Indonesian Journal of Electrical Engineering and Computer Science
Vol. 8, No. 3, December 2017, pp. 743 ~ 746
DOI: 10.11591/ijeecs.v8.i3.pp743-746

Child Tracker: Presence and Location Finding System to Protect Child from Missing and Unexpected Cases

G. Senthilnathan
NAAC Assistant, AMET University, Chennai

Abstract

Many times children on their own are getting away from parent's view at home or on crowded areas like malls and beach. Not in all cases, but rather from time to time it is unpretentious the kids and hopeless things happening moreover. So it is fundamental for each parent to have a dominating reaction for shield the child from missing. However, the couple of GPS based after things are open in the market, they cost high and also needs a month to month charge for GSM advantage. Energize GPS is significant for outside after and not for nearby spots like strip shopping centers or houses. Also, the things accessible in the market are not viewing the improvement of a young wearing it. Our answer utilizes two contraptions for parent and tyke, clear RF correspondence between gadgets, virtual fencing using RF and tyke improvement viewing. The parent and child can wear this device rather than watch since it displays time data to them.

Keywords*: GPS, tracking sensor, RF communication, tyke, GSM network, voice detection*

1. Introduction

Parents want to keep an eye on their babies at any time when they are away from home. That is more relevant in the present urban life, where both parents want to earn income and as a result unable to attend most of the time. GPS means Global Positioning System [1] and it is used to find out the location. Removal of herringbone effects from AEM data maps using the Radon transform discussed in [2]. A case study of effective dose reduction through ventilation scheme: Design philosophy in prototype fast breeder reactor presented in [3-4]. Shoreline evolution due to the construction of rubble mound jetties at Munambam inlet in Ernakulam–Trichur district of the state of Kerala in the Indian peninsula explained in [5]. Attenuation of Negative Impacts by Micro Algae and Enriched Artemia Salina on Penaeus Monodon and LitopenaeusVannamei Larval Culture discussed in [6]. Also, the products available in the market are not monitoring the activity of a child wearing it. In this device handy for parents. So this device called as child tracker. Child's device alerts the parent. This paper disputed from following research articles and security can be added for data access usingPrevention of Co-operative Black Hole attack on DSR protocol using Cryptographic Algorithm [7].

a. when the child removing the device
b. If, the child crosses the virtual fence.
c. If, the baby fell.
d. If, the device submerged in water for few consecutive seconds.
e. If, the child's body temperature or heart rate is abnormal.

A child can send SOS alert to the parent with a single key available. Both the device will act as a watch that shows the time, date and day information.

2. Working Principle

The main aim of this project is to tracking and monitoring the child by using wireless technology such as IR is followed byTo help the parents to control the baby from anywhere at any time, whether in the next room or away from home.The device can be kept physically at a safe distance away from the baby.

