

## **Design and Optimization Fire Alarm System to Protect Gas Condensate Reservoirs With the Use of Nano-Technology**

**Authors :** Hefzollah Mohammadian, Ensieh Hajeb, Mohamad Baqer Heidari

**Abstract :** In this paper, for the protection and safety of tanks gases (flammable materials) and also due to the considerable economic value of the reservoir, the new system for the protection, the conservation and fire fighting has been cloned. The system consists of several parts: the Sensors to detect heat and fire with Nanotechnology (nano sensor), Barrier for isolation and protection from a range of two electronic zones, analyzer for detection and locating point of fire accurately, Main electronic board to announce fire, Fault diagnosis in different locations, such as relevant alarms and activate different devices for fire distinguish and announcement. An important feature of this system, high speed and capability of fire detection system in a way that is able to detect the value of the ambient temperature that can be adjusted. Another advantage of this system is autonomous and does not require human operator in place. Using nanotechnology, in addition to speeding up the work, reduces the cost of construction of the sensor and also the notification system and fire extinguish.

**Keywords :** analyser, barrier, heat resistance, general fault, general alarm, nano sensor

**Conference Title :** ICIECE 2015 : International Conference on Information, Electronic and Communications Engineering

**Conference Location :** Rome, Italy

**Conference Dates :** December 03-04, 2015