**SMART CONNECTED SIGN BOARDS**

SHIVANII.S

NAVEEN PRAKASH.R

**Abstract-** sign boards are commonly used in variety of roads which we come across in a daily basis .In the present generation the advertisement notice boards are being managed manually. This process is difficult to involved in order to put a notices on road blockage. This waste a lot of things like paper printer ink, manpower and also brings the loss of time.In this paper we have proposed a system through wireless transmit notices on a notice board using Wi-fi.Wi-fi can pass information for about 100meter distance Wi-fi data rate has 1 or 2 Mbps.It access numerous point and to support network interface.It also makes the system compatible with more than one wireless technology .This project describes the Wi-fi based LCD display.

**Introduction** In past years, the WI-FI transceiver system has used from a many areas in terms of mobile phones ,personal computers ,laptops are to be commonly used by the rich to something so it can be major used.it already owns by many area networks are available. This is amazing when we look at the fact that our country in a developing one with almost half our population living below the poverty line. This continuously growing popularity of the WI-FI Connection has been used to the growth of the country’s area network infrastructure has devloped much more. The LCD used as to 20\*4 the information are to be displayed.it specifies the characters and to display it whenever type to show the text in to the user language. All major urban areas are currently covered by both WI-FI network providers, and soon every single corner of the peoples has used in mobiles in a very poor villages to call away. The method to need for constant communication with family and friends, coupled with the relatively cheap method of sending short text messages to them, has information a WI-FI revolution in the country. In fact, rarely will a used this method use his cell phone to make a phone call, Preferring to anything and everything. All mobile phones has available in WI-FI network. then WI-FI network has been used to provide wide area network allows as to communicate with the information into text message through LCD display to move the notice board .information can passing through for a specific service provide as chatting and to transmit and receive the information .News/traffic reports, and downloading of ring tones for their phones. These services all themselves with one or more network ranges providers will give them a special code number that can receive and monitor the informations that their notice board send to them.This many-to-one network of information transmission has become quite popular and many a business has entered into this model with mixed results. However, as of this writing, the vast majority of businesses that revolve around the WI-FI system have been targeted to consumers. This paper aims to propose industrial applications that will utilize the distinct advantages of the WI-FI.This system over other possible technologies in the industrial process.

**II. Problem of analysis** Early days to display any information, circulars,daily events are to be display in LCD with help of GSM and Zig-Bee.It is usefull to display in early days but nowadays this is to difficult process because GSM has been used large distance area but if anywhere the tower problem is occurred it total damage the output display. It has to cover the smaller area and it manufactures small market hesitant to release in the world . so using wi-fi to display the information passing very fast and large coverage distance to be accesed so to saving our time due to it act a transmit and receive the information at a time.

**CONVENTIONAL SIGN BOARD:**In present Systems the road signs and the speed limits are Static, Thus the road condition has to be updated manually. The speed limit cannot be updated with respect to the road conditions in the conventional sign boards.

**HARDWARE REQUIRED:**

**NODEMCU (12-E):**

**Arduino-like hardware IO**

Advanced API for hardware IO, which can dramatically reduce the redundant work for configuring and manipulating hardware. Code like arduino, but interactively in Lua script.

**Nodejs style network API**

Event-driven API for network applicaitons, which faciliates developers writing code running on a 5mm\*5mm sized MCU in Nodejs style. Greatly speed up your IOT application developing process.

**Lowest cost WI-FI**

Less than $2 WI-FI MCU ESP8266 integrated and esay to prototyping development kit. We provide the best platform for IOT application development at the lowest cost.

* **DHT SENSOR:**

**DHT 11**

* Ultra low cost
* 3 to 5V power and I/O
* 2.5mA max current use during conversion (while requesting data)
* Good for 20-80% humidity readings with 5% accuracy
* Good for 0-50°C temperature readings ±2°C accuracy
* No more than 1 Hz sampling rate (once every second)
* Body size 15.5mm x 12mm x 5.5mm
* 4 pins with 0.1" spacing
* **OLED DISPLAY:**

An organic light-emitting diode (**OLED**) is a light-emitting diode (LED) in which the emissive electroluminescent layer is a film of organic compound that emits light in response to an electric current.

**FLOW DIAGRAM**

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MOBILE APP

IBM CLOUD

OLED DISPLAY

NODE MCU

SENSOR

**ADVANTAGES OVER CONVENTIONAL SIGN BOARD:**

* Any change in route or road blockage can be let known in advance
* Speed limit can be changed dynamically with respect to the road conditions and climate
* Reduces manual labour