AUTOMOBILE THEFT IDENTIFICATION USING GPS

Global Positioning System (GPS) satellites broadcast signals from space that GPS receivers, use to provide three-dimensional location (latitude, longitude, and altitude) plus precise time. GPS receivers provides reliable positioning, navigation, and timing services to worldwide users on a continuous basis in all weather, day and night, anywhere on or near the Earth. This ultra-sensitive GPS receiver can acquire GPS signals from 65 channels of satellites and output position data with high accuracy in extremely challenging environments and under poor signal conditions due to its active antenna and high sensitivity. The GPS receiver's -160dBm tracking sensitivity allows continuous position coverage in nearly all application environments. The output is serial data of 9600 baud rate which is standard NMEA 0183 v3.0 protocol offering industry standard data messages and a command set for easy interface to mapping software and embedded devices.

This project consists of microcontroller, GPS modem, GSM and Security switch.

Security switch connected to microcontroller with positive logic. This project fixed inside the vehicle. Press security switch after parking the vehicle. Then microcontroller locks the coordinates (latitude, longitude and altitude) of that particular place. If anybody moves the vehicle from that place microcontroller can detect and sends SMS to use or vehicle owner. After moving vehicle from fixed coordinates microcontroller sends coordinates to user continuously. With the help of this project we can easily find out the vehicle position through coordinates.

Here GSM and GPS both modems have two serial ports and microcontroller have one serial port. Serial shifter makes one serial port to two serial ports.

In this project 7805 is a regulator and it avoids noise spikes in power supply. GPS modem is connected microcontroller through serial port. These GPS modem works under 9600 or 4800 baud rates.

TECHNICAL SPECIFICATIONS:

HARDWARE:

- Micro controller : AT89S52
- Crystal : 11.0592 MHz
- LED : 5mm Red LED
- Serial Driver : Max 232
- Serial Shifter
- Power supply
- Transformer : 12V step down
- Filter : 1000uf/25V
- Voltage Regulator : 7805

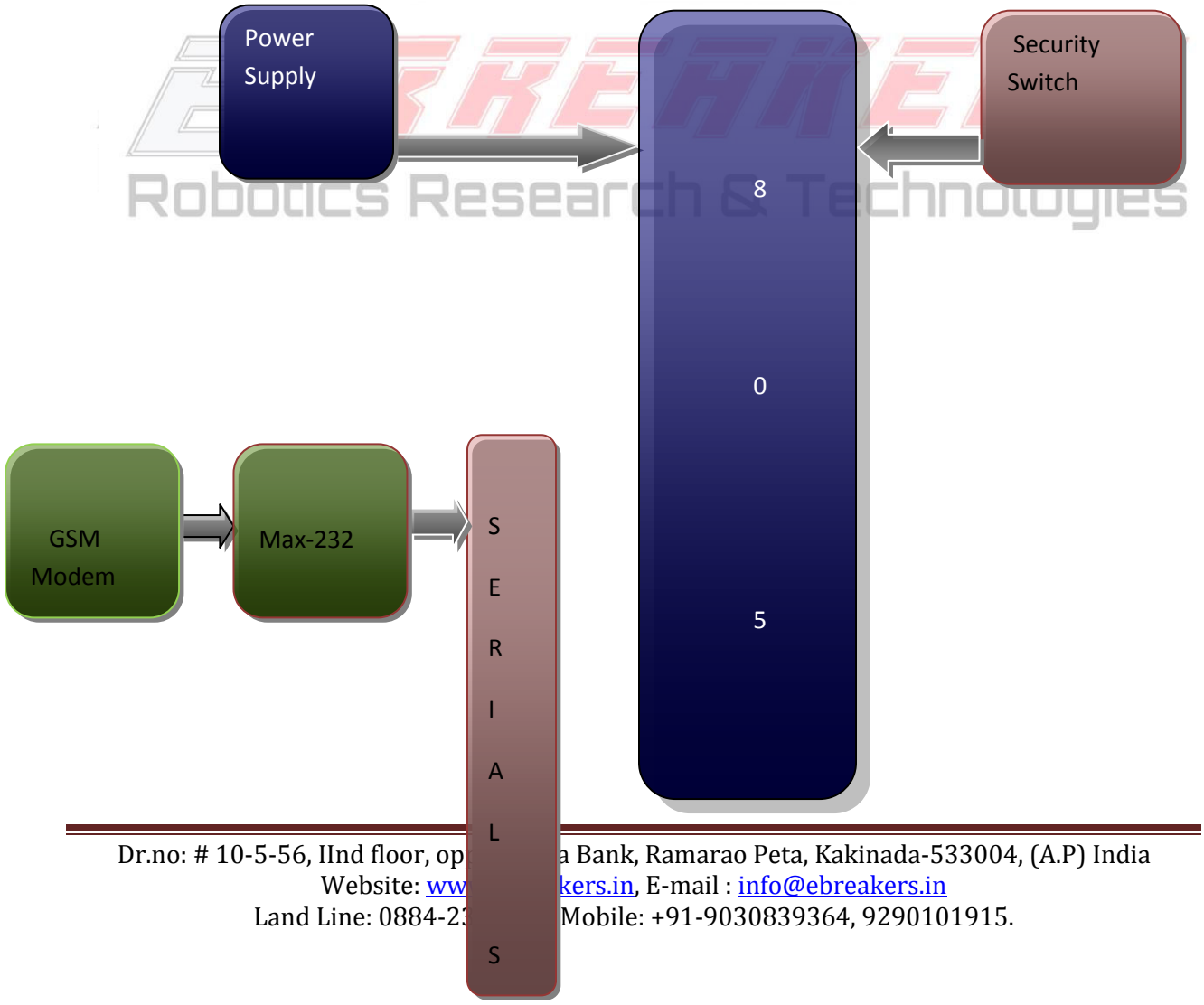
SOFTWARE:

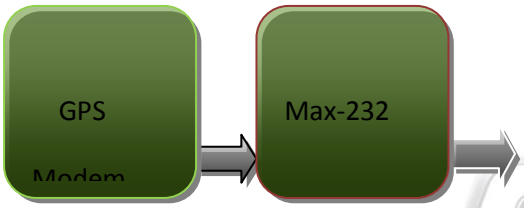
- Keil micro vision
- Proteus
- UC flash
- C# .net Application

APPLICATIONS:

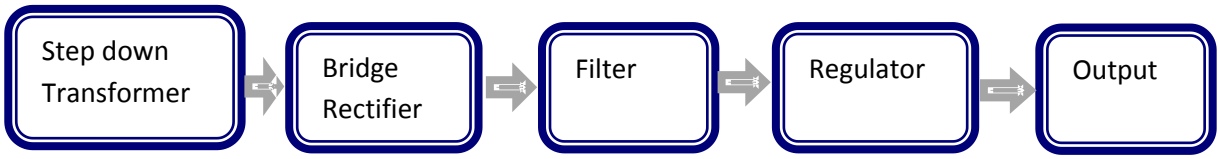
- Security Systems
- Vehicle security
- Automobiles

BLOCK DIAGRAM:





POWER SUPPLY BLOCK DIAGRAM

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