

An Analysis of Green Environment Alerting Bot

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Abstract

The present environment pollution is very high in all over the world and to support the society and people for live update and safety purpose. This analysis is mainly used to find out the humidity inside the room as well as outside the room, heat and temperature of the room it is very important feature of this system and it will act as a fire alter and gas leakage in the room can also be separated and identify from the room in the environment by alerting the users is the main objective of this system and for that process this system is used bot technology with the help of raspberry pi technology and users come to know the sudden change in present environment through beep so that users can be alter and take precaution steps to make safe themselves and the society.

Keywords: Humidity, Heat, Gas, Bot, Raspberry pie

1 Introduction:

Today day to day life is very fast and quick so that environment is full of polluted and to support the green environment this system mainly focus on immediate update of temperature to the users it may inside the room or outside the room it will identify the temperature and update the live status so that users can plan accordingly and added to this another feature like humidity temperature is also used to find the present humidity which gives more confident to the user and which support the live update for the user and finally gas analyzer is used to find the LPG gas leakage in the room will update the users and user can be precaution this service can be done through different sensors to identify the temperature, heat, humidity and gas leakage can be done and for that purpose raspberry pi will be included to give more support for automation in the technology [1].

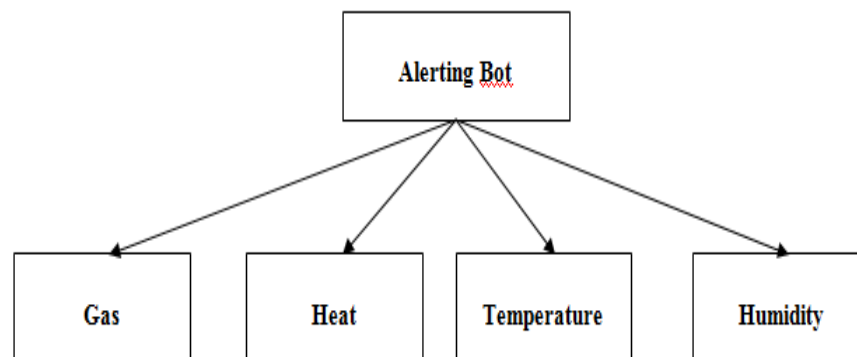


Figure 1. Basic Flow of Alerting Bot

2 Material and Methods

This system focus on updating to the users from the Figure 1 Shows the different parameters involved to update the users and each parameters has separate temperature to support the system with raspberry pi and this system mainly focus on the sensors and indication only not rectification of the problem only indication to the users [3].

2.1. Gas

The first parameter of this system is Gas but mainly focus on LPG gas in the room and main challenge of this parameter is used to separate the air into plain, necessary gas and then separate the LPG is the task for that purpose this system mainly used sensor for the identification and MQ135 Gas sensor is used for the identification of gas leakage and update the system the system will make the beep sound is shown in the Figure 2 [4].

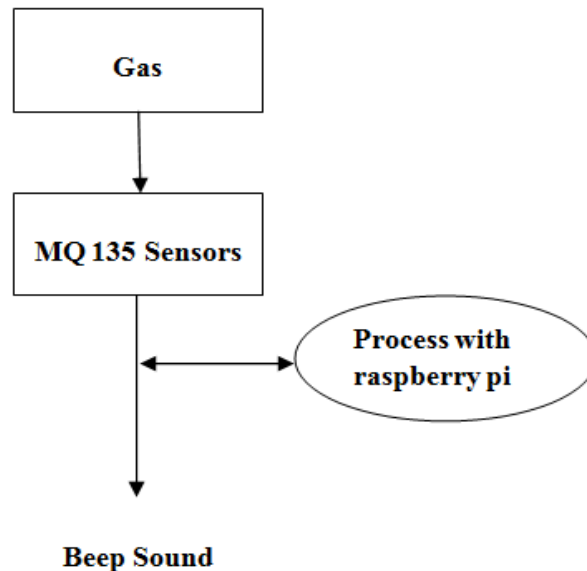


Figure 2. Process of Gas sensor

2.2. Temperature and Heat

The next parameters of this altering bot is temperature and heat this parameters are mainly deals with separation of normal and room temperature as well as heat and identifying the thread temperature and heat inside and outside of the room for the LM 135 temperature sensor is used for the identification process. The LM 135 sensor will be process with raspberry pi and which gives beep sound to the users for the alter purpose is shown in the Figure 3 [5].

