



## The 10th International Conference on Information Technology and Applications in Biomedicine

Corfu, Greece, 3-5 November 2010

<http://medlab.cc.uoi.gr/itab2010/>

### Special Session: Virtual Reality in Medicine and Surgery

Virtual Reality applications allow surgeons to practice and rehearse the surgical procedures on virtual patients, that are realistic replicas of living patients with actual pathologies, and to experiment various scenarios without risk. In addition, advances in technology are making it possible to develop systems which can help surgeons to perform their tasks in ways which are both faster and safer.

Virtual Reality (VR) technology can guide the physicians and bring them extra information before (diagnosis) or during the procedures (image-guided therapy).

Augmented Reality (AR) technology has the potential to bring the direct visualization advantage of open surgery back to minimally invasive surgery and can increase the physician's view of his surroundings with information gathered from a patient's medical images.

The aim of this Special Session is to present recent advances in VR and AR applications in Medicine and Surgery and to bring together a community of researchers, computer scientists, physicians, surgeons, engineers, to share points of views and emerging and future tools for diagnosis and therapy.

Authors are invited to submit their research contributions or practical experience reports. All papers will be peer reviewed by at least two referees.

#### Topics Covered:

- Virtual Reality for training on minimally invasive surgery
- medical and surgical simulators
- Virtual Reality for surgical pre-operative planning
- interactive systems for education and training in surgery
- Computer Assisted Intervention
- virtual patient
- Augmented Reality in medicine and surgery
- image-guided surgery
- visualization and simulation
- modelling of human organs
- Virtual Reality based rehabilitation
- robotics and haptics

#### Chairs:

**Giovanni Aloisio** - Salento University, Dept. of Innovation Engineering - Italy

**Lucio Tommaso De Paolis** - Salento University, Dept. of Innovation Engineering - Italy

#### Submission:

Paper submission deadline: **June 15, 2010**

Notification of acceptance: **August 1, 2010**

Final submission: **September 1, 2010**

Please follow the regular submission guidelines of ITAB 2010.

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