# An artificial Smell and Odour Detecting System

# **TECHNOLOGY DESCRIPTION**

This invention relates to an artificial olfactory system for detecting gas or vapour.

## **TECHNOLOGY FEATURES**

This technology utilized a novel technique called 'virtual sensor'. This sensor is a fault-tolerant and has a huge potential in addressing security issues at the airport, air-quality monitoring, quality of food, detection of diseases or illnesses and detecting odours from perfume and plastic. It also has potential in terms of developing artificial organs such as fault tolerant artificial heart, fault tolerant artificial lung and fault tolerant artificial pancreas.

#### **ADVANTAGES**

- Reliable and Fault-tolerant
- Reducing maintenance costs
- Proper for using in critical and accurate applications

## **INDUSTRY OVERVIEW**

#### **Prospect Industry: Chemical industry**

This new invention relates to an artificial olfactory system and a method for detecting gas or vapour using the system thereof. Hence, it may be adopted by chemical companies producing hazard monitoring equipment. The global market for explosive hazard monitoring, decontamination and personal protective equipment was valued at \$148.3 billion in 2012 and is expected to increase to \$193.7 billion in 2014 and then to \$387.9 billion in 2019, a compound annual growth rate (CAGR) of 14.9% over the five-year period from 2014 to 2019. In Malaysia, industrial hazards and safety measures are taken care of by the Department of Environment, Hazardous Substance Division and Industrial Health Division Department of Occupational Safety and Health Ministry Of Human Resources Malaysia are the significant government agencies regarding this matter. Potential market for this innovation will be among global industrial hazard companies and industrial hazard safety solution companies such as ESP Safety, Inc., Anguil Environmental Systems, Inc., Endress Hauser, HORIBA Europe GmbH, CitiSafe Pte Ltd. And Teledyne API.



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