Application Form / Workshop Description

Session Title:
EUROSURGE: A roadmap towards a European Network of Surgical Robotics laboratories

Organiser(s):

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Motivation and objective:
Computer and Robot Assisted Surgery (CRAS) is an area receiving broad attention worldwide, because of its strong potential to achieve new levels of healthcare. Many researchers and users are attracted to the field, but their needs to experiment new procedures and new tools are hampered by the lack of a common surgical robotic platform that can be customized to different procedures by integrating new hardware devices and software applications.
Motivated by these considerations, the Coordination Action EUROSURGE is carrying out a census of the European laboratories doing research in robotic surgery, to identify available competences and potential missing topics. Furthermore, to support modularity within the constraints of a medical robot, EUROSURGE is addressing the characteristics of a software architecture supporting modularity together with benchmarking and integration validation. Finally, to ensure the acceptance of such a system by the different stakeholders, EUROSURGE addresses the social, ethical and legal issues of making a modular surgical robot.
This workshop aims at presenting to the robotic community the results of the first six months of the project and to establish a fruitful discussion with experts in the areas of integration, standards, benchmarking, architectures and cognition.

Approach:
The workshop will be divided into three phases: the first summarizing the current status of EUROSURGE, the second with two keynote speakers, and presentations of different European research groups, and the third with a discussion to give suggestions and opinions about introducing modularity into robotic surgery.

Agenda of the workshop:
- 09:00 – 09:05 Introduction by Paolo Fiorini
- 09:05 – 09:20 Elena de Momi & Alberto Vaccarella: Ontology for robotic surgery
- 09:20 – 09:35 Fabrizio Boriero & Paolo Fiorini: Requirements of system modularity
- 09:35 – 09:50 Luzie Schreiter & Joerg Raczkowsky: Benchmarks and integration tests
- 09:50 – 10:05 Eduard Berges & Alicia Casals: Social, ethical and legal issues of modularity
- 10:05 – 10:25 Gurvinder Virk: Standardization in medical robotics
- 10:25 – 10:50 Herman Bruyninckx: The BRICS software architecture
- 10.50 – 11.30 Presentations by researchers in surgical robotics (to be invited)
- 11:30 – 12:00 Round Table Discussion

Speaker(s):
See above

How can participants contribute to, and prepare for, the workshop?

The European Robotics Forum is supported by the euRobotics Coordination Action, funded by the European Commission within the 7th Framework Programme (FP7-ICT-244852; 01/2010 – 12/2012)
http://www.robotics-forum.eu

Participant will be sent the main documents of the EURSURGE project, i.e. its technical description and the preliminary reports under preparation. They will be asked to read them and bring their comments and ideas to the meeting. We hope that the meeting will spark an interesting discussion but, most important, can start some discussion among researchers on how to develop, test and eventually integrate their research results into a single, common surgical robot. This will enforce standardization, reusability and reproducible performance analysis, which are essential to gain public confidence in this technology.

Further information:

www.eurosurge.eu

Planned follow-up:

The EUROSURGE project will make all the presentations available on its web side, and will produce a summary of discussions during the meeting. The participants to the workshop will be kept informed about the project progress and will be invited to a second workshop at the end of the project to discuss the final results.

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