



1. RFID BASED INTERCOM

(For apartment communication)

The unit devices are given different numbers. If you type that number, it transmits signal. The centralized device receives and retransmits the signal and extends the distance. And destination device receives it and retransmits answer signal and starts ringing. When called person receives the call, starts communication. Centralized device arranged in such a way it has to establish many channel communication. DSP technology is used here.

2. SMART CARD BASED HOTEL BILLING SYSTEM

Each employee of the company is given smart cards and amount paid by them is added to the database in centralized system. Whenever the customer or employee purchase an item in counter & enter the items through the keypad of the device kept there & swipe the card, the device will communicate with the centralized s/m via RFID and deducts the amount. This is highly secured billing s/m.

PROGRAMMING LAGUAGES: VC++ or LINUX

3. ICON KEYPAD BASED HOTEL BILLING S/M

In this s/m we are using an ARM9 based keypad having big keys. Each key is labeled with particular item picture. Uneducated can also use this s/m.

The cashier has to press the item button & quantity for all the item purchased. Finally he has to press enter key to produce the bill.

PROGRAMMING LAGUAGES: VC++ and C

4. BUS NUMBER SENSING

Whenever bus approaches the bus stop, the station or stop unit detects & displays the bus number & announces it.

PROGRAMMING LAGUAGES: VC++ and C



5. RFID BASED CAR PARKING S/M

Whenever car enters the parking ground , it will be detected by sensors & display will displays the empty slot number. Car has to be parked in particular displayed slot. Sensor detects and transmitter transmits the details of timing to centralized billing s/m via RFID. The video of number is also transmitted through the wireless camera. (Here we can use RFID card also). Person always keep the RFID card with him. When he parks in parking place he has to swipe the card in the entrance (the card reader s/m), when he swipes the card , the device notes the details of card and displays the slot number. When car parked in the slot the RFID device sends the timing details of parking to centralized s/m. (everything saved in the database).

When car removed sensor detects and sends the time details or slot details to centralized s/m via RFID. The centralized s/m generates bill with car number, owner name and phone in the entrance printer.

PROGRAMMING LAGUAGES: VC++ and C

6. TRAIN ARRIVING DETECTOR

Train arriving detector detects the train when it arrives near the gate and makes siren and closes the vehicle gate, pole.

The device contains RFID with sensors detects the train when it arrives and transmits a signal to the receiver in the gate. After receiving the signal the receiver sends signal to microcontroller. The controller will switch on the relay which supplies the power to the motor. Motor will operate the pole which will close the gate. When gate touches the stand, it senses the microcontroller & stops the motor. When train passes the gate, the sensor near the gate senses the microcontroller and controller controls the gate to open.

7.FLYING SPY ROBOT

This robot carries the spy camera and sends the details of picture from military place, battle field.

8.GSM BASED VEHICLE INFORMATION SYSTEM

GSM based vehicle information system will send sms to owner and nearest police station and hospital when accident occurs.



The equipment contains GSM/GPS kept in car or any vehicle. Many sensors and impact detectors kept in different part of the vehicle and connected to the microcontroller which is arm7 processor. GPS senses the longitude and latitude of area, sensor senses the impact and from this information microcontroller decides the area and collects the nearest hospital, police station from the database and sends sms.

9. SMART CARD BASED STUDENT ID FOR LIBRARY MANAGEMENT

Smart card chip contains students or employee details. There is smart card reader interfaced with system, which is kept in each department. All these systems are connected to a centralized server system containing student's information in the database. Whenever student swipe the card computer will display his whole information.

PROGRAMMING LAGUAGES: VC++, C, and C++.

10. LARYNX

Larynx is deaf and dumb speech creator, useful for deaf and dumb people for communication.

This device consists a keyboard, LCD, back up battery, speaker and wireless transmitting RFID. The DSP controller programmed to control keypad, RFID, LCD etc. If you type anything in the keypad ,it will be pronounced and transmitted via RFID and displayed in LCD.

Here individual pronunciations' of letters are stored in database and they are added to get word pronunciations. Two deaf and dumb people can communicate easily.

11. DIGITAL RAIN METER

Digital rain meter has to be kept in place like chirapunji. It will send Rain details via GSM to taluk head quarters or akashavani station.

