

Aegis Peranta

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Abstract

Aegis Peranta is the wireless solution to assist all parent or guardians with child-minding and child injury prevention. It aims to accomplish this by generating awareness of the child's location to the parent. This will hopefully aid to improve awareness of their child and consequently reduce child injuries. Aegis Peranta is engineered to always keep an eye on the children by radio frequency (RF) communication and infrared (IR) trans-receiver and micro controller with the help of encoder, decoder and LCD display

1. Introduction

Child safety at home has been identified as one of the most important issues that concern parents. The home is responsible for the highest number of injuries amongst young children. Due to the busy lifestyle of today's parent, continuous supervision of their children can sometimes be demanding.

For the serious injuries, sudden lapse of awareness of their child's whereabouts is all that is required and can occur within matter of seconds. The outcome can range from minor to disastrous, but is an outcome that can be avoided with today's solution and technologies.

Our project Aegis Peranta, is a home-use system developed to always keep an eye on the child at home. Aegis Peranta is a complete wireless system created to assist child minding and reduce the risk of child injury at home. It uses microcontroller technology and proprietary RF communication with IR transmitter along with encoder and decoder to provide parents with an instantaneous link to their child with constant awareness of their child's location. It will alert the parent when children come close to potential dangers through a buzzer or with a LCD display.

2. PROJECT FEATURES

It operates by providing parents with immediate alerts when their child is in a dangerous area. Aegis Peranta

will detect the location of children and provides the parent the information. The parent has the option to respond to the alerts and/or contact their child through the wireless that Aegis Peranta provides. Aegis Peranta will succeed to provide constant child awareness to allow peace of mind for any parent.

The Aegis Peranta system provides parents with information regarding the locations of children. It uses proprietary Radio Frequency (RF) communication as a means of wireless communication between modules. Alerts can occur if the child in the system moves within proximity of an unsafe or restricted area that is predetermined by the user. This will detect the child and notify the parent if the child enters an area where potential dangers are already identified. It notifies parent if a child leaves a predetermined area. It can be used to alert the child about potentially dangerous household areas. It support the need of the child to be aware of their boundaries while not strictly confining them

3. Application

- Industrial security system

Aegis Peranta technology can be applied for industrial security system. It can act as a security system for maintaining official and high level documentation.

- Educational security system

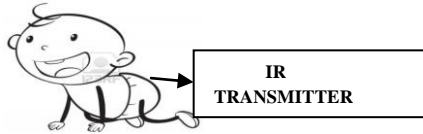
Aegis Peranta technology can be applied for educational institutions security system. It can act as a security system for maintaining question papers and important college documentation.

- Society alertness

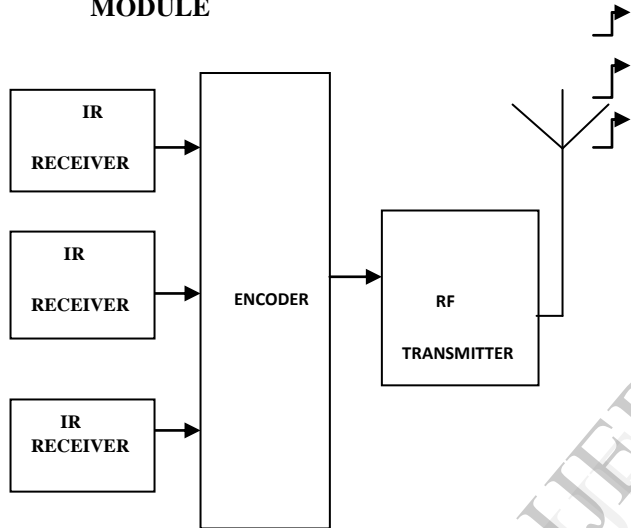
Aegis Peranta technology can be applied for public safety. It can alert the public from the danger areas like manholes, open bore wells etc.

4.BLOCK DIAGRAM

- CHILD MODULE



- POTENTIAL DANGER REGION MODULE



beneficial for the society. In future, we would like to design in a way such that it is compact and easily affordable and cost effective.

6. Acknowledgement

We wish to thank all the faculty members of our dept for providing their constant support and encouragement without which this wouldn't have been possible. We wish to thank our HOD for providing us with all the facilities required.

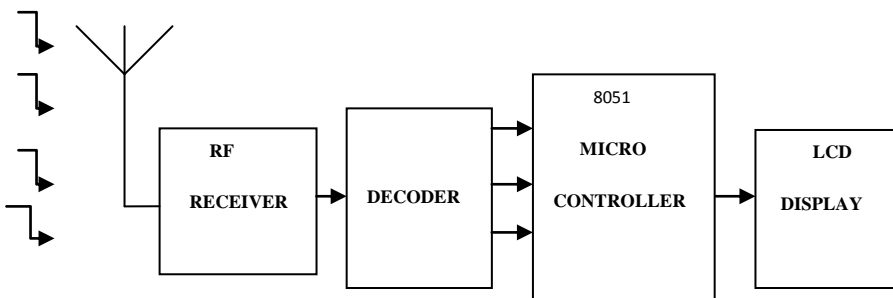
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- PARENT MODULE



5.Conclusion

The Infrared (IR) rays are received and the child location is displayed through a LCD display using 8051 micro-controller through RF communication .The device has many applications as listed above and it is