

## ***Plenary Talk II***

# **WSN's Features, Standards, Analysis Tools, and Applications**

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### **Abstract**

Sensing is life, wireless sensor networks (WSN's) are acquiring snowballing interests in research and industry, they are infiltrated in day-to-day use. A WSN encompasses spatially distributed autonomous sensors to monitor physical or environmental conditions, such as temperature, sound, pressure, etc. and to cooperatively pass their data through the network to a main station. WSN's are bi-directional, as they receive sensory data and control sensor activities.

The development of WSN's was motivated by military applications such as battlefield surveillance; today such networks are used in many industrial and consumer applications, such as industrial process monitoring and control, robotics, health monitoring, smart buildings and homes, etc. Owing to their requirement of low device complexity as well as slight energy consumption, proprietary standards are devised to ensure impeccable communication and meaningful sensing.

This talk takes care of enlightening the special features of WSNs and sheds light on their standards, analysis tools and diversified applications.

### **Biography**



**Prof. Hossam M.A. Fahmy** is a Professor of Computer Engineering. He served as Chair of the Computer Engineering & Systems Department, Faculty of Engineering, Ain Shams University, Cairo, Egypt from 2006-2008, and from 2010-2012. He participates in many academic activities in Egypt and abroad.

Prof. Fahmy has published and refereed in several international refereed journals and conferences, his research areas are focused on Computer Networks, MANET's, WSN's, VANET's, Fault Tolerance, Software and Web Engineering. He chaired the IEEE International Conference on Computer Engineering and Systems (ICCES) from 2006-2008, and from 2010-2013.

Prof. Fahmy is a Senior IEEE member, Distinguished IEEE Computer Society Visitor for Region 8, and member of the IEEE Computer Society Cloud Computing Special Technical Community.