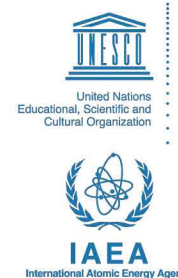




The Abdus Salam  
International Centre for Theoretical Physics



## ICTP-ITU/BDT WORKSHOP ON APPLICATIONS OF WIRELESS SENSOR NETWORKS FOR ENVIRONMENTAL MONITORING IN DEVELOPING COUNTRIES

FOLLOWED BY

## INTERNATIONAL AWARENESS CONFERENCE ON WIRELESS TECHNOLOGIES FOR ENVIRONMENTAL MONITORING

28 February - 11 March 2011

Miramare, Trieste, Italy

The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy, in collaboration with the International Telecommunication Union (ITU) is organizing a **Workshop on "Applications of Wireless Sensor Networks for Environmental Monitoring in Developing Countries"** (28 February - 9 March), followed by an **International Awareness Conference on "Wireless Technologies for Environmental Monitoring"** (10-11 March).

### PURPOSE AND NATURE

Environmental data could enable important advances in science, medicine and policy. However, only limited readings are currently available in many Developing Countries. As currently implemented, environmental monitoring is based on macro-infrastructures that use carefully calibrated and highly accurate professional equipments which are sparsely deployed at a relatively small number of fixed locations by official organizations. This creates a visibility gap that may be bridged through micro-infrastructures based on complementary sensing technologies and systems. We propose to use wireless sensor networks, a new technology that is suited for environmental monitoring in developing regions. This technology requires low power and is not dependent on any existing network. It is also a low-cost technology. The vast range of sensors that can be connected to the devices makes them flexible for many different applications such as air quality, water quality and soil moisture monitoring. Training at the level of Academic and Research institutions on the subject of the Workshop is essential to develop sustainable human capacity in those countries.

### AWARENESS CONFERENCE

In this Conference, both Workshop participants, Telecom Administrations, Regulators and Operators, and international experts will report and discuss the most advanced communication solutions for environmental monitoring. The results of the technical discussion and the definitions about educational, economic and regulatory aspects should be presented to and discussed with policy makers from LDC government and high education institutions and donors organizations.

### PARTICIPATION

Scientists and students from all countries that are members of the United Nations, UNESCO or IAEA may attend the activity. As it will be conducted in English, participants must have an adequate working knowledge of this language. Although the main purpose of the Centre is to help researchers from developing countries through a programme of training activities within a framework of international cooperation, a limited number of students and post-doctoral scientists from developed countries are also welcome to attend. Preference will be given to candidates that did not attend similar activities previously organized by ICTP.

As a rule, travel and subsistence expenses of the participants are borne by their home institutions. However, limited funds are available for some participants nationals of, and working in, a developing country, and who are not more than 45 years old. Such support is available only to those attending the entire activity. Every effort should be made by candidates to secure support for their fare (or at least half fare). There is no registration fee for attending the activity.

### HOW TO APPLY FOR PARTICIPATION

The Application Form can be accessed via the ICTP activity agenda page at:

<http://agenda.ictp.it/smr.php?2225>

Once in the website, comprehensive instructions will guide you step-by-step on how to fill out and submit the online application form.

E-mail: [smr2225@ictp.it](mailto:smr2225@ictp.it)

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Fax: +39-040-22407226

ICTP home page: <http://www.ictp.it>

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(ITU)

### INTERNATIONAL EXPERTS WILL ADDRESS THE FOLLOWING TOPICS:

- IPv6 and the Internet of Things
- Radio physics
- Spectrum management and regulatory issues
- IEEE 802.15.4, ZigBee and 6LoWPAN
- TinyOS programming
- Wireless sensor networks applications
- Wireless sensor networks for environmental monitoring

**DEADLINE FOR RECEIPT  
OF APPLICATIONS**

**31 OCTOBER 2010**

**DEADLINE ONLY FOR ITU/BDT  
FELLOWSHIP APPLICATIONS**

**20 JANUARY 2011**