# **Wireless Digital Notice Board**

## Abstract: The current digital Notice Board is wired and only one system can connect to it at a time. We Propose a Wireless Digital Notice Board, which can be wirelessly accessed, by more than one system at a time. The board will be using a private network, hence only devices having access to the network can connect to it. The project uses RaspberryPi as a backend device to handle all the connections. All the programming is done in Python so as to keep the things simple. It uses Socket Programming to create a private Server-Client Network and python PyQt5 library to create GUIs.

## Keywords: Socket programming, PyQt5, RaspberryPi

## Introduction

Wireless digital Notice Board consist of 2 systems, one is the frontend side system, visible on the public Monitor, this can also be called as the Frontend Terminal, all other devices will be connecting to this system. Other is the Backend side from where the data to be displayed will come, this side can be called as Backend Terminal.

Frontend Terminal:

* This will be a dumb terminal as, its only task is to display the data given to it.
* All the processing related to how the data should be displayed, which data to be displayed will be done on the backend terminal.
* This terminal will only accept the connections from other systems and display the data given to it.

Backend Terminal:

* This is the Intelligent terminal, this will do all the processing.
* Which data to send, how that data will be displayed will all be decided by this system.

## Working

Both the frontend and the backend system need to be connected to the same network, this can be achieved using a router. The Monitor is connected to the RasperryPi. The backend system sends the data and the template to the RaspberryPi and Raspberry Pi then uses the template to display data on the Monitor.

### **Block Diagram**



