GSM INTERGRATED SMART ATM TRANSACTION SYSTEM

ABSTRACT

This is a conventional system which sends a message to the mobile of the user, every time his account transaction is happened, through a GSM modem.

The GSM Modem can accept any GSM network operator SIM card and act just like a mobile phone with its own unique phone number. Advantage of using this modem will be that you can use its RS232 port to communicate and develop embedded applications. Applications like SMS Control, data transfer, remote control and logging can be developed easily. The modem can either be connected to PC serial port directly or to any microcontroller. It can be used to send and receive SMS or make/receive voice calls.
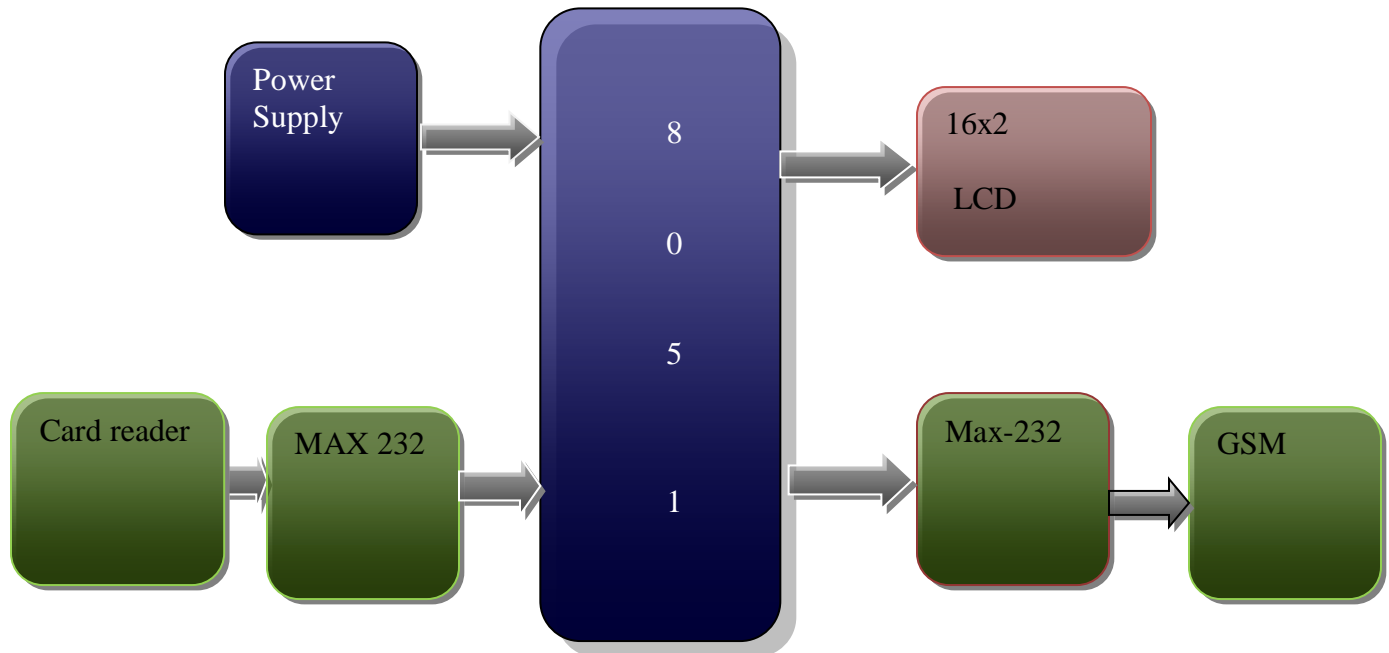
This project is designed in such a way that the microcontroller is interfaced to the GSM modem through a serial line driver IC MAX232 along with an LCD. When ever the use does any transaction with his ATM card or account, the concerned description is sent as an SMS to the user mobile, thus the transaction is called as a smart transaction system. The LCD displays the status of the system.

Here we use 8051 as a microcontroller with 5v DC Power supply. Serial (UART) protocol is primary concern here. The main heart of this project is GSM/GPRS modem and it work on GPRS AT commands.

APPLICATIONS:

- ➢ Bank transactions

BLOCK DIAGRAM:

```
Power                          ┌──────┐                    ┌──────────┐
Supply  ──────────────►        │  8   │      ──────────►   │  16x2    │
                               │      │                    │          │
                               │  0   │                    │  LCD     │
                               │      │                    └──────────┘
Card reader ──► MAX 232 ──►    │  5   │                    ┌──────────┐      ┌──────┐
                               │      │      ──────────►   │ Max-232  │ ──►  │ GSM  │
                               │  1   │                    └──────────┘      └──────┘
                               └──────┘
```

POWER SUPPLY BLOCK DIAGRAM

```
┌──────────────┐    ┌──────────┐    ┌────────┐    ┌───────────┐    ┌────────┐
│ Step down    │►   │ Bridge   │►   │ Filter │►   │ Regulator │►   │ Output │
│ Transformer  │    │ Rectifier│    │        │    │           │    │        │
└──────────────┘    └──────────┘    └────────┘    └───────────┘    └────────┘
```