The Mediterranean Conference on Medical and Biological Engineering and Computing is a regional conference with a long tradition and high scientific level, which is organized every three years in a Mediterranean country under the umbrella of the International Federation of Medical and Biological Engineering (IFMBE). For more than 30 years, MEDICON has been a scientific forum for the presentation of the recent advances in the biomedical engineering fields. Authors are invited to submit papers before April 26th 2013 about the following topics:

**BIOMEDICAL IMAGING AND PROCESSING**
- X-Ray imaging / mammography
- Computed tomography / magnetic resonance imaging / ultrasound imaging
- Optical imaging and microscopy / molecular imaging
- SPECT and PET technologies
- Image processing

**HEALTH INFORMATICS, E-HEALTH, TELEMEDICINE AND INFORMATION TECHNOLOGY IN MEDICINE, BIOINFOMATICS**
- Wireless health technologies and body sensor networks, participatory and personal health systems
- Telemedicine

**MOLECULAR, CELLULAR AND TISSUE ENGINEERING AND BIOMATERIALS**
- Biomaterials cell interactions
- Scaffolds in tissue engineering
- Biomimetic, bioinspired and patterned biomaterials
- Stem cells in regenerative medicine
- Medical devices evaluation and standards

**BIOMECHANICS, ROBOTICS AND MINIMAL INVASIVE SURGERY**
- Cardiovascular fluid mechanics / Respiratory Biomechanics
- Prosthetic biomechanics / Rehabilitation robotics
- Minimal invasive surgery and interventions
- Sports biomechanics and human performance

**BIO-MICRO AND BIO-NANO TECHNOLOGIES**
- Diagnostic in vitro
- Bionanotechnology, biosensors, bioms and lab-on-a-chip devices
- Therapeutic nanoconjugates and drug delivery systems

**NEURAL AND REHABILITATION ENGINEERING**
- Brain physiology and modelling
- Rehabilitation engineering and wearable technologies

**CARDIOVASCULAR, RESPIRATORY AND ENDOCRINE SYSTEMS ENGINEERING**
- Cardio and respiratory mechanics, function, modelling and control
- Cardiovascular and pulmonary signal processing
- Endocrine systems, function, modelling and control

**CLINICAL ENGINEERING**
- Clinical engineering and health technology management
- Safety and human factors engineering for medical devices and systems

**BIOMEDICAL SIGNAL PROCESSING**
- Biointerface signal processing and biomedical modelling
- Non linear dynamic analysis of biomedical signals
- Signal pattern classification
- Adaptive and parametric filtering

*The names listed above show the chair distribution by themes and tracks of the International Program Committee*
CONFERENCE COMMITTEES

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Conference Chair

IMPORTANT DATES

Proposal of Special Sessions:
March 1st 2013

Paper submission:
April 26th 2013

Notification of paper acceptance:
June 14th, 2013

Final accepted paper submission:
June 28th 2013

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Contributed Papers

Each contribution must be prepared according to the IFMBE Proceedings Series format. Manuscripts should be up to four (4) pages long and should be submitted electronically in their final form before the paper submission deadline, including an abstract, no longer than 300 words. Submissions must include the title of the paper, each author's name and affiliation, the suggested topics in which the paper falls, and the IFMBE copyright transfer form. Check the conference website (www.medicon2013.com) for specific information on the electronic submission process, detailed publication guidelines and templates. Papers will be peer-reviewed by at least three reviewers from the Scientific International Committee under the supervision of the International Program Committee. They will be judged with respect to their quality, originality, and relevance.

Keynote Speakers

Systems Analysis of Health and Well Being in the Changing Urban Environment
Dov Jaron (School of Biomedical Engineering, Science & Health Systems Drexel University)
Pending confirmation

Design, development, training and use of medical devices: with practical examples from cardiovascular medicine and surgery
Ratko Magjarevic (University of Zagreb)

Collagen scaffold technology for tissue engineering and its application to nerve regeneration
Guenther Rau (RWTH Aachen University)

Student Paper Competition

Papers selected for platform sessions can join the student paper competition provided that the first author of the paper is a student following a full undergraduate or PhD program, register for the conference and make the presentation. Prospective authors should express their will upon paper submission and the papers will qualify for one of three awards selected from the finalists.

