Microcontroller and Touch screen based wireless library book catalog system.

The project mainly aims in designing completely automated books catalog system in library with the help of touch screen sensor and a graphical LCD to control and provide a user-friendly environment of the user to register the selected the book effectively through wireless. The library catalog will be displayed automatically on the GLCD display and we can directly select the book with the help of touch screen.

Touch screens provide fast access to any and all types of digital media, with no text-bound interface getting in the way. Faster input can mean better service. Using a touch interface can effectively increase operator accuracy, reduce training time, and improve overall operational efficiencies, a properly designed touch interface can improve each operator's accuracy. Touch screens are practical in automation, which has become even simpler with touch screen technology. Owners familiar with the icon system appreciate touch screens that make automation systems user friendly.

The device consists of a microcontroller, which is interfaced with the input and output modules, the controller acts as an intermediate medium between both of them. So the controller can be termed as a control unit. The input module is nothing but a touch screen sensor, which takes the input from the user and provides the same to the microcontroller. The output module is the RF module. The controller also takes the responsibility to display the book catalog information on the graphical LCD. At the receiving end the selected books will be displayed on GLCD.

Features:

1. Touch screen based user-friendly interfacing.
2. Low power consumption.
3. Registration of books in the library becomes simple.
4. Long life.
5. Highly sensitive
6. Easy to install because of wireless interface.

This project provides exposure to the following technologies:

1. Touch screen sensor.
2. Embedded C programming for microcontroller.
3. Design of PCB.
4. Graphical LCD interfacing.
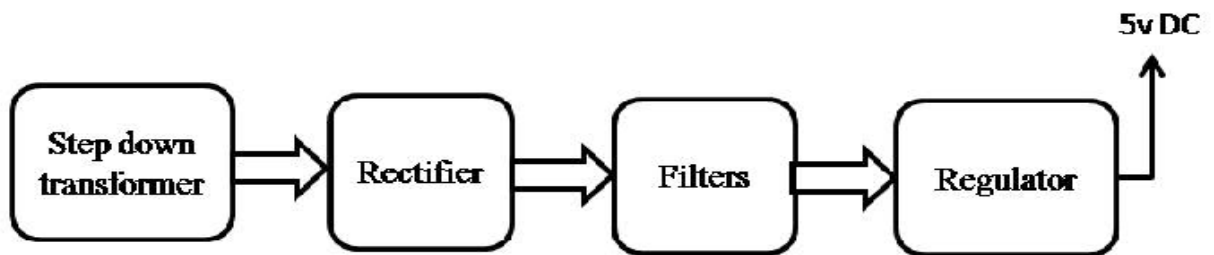5. Wireless Data Transmission using RF.

The major building blocks of this project are:

1. Regulated power supply.
2. Touch screen sensor with driver.
3. Graphical LCD with driver.
4. Microcontrollers.
5. RF Transmitter.
6. RF Receiver.
7. Reset.
8. Crystal oscillator.
9. LED indicators.

www.mycollegeproject.com   Ph: +91 9490219339, 040-23731030
Ameerpet: *A-8, 2ⁿᵈ floor, Eureka court, beside Image hospital, Ameerpet, HYDERABAD 73.*
Santoshnagar: Opp: Magna Hypermarket, Santoshnagar X-Roads, HYDERABAD – 59.

Software's used:

1. PIC-C compiler for Embedded C programming.
2. PIC kit 2 programmer for dumping code into Micro controller.
3. Express SCH for Circuit design.
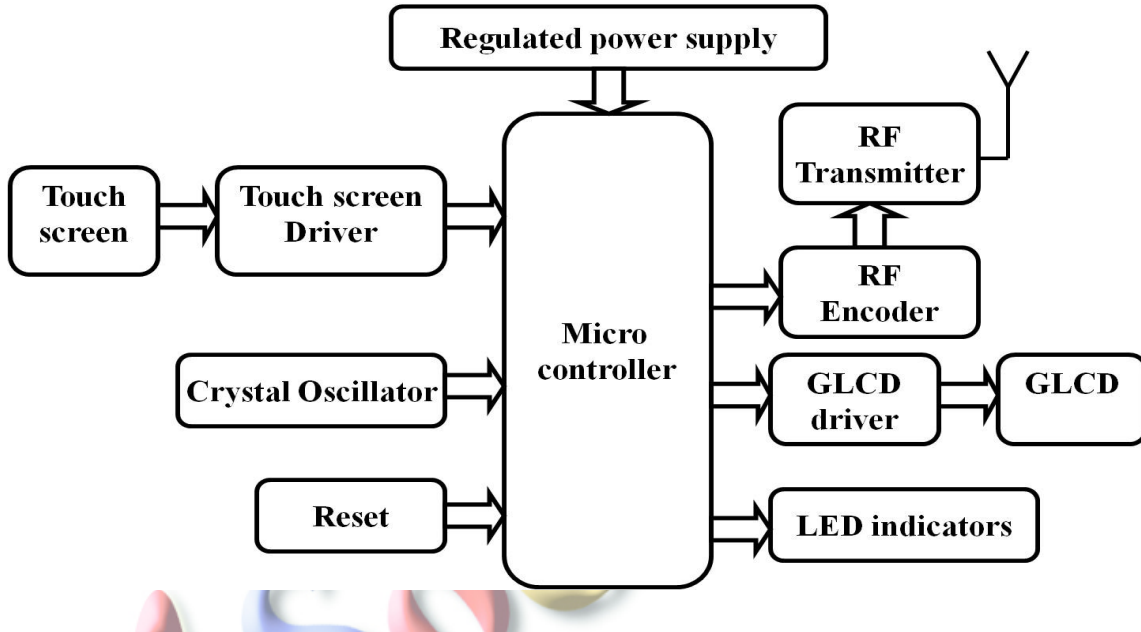4. Proteus for hardware simulation.

Regulated Power Supply:

5v DC

| Step down transformer | → | Rectifier | → | Filters | → | Regulator |

BLOCK DIAGRAM:

www.mycollegeproject.com Ph: +91 9490219339, 040-23731030
Ameerpet: A-8, 2nd floor, Eureka court, beside Image hospital, Ameerpet, HYDERABAD 73.
Santoshnagar: Opp: Magna Hypermarket, Santoshnagar X-Roads, HYDERABAD – 59.

Microcontroller and Touch screen based wireless library book catalog system.

1. Transmitter

Microcontroller and Touch screen based wireless library book catalog system

1.Receiver

www.mycollegeproject.com   *Ph: +91 9490219339, 040-23731030*
Ameerpet*:   A-8, 2ⁿᵈ floor, Eureka court, beside Image hospital, Ameerpet, HYDERABAD 73.*

Santoshnagar: *Opp: Magna Hypermarket, Santoshnagar X-Roads, HYDERABAD – 59.*