TITTLE	AUTHOR	YEAR	METHODOLOGY	FINDINGS	PROS / CONS
My Kid: An Android Based Child Tracking System	Kumar, M. T., Ravi, A. P., Balachandran, A., Reshma, K. C., & Suresh	2016	Android, GPS, GSM, Ipc2378	My Kid is a child tracking system which contains child module with the assistance of which kid press the push button and PIC18F45K22 microcontroller gets on and send signal to GPS. At the point when supply is given to GPS board(fig.), by detecting of current position of kid and the information get sent to microcontroller.	Pros: child's position and its location is sent to the guardians Cons: network coverage
Child tracking system	Lee, Chun Hong	2016	GLONASS, GPS, A-GPS, voice-monitoring System	app that can track and monitor the child location. Child monitoring is always come to a problem for parent who need to work day and night in the company. The parent will get problem in knowing where their child going or leaving during their working hour.	Pros: These systems offer the features in which the parents can track their child in real time and the alarm triggering feature which will trigger the alarm when counter with a specific event Cons: The limited number of choices, price
"An innovative approach for women and children's security-based location	Velayutham, R., M. Sabari, and M. Sorna Rajeswari	2016	GPS to detect location and GSM mechanisms	Now-a-days children and women are facing many securities related problems. In such situations, they are helpless and don't have any way to protect them or	Pros: this system helps them to seek help in any critical situation Cons: network coverage

tracking system				inform it to their family members,	
Tracking system—A proposed model on literature review	Kalaiselvi, K., and S. Karunya	2017	GSM used for mobile communication & GPS latitude and longitude positions through direct satellite connection.	monitors children, adult or aged people in an individual basis. This type of tracking is done due to children who helpless at the time of lost from school to home or home to school	Pros: to track and monitor the children easy
Embedded lockets for multipurpose tracking system	Sundaraganapathy, Karunya, S. N. S. Rajin, and S. Ramamoorthy	2017	AVR Microcontroller Keil Software Voice Board gps , gsm, camera	If the child crosses the boundaries (from home to school and till back to home) the alert message will be send to the parent's mobile number, call voice playback of the child will also be sent automatically and it will also provide the last image of where the child exactly missed will that be sent to the parents' mail id randomly.	Pros: Tracking the movement of the children, adults and aged people, Regular check-up in their health abnormalities and Transfiguring the mentioned into locket model. Cons: Delay of receiving the signals
Child safety wearable device	Moodbidri, Akash, and Hamid Shahnasser	2017	GPS, Temperature, buzzer	This paper describe SMS text enabled communication medium between the child's wearable and the parent as the environment for GSM mobilecommunication is almost present everywhere	1.The major advantage of the purpose of this device is to help parents locate their children with ease. 1.Removing the device unit from the hand or gets damaged is prohibited

ChildGuard: A child-safety monitoring system	Gao, Zhigang, Hongyi Guo, YunfengXie, Yanjun Luo, Huijuan Lu, and Ke Yan	2017	Web server, satellite, application(watch, mobile …etc)	The ChildGuard system structure and functions: (a) The system has three main parts—an application installed on guardians' mobile devices, an application installed on children's mobile devices, and a web server. (b) The two main functions are in-path safety and region safety.	1.The polyline set in the minimum surrounding square that covers the child's position point CP and polylines that may have a minimum distance 1Network issues will be occur
Child safety system based on iot	D'Errico, Leonardo, Fabio Franchi, Fabio Graziosi, Claudia Rinaldi, and Francesco Tarquini	2017	RFID, GPS	The focus is on the daily route from home to school. IoT paradigm is exploited together with different localization techniques	RFID and GPS, in order to design a solution for parents willing to make certain of their child's following the main steps to school or home side effect will occur to the child
RFID BASED SCHOOL CHILDREN SECURITY SYSTEM	RHemalatha, Divakar S., D. Logesh, S. Manoj Kumar, and S. Manoj Kumar	2017	TRANSFORMER RECTIFIER PIC MICROCONTROLLER GMS MODULE RADIO-FREQUENCYIDENTIFICATION (RFID) RTC [DS-1307]	This security system endeavours the safety transportation for the school children in a daily life	1.This system uses RFID for detecting the child is enter or leaves the bus along with the stopping place of the children 1.Wearable is effectively compare to this process
IoT based smart school bus monitoring and notification system	Raj, Judy Thyparampil, and Jairam Sankar	2017	Rfid, gsm	The focus is on the daily route from home to school and vice versa, assuming the use of school buses.	1.RFID technology efficient tracking capabilities is tested in children's tracking and monitoring during their trip to and from school by school buses. 1.Network issues
A Smart Security for Child Safety	Soundarya, P., M. Nivetha Kumari, and J. Jayachitra	2018	RFID, GPS, GSM	This security Wearable Device will keep the child safe and also the abusement against the child will be decreased	1.This application will prevent the child from harassment and kidnapping 1.Removing the device unit

