

**DESIGN AND CONTROL OF VEHICLE DETECTION AIR POLLUTION  
BY AUTOMATED SYSTEM****V.Anusha<sup>1</sup>, Rafeek Pasha<sup>2</sup>**<sup>1</sup>M.Tech Student, Dept of ECE, Vidya Vikas Institute of Technology, Chevella, R.R Dist, T.S, India<sup>2</sup>Assistant Professor, Dept of ECE, Vidya Vikas Institute of Technology, Chevella, R.R Dist, T.S, India**ABSTRACT:**

In the daily life integration of the vehicles takes place with respect to the activities of the human man. There is a demand for the circumstances followed by the situation in which the vehicle utilization under the life of urban scenario. Here the probability oriented facts facing in the system that is the tossing a coin is an experiment and the occurrence of the head or the tail is the outcome of the system respectively. Here the pollution related to the air is also discussed in the same strategy in the form of its problems and its effects that disturb the environment in one or the other ways. Here each of the angles has its own consequences whenever it is beyond its consequences or the limits. Here this problem in the vehicles causes the pollution that is emitting from the vehicles in the form of the hazardous smoke from the vehicles due to the improper maintenance. Here this particular thing can't be completely nullified apart from that it can be reduced by the proper systematic design of the approach. Here the approach is beginning with the sensors of the smoke detectors which are made up of the semi conductors followed by the affect of the various toxic gases. Here initially to detect the smoke or the level of pollution this detectors are place at the opening of the outlet where the smoke is ignited and it is measured in the form of the scales of measurement respectively. Here the it is directed by the help of the integration of the buzzer whenever the pollution cross the threshold the buzzer with give the sound that is reaching the dangerous zone. Here this particular algorithm is explained in the practical way in the below paper respectively. Experiments have been conducted on the present method where there is a lot of analysis takes place on the large number of the datasets in a well

oriented fashion respectively. Here the present method is effective and efficient in terms of the performance followed by the outcome oriented results and is successful.

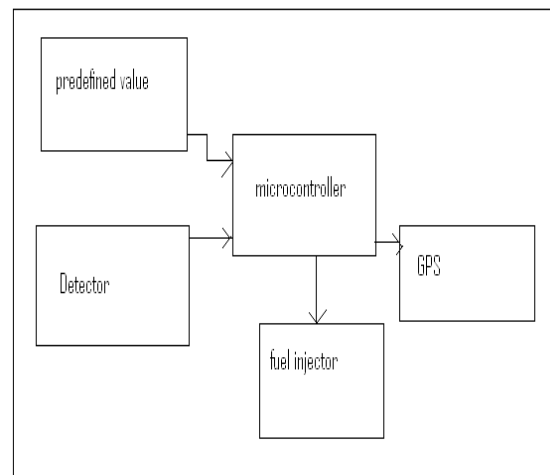
**Keywords:** *Pollution detection, Sensors, Microcontroller, GPS, Communication network, Level of threshold, Detector, Vehicle investigation and Sensor of semi conductor respectively.*

## 1. INTRODUCTION:

In this advanced technology and the environment is fully and completely affected by the help of the pollution mainly of the air and its contamination is a major cause and is a serious problem [1]. Here the pollution related to the air includes the effect of the tragedies of the green house gases that is carbon mono oxide and carbon di oxide respectively. It is a serious problem and effects a lot for the human beings in the form of the dangerous diseases that harms the lungs and lever etc which may lead to death. So measure is very much important for the control of the pollution and plays a crucial role for the implementation of the new technique in order to control or to prevent this problem which is crucially affecting the performance of the environment respectively [2][3]. These are easily detected and evaluate by the help of the detectors or the sensors made up of the

semi conductors and level of the effect and its contamination.

