Project Design Phase-I Proposed Solution

|  |  |
| --- | --- |
| Date | 19 October 2022 |
| Team ID | PNT2022TMID18256 |
| Project Name | IOT Based Safety Gadget for Child Safety  Monitoring & Notification |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

|  |  |  |
| --- | --- | --- |
| **S.No** | **Parameter** | **Description** |
| 1. | Problem Statement (Problem to be solved) | The rate of child kidnapping and trafficking is increasing and there is only limited applications for child tracking and monitoring. Therefore, developing an IOT based safety gadget for child to track their location constantly to ensure the safety of the child. |
| 2. | Idea / Solution description | The problem is solved by designing a smart wearable device, which consists of GPS module, PUSH button and sensors. The information from the sensors are sent to IBM Watson IOT platform. If the child crosses the Geofence the alert will be sent to the user’s parents and guardian. |
| 3. | Novelty / Uniqueness | All the existing solution make use of GPS module, temperature sensor to measure panic condition of the child and a panic button. These solution does not provide exact location of the child. While, this solution makes use of IBM Watson IOT platform and IBM Cloud which is efficient and database of the child’s location will be maintained. If the child crosses the geofence, the alert or beacon is sent to the parents which is created by using Node Red Service. |
| 4. | Social Impact / Customer Satisfaction | The safety and security of the child is the main concern of the parents. This proposed solution does not involve so much of technology to operate and it is simple. The motive of this wearable device is to facilitate the parent or guardian in continuous monitoring of the child’s location with ease and ensuring their safety. |
| 5. | Business Model (Revenue Model) | The target customer of this wearable device is majorly the parents. Adding in account the tracking ability of the device, sensors and technology used, quality of hardware the starting range of price would go from Rs.8000. There is a huge demand for this system nowadays. |
| 6. | Scalability of the Solution | Due to lack of tracking application this solution is proposed. 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. Further if any sensor can be added to increase the accuracy, it can be integrated and the system can be run efficiently in the long way. |

|  |  |  |
| --- | --- | --- |
|  |  | safety system is of at-most 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. |