2.3. Humidity

The Last and Final parameter of this system is Humidity and which gives better result compare to the existing result and this system mainly focus on the to find out the humidity inside and outside of the room is the major task for that purpose the system have hygrometer to sense the humidity of the room both inside and outside and this output will be process with raspberry pi and the output will indicate the beep sound to alter the user is shown in the Figure 4 [6].

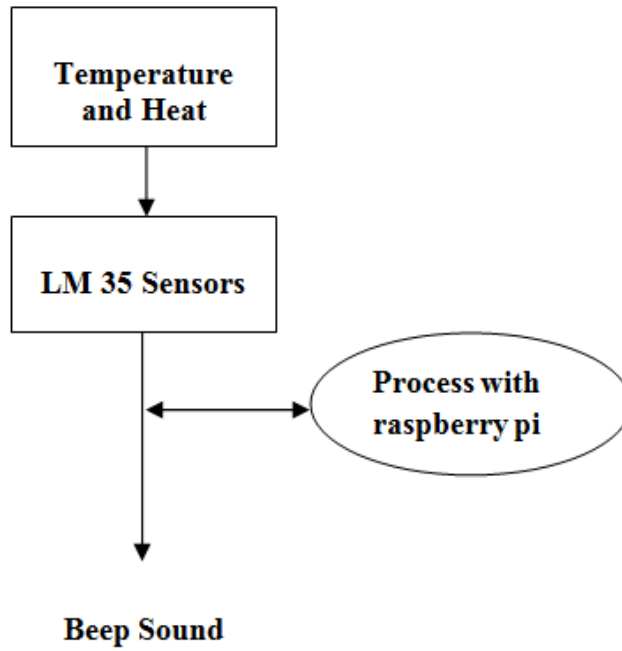


Figure 3. Process of Temperature and Heat

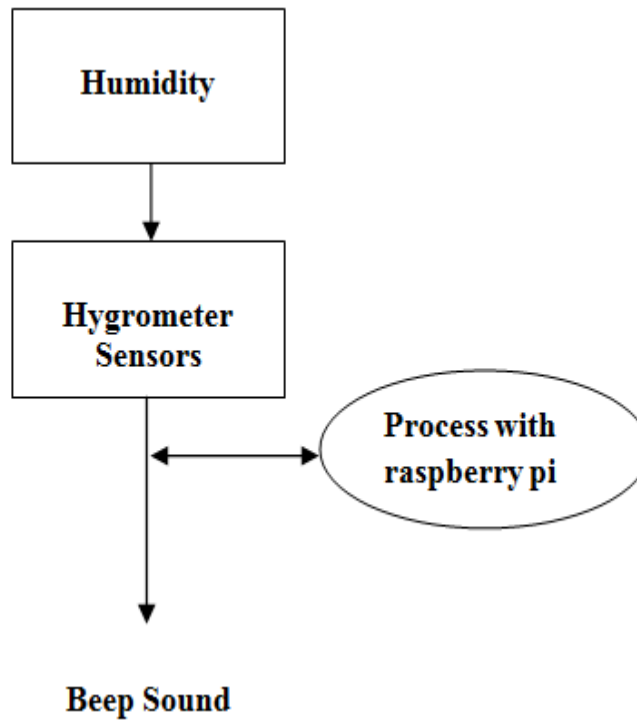


Figure 4. Process of Humidity

3 Implementation

The implementation of this system mainly focus on 4 parameters namely Gas, Temperature, Heat and Humidity for the effective result justification time, FAR and FRR will also be taken into the account to give accurate result compare the existing results is described in Table 1 and Table 2. In the Figure 5 shows the graph of time calculation of altering bot and Figure 6 shows the graph of FAR and FRR calculation of altering bot results [2].

