



CALL FOR PAPERS

3rd International Symposium on Applied Sciences in Biomedical and Communication Technologies

:: ISABEL 2010

Sustainable Communication and Biomedical Technologies
November 07-10, 2010, Rome, Italy

:: Scope

The inter-disciplinary approach is becoming an increasing need in scientific and industrial communities. The most evident example of such a need is represented by the strong interconnection between biomedical and communication engineering. On the one hand, ICT can provide new tools for making healthcare systems more efficient and responsive in order to supply in-the-home and mobile healthcare solutions. On the other hand, many of the most recent advances in communication technologies – from algorithms to the electronics and materials – are “bio-inspired”. Moreover, it is increasing the awareness of the great potentials offered by the synergistic combination of many disciplines (e.g., mathematics and physics, biology and chemistry) in both biomedical and communication engineering.

This conference aims at creating a stage where researchers, scientists and business people can discuss and share ideas at the frontiers of life sciences, pure sciences and engineering.

The global interest towards a sustainable Planet is forcing the industrial and scientific worlds to seek for “sustainable” engineering solutions in order to preserve the natural environment and efficiently exploit the energy, which is a limited resource. Hence, from 2010 onward, ISABEL will also look upon the application of sciences in biomedical and communication engineering so as to develop novel technologies and solutions that can make our lives “greener”.

:: Topics of Interest (but NOT limited to)

Track 1: ICT for Life (Healthcare and Energy)
Emergency Communications
ICT for Intelligent Transport Systems
ICT Impact on Climate Changes

Mobile Technologies for Healthcare Applications
Tele Healthcare, Medical Applications and Information Systems
Wireless BAN

Track 2: Devices, Materials and Electronics
Bio-Nanotechnologies
Biosensors, Biomaterials and Tissues
Electromagnetic Impact on Human Body
Safer and Sustainable Chemical Materials
Wireless Implantable Devices

Track 3: Acquisition, Analysis, Processing and Recognition
Biomedical Image/Signal Detection, Acquisition, Analysis and Processing
Blind Source Separation and Source Identification
Human-Machine Interfaces/Brain-Computer Interfaces
Remote Monitoring and Transmission of Vital Signs: RFID and Radar Devices
Wavelets and Multi-Rate Signal Processing

Track 4: Maths, Physics and Biology for ICT
Advances in Information Theory
Bio-Inspired Algorithms for ICT
Cryptography and Quantum Cryptography
Learning-Capable Techniques for ICT
Quantum Communications
Optimization Techniques for ICT
Self-Organizing Networks and Advances in Network Theory

Track 5: Maths, Physics and Biology for Medicine
Biological Information Theory
Computational Molecular Biology
Human Sensorimotor Control
Mathematical Modelling and Design of Medical Diagnostic Tools
Mathematics of the Brain
Physiological Fluid Dynamics
Physics of Diagnostic and Therapeutic Systems

:: Submission Guidelines

Submitted papers must represent original material that is not currently under review in any other conference or journal, and has not been previously published. Prospective authors are encouraged to submit a 5-pages full paper or a 2-pages extended abstract including results in the IEEE conference style. All

accepted papers will be granted either an oral presentation or a poster presentation. Please find detailed information for submission at: <http://www.isabel2010.it>.

:: Dissemination

All accepted papers will be published in [IEEE Xplore](http://www.ieee.org). Selected authors will be invited to submit extended versions of their papers for publication in well-reputed journals.

:: Important Dates

Symposium/Workshop/Special Session proposals:	March 15, 2010
Tutorial proposals:	March 15, 2010
Regular paper submission:	June 15, 2010
Demo/Prototype proposals:	July 15, 2010
Review completion deadline:	September 05, 2010
Invited paper submission:	September 15, 2010
Notification of acceptance:	September 15, 2010
Camera-ready submission:	September 30, 2010
Video submission:	September 30, 2010
Early registration:	September 30, 2010

:: Organizing Committee

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Dr. Mauro De Sanctis (TPC Co-Chair)
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