

College Data Logger For Lecturers For Their Classes

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Abstract— In this paper we are developing a new concept where we can save the span of lecture of lecture where it displays in HOD room. This can be done by placing switches in every class room. according to their subject every lecturer has to press the respective switch when he starts his lecture and the time will be started in HOD room display showing that the lecturer has started and when the lecturer completes his class he then presses the same key which will stop the timer and shows the time interval of the respective class by the respective lecturer. by implementing this paper the HOD know which class is going on and who is busy with the class.

Index Terms—About four key words or phrases in alphabetical order, separated by commas.

I. INTRODUCTION

Embedded system is a system which is going to do a predefined specified task is the embedded system and is even defined as combinations of both software and hardware. General purpose definition of Embedded systems is that they are devices used control, monitor or assist the operation of equipment, machinery or plant.”Embedded reflects the fact that they are an integral part of the system. In many cases their Embedded may be such that their presence is far from obvious to the casual observer and even the more technically skilled might need to examine the operation of a piece of equipment for some time before being able to conclude that an Embedded control system was involved in its functioning. At the other extreme. A general-purpose computer may be used to control. The operation of a large complex processing plant and its presence will be obvious. All Embedded systems is including computers or microprocessors. Some of these computers are however .Very simple systems compared with a personal computer. The very simplest Embedded systems are capable of performing only a single function or set of functions to ,meet a single predetermined purpose. In more complex systems an application program that enables the

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Embedded systems to be used for a particular purpose in a specific application determines the Embedded systems. The ability to have programs means that the same embedded systems can be used for a variety of different purposes. In some cases a microprocessor or may be added to the basic. Software in a second's process, after which it is not possible to make further changes.

II. PROPOSED METHODOLOGY

In this paper we are developing a concept saving the data base regarding lecturers classes in and out timings. Saving subject name and lecturer name all these data sending to admin to see data base. here admin has password also if that password matches then only that data base will open otherwise cant. In this paper we are maintain two sections one is transmitter section at the loin place and receiving section at administration.

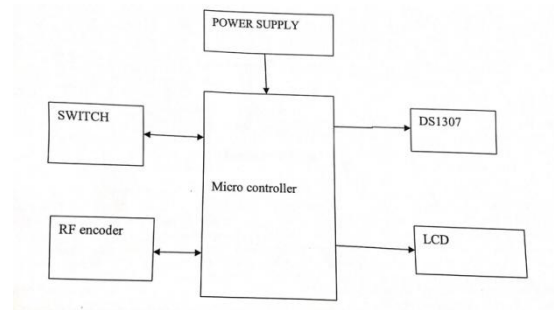


Fig 2.1 Transmitter section

In transmitting section we are placing the different switches for subjects at class room. when ever switch is press the microcontroller collects the data from RTC. And it is send through RF transmitter.

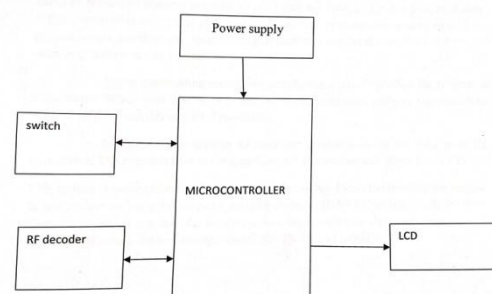


Fig 2.2 Receiver section

In the receiver section collects the data from RF transmitter. the controller takes the data from RF transmitter

and displays on LCD. In the paper going to make use of a device called RTC which stands for real time clock which provides the details such as day month year date and time. according to which the lecturer are made LOGIN IN and LOGIN OUT.

We are using AT89C51 is a low-power, high-performance CMOS 8bit-microcontroller with 4K bytes of flash programmable and erasable read only memory. The device using manufactured using Atmel's high density non volatile memory technology and is compatible with the industry-standard MCS-51 instruction set and pin out. The on chip flash allows the program memory to be reprogrammed in-systems or by a conventional non volatile memory programmer. The AT89C51 provides the following standard features 4K bytes of flash 128 bytes of RAM, 32 I/O lines, two 16-bit timer ,five vector two-level interrupt architecture, a full duplex serial port, on-chip oscillator and clock circuitry. The AT89C51 is designed with static logic operation down to zero frequency and supports two software selectable power saving modes. The idle mode stops the CPU while allowing the RAM, timer, serial ports to continue functioning. The power down mode saves the RAM contents but freezes the oscillator disabling all other chip functions until the next hardware.

