Gsm modem interfacing with microcontroller 8051 for sms essay

GSM modem interfacing with microcontroller 8051 for SMS control of industrial equipments GSM modem interfacing with microcontroller 8051 for SMS control of industrial equipments:- This is a beginner tutorial in which a GSM modem is being interfaced with the microcontroller AT89s51 for SMS communication. The SMS can be send and recieved for the data sharing and situation information and control. there are many application of the project based on microcontroller 8051 and GSM interfacing.

We can use it as a remote control of industrial machines or we can sue it for home automation or we can use it for the security of home or offices. gsm control 8051 The sending SMS through GSM modem when interfaced with microcontroller or PC is much simpler as compared with sending SMS through Modem in PDU Mode. Text message may be sent through the modem by interfacing only three signals of the serial interface of modem with microcontroller i. e. , TxD, RxD and GND. In this scheme RTS and CTS signals of serial port interface of GSM Modem are connected with each other.

The transmit signal of serial port of microcontroller is connected with transmit signal (TxD) of the serial interface of GSM Modem while receive signal of microcontroller serial port is connected with receive signal (RxD) of serial interface of GSM Modem. The COMPIM Serial Port Model shown in the schematic diagram developed in Proteus VSM is equivalent to the serial interafce of GSM Modem. Sending SMS Messages from a Computer / PC Using AT Commands (AT+CMGS, AT+CMSS) 8051 projects based on message recived on mobile

The following are the AT Commands and sequence of events performed for sending text message to a mobile phone through GSM Modem interfaced with microcontroller : 1. First select the text mode for SMS by sending the following AT Command to GSM Modem : AT+CMGF = 1 . This command configures the GSM modem in text mode. 2. Send the following AT Command for sending SMS message in text mode along withmobile number to the GSM Modem : AT+CMGS =+923005281046 . This command sends the mobile number of the recipient mobile to the GSM modem. 3. Send the text message string (" hello!) to the GSM Modem This is a test message from UART" 4. Send ASCII code for CTRL+Z i. e. , 0x1A to GSM Modem to transmit the message to mobile phone. After message string has been sent to the modem, send CTRL+Z to the micro-controller, which is equivalent to 0x1A (ASCII value) Every AT command is followed by i. e. carriage return and line feed you are giving line feed first and carriage return after that. "" stands for carriage return Interfacing 8051 with gsm modem equipped with RS232 serial interface is the same as interfacing AVR with GSM modem is.

The SMS message in text mode can contain only 140 characters at the most. It depends upon the amount of information collected from GPS Engine that you need at the base station for tracking vehicle or person The most important string of GPS is "$GPRMC... " which contains the minimum information required in tracking a target additionally you may need the information regarding the number of satellites that are visible to the GPS receiver. So it depends upon how much information you need to pack in 140 characters of SMS in text mode. ode for the interfacing the GSM modem with microcontroller 8051 for just testing of connection and serial communication

is under:- #include // include at89x51 . h #include // include stdio . h #include // include stdlib . h void initialize_GSM_modem(void); void initialize_serialcommunication(void); unsigned char Command_CMGF[]=" AT+CMGF= 1″; // AT+CMGF for selecting Text Mode unsigned char CtrlZ= 0x1A;   // CTRL+Z for sedning SMS after the message has been entered unsigned char Command_CMGS[]=" AT+CMGS =+9233385xxxxx"; / recepient mobile number unsigned char Command_AT[]=" AT"; unsigned char msg02[]=" Hello! "; void delay(void){ unsigned int i; for(i= 0; i <50; i++); } void delay2(void){ unsigned int i; for(i= 0; i <25000; i++); } void main (void) { initialize_GSM_modem(); initialize_serialcommunication(); while (1) { ; } } void initialize_GSM_modem(void){ delay2(); puts(Command_AT); delay2(); puts(Command_CMGF); delay2(); puts(Command_CMGS); delay2(); puts(msg02); delay2(); while(! TI); TI = 0; SBUF = 0x1A; } void initialize_serialcommunication(void){ TMOD = 0x20; SCON = 0x50; TH1 = 0xFD;

TL1 = 0xFD; TR1 = 1; TI = 1; } Tags:-Introduction to SMS Messaging , What Makes SMS Messaging So Successful Worldwide? , Example Applications of SMS Messaging , What is an SMS Center / SMSC? , Basic Concepts of SMS Technology , Intra-operator SMS Messages , Inter-operator SMS Messages , International SMS Messages , What is an SMS Gateway? , How to Send SMS Messages from a Computer / PC? , How to Receive SMS Messages Using a Computer / PC? , Introduction to GSM / GPRS Wireless Modems , How to Use Microsoft Hyper Terminal to Send AT Commands to a Mobile Phone or GSM/GPRS Modem? Introduction to AT Commands , General Syntax of Extended AT Commands , Result Codes of AT Commands , AT Command

Operations: Test, Set, Read and Execution , Testing the Communication between the PC and GSM/GPRS Modem or Mobile Phone , Checking if the GSM/GPRS Modem or Mobile Phone Supports the Use of AT Commands to Send, Receive and Read SMS Messages , Operating Mode: SMS Text Mode and SMS PDU Mode , Setting or Reading the Service Center Address / SMSC Address (AT+CSCA) , Preferred Message Storage (AT+CPMS) 23.

Writing SMS Messages to Memory / Message Storage (AT+CMGW) , Deleting SMS Messages from Message Storage (AT+CMGD) , Sending SMS Messages from a Computer / PC Using AT Commands (AT+CMGS, AT+CMSS) , Reading SMS Messages from a Message Storage Area Using AT Commands (AT+CMGR, AT+CMGL) SMS alarm je vrlo jednostavan uredaj. Za slanje SMS poruka koristi Siemens telefon a ima 5 ulaza – znaci salje 5 razlicitih poruka.

Za svaki senzor uprogramiramo odgovarajucu poruku koju zelimo da primimo na mobilni kada se alarm aktivira. Programiranje se vrsi preko PC-a odgovarajucim programom koji je prilozen u arhivi. cell phone interface microcontroller, sms based energy meter monitoring system circuit diagram, circuit diagram microcontroll section of bar code reader, flow diagram of operation of microcontroller of pc based logic analyzer,