

Ideation Phase

Brainstorm & Idea Prioritization Template

Date	19 September 2022
Team ID	PNT2022TMID15120
Project Name	IoT Based Safety Gadget for Child Safety Monitoring and Notification
Maximum Marks	4 Marks

IOT-BASED SAFETY GADGET FOR CHILD SAFETY MONITORING AND NOTIFICATION

IDEA 1:

The device has IoT monitoring and a GSM module that allows the child to be monitored at all times. It also has numerous sensors that are connected to a CPU and are used to detect exact signals such as heart rate, temperature, and other dangers and alert the parents. In a power outage, the wearable serves as a backup. On the device, there is an additional panic button. The purpose of this button is to notify parents and the police of a child's current location whenever they are in a perilous scenario. A GPS module is utilised to access their present location, and a GSM module assists in transmitting the information via SMS to designated contacts. In this approach, the device tries to provide child safety while remaining unobtrusive.

IDEA 2:

Our proposed system is based on the Internet of Things-based Smart Child Safety Wearable Device System designed as an efficient and low-cost IoT-based system for monitoring infants in real time. This system plays a key role in providing better care for the lost children until they reconvene with the parents. In this present era, most wearable devices today are designed based on the location, activity, temperature, pressure, etc of the child and inform the parents via GPS. Therefore it is intended to use voice calls as a way of communication between the parent's mobile and the child's wearable device. The system operates on the microcontroller board and functions by sending and receiving notifications, calls, and voice messages via GPS.

IDEA 3: A portable device that will have a pressure switch. As soon as an assailant is about to attack the person or when the person senses any insecurity from a stranger, he/she can then put pressure on the device by squeezing or compressing it. Instantly the pressure sensor senses this pressure and a conventional SMS, with the victim's location will be sent to their parents/guardian cell phone numbers stored in the device while purchasing it, followed by a call. If the call is unanswered for a prolonged time, a call will be redirected to the police and the same message will be sent. Additionally, if the person crosses some area that is usually not accessed by the person then a message with the real-time location is sent to the parent/guardian's phone via conventional SMS.

BENEFITS OF PROPOSED SOLUTIONS:

Easy Availability and Affordability Tracking of missing kids can be made easily High Data accuracy Guarantees peace of mind for parents High reliability, efficiency Short response time, and high accuracy. DEMERITS OF PROPOSED SOLUTIONS: Gadgets release a form of radiation referred to as Electro Magnetic Frequency (EMF), which has been cited as a form of carcinogen—a substance capable of causing cancer in living tissue. High Cost but once it is implemented the expenses can be reduced.