## BLOCK DIAGRAM



**Fig 1: Shows the block diagram of the proposed method**

## 2. METHODOLOGY

In this paper a new method is designed which I shown by the above block diagram and is in a summarized fashion. In the case of the above block diagram the

detector plays a crucial role and it integrates the analog to digital converter, sensor of smoke and the transducer respectively [4] [7]. Each and every component plays a crucial role in its activity related to it or involved in it. Here the initially sensor the smoke it placed at the open knock of the vehicle to detect the smoke and then completely captures the data and by the help of the transducer it converts into the electrical form and it is in the analog fashion now our micro controller requires the digital input so here we are going to use the analog to digital converter where the finally the processed data that is detected smoke it transferred into the microcontroller by the integration of the sub components and its interaction respectively [5][6]. Here the micro controller rates the smoke that is the level of the danger in the form of the toxic characteristics and its effect in harm respectively. Here the micro controller used is ATMEL89S52 which is of 8 bit storage with the integration of the time followed by the counter capabilities depending on the requirement of the system [8].

### 3. EXPECTED RESULTS

There are several analysis takes place on the large number of the test beds

for the evaluation of the performance of the system. Here the present implemented method is very much effective in terms of the detection of the pollution from the vehicles and the monitoring of the vehicles by the level of the pollution it is emitting in the air and its problems. Previously there are a lot of methods takes place in the system where there is a problems in one or the other fashion and here the present method gets control of all the several previous methods and its problems and is designed by overcoming of the all the above problems in an accurate fashion and we finally conclude that the present method is effective and efficient in terms of the performance followed by the outcome of the entire system in detection of the problem and its consequences respectively.

### 4. CONCLUSION

In this paper a new technique is presented where it completely overcome the drawback of the several previous methods in a well oriented fashion and it is applicable in any system for the well accurate detection of the pollution and the study of the range fo the pollution and its effects by the proper design of the well planned circuit approach which is already shown and explained in the

block diagram and the circuit diagram respectively. Here the proposed method focuses on the couple of factors which includes the scenario of the driver indication and the detection of the pollution in terms of the range and its consequences respectively. The other one is the problems related to the effect of the present recorded data and its analysis plays a crucial role for the maintenance and control of the pollution based vehicles respectively. So in order to overcome the problem which we are facing till now is pollution of the hazardous toxic gases from the vehicles can be completely controlled by the help of the proposed algorithm and the range of its measure and the impact on the environment respectively.

## REFERENCES

- [1] K. Galatsis, W. Wlodarsla, K. Kalantar-Zadeh and A. Trinchi, " Investigation of gas sensors for vehicle cabin air quality monitoring," vol. 42, pp. 167-175, 2002.
- [2] "Trade of Motor Mechanic"; Module 5; Unit 2 Electronic Fuel injection; Phase 2 by FÁS Learning Innovation Unit with Martin McMahon & CDX Global; Curriculum Revision 2.2 16-01-07.
- [3] H. Christ et al., "Automatic track control of vehicles: Theory and experiments," Dynamics of Veh. on Roads and on Tracks, Proc. 5th VSD-2nd IUTAM Symp., Vienna, Sept. 1977, pp.
- [4] J. Ackermann and W. Sienel, "Robust control for automatic steering," in Proc. I990 Am. Contr. Conf., San Diego, CA, ay 1990, pp. 795-800.
- [5] P. Lugner, "The influence of the structure of automotive models and tyre characteristics on the theoretical results of steady-

state and transient vehicle performance," in Dynamics of Veh. On Roads and on Tracks, Proc. 5th VSD-2nd [LITAM Symp., Vienna, Sept. 1977.

[6] H. Sakai, "Theoretical and experimental studies on the dynamical properties of tyres, Part 1: Review of theories of rubber friction," Int. J. Veh. Design, vol. 2, no. 1, pp. 78-110, 1981.

[7] R. Parsons and W.-B. Zhang, "PATH lateral guidance system requirements definition," in Proc. First Int. Conf. Appl. Of Advanced Technol. in Transport. Eng., ASCE, San Diego, CA, Feb. 1989, pp. 275-280.

[8] Zhang et al., "An intelligent roadway reference system for vehicle lateral guidance/control," in Proc. 1990 Am. Contr.