VSB Engineering College, Karur-639111 Department of Electronics and Communication Engineering

Project Design Phase-II Solution Requirements(Functional&Non-Functional)

TITLE : IoT-Based Safety Gadget ForChild Safety Monitoring

And Notification.

DOMAIN NAME: Internet Of Things

TEAM ID : PNT2022TMID33608

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Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form
		Registration through Gmail
		Registration through SMS
		Registration through Call
		Registration through Facebook
		Registration through Instagram
FR-2	User Confirmation	Confirmation via Email
		Confirmation via OTP
		Confirmation via Call

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution. $\label{eq:following} % \[\frac{1}{2} \left(\frac{1}{2} \right) + \frac{$

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	*A mobile mini setup will help send the SMS to parents.
		*We can use sensors to turn on the mic of the child's side.
NFR-2	Security	*We can use sensors to detect the child's heartbeat and
		temperature.
		*We can use the GPS and GSM to track the live location.
NFR-3	Reliability	*We can use the cloud to store the monitoring data of the
		children.
		*We can use the wifi modules to send the monitoring data.
NFR-5	Availability	*This system is developed using a board programmed in
		embedded C and interfaced with temperature, and
		heartbeat.
		*It is available in online.
NFR-6	Scalability	*It is clearly explained the IoT concept, child safety
		issues, and the need of using a child security System.
		*Child safety can be ensured and the crime rate will be
		reduced.
NFR-4	Performance	*The novelty of the work is that the system automatically
		alert the parent /caretaker by sending an SMS when
		immediate attention is required for the child during
		emergency.
		*The parameters such as touch, temperature, and heartbeat
		of the child used for parametric analysis