

International Workshop on Medical Robots

POLITECNICO DI MILANO



UNINFO



COMITATO
ELETTROTECNICO
ITALIANO



July 3rd, 2012
08.30-17.30

Politecnico di Milano
"De Donato" room (ex-S.0.1)
Piazza Leonardo da Vinci, 32
Milano (Italy)

The joint working group of IEC SC 62A and ISO/TC 184/SC 2, namely, JWG9 Medical electrical equipment and systems using robotic technology (Medical robots) is holding an International workshop to present the state of the art in medical robots, barriers to exploitation and explore the need for standardisation in this rapidly changing area of robotics.

Venue

Milan, the capital of Lombardia, is one of the largest economic and cultural centres of Italy, and has always played a leading role in the history of the country. The city has given birth to some of the most active and innovative literary and scientific movements. Milan, the heart of fashion and design industries, gives the visitor the possibility to admire some masterpieces such as the Leonardo da Vinci "Last Supper" (declared part of the World Heritage by UNESCO); the city is now preparing to host the Expo 2015. The city of Milano is ranked 21 in the first QS Best Student Cities Ranking 2012.

Established in 1863, Politecnico di Milano is ranked as one of the most outstanding European universities in Engineering, Architecture and Industrial Design and, in many disciplines, it is regarded as a leading research institution worldwide.

The drive for internationalization has led the Politecnico di Milano to take part in the European and global network of the major technical universities.

Background

There is considerable activity in developing new non-industrial robots for applications where close robot-human interaction is essential in the design and operation of the new robots to perform their intended tasks. This includes personal care robots and medical robots. The technical standardization work groups are the following:

- WG1: Vocabulary and characteristics of robots, Convenor Prof Soon-Geul Lee, South Korea
- WG 3: Industrial robot safety, Convenor Jeff Fryman, Robotics Industries Association, USA
- WG7: Personal care robot safety, Convenor Prof Gurvinder S Virk, CLAWAR Association, UK, and University of Gävle, Sweden
- JWG9 Medical electrical equipment and systems using robotic technology, Convenor Prof Gurvinder S Virk, CLAWAR Association, UK
- WG 8: Service robots, Convenor Prof Seungbin Moon, Sejong University, South Korea

The aim of the workshop is to bring these activities to the attention of the medical and related communities in Europe so that full participation of all the stakeholders can be facilitated and future cooperation ensured.

The Workshop is organized in thematic areas covering the key international issues regarding areas of medical robots, with talks given by experts from all over the world.

Thematic areas

1. Robot standardization and regulation

Global robot standardization and regulation activities will be presented by experts from Sweden, USA, Germany and Brazil

2. Experiences with medical robots: user and robot designer standpoints

Talks by the end user and systems' manufacturers from USA and Switzerland.

3. National research in Medical robots worldwide

Reports by international experts on the worldwide picture of medical robotics with contributions from UK, Japan, China, Italy, France, USA, South Korea and Hungary.

Organizers:

Prof. Giancarlo Ferrigno, Politecnico di Milano, Italy

Prof. Paolo Fiorini, Università di Verona, Italy

Prof. Gurvinder S Virk, CLAWAR Association Ltd, UK and University of Gävle, Sweden

Confirmed Speakers:

Burkhard Zimmermann, Hocoma AG, Switzerland

Carol Herman, Sr. VP, Standards Policy and Programs, AAMI, USA

Capt. Karen Siegel, US Public Health Service, FDA/CDRH/OSEL, USA

Dr. Milan Bates, University Hospital Bristol, UK

Mike Yramatagui, Intuitive Surgical, Inc., USA

Dr. Kiyoyuki Chinzei, National Inst. Advanced Industrial Science & Technology (AIST), Japan

Prof. Paolo Dario, Scuola Superiore Sant'Anna, Italy

Prof. Philippe Poignet, Université Montpellier, France

Prof. Jeon-Il Moon, Daegu-Gyeongbuk Institute of Science and Technology, South Korea

Prof. Marco A. Zenati, Harvard Medical School, USA

Dr. Tamas Haidegger, Hungary

Dr. Thomas Jakob, Varian Medical Systems, Switzerland

Dr. Zhijiang Du, Harbin University of Technology, China