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ESSEM Domain

COST Action TD1105

European Network on New Sensing Technologies for Air-Pollution Control and Environmental Sustainability - EuNetAir

SPECIAL SESSION on Smart Cities Sensors

Valencia, Spain, 3 November 2014

Valencia Congress Center
Avenida Cortes Valencianas, 60, Valencia, Spain

AGENDA	
3 November 2014 Monday	
09:00 - 09:50	***Keynote Session IEEE SENSORS 2014 on The Senseable City***
10:00 - 11:30	***Special Session on Smart Cities Sensors participated by COST Action TD1105***
11:30 - 12:00	*Coffee-Break*
13:00 - 18:30	***IEEE SENSORS 2014 Sessions***

IEEE SENSORS 2014 Conference

Valencia, Spain
November 2-5, 2014

COST is supported by the EU Framework Programme

ESF provides the COST Office through a European Commission contract

Background and goals

About COST Action TD1105 EuNetAir

COST Action TD 1105 EuNetAir (www.cost.eunetair.it), a Concerted Action on *New Sensing Technologies for Air-Pollution Control and Environmental Sustainability*, is a running Networking funded in the framework *European Cooperation in the field of Scientific and Technical Research* (COST) during 2012-16. The main objective of the Concerted Action is to develop new sensing technologies for Air Quality Control at integrated and multidisciplinary scale by coordinated research on nanomaterials, sensor-systems, air-quality modelling and standardised methods for supporting environmental sustainability with a special focus on Small and Medium Enterprises.

The **core-issues of the COST Action TD1105** on the new sensing technologies for indoor and outdoor monitoring and air quality control will be surveyed by Action partners with emphasis at sensor materials, functional materials, nanotechnologies for gas sensors, low-cost and low-power chemical sensors, portable systems, sensor-instrumentations, air-pollution modelling, methods, measurements and protocols for air quality control and environmental monitoring.

This international Networking, coordinated by ENEA (Italy), includes over 80 big institutions from 28 COST Countries (EU-zone: *Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Latvia, The Former Yugoslav Republic of Macedonia, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom*) and 7 Non-COST Countries (extra-Europe: *Australia, Canada, China, Morocco, Russia, Ukraine, USA*) to create a S&T critical mass in the environmental issues.

About the Special Session Smart Cities Sensors
participated by COST Action TD1105 at Valencia, Spain, 3 November 2014

The **Special Session** - *Smart Cities Sensors* - chaired by Action TD1105 Chair, has been organized as parallel **Open Event** linked/inside to *IEEE Sensors 2014* Conference (http://ieee-sensors2014.org/), chaired by the General Chair as Prof. Candid Reig, University of Valencia, Spain, and Lina Sarro, TU Delft, The Netherlands.

This **Special Session** - one of the 10 special sessions in the conference - will be beneficial for COST Action TD1105 by the presence of many international experts at world-class level and several involved Action MC Members to participate at the Special Session. Very good visibility for the COST Action TD1105 *EuNetAir* will be provided by the *IEEE Sensors 2014* Conference as show-case to disseminate the achieved Action results. The *IEEE Sensors 2014* Conference is expected to be attended by about 1000 delegates. The extended manuscript of the Lecture on COST Action TD1105 given by Action Chair at the Special Session *Smart Cities Sensors* has been already published in the Proceedings ***IEEE Sensors 2014*** by the e-papers system via peer-review process.

More Information

- Michele Penza, MC Chair/Proposer of *COST Action TD1105 EuNetAir*
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EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY

Monday, 3 November 2014

IEEE SENSORS 2014
Special Session on Smart Cities Sensors

Valencia Congress Center
Avenida Cortes Valencianas, 60, Valencia, Spain

07:30 - 18:00	**IEEE SENSORS 2014 Registration**
10:00 - 11:30	***Special Session: Smart Cities Sensors*** *Chairperson: Michele Penza*, ENEA, Brindisi, Italy
10:00 - 10:30	**INVITED TALK: COST Action TD1105 - New Sensing Technologies for Environmental Sustainability in Smart Cities** *Michele Penza*, Action Chair, ENEA, Brindisi, Italy
10:30 - 10:45	**Analysis of Efficient Dense Wireless Sensor Network Deployment in Smart City Environments** *Peio López-Iturri, Erik Aguirre, Leire Azpilicueta, Carlos Fernández-Valdivielso, Ignacio Raúl Matías, Francisco Falcone Universidad Pública de Navarra, Spain*
10:45 - 11:00	**A Maker Friendly Mobile and Social Sensing Approach to Urban Air Quality Monitoring** *Luca Capezzuto2, Luigi Abbamonte2, Saverio De Vito1, Ettore Massera1, Fabrizio Formisano1, Grazia Fattoruso1, Girolamo Di Francia1; 1 Italian National Agency for New Technologies, Energy and Sustainable Economic Development, Italy; 2 Università degli Studi di Napoli Federico II, Italy*
11:00 - 11:15	**vCity Map: Crowdsensing Towards Visible Cities** *Yoshito Tobe1, Itaru Usami1, Yusuke Kobana1, Junji Takahashi1, Guillaume Lopez1, Niwat Thepvilojanapong2; 1 Aoyama Gakuin University, Japan; 2 Mie University, Japan*
11:15 - 11:30	**Calibration of a Cluster of Low-Cost Sensors for the Measurement of Air Pollution in Ambient Air** *Laurent Spinelle3, Michel Gerboles3, Maria Gabriella Villani2, Manuel Aleixandre1, Fausto Bonavitacola4; 1 Consejo Superior de Investigaciones Científicas, Spain; 2 ENEA, Italy; 3 Joint Research Center, Italy; 4 Phoenix Sistemi & Automazione s.a.g.l., Switzerland*
11:30 - 12:00	**Coffee-Break**
13:00 - 18:30	**IEEE SENSORS 2014 Conference Sessions**

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INVITED SPEAKERS

The following is a list of invited speakers for special sessions at the IEEE SENSORS 2014 conference:

Speaker	Special Session
Michele Penza, ENEA, Italy *COST Action TD1105: New Sensing Technologies for Environmental Sustainability in Smart Cities*	Smart Cities Sensors
Moshe Tur, Tel Aviv University *Recent Progress in Distributed Brillouin Scattering Fiber Sensors*	Distributed fiber-optic sensors using Brillouin scattering
Eric Lacot, University of Grenoble *Plenoptic Microscope Based on Laser Optical Feedback Imaging (LOFI)*	Laser self-mixing sensors
John Sader, The University of Melbourne *Fluid-Structure Interactions of Mechanical Sensors at Nanometer Scales*	Analytical & Semi-Numerical Sensor Modeling
Brian Cunningham,University of Illinois at Urbana-Champaign *Photonic Crystal Biosensors*	Photonic and phononic crystal sensors
Edoardo Charbon, TU Delft *Introduction to Time-of-Flight Imaging*	Time of Flight Imaging, Sensors and Algortihms
Ibon Zalbide, Farsens SL *Battery-Free Wireless Sensors for Industrial Applications Based on UHF RFID Technology*	Battery-less RF enabled sensors for wireless sensor networks (WSN)

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