

## MSEB METER READING VEHICLE

Sneha Sawant

### ABSTRACT:

The power is exceptionally key in everyday life. chiefly of commercial ventures are running with power. In business territories additionally power assumes critical part and henceforth power is spine of any creating country. To gauge the energetic power and produce Electricity charge, the vitality meters are given to every single client. This undertaking is use to take meter using so as to peruse remotely handset which gives exactness and speed in MSEB meter reading.

### KEYWORDS:

Energy meter Liquid Crystal Display (LCD), Radio Frequency (RF) , Micro controller.

### INTRODUCTION:

common meter perusing for power utilization and charging is finished by human administrator from houses to houses and building to building. This requires enormous number of work administrators and long working hour to get complete range information perusing and charging. Human administrator charging are inclined to perusing mistake as at some point the houses electric force meter is spot in an area where it is not effectively reachable. Work charging occupation is at some point additionally confined and backed off by terrible climate condition. The broaden improvement of private lodging and business building in the creating nation require more human administrators and more

working hours to finish the meter perusing errand. This expands the vitality supplier operation costs for meter perusing. With a specific end goal to accomplish effective meter perusing, decrease charging blunder and operation costs, Wireless programmed meter perusing framework assume a basic part. Remote programmed meter perusing is a compelling mean of information accumulation that permit broad sparing through the lessening of meter rehash, more prominent information precision, permit incessant perusing, better charging and customer administration, all the more convenient vitality profiles and utilization patterns overhauls and better occupation of human asset. With the fast improvement of Global System Mobile (GSM) base and



Data Communication Technology (ICT) in the previous couple of decades has made remote programmed meter perusing framework. Presently a

day, power is exceptionally imperative in each part of life. For measuring the measure of power expended, there is fortune of vitality meters. At consistently, the meter numbers the utilization of power for specific shopper. In this paper another innovation of MSEB charging framework in which remote vehicle is utilized to gather the meter perusing has presented.

The primary of the undertaking is to plan a task remotely send meter perusing that can be more valuable in charging. There is one MSEB vehicle in that one RF collector that take readings from all vitality meters that are fix in every house. In every

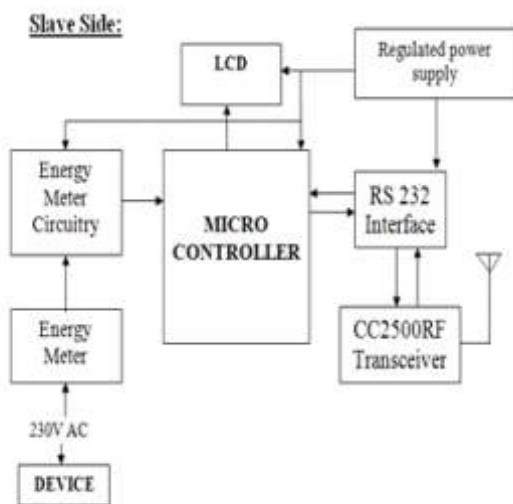
meter we are joining a microcontroller, RF module. The microcontroller taking ceaseless perusing from vitality meter and microcontroller transmit that meter perusing and Meter ID consistently with the assistance of RF transmitter. As the MSEB vehicle is experiencing that RF transmitter go then the RF transmit current meter perusing to MSEB vehicle's RF. MSEB vehicle RF get that perusing with and send to microcontroller then there is one option for sparing of all meter perusing. In this venture we are utilizing one Microcontroller, LCD, RF handset module, vitality meter and transfer for uniting Load.

**II. PROBLEM FORMULATION**

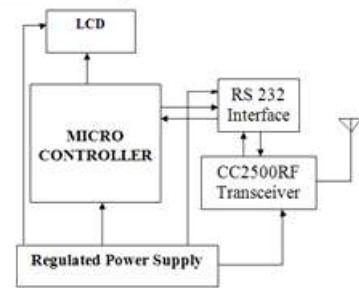
1.In the past meter perusing framework, each territory chose for the MSEB laborer to take the meter perusing. specialist goes each house and takes the photograph of meters because of which time required is expansion for preview of every house meter perusing. Every one of these photographs need to submit at MSEB office and the meter readings are spared by different specialists of MESB to produce power bill. Amid this complete procedure manual slip-ups might be happens.

2.At past charging framework, MSEB committed more errors for bills. The vast majority of time, the most recent months meter perusing had replicated on the present bill paper, so the client confronts issue of rectifying that bills from MSEB office.

**III. BLOCK DIAGRAM AND EXPLANATION**



Master Side (MSEB Vehicle):



**Microcontroller**

The AT89S52 is an elite CMOS 8-bit microcontroller, low-power, with 8K bytes of EPROM. These are elements of AT89S52 microcontroller: 256 bytes of RAM, 8K bytes of Flash, , three 16-bit clock/counters, 32 information/yield pines , two information pointers, Watchdog timer.six hinder of two level building design, serial port, oscillator . the AT 89C52 is intense MC which gives an adaptable and cheap result to numerous inserted framework applications.