This equipment operate by microcontroller connected with GSM modem and ADC. ADC converts rain flow to digital form. It is useful for studying the rain fall in all places for research purpose.

PROGRAMMING LAGUAGES: C, C++.



12. SOLAR BASED SOFTWARE CONTROLLED LED HOME LIGHT SYSTEM

Battery is charged by solar system and when sun light is not proper it is charged by AC. When battery is fully charged it stops charging from AC. All these automatically controlled by microcontroller. LED tubes are used for lighting purpose, which consumes very less power. By solar energy with small battery back up LED lighting system can be managed.

13. STREET LAMP CONTROL USING SOFTWARE

This product operates the street lamp, at 6'0 clock evening switch on it & morning 6'0 clock switch of it.

This is microcontroller software controlled device. This is having LIGHT DETECTOR also and this device switches to AC for charging when there is no sunlight or clouds. When good day light is there it automatically switches to Solar charger. It maintains the Battery charging current for long duration of battery.

14. BURGLAR SYSTEM DRIVES ANIMAL IN AGRICULTURAL FIELD

This device operates by microcontroller with voice recorder, keypad and mike. Keypad is used to select timer and voice. If you select voice and timer using keypad, whenever timer finishes it makes sound and lighting. It has movement sensor to detect the movement of animals.

15. GSM BASED EQUIPMENT CONTROL

GSM based equipment control used to switch on/off equipment remotely by SMS.

Microcontroller based device interfaced with equipments. GSM modem is connected to microcontroller. Hen you send SMS with equipment code the receiver receives it and operates the equipment.



16. RFID BASED REMOTE CONTROL

This device contains RFID transmitter and receiver with microcontroller interfaced with equipment via relays. Each equipment will be given unique ID.

If we press any ID number it will be transmitted and received by RFID connected with equipment and on/off of equipment will take place.

17. FUEL PUMPING FREQUENCY MEASUREMENT

It is a microcontroller based counter system which counts and displays the fuel pumping frequency.

18. 250 VA UPS/INVERTER SOLAR BASED MICROCONTROLLER WITH MOSFET

It is a solar based UPS /INVERTER which will be controlled by microcontroller. Here the battery is charged by Solar when sufficient light is there otherwise charging will be done by AC.

19. 400VA UPS SOLAR BASED: Electronic projects

20. 600VA UPS SOLAR BASED: Electronic projects

21. 800VA UPS SOLAR BASED: Electronic projects

22. 1.4KVA UPS SOLAR BASED: Electronic projects

23. 230 TO 110V CONVERTER : Electronic projects

This converter is done by using electronic transformer (Ferrite cored) and it is controlled by PIC microcontroller.



24. 5A, 12V BATTERY CHARGER (SOFTWARE CONTROLLED SMPS BASED)

25. 5A, 12V BATTERY CHARGER (SOFTWARE CONTROLLED IRON CORED)

26. 2A, 12V BATTERY CHARGER (SOFTWARE CONTROLLED SMPS BASED)

27. 2A, 12V BATTERY CHARGER (SOFTWARE CONTROLLED IRON CORED)

28. SUN RAY POWER TRACKING SYSTEM (RESEARCH PROJECT)

It is a research project which will keep track the sun ray power. It consists of solar panel, an ADC, Microcontroller with a system.

PROGRAMMING LANGUAGES: C and C++

29. WIRELESS PC COMMUNICATION USING RFID

This project is used for communication between PC's.

PROGRAMMING LANGUAGES: C and C++

30. DSPIC 30F2010 BASED MOTOR SPEED CONTROLLER

Speed of motor is controlled by DSP IC. We can set speed using keypad. _____

31. INVERTER PROTECTOR

It is used to protect the inverter which will disconnect the AC supply to the inverter if there is any voltage fluctuation.

32. MOTOR STARTER/OVERVOLTAGE PROTECTOR

It is used for the smooth operation of motor. It will protect the device from voltage fluctuation and hence the device is not damaged.



33. SOLAR CHARGER

It is a multivibrator based solar charger which will convert input DC supply into high volt AC. At the receiving terminal it will convert AC into DC output which can be used for charging the battery.