



## CALL FOR PAPERS

Fourth IASTED International Conference on  
**Biomedical Engineering**  
(BioMED 2006)

**February 15-17, 2006**  
**Innsbruck, Austria**

### SPONSORS

The International Association of Science and Technology for Development (IASTED)

- Technical Committee on Biomedical Engineering

World Modelling and Simulation Forum (WMSF)

### PURPOSE

Medicine began with intuition, imagination, observation, and experience in ancient times, gradually evolving into a science over the centuries. In recent years, with the aid of engineering and information technology, biomedical engineering has emerged as a high-tech field generating innovation in such areas as medical imaging, bioinformatics, MEMS and nanotechnology, new biomaterials and sensors, medical robotics, and neurobiology. Scientists and engineers in this field have recently been working towards such advances as developing artificial organs that mimic natural human organs, conducting telemedicine and performing surgeries with robots, creating a laboratory-on-a-chip, and controlling robots through natural animal brain matter.

BioMED 2006 is intended to be an international forum for researchers and practitioners interested in the advances in, and applications of biomedical engineering to exchange the latest research, results, and ideas in these areas.

All papers submitted to this conference will be peer evaluated by two reviewers. Acceptance will be based primarily on originality and contribution.

### LOCATION

Innsbruck is nestled in the valley of the Inn River and tucked between the Austrian Alps and the Tuxer mountain range. It has twice hosted the Winter Olympics and is surrounded by the eight ski regions of the Olympic Ski World, including the Stubai Glacier, which offers skiing year round. Climbing the 14th century Stadtturm on Herzog Friedrich Strasse provides a stunning view of the town and the breathtaking scenery that surrounds it. Concerts at Ambras

Castle provide listening pleasure in a beautiful renaissance setting. The sturdy medieval houses and sidewalk cafés of Old Town Innsbruck beckon you to sit for a while and watch people stroll by.

Innsbruck, with its unique blend of historical, intellectual, and recreational pursuits, offers something for every visitor. BioMED 2006 will be held at the world-famous Congress Innsbruck, located in the heart of the city near the historical quarter. This facility won the prestigious 'Best Conference Center in Europe Award' in 2000.

## **SCOPE**

BioMED 2006 will highlight the latest research and developments in the fields of biomedical engineering. The topics to be covered include but are not limited to:

### **Medical Imaging, Image Processing, and Signal Processing**

- Computed Tomography
- Data Representation and Visualization
- Integrated Medical Image Analysis
- Magnetic Resonance Imaging
- Medical Data Storage and Compression Techniques
- Medical Image Processing
- Nuclear Medicine
- Optical Imaging
- Signal Processing
- Ultrasound Imaging

### **Medical Devices, Measurement, and Instrumentation**

- Biosensors and Transducers
- Data and Signal Acquisition
- Electronic Medical Devices
- Intelligent Instrumentation
- Lasers and Optical Systems
- Measurement and Instrumentation
- Microtechnology and BioMEMS
- Noninvasive Measurement
- Reliability and Failure
- Robotics

### **Modelling, Simulation, Systems, and Control**

- Biomedical Computing
- Biological Effects of Electromagnetic Radiation
- Biomechanics
- Control Systems
- Electromagnetic Field Simulation
- Hemodynamics
- Sports and Ergonomics Simulation
- Surgery Simulation and Simulators
- Virtual Reality

## **Health Care Technology**

Clinical Assessment and Patient Diagnosis  
Artificial Organs  
Computer-aided Surgery  
Electrotherapy  
Health Care Information Systems  
Implant Technology  
Patient Monitoring  
Prosthetics and Orthotics  
Radiotherapy  
Rehabilitation Engineering  
Telemedicine

## **Molecular Bioengineering**

Labs-on-Chips  
Bioinformatics  
Biomaterials  
Bio-nanotechnology  
Drug Delivery and Pharmacokinetics  
Gene Therapy  
Molecular and Cellular Engineering  
Tissue Engineering

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## **SUBMISSION OF PAPERS**

### **Initial Papers**

Submit your paper via our website at:

<http://www.iasted.org/conferences/2006/Innsbruck/submit-519.htm>. All submissions should be in Adobe Acrobat (.pdf), Postscript (.ps), or MS Word (.doc) format. The IASTED Secretariat must receive your paper by **October 8, 2005**. Receipt of paper submission will be confirmed by email.

Complete the online initial paper submission form designating an author who will attend the conference and providing four key words to indicate the subject area of your paper. One of the key words must be taken from the list of topics provided under Scope. Initial paper submissions should be approximately four pages. Formatting instructions are available at: <http://www.iasted.org/formatting-initial.htm>.

Notification of acceptance will be sent via email by **November 8, 2005**. Final manuscripts are due by **December 8, 2005**. Registration and final payment are due by **December 12, 2005**. Late registration fees or paper submissions will result in the papers being excluded from the conference proceedings.

### **Final Papers**

Send your final manuscripts via email to: [finalpapers@iasted.org](mailto:finalpapers@iasted.org). The subject line for the final manuscript submission must include your six-digit paper number. The formatting instructions can be found at: <http://www.iasted.org/formatting-final.htm> and must be strictly followed. The page limit for final papers is four single-spaced pages in 10 point Times New Roman font. Only one paper of up to six pages is included in the regular registration fee. There will be an added charge for extra pages and additional papers.

### **TUTORIALS**

Proposals for three-hour tutorials should be submitted online by **October 8, 2005**. Tutorials are to be submitted via the following website address: <http://www.iasted.org/conferences/2006/Innsbruck/tutorialsubmit-519.htm>. A tutorial proposal should clearly indicate the topic, background knowledge expected of the participants, objectives, time allocations for the major course topics, and the qualifications of the instructor(s).

### **SPECIAL SESSIONS**

Persons wishing to organize a special session should submit a proposal via email to: [calgary@iasted.org](mailto:calgary@iasted.org). Proposals should include a session title, a list of the topics covered, and the qualifications and brief biography of the session organizer(s). Papers submitted to the special session must be received by **October 8, 2005**, unless otherwise stipulated by the Special Session Organizer. A minimum of five papers must be registered and fully paid in order for this session to be included in the conference program. More information on special sessions is available at: <http://www.iasted.org/conferences/2006/Innsbruck/sessionssubmit-519.htm>.

### **JOURNALS**

Extended versions of papers published in the conference proceedings can also be considered for review for inclusion in one of the IASTED journals. Authors must submit the expanded version of their conference paper for peer review consideration to: <http://www.actapress.com/journals/submission.htm> following the standard procedure as described on the website: [www.actapress.com](http://www.actapress.com). All papers considered for journal review must be of the highest quality and demonstrate a novel contribution to the literature. For further information, please email [journals@actapress.com](mailto:journals@actapress.com).

### **IMPORTANT DEADLINES**

Submissions due	October 8, 2005
Notification of acceptance	November 8, 2005
Final manuscript due	December 8, 2005
Registration and full payment	December 12, 2005

For more information, or to be placed on our mailing list, please contact:  
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