

μRALP workshop **BioRob** ROMA·2012

Robot-Assisted Laryngeal Microsurgery Workshop June 24, 2012

2012 IEEE International Conference on Biomedical Robotics and Biomechatronics

CALL FOR PARTICIPATION

Motivation :

Robot-assisted surgery is a fast-growing field of research, one which has been bringing remarkable advantages to various fields of surgery and especially to the field of laparoscopy. These include elimination of tremor, motion scaling, enhanced visualization, and ergonomic control. However, **microsurgery** remains a vastly unexplored territory for robot-assisted systems despite the fact they can have an even greater impact here. At the same time, the demand for new tools and platforms for enhanced surgical and patient outcomes is growing. One example is seen in the area of laryngology, which often involves very delicate operations on organs such as the vocal folds.

Objectives:

This half-day workshop will provide an overview of the current state-of-the-art in the field of robot-assisted laryngeal microsurgery, focusing specially on the laser phonosurgery problem and on critical technological advancements needed in this area. The workshop is intended to provide an open platform for surgeons and engineers to discuss recent findings, major research issues and new research opportunities.

List of Topics:

- Current limitations and needs in robot-assisted microsurgery
- Surgical MEMS: Design and Control
- Multi-functional endoscopic systems for microsurgery
- Fluorescence imaging and real-time cancer tissue visualization
- Surgeon-robot interfaces for microsurgery
- Augmented reality for robot-assisted surgery
- Supervisory and assistive safety systems

Organization

Leonardo Mattos
Istituto Italiano di Tecnologia, Italy
leonardo.demattos@iit.it

Nicolas Andreff
AS2M / FEMTO-ST / UFC, France
nicolas.andreff@femto-st.fr

Workshop Schedule

June 24, 2012
8:50 – 12:00

Workshop Location:

Università Campus Bio-Medico di Roma
Via Alvaro del Portillo 21
00128 Roma, Italy

Program and Abstracts:

Please check the workshop website

<http://www.microralp.eu/news/item/biorob2012-workshop.html>