 2010.