Publication

MEdICoN 2013 proceedings will be edited within IFMBE Proceedings Series, published by Springer. On the other hand, the journals IEEE Journal on Biomedical and Health Informatics (J-BHI), Micro and Nanosystems Journal, International Journal of System Dynamics Applications (USDA), and Journal of Health & Technology will edit an special issue with extended papers selected from manuscripts accepted for the themes Health informatics, e-health, teledmedicine and information technology in medicine and Diagnostic in vitro.

Indexing

The IFMBE proceedings are indexed by the following services:
- EI-Compendex
- Google Scholar
- INSPEC
- SCImago
- SCOPUS
Special Sessions & Workshops

Prospective organizers are invited to submit proposals for special sessions or workshops to the conference technical secretariat e-mail address (medicon2013@pacifico-meetings.com) by March 1st, 2013. Proposals must include a topical title, rationale, session/tutorial outline, contact information, and a description of how the session/tutorial will be organized.

Currently, the following special sessions proposals have been submitted:

**Special Sessions:**

- Cardiac Arrhythmia - A Multidisciplinary Approach
  Chairs: E. Hofer y G. Plank (Medizinische Universität Graz, Austria)
- Special Panel On Medications And Vaccines Safety
  Chairs: L. Kun (National Defense University, USA)
- Standardization, Certification, Quality and Performance of Medical and Healthcare Applications
  H. Hutten (TU Graz, Austria) y K. Neuder (VDE-DKE, Germany)
- Learning as a Functional State of the Brain: Studies in Wild-type and Transgenic Animals
  Chairs: J.M. Delgado (Universidad Pablo de Olavide, Spain)
- Clinical and Non-clinical Decision Support Systems in Health Care
  Chair: E. Iadanza (Università degli Studi di Firenze, Italy)

**Workshops:**

- Special Workshop and Panel on Food Safety and Security
  Chair: L. Kun (National Defense University, USA)
- Research Transfer to Clinical Practice
  Chair: M. Desco (Hospital General Gregorio Marañon, Madrid)
- Patient Safety and Medical Devices
  Chair: N. Pallikarakis (University of Patras, Greece)

**Round Tables:**

- The Role of Biomedical Engineers in Health Care Technology Assessment
  Chairs: N. Pallikarakis (University of Patras, Greece), S. Calill (State University of Campinas, Brazil)
- Clinical Engineering Worldwide: Present and Near Future
  Chairs: N. Pallikarakis (University of Patras, Greece), S. Calill (State University of Campinas, Brazil)
- Innovation in the Computerized Exploitation of Big Databases in Medicine
  Organizer: J. Moreno (SEIS)

The site for the Conference is the Meliá Sevilla Hotel [http://www.melia.com/hotels/spain/seville/melia-sevilla/index.html](http://www.melia.com/hotels/spain/seville/melia-sevilla/index.html), in Seville, the capital of Andalusia. Seville has evolved as a melting pot of cultures with an unparalleled artistic heritage as a consequence of its millenary history. Together with its being a key touristic destination, currently it is a modern city with an outstanding projection at the technological research and industry levels, and biomedical research.

MEDICON 2013 incorporates the XXXI Annual Meeting of the Spanish Society of Biomedical Engineering (CASEIB).

For any queries, contact the technical secretariat: GRUPO PACÍFICO | Benito Mas y Prat, 5 - 1ª, Oficina 9 | 41005 Sevilla | Tel. (34) 954.108.542 - (34) 954.98.16.81 | Fax. (34) 954.581.200 | medicon2013@pacifico-meetings.com