# Future Directions in Sensor Data Management: A Panel Discussion

Demetris Zeinalipour
University of Cyprus, Cyprus
dzeina@cs.ucy.ac.cy

## ABSTRACT

We will soon celebrate 10 years of research and development in the area of sensor networks. During this decade, we have witnessed the emergence of specialized embedded systems, operating systems, data-oriented management systems as well as programming languages for ad-hoc monitoring of the environment at a high fidelity. All the advances have brought us one step closer to the initial Smartdust vision. The first signs of data management approaches to cope with the inherent complexities of sensor networks arose in 2003, with the release of prototype database systems and the spin off of specialized research conferences (i.e., IPSN in 2003) and workshops (i.e., DMSN in 2004).

In the recent years, we have been witnessing a paradigm shift from the initial target of sensor networks, which focused on low-power embedded sensing devices utilized for environmental and habitant monitoring, to new domains involving more powerful devices (such as smartphone devices) and applications (such as people-oriented social networking applications). We have also been witnessing the emergence of complementary technologies such as stream processors, cloud data analytic frameworks, semantic web technologies and others. Although many of these frameworks have similar assumptions and goals, it is not clear how these can drive or be driven in the future by sensor data management research.

The aim of this panel is to discuss: (1) to what extend the vision of applying data management techniques to sensor network research has been successful over the years (e.g., adoption of ideas proposed by the community); ii) to examine the significance of recent advances and to identify new directions that can foster research in sensor data management.

## List of Panelists :

- Yanlei Diao (University of Massachusetts Amherst, USA)

- Le Gruenwald (National Science Foundation, USA)

- Christian S. Jensen (Aarhus University, Denmark)

- Kian-Lee Tan (National University of Singapore, Singapore)