2011 Joint Workshop

Joint Workshop on New technologies for Computer/Robot Assisted Surgery

11-13 July 2011, Graz, Austria

A multi-disciplinary workshop aimed at checking the state-of-the-art in, and advancing the field of, minimally-invasive surgical procedures for the treatment of cardiovascular disease.

The field of robotic and computer-assisted surgery has never been more productive. More and more universities, institutes and companies are gathering specific knowledge in consortia, and this type of cooperation generates high-quality research outcomes and innovative technical solutions. Thus, the SCATh

Project Coordination Board has decided to organize a joint workshop with the aim of:

- Presenting the research conducted at European level in technologies to assist and plan surgery,
- provide training to early stage and advanced stage researchers,
- sharing new visions and perspectives in the research fields related to computer/robot assisted surgery.

Workshop Overview:

11th July 2011	12th July 2011	13 July 2011	
Day's topic	Modeling in surgery	Navigation in surgery	Robotics in surgery

8:30 - 9:00	Keynote Lecture	Keynote Lecture	Keynote Lecture

Morning session

9:00 - 12:00

Algorithms for segmentation
Geometrical Modeling
Biomechanical modeling

- Experimental
- Computational

Cardiovascular navigation

Neurosurgical navigation

Laparoscopic navigation

Orthopedic navigation

Robotic catheters

Robotics in Laparoscopic surgery

Robotics for orthopedics

Highly specialized surgical robots

Afternoon session

14:00 - 17:00

Models for simulator and training stations

Modeling for preoperative planning

Real-time models applied to surgery

Algorithms for rigid and non-rigid registration

SLAM

Visualization

Haptic feedback

Control

Visual servoing

Organization Committee:
- Technical University of Graz: Prof. Gerhard A. Holzapfel, Dr. David M. Pierce
- Catholic University of Leuven: Prof. Jos Vander Sloten, Mauro Sette

Technical Committee:

- Modeling in surgery: Dr. David M. Pierce (Technical University of Graz)
- Navigation in surgery: Dr. Danail Stoyanov (Imperial College London)
- Robotics in surgery: Mauro Sette (Catholic University of Leuven)

Keynote speakers:

- Modeling in surgery: Prof. Dr. ir. Jos Vander Sloten (Catholic University Leuven, Belgium)

- Navigation in surgery: Prof. Dr. ir. Giancarlo Ferrigno (Politecnico di Milano, Italy)

- Robotics in surgery: Prof. Dr. ir. Paolo Fiorini (Universitá di Verona, Italy)

Chairmen:

- Modeling in surgery:

Morning: Borja Rodriguez Vila (Universitad Politecnica de Madrid, Spain).

Afternoon: Pietro Valdastri (Scuola Superiore Sant'Anna di Pisa, Italy).

- Navigation in surgery:

Morning: Elena De Momi (Politecnico di Milano, Italy).

Afternoon: Philippe Poignet (Laboratoire d'Informatique, de Robotique et de Microélectronique de Montpellier, France).

- Robotics in surgery:

Morning: Dan Elson (Imperial College London, UK).

Afternoon: Emmanuel Vander poorten (Catholic university of Leuven, Belgium)

Venue:

Technical University of Graz, Austria

Fees:

250 euro - early bird registration (before 15th June)

350 euro - regular registration (after 15th June)

Call for papers:

Authors are invited to submit a paper and participate to the workshop. The workshop has the aim of highlighting the research conducted at European level in the field of new technologies for computer/ robot assisted surgery. Thus the contributions submitted should give an overview of the research conducted by each author in the field with highlights of some recent advances. The requested contributions are tutorials on specific research topics targeting an audience of early

stage researchers.

 Important dates:

- 15th January 2011 - 500 word Abstract Submission closes.

- 15th February 2011 - Notification of acceptance.

- 15th March 2011 - Four-page Manuscript Submission closes (for four-page papers, see template).

- 31st May 2011 - Published proceedings online (KU Leuven).

- 15th June 2011- Early-bird registration closes (reduced fee).

- 30th June 2011 - Regular registration closes.