					from the hand or gets damaged is prohibited

Smart Child Monitoring Device (S-Cmd)	Pushpendra Kumar Pateriya Dr. Parminder Singh Jitesh R U ShivamGumber	2019	PIR Sensor,Sound Sensor,Air Quality Detector Sensor,Moisture Sensor	This Product, a Smart Child Monitoring System utilizing IOT which will assist the Parents with monitoring their kid regardless of whether they are away from home and distinguisheach movement of the Baby from any far off corner of the world	1.It is used to give live updates of baby 1.side effect will occur to the child
Advanced Child Tracking Monitoring System	Praveen Kumar, G	2018	wearable device and sensors	Thewearable SOS button clicked it sends signal to the command centre requesting for help	1.As the system Is working properly but there is some limitations like, once the kid goes out of the campus , we cannot find the kid location. If the kids interchange the device and do something then identifying is big task 1.Auto cad will be used to simulate the area in which we will be working on , its more or less like a simulation tool which says were the kid is and send help
Activity Tracker Wrist Band for Children Monitoring using IOT	T. Bhanupriya, Dr. T. VP. Sundararajan	2018	TEMPERATURE SENSOR,HEART BEAT SENSOR,GSM	This systemmainly focuses on a wireless method which will alert andcommunicates with secure medium and can perform the realtime monitoring of particular zone and detect the safety withefficient accuracy	1.The Activity tracker can been used for the elderly ill people, physically challenged and children in a better way fixed withreal time cameras for more precision based results and realtime accuracy
Child Security Device	Alankrit, Mishra Malbika, Singh Monika, Yadav	2018	GSM and GPS	SAFE KIDS PAXIE BAND is a highly versatile wearable device, this device also measures the temperature and heartbeat of children	1.This ID-CARD based system is developed to overcomes the drawback ofexisting wearable. 2. it primarily focuses on tracking a child's position and its location issent to parent's mobile phone which the parents can access by clicking on the link sent via text message

Child Safety Monitoring System Based on IoT	N. Senthamilarasi	2019	Temperature sensor Pulse sensor GPS GSM Web camera Raspberry pi microprocessor	To prevent children before being attacked, an autonomous real-time monitoringsystem is necessary for every child out there.	1.it easy for parents to track their children and to visually monitor them on regular basis, which makes them ensure the safety of their children and reduces the rate of incidents of child abuse.
Smart Child Safety Wearable Device	Ranjeeth, Bannuru, B. Srinivasa Reddy, Y. Manoj Kumar Reddy, S. Suchitra, and B. Pavithra.	2020	GPS tracker	This task is to have an ordinary correspondence between the kid and parent through the gadget which helps in finding the area, pulse and temperature of the kid utilizing the gadget empowered with the pulse sensor, temperature sensor and GPS tracker	1.This gadget empowers association between the youngster and parent through the WIFI module cooperation utilizing IoT. 1.The sensors are activated automatically when they are subjective to the miscellaneous activities.
Wearable Child safety System	A N Jayanthi	2020	ARDUNIO UNO GPS MODULE TEMPERATURE SENSOR PULSE SENSOR LCD DISPLAY Web camera	Camera Module can be used for surveillance of the child surroundings. This gets a clearer picture of the location or place this wearable can also be incorporated on a camera module . The hardware that can be used would be aadafruit TTL serial camera or any other camera module.	1.The main idea of this wearable arrangement arises from the challenging need for child safety as there can be circumstances where child gets missing in most of the crowded areas. 1.Removing the device unit from the hand or gets damaged is prohibited
A Survey on Child Safety Wearable Device to Prevent Child Trafficking Using Arduino	Elakiya, M., and S. Radhika	2019	GPS GSM MODEM Ardunio uno	we finally prefer using SMS text enabled communication between the child's wearable and also the parent because the GSM mobile communication is nearly present everyplace	1.provides the conception of sensible wearable devices for our little ones. And to stop kid trafficking.

Multi-sensor Wearable for Child Safety	Chowdhury, Ushashi, Pranjal Chowdhury, Sourav Paul, Anwesha Sen, ParthoProtim Sarkar, ShubhankurBasak, and Abari Bhattacharya	2019	SOS Light GPS MODULE TEMPERATURE SENSOR PULSE SENSOR Heart beat sensor	This paper discusses about a smart wearable device like a wristband which tracks the child from time to time to ensure their safety	1.The proposed device is cheaper to design and compatible to various platforms like android, IOS, windows etc. rather than apps. Communication in terms of bluetooth and GSM both viable. 1.side effect will occur to the child
. "Design and Implementation of a Smart System for School Children Tracking	Khutar, Dawood Zahi, Omar Hashim Yahya, and Haider Th Salim Alrikabi	2021	GSM Module	The process of discovering the child's GSM radio navigation system	1. An application that allows parents to know the whereabouts of their children and notify them with a message if the children exceed the area specified for them. 1. Accuracy is less
. "Smart School Bus Tracking: Requirements and Design of an IoT based School Bus Tracking System	Gull, Hina, Dalal Aljohar, Reem Alutaibi, Dalia Alqahtani, Muna Alarfaj, and Rahaf Alqahtani.	2021	Iot based QR code technology	The application itself will generate a fixed QR code for each student that will be placed on a card that contain the student personal information.	1. The parents' application will display a map that show the current bus position and it will be updated after each period, and the intervals 2.Easy to Hack and interrupt.
. "An android application of school bus tracker based on RFID technology."	Hamadto, Tarneem M., Zakaria A. Adam, and M. H. Elsayed.	2020	RFID ,GPS	Tracking of schoolchildren to ensure their safety and to eliminate the phenomenon of losing school children	1.Easy to use mechanism 2.Human error can occur.
"Designing and implementing the people tracking system in the crowded environment using mobile application for smart cities."	Alam, Tanweer, Abdirahman Ahmed Hadi, and Rayyan Qari Shahabuddin Najam.		Global Positioning System chip	Provide an instant timeline of position information that allows parents to monitor the location of their children in a crowded environment.	1. Have a wearable wrist where they imprint the phone number of their parents 2. There is a risk that child will be lost or kidnapped before ever reaching for any help

CONCLUSION

From the above Surveys, the Proposed idea stands as best among all. Visualising that a IOT BASED SAFETY GADGET FOR CHILD SAFETY MONITORING AND NOTIFICATION SYSTEM, using GPS and Sim800L module. The system will notify the parent or guardian when the child crosses the fencing area. A user-friendly device.