



Intelligent Queue Management System

for Hospital OPDs

Introduction

iQMS is specially designed queuing system for effective management of queues in OPDs of hospitals. The system is designed keeping in mind the common problems of handling large number of patients to be attended by a number of Doctors in an OPD. It incorporates advanced technology for data communication, control and display ensuring excellent reliability. Use of the intelligent queue management system provides –

- **Reduction in work load of hospital staff**
- **Effective time management for Doctors**
- **Ensures smooth sequential flow**
- **Convenient & transparent queuing for patients**
- **Clear unambiguous display of current patient number**
- **Easy ticket printing software**
- **Convenient keypad for doctors to call patients**
- **Creates a good environment and enhances the goodwill of the hospital**

Functional Description

The hospital may have number of Reception Counter depending of Number of Chambers and regular turnout of patients. Each counter is equipped with **Reception Counter Terminal**. The system have the flexibility of incorporating **slots** if more then one Doctors occupies the particular chamber at different time. For example, chamber No. 2 in the morning is occupied by Dr. S Chatterjee, the same chamber is used by Dr. P Banerjee in the afternoon, and in the evening by Dr. T Ganguly, in such a case, each chamber is also provided with slot No. The intending Patient willing to consult any doctor can book his / her appointment at any counter. The receptionist has to insert the Room No and Slot no. of concerned Doctor. On pressing the Print command, **T** the data inserted are send to the Master Controller. The master Controller, process the request for new booking, generates the next Sl. No against each slot and send backs the information to Reception Counter and commends the printer for printing. Format of the Token can be Customized incorporating the Name address, telephone Number and other details of the Hospital, Chamber No. and Slot No. of the doctor, Date of booking, Sl. No. of booking, Now the patient waits for his/her turn in the waiting area in front of the room allotted.

Each chamber is provided with a Key Board with LCD display. To call the patients seriously, the Doctor presses **next** key and the new number is displayed at out side the Chamber or at waiting room.

Components

Reception Counter Terminal & Token Printer

The terminal have heavy duty keyboard consisting of 12 keys, (10 keys for Numbers and two function keys) Dual line LCD display, These units are very handy, small in size. There are two type of Terminals

- Terminal with built in thermal printer, for stylish and clear token printing.
- Terminal attached with thermal/DOT printer for economical running cost. (Wipro/ TVS-E make)

Format of the Token can be Customized incorporating the Name address, telephone Number and other details of the Hospital, Chamber No. and Slot No. of the doctor, Date of booking, Sl. No. of booking, etc.

Doctors Chamber Key Board with LCD Display

Each chamber is provided with a Key Board with LCD display. It is connected with the Master controller and on issuing of any new token, it up-dates the display with the latest no of booking. This helps the doctor in managing his time effectively and ensuring all the booked patients are consulted. The key board has a master button **i** for calling in the next number, this eliminates punching full Sl. number of token saving time of the doctor. However full key board is provide to call in any emergency patient out of turn by punching in the token No.

Token display Board at Doctors Chambers

Display Board is provide out side the chamber or on the wall in the waiting room/ space. When the Doctor intend to call in the next patient, the called number is displayed at this board. There are 3 digits of 7 segment bright LED. Digits height is 2". Color of displays can be selected from Red, Green, Blue, White or Yellow.

Master display Board.

Master display units are designed to provide information of all the chambers at one point. These can be installed at the reception counter, waiting room/ space. Bright 7 segment LED display digits of ¾" heights are used. Master Display Board displays chamber number and the running patents token No.

Master Controller,

Master Controller is the central processing unit. It receives request from all the Reception Counter. Master controller processed and it generate token number for each chamber. It also instructs the printer of Reception Counter for printing the token with all the details. It also up dates Doctor chamber Display board on issue of any new number. The unit has power supply unit built in and it powers all the terminals and doctors chambers. For power supply, it is to be connected with Mains socket. The unit is wall mounting type, small in size. It may be i

