CONET 2013
4th International Workshop on Networks of Cooperating Objects for Smart Cities 2013 (CONET/UBICITEC 2013)

jointly held with
CPSWeek 2013, Philadelphia, PA, USA
April 8, 2013

http://conet2013.deis.unical.it

There are three important concepts that have gained relevance over the past years. First, the concept of classic embedded systems where the focus is on the control of physical processes (machinery, automobiles, planes, etc.). Second, the notion of pervasive computing (or ubiquitous computing) that foresees everyday objects as having some form of computation capacity and, in most cases, sensing and communication facilities. Third, wireless sensor networks where small computing devices are able to sense their environment and cooperate in order to achieve a common goal. We refer to the unified vision of these three systems as networks of Cooperating Objects (COs).

This new vision is more powerful and has a larger scope than each of the individual system concepts out of which it evolved. The vision of Cooperating Objects is, therefore, quite new and needs to be understood in more detail and probably extended with inputs from the relevant individual communities that compose it. Building on the success of the previous CONET workshops, CONET/UBICITEC 2013 aims at providing a forum to discuss the similarities, complementariness and advances of the areas mentioned above in order to integrate them into single coherent systems.

Topics of interest included:

- Resource management of COs
- Quality-of-Service in networks of COs
- Hardware platforms for COs
- Mobile and distributed sensing
- Hybrid cooperation of static and mobile nodes

- Communication and control of mobile COs
- Distributed control and estimation over networks
- Decentralized algorithms for control over wireless sensor networks
- Decentralized, distributed, and cooperative optimization
- Applications of control of COs
- Real-time aspects of COs
- System software for COs
- Communication support for COs
- Real-world deployments of COs
- Applications of COs to body area networks
- COs in Complex Systems
- Security and Privacy in COs
- Enterprise Integration of COs
- Application of wireless sensor networks on Pervasive computing
- Closed-loop applications of pervasive computing
- IoT Technologies for Smart Cities

The scientific contributions included five referred as well as two invited papers reported in these proceedings. Due to their breadth and depth with respect to the proposed topics, the selected scientific articles allowed the analysis of the state of the art of techniques and methodologies for Cooperating Objects and the development of new wireless sensor networks application. Moreover, the main potential directions of future research were identified along with the technologies that will drive future innovation in the CO domain.

The Organizing Scientific Committee would like to thank the invited speakers, the authors of the scientific contributions, the members of the CONET steering and program committees, and all people involved in the organization of CONET 2013 whose precious contribution made possible to perform such successful initiative.

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Giancarlo Fortino, University of Calabria, Italy
Stamatis Karnouskos, SAP Research, Germany
Pedro José Marrón, University of Duisburg-Essen, Germany
Jose L. Martinez Lastra, Tampere University of Technology, Finland

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