

Project Design Phase-I
Proposed Solution Template

Date	10 October 2022
Team ID	PNT2022TMID23803
Project Name	IoT Based Safety Gadget for Child Safety Monitoring and Notification
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<p>Kids are the heartbeat of parents. Today, there is an increased concern for their safety especially when crimes against children are increasing rapidly.</p> <p>Primarily special children require continuous monitoring from their parents thus restricting their freedom.</p> <p>With the lack of availability of affordable child monitoring systems, it is hard to monitor the whereabouts of children. The safety of children is very critical since they cannot protect themselves.</p>
2.	Idea / Solution description	<p>This project proposes a smart IoT Based device that can help reduce parents' insecurity with regards to their children's whereabouts in real-time. Our project assists the parents to continuously monitor their child's location.</p> <p>A geofence also called a "circle of safety" is created around the child within a particular location.</p> <p>This guarantees that the parent can leave their child within the geofence and the child's location is continuously monitored.</p> <p>If the child crosses the geofence by any chance notification will be generated.</p> <p>These notifications will be sent according to the child's location to their parents or caretakers.</p>
3.	Novelty / Uniqueness	<p>The novelty of this project is that immediate notifications would be sent to the parent or caretakers as soon as the child crosses the geofence.</p> <p>This can ensure that the required actions can be taken by the parent.</p> <p>Through this, child safety can be ensured and the crime rates can be reduced.</p> <p>Through this project, the location of the child can be stored in a database as well.</p>

4.	Social Impact / Customer Satisfaction	<p>According to parents, children with special needs requires to be in their sight while enjoying their own freedom. This project improves the safety index of places.</p> <p>The location of the child is being continuously monitored thus child safety can be ensured and the crime rates can be reduced.</p> <p>By this system, it is comparatively easier to keep a track of a child's current location.</p>
5.	Business Model (Revenue Model)	<p>This project can be sold to parents having special children on a monthly subscription basis. This project also has higher scope when sold to children's centres.</p> <p>As this project is very cost-efficient and affordable it can be easily purchased by people.</p>
6.	Scalability of the Solution	<p>In our system, we automatically monitor the child in real-time using the Internet of Things, and GPS. This project can be further improvised by including a panic button using which the child can alert the parent at the time of trouble.</p> <p>A heartbeat and temperature sensor can also be integrated with this project to monitor the child's health.</p>