**Vitality meter:**



An electric meter or vitality meter is a gadget that measures the measure of electrical vitality devoured by a home, business, or an electrically-controlled gadget.

Electric meters are ordinarily aligned in charging units, the most well-known one being the

kilowatt hour. Occasional readings of electric meters begin charging cycles and vitality utilized amid a cycle.

In settings when vitality reserve funds amid specific periods are fancied, meters might gauge request, the greatest utilization of force in some interim. In a few zones, the electric rates are higher amid specific times of day, to energize diminishment being used. Additionally, in a few territories meters have transfers to kill superfluous gear

### LCD (Liquid Crystal Display) –

LCD which is ordinarily known as Liquid Crystal Display & Alphanumeric Presentation it implies that it can indicate Letters, Amounts and in addition diverse codes in this manner LCD is a client insightfully Show strategy which can be utilized for demonstrating numerous interchanges divergent seven segment show which can indicate just amounts and a percentage of the letters

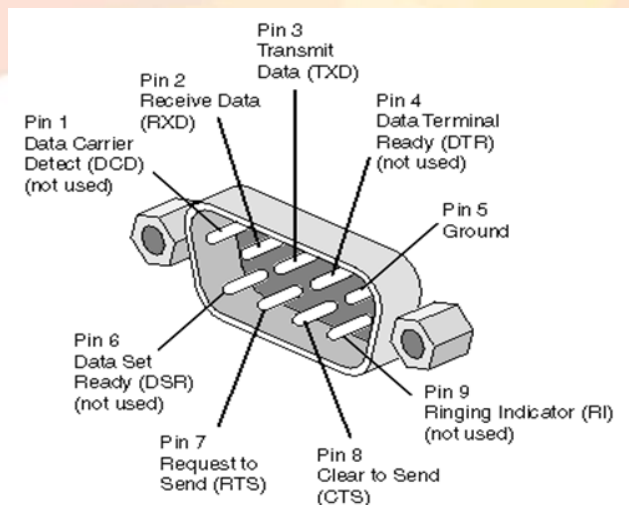
### RS232 CABLE:

To permit similarity among information correspondence hardware, an interfacing standard called RS232 is utilized. Following the standard was set much sooner than the appearance of the TTL rationale family, its information and yield voltage levels are not TTL perfect.

Consequently, to join any RS232 to a microcontroller framework, voltage converters, for example, MAX232 are utilized to change over the TTL rationale levels to the RS232 voltage levels and the other way around.

### DB9 CONNECTOR

The DB9 (initially DE-9) connector is a simple 9-pin fitting of the D-Subminiature connector gang. Utilized for serial associations.



### DB9 Connector

### OPTOCOUPLER:

In gadgets, an opto-isolator (or optical isolator, optocoupler, photocoupler, or photoMOS) is a gadget that uses a short optical transmission way to exchange a sign between components of a circuit, ordinarily a transmitter and a beneficiary, while keeping them electrically secluded — since the sign goes from an electrical sign to an optical sign back to an electrical sign, electrical contact along the way is broken.

### RF TRANS-RECEIVER

#### CC2500 RF Module:

Minimal effort Low-Power 2.4 GHz RF Transceiver 30 M Range Applications

- Car and home security framework
- Garage entryway controller framework
- Wireless diversion controllers
- Wireless sound
- Wireless console and mouse
- RF empowered remote controls

### Highlights

- Low power utilization
- High sensitivity (Type-104dBm)
- Programmable o/p power (-20dbm to 1dbm)
- Operation temperature range (-40 to +85 deg C)

- Available recurrence (2.4 to 2.483 GHz)
- Operation voltage(1.8 to 3.6 v)

### Control supply

The A.C. 230 information is given to rectifier circuit and Output get from the rectifier is a throbbing D.C voltage. The yield from the rectifier is given to a channel circuit to channel A.C parts present steady a short time later than amendment. Presently, this voltage bolstered to voltage controller to immaculate consistent D.C voltage get.

### II. SOFTWARE DESCRIPTION

This venture is executed utilizing taking after software's:

1. Express PCB – for outlining circuit
2. PIC C compiler - for arrangement part
3. Proteus 7 (Embedded C) – for reproduction part.

### III. ADVANTAGES:

1. Less labor is required.
2. Reduced the expense for taking meter perusing.
3. Accuracy of the whole framework will be increment.

### IV. APPLICATIONS:-

1. In doctor's facilities, schools, universities and so forth.
2. In unique plants, Factories and so forth.
3. In silver screen theaters, shops, shopping centers

In house:- By utilizing this MSEB meter perusing vehicle the vitality meter in every house can send the perusing remotely. At the point when the switch in MSEB vehicle is ON then the transmitter in vitality meter is dynamic and it transmit the perusing to the collector, and this readings are display on LCD

### II. RESULT



### III. CONCLUSION:

Coordinating elements of all the equipment segments utilized have been created as a part of it. Vicinity of each module has been contemplated out and set precisely, consequently adding to the best working of the unit. Furthermore, utilizing very propelled IC's with the assistance of developing innovation, the task has been effectively executed. Along these lines the task has been effectively planned and tried.

### IV. REFERENCES

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