Abstract

In this paper we present novel methods of energy efficient environment sensing in a very cost effective manner by a method called smart sensor switching. We have extracted the requirements of sensor switching and implemented various intelligent energy efficient protocols like dynamic sensor switching, sensor handover in the hardware platform which makes the sensing mechanism uninterrupted and highly energy efficient. The prototype hardware consists of five different gas sensors which are operated by centralized peripheral interface controller (PIC) based embedded system platform. The paper also describes a practical sensor switching mechanism with real time data, various dynamic and non dynamic sensor parameters have been considered in the designing scenario.

References

- Murty, R. N.; Mainland, G.; Rose, I.; Choudhury, A. R.; Gosain, A.; Bers, J.; Welsh, M. CitySense: An Urban-Scale Wireless Sensor
- Dipanjan bhattacharjee, Purva Bhatnagar, Sushabhan choudhury. &quot;Design and Development od a Flexible Reliable Smart Gas Detection System&quot;; International Journal of Computer Applications (0975 – 8887) Volume 31- No. 9, October 2011,
- www. smartsensorsystem. com

Index Terms

Computer Science

Wireless
Keywords
Smart sensor switching  dynamic sensor switching  sensor handover  gas sensor  peripheral interface controller (PIC)