

## **OBJECTIVE OF THE PROJECT:**

### **A. RFID based System for School Children Transportation Safety Enhancement**

In this paper author had presented a device to monitor pick-up and drop-off of kid to enhance the well-being during daily transportation from school and to school. In this system there are two main units, abus unit, and a school unit. The bus unit is the system which is used to determine when a child is boarding or leaving the bus. The information from bus unit is then sent to the school system that identifies the students that haven't board or leave the bus. It then issues an alert message. In this paper author has a developed a web-based and database-driven application for controlling of the device. This application provides beneficial details about the children to caregiver's personnel.

### **B. Smart IoT Device for Child Safety and Tracking**

It provides guardians with the real-time tracking of location, UV radiation index, surrounding temperature, and SOS light with a Distress alarm buzzer for their kids to make people near child to know that child is in panic. It provides feature to locate their kid or alert bystanders so that they can act to comfort the child or rescue the child. In this device they have used Thing Speak, Micro Electro Mechanical Systems (MEMS), Node MCU, GPS, GSM and Various sensors. This device gives the result for the parent in two different ways. The first one is they get an alert message (SMS) for the registered phone number. The next one is they receive a graphical representation which shows the Latitude, Longitude, MEMS Sensor and Vibration sensor of the child's activities through "Thing Speak". The disadvantage of this device that to use this device there must be efficient flow of internet connection and it must be fullest. Then only it gives the outputs at the earliest otherwise it takes time for the result.

### **C. Child Safety Wearable Device**

This project focuses communication mode to be in SMS text form using GSM. The parent will send a key word in form of SMS "SOS", "BUZZ", "LOCATION", "TEMPERATURE" etc., to the devices. The device will reply back the real time accurate location of the child and will also provide the surrounding temperature, or any of the data asked by the parents. It helps parents to keep track if the temperature around their kid is not proper for their kid. The secondary idea implemented was distress alarm buzzer and a bright SOS Light on the device that can be activated by the guardians via sending the keywords in the SMS. Parents can text the keywords to ON the SOS signal brightly and can also send the keyword