For more Project details visit:

http://www.projectsof8051.com/gps-and-gsm-based-school-bus-tracking-system/

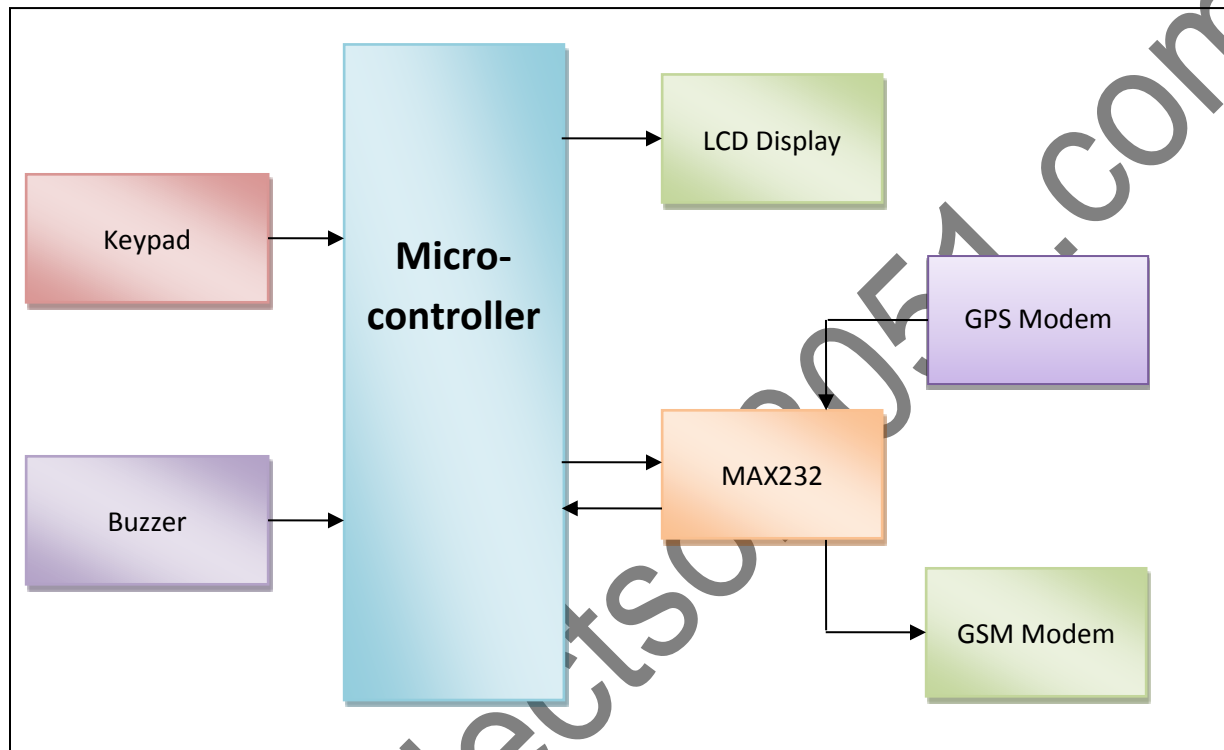| Code	Project Title
1820	GPS and GSM based School bus tracking system

Synopsis for

GPS and GSM based School bus tracking system

Introduction

GPS based tracker for School bus project has GPS modem and GSM modem. This project sends SMS to the family members of the children going in School bus. This SMS contains the Longitude and Latitude of the school bus. This project also has a Keypad which has 4 keys. This keypad can be used by bus driver to send emergency messages to the family members. 4 Keys has respective 4 emergency messages.

GPS modem continuesly send data string to the microcontroller. This data contains various type of information. It includes Longitude Latitude of the place where project is currently situated. Thus microcontroller gets co-ordinates of the place. Then it sends SMS after periodic interval of time, for example after every 1 minute.

BLOCK DIAGRAM:

Block Diagram Description:

1) Microcontroller: We have used 8051 series microcontroller, AT89s51. 8051 communicates with Keypad, LCD display, GPS modem and GSM modem.

2) LCD display: This is non-mandatory component of the circuit. However it is important part while developing the project.

3) GPS modem: It send out data on serial port. This data contains various information including Longitude and Latitude of the vehicle's current location.

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4) GSM Modem: Microcontroller sends AT commands to the GSM modem. Then GSM modem sends SMS.

5) Keypad: It is used to send emergency message to the family member.

ADVANTAGES:

1) This project is very easy to install and easy to use.

2) Person can be immediately tracked.

APPLICATIONS:

1) This project can be used for School bus.

2) This project can also be used for tracking senior citizens, elderly person in our home.

Future development

1) We can add vehicle obstacle sensor.

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