## **Power Management in Wireless Combustible Gas Sensors**

Authors : Denis Spirjakin, Alexander Baranov, Saba Akbari, Natalia Kalenova, Vladimir Sleptsov

**Abstract :** In this paper we propose the approach to power management in wireless combustible gas sensors. This approach makes possible drastically prolong sensor nodes autonomous lifetime. That is necessary to tie battery replacement to every year technical service procedures which are claimed by safety standards. Using this approach the current consumption of the wireless combustible gas sensor node was decreased from 80 mA to less than 2 mA and the power consumption from more than 220 mW to 4.6 mW. These values provide autonomous lifetime of the node more than one year.

Keywords : Gas sensors, power management, wireless sensor network

Conference Title : ICWCSN 2015 : International Conference on Wireless Communication and Sensor Networks

Conference Location : Zurich, Switzerland

Conference Dates : July 29-30, 2015

1