Abstract - This research work is centered on providing sufficient supervision system that is capable of reducing the chances of harm or risks to life threatening situation in children. The scholars are concern mainly with the aspect of children neglect (supervision). The proposed system network detects the position of the child around the vicinity that is considered to be dangerous and instantly initiate a sequence of response through the network. This research work was greatly and further inspired by the death of Renfred Okonigene, who was born on March 14, 2014 and drowned in a well on February 11, 2017. The proposed system to be developed is therefore to be called “RENFRED-OKONIGENE CHILDREN PROTECTION SYSTEM NETWORK”. The final system is to be developed, taking into consideration, most regions of Africa and Asia where there is poverty. This research work is still at its early stage.

Keywords: Renfred-Okonigene, Children protection, Child Neglect, Envelope, System network, Supervision

1 Introduction

The Child Protection System is one major system of intervention of child abuse and neglect in the USA. Child protection and child safety are a consistent issue in modern society.

Parents who wish to provide personal protection for their children can have insufficient level of awareness about the child. In some instants parents can become adequately protective or over-protective. As a result of increasing awareness of child protection, parents go for new children protection devices, alarms, child transmitters, pool alarms and other gadgets. We studied the several wearable gadgets for specific purposes that currently exist such as the likes of Guardian’s smartwatch, Revolutionary Tracker, Hi Tech wireless security alarm and kid alert.

Therefore, focus will be on neglect or supervision of children.

Child neglect is a form of child abuse [1-4] which results to Parental failure to provide for a child, when options are available. However, due to the fact that there are no specific guidelines about child neglect makes the definition of child neglect broad.

Thus, the World Health Organization (WHO), in the United States, the Centers for Disease Control and Prevention (CDC) and Child Abuse Prevention and Treatment Act (CAPTA) differently defines child maltreatment, abuse and neglect [5-10].

Thus, neglectful acts can be divided into six sub-categories which are: Supervisory neglect, Physical neglect, Medical neglect, Emotional neglect, Educational neglect and Abandonment [11].

From literature there are lots of research works going on about children protection devices. However, none considered providing immediate protection before possible human intervention. It is this possible time lag that this research work tends to address.

2 Methodology

The scholars intend to update and avail themselves with the latest technology in children protection devices, through literature review of published work as it relates to children protection. The system can be modified to achieve its objective.

The system will be made up of three major components namely: the hardware, the software and system security.

There will be lots of sensors that will be will be deployed in the entire network. The sensor senses the presence of the child around the facility and the data of the child body radiation (heat) is processed and analyzed for further necessary action. Parents and guidance can monitor all what is happening to their children through the network. The entire proposed system network is also design to protect the child from getting into trouble or prevented from dangerous sharp objects. It will prevent the child from falling into ditches, pits, gutters, wells and gullies that can cause serious body harm and even death. When the child body is sensed to be in danger the system immediately respond to provide an immediate protection. The service to be rendered to save the child will be automatically made available when at risk due to poor supervision. In other
words this proposed system will breach the gap between the
time of possible risk or danger and intervention.

This proposed system will have the capability for an
immediate intervention when the child is in danger before any
human intervention. The system will create an envelope
instantly to engulf the child thereby preventing suffocation,
body harm and burns or crushing. It will be cost effective and
the technology will be compatible with iOS and Android
devices.

A good knowledge and understanding of the drone technology
as it relates to positioning and navigating in space will be
deployed. A drone is any unmanned aerial device. The devices
are known to be remotely piloted aircrafts. Drones are
remotely controlled devices, can transmit data back to a
ground source and are unmanned

Also necessary are review in cloud computing, health
informatics, biometrics, pattern recognition, artificial
intelligence and robotics.

The researchers intend to build modules and then model the
entire system network. The model will be simulated to test
the conditions under which a real time system can be built.

Laboratory experiments will be carried out to test the
durability and compatibility of the required sensors. The
algorithm for each of the modules will be tested and then step
by step the modules will be coupled together.

The material for the envelope will be fabricated and several
tests are to be carried out to ascertain the suitability of the
material for the task of protecting a child.
It will be important to educate parents that the best defense for
their children is calmness and well-informed parenting.
Parents would be educated to know their children habits, the
child's innate sense of right and wrong.

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