PAVAN- AIR POLLUTION DETECTOR

**Prepared for:** Government of Tamil Nadu

**Prepared by:** Students of Sri Krishna College Of Engineering and Technology

December 12,2017

**IDEA/APPROACH DETAILS IDEA/APPROACH DETAILS**

**MINISTRY CATEGORY:** Government of Tamil Nadu

**PROBLEM STATEMENT**: A Surveillance system for Air Pollution Monitoring – Warning and Management

**PROBLEM CODE:** #GTN2

**CURRENT APPLICATION AICTE NO**: 1-3324607826

**TEAM LEADER**: FAHEEN FATHIMA B.N

**IDEA/SOLUTION/PROTOTYPE:**

**APPLICATION NAME:** PAVAN-Air Pollution Detector

Unlike any other air pollution detectors, PAVAN has the unique ability to provide consistent data on the major air pollutants present in the atmosphere with explicit representation about the status of the area under surveillance. It uses hardware components such as a microcontroller and numerous sensors to detect the pollutants from the atmosphere. Besides which, it is equipped with a completely user-friendly and intractable user design. Moreover, it can suggest and provide guidelines to the native users as to how to control the air pollution in the area. Thus PAVAN acts not only as a pollution detector but a pollution controller.

**TECHNOLOGY STACK:**

Arduino UNO – microcontroller used to process the data received from number of sensors and convert into useful information for further use

Sensors are the key element of PAVAN. It reads and senses continuous data from the atmosphere such that it receives information about various pollutants that cause pollution. Some of the sensors that PAVAN uses can be given as

* + MiCS-2714 gas sensor (NO2)
  + MiCS-2614 gas sensor (OZONE)

GUI – it represents the interactive platform where the user is presented with valuable information. Usually scripting languages are used for these purposes. Here we intend to use Visual Basics for the user interface platform.

**Use Case:**

CARBON CONTENT

NITROGEN CONTENT

PROVIDING INFORMATION TO USER

PROVIDING GUIDELINES

PROCESSING

POLLUTANT LEVEL

OZONE CONTENT

SEVERAL OTHER POLLUTATNTS

**Dependencies:**

* Knowledge on pollutants and its causative agents.
* Previous records of data of the surveillance area to compare the efficiency of PAVAN.