PROJECT DESIGN PHASE I
PROPOSED SOLUTION

DATE	29 SEPTEMBER 2022
PROJECT NAME	IOT BASED SAFETY GADGET FOR CHILD SAFETY MONITORING AND NOTIFICATION
TEAM LEADER	MONALISA M
TEAM MEMBERS	KIRUTHIKA D MADHUSRI J RAHAMATH SHIHANA S

PROPOSED SOLUTION

SI.NO.	PARAMETER	DESCRIPTION
1.	Problem Statement (Problem to be solved)	With the increasing rate of child kidnapping and trafficking and lack of tracking technology for child, there is limited application for child monitoring. Hence an IoT based safety gadget for child safety is probably the need of the hour today
2.	Idea / Solution description	A good solution to this issue would be to design a smart wearable Internet of Things sensor based device for monitoring the environment of a child along with a mechanism for tracking the child. The gadget will make use of GPS and a python script to publish the location details to the IBM IoT platform. The wearable also functions to send immediate alerts to the user through in case if the child crosses the geofence.

3.	Novelty / Uniqueness	All the existing systems make use of GPS and a mobile app to track and receive alerts regarding the child's location, while this system make use of the IBM Watson IOT Platform and IBM Cloud Services which is reliable and efficient to maintain the database of the child's location. The parent can set geofence and receive alerts through the web application which is user friendly and secure Created using the Node Red Service. .
4.	Social Impact / Customer Satisfaction	The main concern of any parent would be the safety and security of their kids. The design of this model does not mandate a lot of technical knowledge from the user to operate and it is simple. The purpose of this device is to facilitate the guardian or parents in locating their child with ease and ensuring its well-being.
	Business Model (Revenue Model)	The target audience of this device is majorly the parents. Considering the Tracking ability of the device, Hardware quality, used technology and sensors, the starting range of price would go from Rs. 6000 and above. This type of wearable safety system is of utmost importance today and would be a must buy gadget in the market today.

6.	Scalability of the Solution	With the present needs for monitoring the child, the system is designed. It has a location database to maintain the entire location history of the child and the parent can set the geofence to determine the safer boundary of the child. . If there is a need for integrating additional sensors to improve accuracy, it can be done to make the system efficient in the long run.