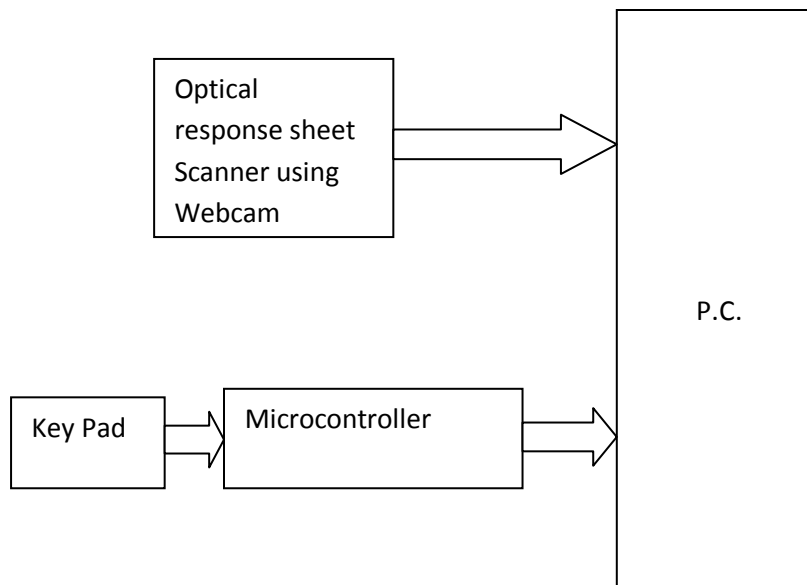


# Automatic Railway reservation system

## Introduction:

Today railway reservation process is completely handled by human resource. In this system semi automation is possible. It can reduce human resources and also improve the efficiency of the system. In this system customer has to fill special reservation form. The reservation form is special optical response sheet. Customer will fill this form and insert this to optical response sheet scanner. Scanner will generate the image of this sheet. By analyzing this sheet with the help of image processing, we can get the information of the customer and train. Current data about the train is available with railway department this data will be made available to customer as per his form. With this data instruction will be given to customer. So according to this instruction he can act and made his reservation.

## Block Diagram:



**Fig.1.** Block Diagram: Automatic Railway reservation system

### **Optical response sheet Scanner using Webcam:**

Scanner can be constructed by Webcam and Frame. By web cam we will take photograph of form. This image will be processed by image processing toolbox to get suitable data from the image.

### **Keypad:**

With the help of keypad customer can be interfaced with the system. After scanning form suitable data will be processed and information of train and availability of the seats with fare will be display on screen. Depending on instruction customer will process further through Keypad.

### **Microcontroller:**

Microcontroller is the interface between Keypad (user) and PC (software). Microcontroller will generate code for each key pressed and send it to PC. Software will processed this data and take necessary action.

### **Software:**

Software for this project will be developed in matlab by using image processing and image acquisition toolbox.