

## **ABSTRACT:**

A huge number of peoples who are suffering from Alzheimer disease or mental and developmental retardation were reported missing every year. Thus, in order to enhance the quality of life for these particular individuals, a high quality people tracking system with low price is needed. The purpose of this project is to integrate the Global Positioning System and Global System for Mobile Communication technology for real time people tracking using Google Maps. This embedded system was divided into two parts, which are the tracking part and the displaying part. For tracking part, the embedded system is equipped with GPS, GSM modem and arduino microcontroller for navigation purpose. The GPS provide information about the real time location of the people and sends the coordinate to the GSM modem through the microcontroller. Microcontroller used as the interface between GPS receiver and GSM modem. After receiving the location data, the data is sent to GSM modem through Short Message Service. In this project, GSM modems with SIM card used. The modem located in the tracking part serves as the transmitter and display part serves as the receiver for the GPS location coordinate.the lattitude and longitude is displayed in lcd. A prototype of a real time people tracking system that will update the user coordinate every 2 minute.