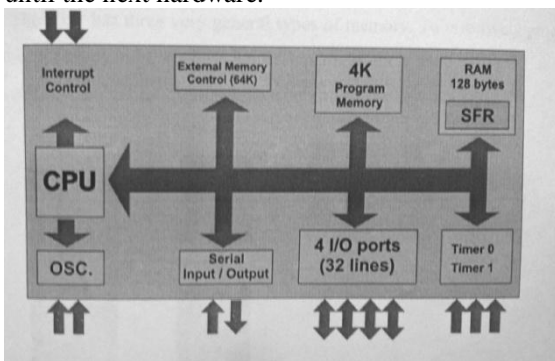


Fig 2.3 8051 Micro Controller

The 8051 has very general types of memory. To effectively program the 8051 is its necessary to have basic understanding of these memory types. On chip memory that physically exists on the microcontroller itself. External code memory code memory that resides off-chip. This is often in the form of external EPROM. External RAM is RAM Memory that resides off-chip. The accumulator ,as its name suggest, is used as a general register to accumulate the results of large number of instructions. It can hold 8-bit value and most versatile register 8051 has number instructions manipulate or use accumulator in some way. The R Registers are a set of eight registers that are named as R0,R1 , etc. up to and including R7 . these registers are used as a auxiliary register in many operations. The B Register is very similar to the accumulator in the sence that it may hold an 8-bit value. The "B" Register is only used by two 8051 instructions. MUL AB and DIV AB . The data pointer is the 8051 only user-accessible 16-bit register. The Accumulator ,"R" registers, and "B" register are all 1-byte values. DPTR, as the name suggest ,is used by a number of commands which allow the 8051 to access external memory. It is often used to store 2-bytes values which have nothing to do with memory locations .The program counter is a 2-byte address which

tells the 8051 where the next instruction to execute is found memory. The stack pointer ,like all register except DPTR and PC, May hold an 8-bit value. Special function registers areas of memory that control specific functionality of the 8051 processor.

A.LCD

The LCD panel enable and register select is connected to the control port. While most parallel ports have internal pull-up resistors, there are a few which don't.

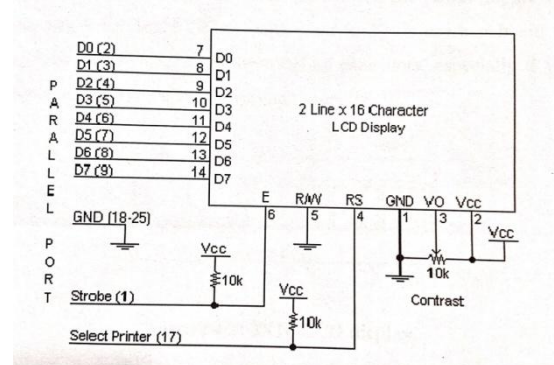


Fig 2.4 LCD

Here it having the two 10K pull up resistors ,the circuit is more portable for a wider rage of computers, some of which may have no internal pull up resistors. Place to the data bus into drive traverse direction .therefore we hard wire the R/W line of the LCD panel, into write mode. This will cause no bus conflicts on the data lines As a result we cannot read back the LCD'S internal busy flag which tells us if the LCD has accepted and finished processing the last instruction. Thus problem is overcome by inserting know delays into our program. The 10K potentiometer controls the contrast of the LCD pannel. The 2 line X16 character LCD modules are available from a wide range of manufactures and should all be compatible with the HD44780. The one I used the circuit was a power tip PC-1602F. power supply is the main part of the section.

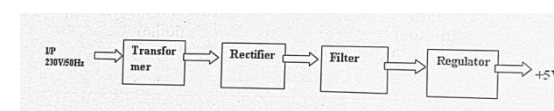


Fig 2.5 Power Supply

Transformer is a device that transfers electrical energy from one circuit to another through inductively coupled conductors the transformer's coils. A varying current in the first or primary winding creates a varying magnetic flux in the transformer's core, and thus a varying magnetic field through the secondary winding. This varying magnetic field induces a varying electromotive force or "voltage" in the secondary winding. This effect is called mutual induction.

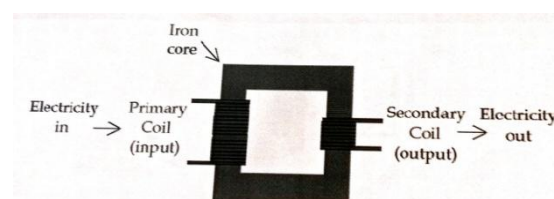


Fig 2.6 Transformer

A Transformer makes use of Faraday's law and the ferromagnetic properties of an iron core to efficiently raise or lower AC voltages. It can not increase the power and the voltage is raised. Current is proportionally lowered vice versa. Transformers have two great advantages over other methods of changing voltage. They provide total electrical isolation between the input and output, so they can be safely used to reduce the high voltage of the mains supply. Almost no power is wasted in a transformer. They have high efficiency of 95% or more. These are the two main advantages of the transformers over the changing the method of voltage. The RF module comprises of an RF TRANSMITTER and RF RECEIVER. The transmitter or receiver pair operates at a frequency of 434 MHz. An RF transmitter receives serial data and transmits it wirelessly through RF through its antenna connected at pin4. The transmission occurs at the rate of 1KBPS 10KBPS. The transmitted data is received by an RF receiver at the same frequency as that of the transmitter.

III. CONCLUSION

This paper can done by placing switches in every class room. According to their subject every lecturer has to press the respective switch when he starts his lecture and the time will be started in the HOD Room display showing that the lecturer has started and when the lecturer completes his class he then presses the same key which will stop the timer and shows the time interval of the respective class by the respective lecturer. So by implementing these HOD Can know which class is going on and who is busy with the class.

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