Received August 18, 2017; Revised November 1, 2017; Accepted November 17, 2017

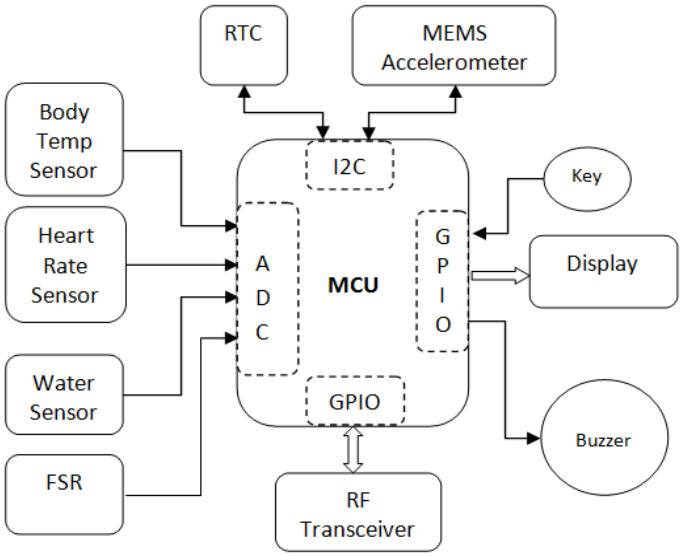

Figure 1. Child Device

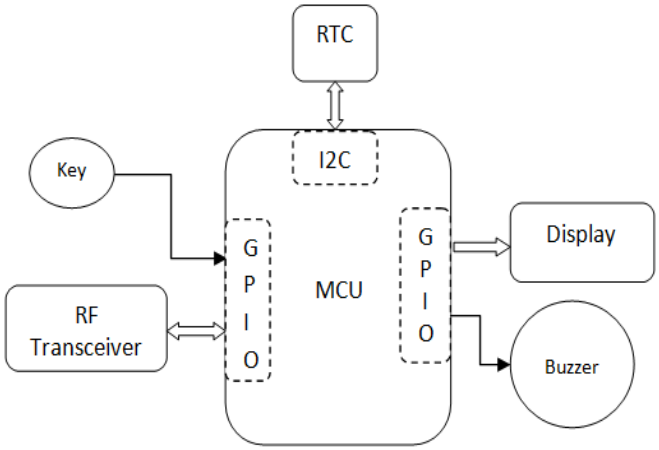

Figure 2. Parent Device

The project entitled “Child Tracking System” is an application that allows parents to monitor their child's. Figure 1 shows that the child apparatus. These devices have multiple sensors such as temperature sensor, water level sensor, heart rate sensor and pressure level sensor. Each sensor finds out the child status. Figure 2 shows that the parent device. Both devices have RF transceiver. RF transceiver is used to communicate with parent device and child device. The main aim of this paper explained that the child device communicates with the parent device. It is a wireless network design. RTC means Real Time Clock. So those devices display the real time clock. Both devices controlled by the microcontroller. Both devices have an individual screen. These display used to monitor the child status.

3. Results and Discussion

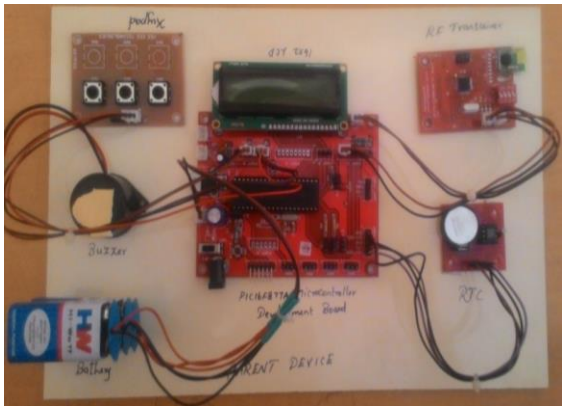

Figure 3. Hardware Implementation of Parent Device

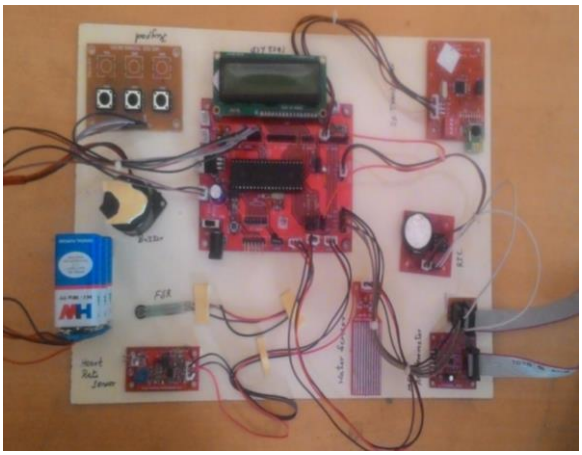

Figure 3. Hardware Implementation of Child Device

The system execution concentrates on taking after of child's advancement to and from school. A particular region can be portrayed for each tyke freely, so if the child moved outside of describing range prepared message will be given to gatekeepers. In like manner, if the baby is crying in light of current circumstances made message will be sent to the parent. The free for all switches given at child module that can be used by an adolescent to prepare his people. Now a day's most of the parents are working. So that time these devices are more useful.

4. Conclusion

Child Tracking System can overcome the disadvantages of the presently existing framework. It is a precious application which helps parents to screen their youngsters by following their phone exercises, program conduct, and GPS area. In this paper explained two devices such as parent device and child device. The parent device has Temperature sensor, Accident location sensor, Voice Detector, GSM, and GPS. It identifies the body temperature of the children. GSM send alerts from child device to parent device. So that parents quickly determine the child current location and condition. It focuses on current child position and it's checking the status of the child is sent to parent device through RF transceiver.

References

[1] Yuichiro MORI, et al. A Self-Configurable New Generation Children Tracking System based on Mobile Ad Hoc Networks Consisting of Android Mobile Terminals. 2011.
[2] J Saranya and J Selvakumar. Implementation of Children Tracking System on Android Mobile Terminals. 2013.
[3] Jae Hyung Cho and Myeong-Woo Cho. Effective Position Tracking Using B-Spline Surface Equation Based on Wireless Sensor Networks and Passive UHF-RFID. 2013.
[4] Tomoyuki Ohta, et al. An adaptive multihop clustering scheme for ad hoc networks with high mobility. 2003.
[5] Eitaro Kohno et al. Secure decentralized data transfer against node capture attacks for wireless sensor network. 2009.
[6] Luo S and Hu Q. A Dynamic Motion Pattern Analysis Approach to Fall Detection. 2004.
[7] Vennila G, Arivazhagan D & Manickasankari N. Prevention of Co-operative Black Hole attack in Manet on DSR protocol using Cryptographic Algorithm. *International Journal of Engineering and Technology (IJET)*. 2014; 6(5): 2401.