

DEPARTMENT OF ELECTRONICS AND COMMUNICATION

ENGINEERING

IBM – LITERATURE SURVEY

PROJECT TITLE

**IOT BASED SAFETY GADGET FOR CHILD SAFETY MONITORING AND
NOTIFICATION**

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S.NO	TITLE	TECHNIQUE	ADVANTAGE	DRAWBACKS
1	IOT based smart Helmet with Motorbike unit for Enhanced Safety	<p>The GPS and GSM module in MU in sensor.</p> <p>The GPS and GSM module in MU send messages with location to emergency contacts in case of any mishap.</p>	OLED display displays the details of the rider and emergency contact so that someone in the vicinity can help the rider.	A pulse rate sensor effectively recognizes whether the rider has worn a helmet or not. False triggering of the Pulse rate sensors is not as easy as in the case of an infrared sensor or microswitch.
2	IoT-enabled Smart Child Safety Digital System	<p>This IoT-enabled digital system architecture integrates the Cloud, Mobile and GPS use.</p> <p>The IoT-enabled smart child tracking digital system to assist with the safety of a child during public events.</p>	This paper addresses this important concern and proposes an architecture model of the IoT enable smart child safety tracking digital system.	The child gets off the safe zone, an alert needs to be sent to the event staff at various information desks who can accordingly to retrieve a missing child.
3	Design and Development of an IOT based wearable device for the Safety and Security of women and girl children	<p>MATLAB PROGRAMMING is used.</p> <p>Real-time monitoring of data is achieved by wirelessly sending sensor data to an open source Cloud Platform.</p>	<p>This is done by incorporating Weka, a machine learning toolkit.</p> <p>Large sets of training data for 50 different subjects is taken for two classes, namely, stressed .</p>	<p>This work attempts to tackle a societal concern that has been destroying the lives of uncountable individuals and their families.</p> <p>This device continuously monitors the individual wearing it, the data being accessible world over enabled by the benefits of cloud computing.</p>
4	Localization module for missing child scenario in IoT safety domains	<p>DESMOS is a framework in IOT safety.</p> <p>The localization framework responds to the scenario of a missing child in crowded outdoor spaces and combines Received Signal Strength Indicator (RSSI), Bluetooth low</p>	The pilot phase of these trials is currently ongoing and there is still not an adequate amount of data to present here. However, the trials conducted in the actual premises and with the “child moving, showed that this framework approached the real location successfully.	<p>This paper presents the first version of the localization framework of Desmos project.</p> <p>The project used low cost devices with integrated BLE tags in combination with smartphones and custom applications, in order to locate a</p>

		energy tags and trilateration		missing child in outdoor spaces.
5	Multi-sensor Wearable for Child Safety	<p>SMS TEXT and Multi sensor.</p> <p>The emergency situation, the device would have some measures like an alarm buzzer, SOS light which will notify the bystanders to help the child.</p>	<p>Humidity, temperature and Heat index. So, from the above result of the DHT11 sensor we can see that it can senses the external humidity, temperature and heat index.</p> <p>In the same way we can measure the child's body temperature, internal body humidity and heat index.</p>	<p>This device is cheaper to design and compatible to various platforms like android, IOS, windows etc. rather than apps.</p> <p>Communication in terms of Bluetooth and GSM both viables is a better option because it can support both phone calls and SMS.</p>
6	Intelligent child Safety System using machine learning in IOT devices	<p>Arduino controller, a Raspberry-Pi and as temperature. The system also uses a GSM and GPS module.</p>	<p>With increasing crime rates such as child kidnaping, child trafficking, child abuse and so on, the need for an advanced smart security system has become a necessity. With this motivation, a self-alerting</p>	<p>This paper has focused mainly on the autonomous operation of the safety system.</p> <p>Combined usage of three different vitals has increased the accuracy of detecting the abnormal situation</p>
7	Who's Watching Your Child Exploring Home Security Risks with Smart Toy Bears	<p>The microphone and speaker are used to speak .</p> <p>Preliminary results are presented in how the operating system can be modified in order to install software so that a modified bear can be controlled remotely.</p>	<p>User education as a mitigation building framework for defines was performed in a public workshop for educators.</p> <p>The attendees were given information on how the toys operate, the sensors involved, and from that were invited to think through potential mitigation strategies that they could use for improved security.</p>	<p>The Fisher-Price Bear, while having had significant improvements made to its security, still poses risks to its users.</p> <p>Given the target market's age and vulnerability, these risks must be fully understood and mitigated both at a manufacturing point as well as at a use point.</p>
8	What Children's Imagined Uses of the BBC micro: bit Tells Us	<p>PETRAS project IoT4Kids, privacy and security implications of children programming the BBC micro: bit, an IoT-</p>	<p>A number of participants interestingly, overwhelmingly girls described uses of the</p>	<p>In this paper we identified four types of uses of the micro: bit that children claim they want.</p>

	About Designing for their IoT Privacy, Security and Safety	ready device designed for children.	micro: bit for assuaging loneliness. Is a sketch of a friendless child, alone in her room, for whom the micro: bit offers the opportunity of virtual friendship.	These should not be viewed as a comprehensive set; rather, we hope that they shed light on some of the risks children may face When attempting to harness IoT technologies.
9	A Hybrid Model on Child Security and Activities Monitoring System using IOT	Monitored by using IoT components and sensors to check in the child environment. The Alcohol and Smoke Gas Sensor are recommended along with Blood Pressure sensor to check whether the child in any abnormal conditions	The eating activities of children are to be tracked properly whenever they are staying out of home. The parents of children always feel about that whether their child taking food on time when they are going to school.	The IOT model is used on many application areas in order to reduce the problems on the application execution. Like smart watches more advanced wearable models are required to reduce the risks in the human lives by giving hands to the children.
10	A Privacy Security, Safety, Resilience and Reliability Focused Risk Assessment In a Health IoT System	In this digital-physical-human world, where interaction and integrated. OCARIoT is an IOT system under development that comprehends a variety of components from the project partners.	The Risk assessment methodology was applied in the Ocasio Platform that represents an IoT system composed by a set of components and layers that have points of attacks that need to be protected with security controls	The Risk assessment methodology was applied in the Ocasio Platform that represents an IoT system composed by a set of components and layers that have points of attacks that need to be protected with security controls