Table 1. Comparison of Parameters with Time

S.No	Parameter	Time (in Sec)
1.	Gas	1.1
2.	Temperature	2.23
3.	Heat	2.5
4.	Humidity	2.9

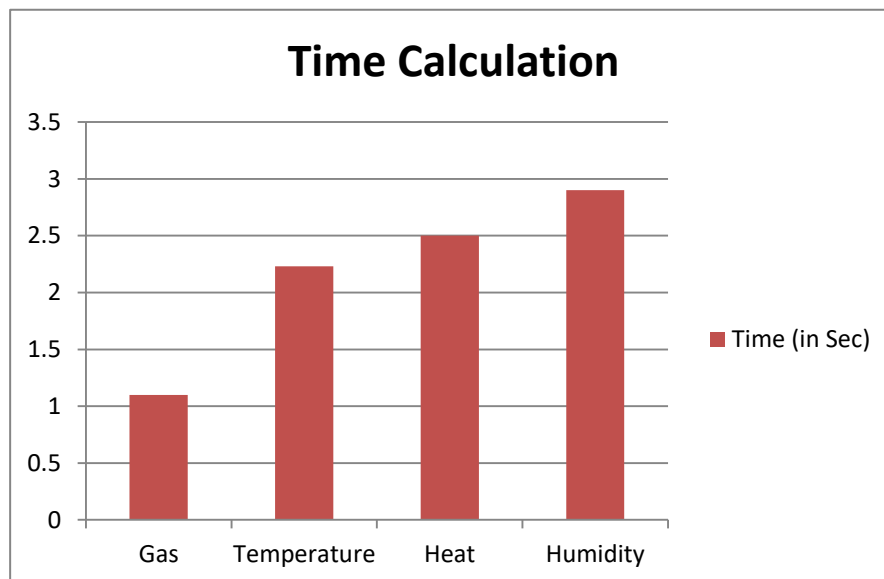


Figure 5. Graph for Time Calculation of altering bot

Table 2. Comparison of Parameters with FAR and FRR

S.No	Parameter	FAR (in %)	FRR (in %)
1.	Gas	98	98
2.	Temperature	98	98
3.	Heat	95	98
4.	Humidity	98	95

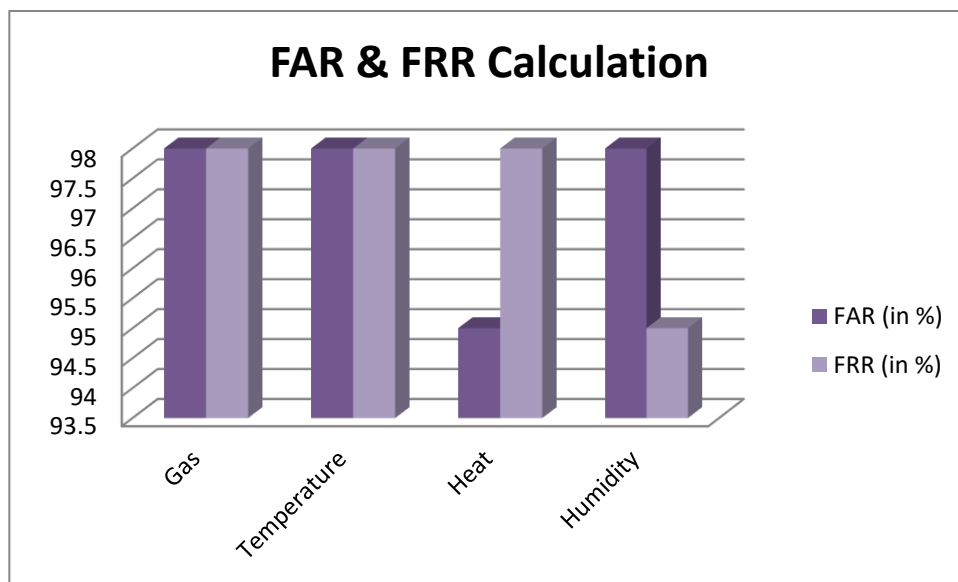


Figure 6. Graph for FAR and FRR Calculation of altering bot

4 Conclusion

The main reason to develop this altering bot is used to alter the users with respect to Gas, Heat, Temperature and Humidity for there safety purpose and contributing to society and this system implemented the all the 4 kinds of parameter with the help of several sensors mentioned in the system and the outcome of the system also measured in terms of three parameters namely time, FAR(False acceptance rate), FRR(False rejection Rate) calculated from the output itself the result justify the effectiveness of the altering bot to the users as well as to the society.

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