**19CSE303 – EMBEDDED SYSTEMS - CASE STUDY**

**Title:**

**GPS -based Tracking and navigation system**

**Group Details :**

**Krishna Reddy N - CB.EN. U4CSE21039**

**Sheshu P - CB.EN. U4CSE21042**

**Reshiha R G - CB.EN. U4CSE21047**

**Vinay Kumar T - CB.EN. U4CSE21063**

**Proposed Hardware :**

**Tiva Board** **(TM4C123X .. Series)**

**Brief Description :**

The GPS Tracking system gets the coordinates of the user using GPS and create file on SD-card to save them. We Should implement a function that turns on the LED when the distance exceeded 100 meters. We Should implement the function that will display the output distance in the LCD and test it by writing on them a dummy data. We Should implement a function to calculate the total distance taken, configure UART to communicate with GPS. We Should write the function that parse the coordinates sent from the GPS in the form of ASCII. The LCD is used to print the distance and the current coordinates in real time and alert the user when he exceeds 100 meters (100 meter is the goal).  
The user then can take the SD-card and insert it in any PC and easily view his Path on the map.

* one can be viewed using Google maps.