



WORKSHOP PROGRAMME

Grand Challenges for the Robot Companions of the Future



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13 -15 March 2018
Tampere, Finland

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DATE AND LOCATION

March 15, 2018

Location: Tampere Hall

Tampere, Finland

Meeting Room: TBD

Web site: <http://robocomplusplus.eu/robotcompanions-erf2018/>

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OBJECTIVES OF THE WORKSHOP

Europe is facing a number of challenges that have impact on the future quality of life and prosperity of EU citizens. Robots can be a solution to some of these challenges, because European citizens can be users of robots and take advantage of their help in daily life, but also because Europe is at the forefront of robotics research and manufacturing and thus robots can help creating new jobs.

The envisaged impact of robotics relies on scientific and technological progress in robotics. New paradigms are emerging and they can be adopted for the next generation of Robot Companions.

The FLAG-ERA RoboCom++ Project, the main proposer of this Workshop, aims at exploring new frontiers for Robot Companions and at setting the frame of a new FET-Flagship initiative on Robotics.

The proposed Workshop will focus on the discussion of critical and emerging topics in this field. In particular it aims to:

- **investigate the concepts of embodied intelligence, morphological computation and simplicity;**
- **analyse the revolutionary potential of soft robotics;**
- **explore the development of alternative energy sources;**
- **investigate the different aspects of embodied cooperative and communication processes;**
- **investigate how to make Robot Companions “accepted” at any social scale and estimate qualitatively and quantitatively the impact of the pervasive use of Robot Companions on jobs, productivity, sustainability, social welfare and economy.**



The organizers and the speakers are well known in the field of science-based robotics and include representatives from industry. They are active and highly qualified in the critical and emerging topics addressed by the Workshop. Therefore the proposed Workshop will offer to the participants both the academic and the industrial viewpoints on the needs and features of a next generation of Robot Companions for citizens.

The workshop also stand as an opportunity for discussing the challenge of the Robot Companions of the future as a global initiative of the international robotics community.

This workshop is organised by the FLAG-ERA JTC2016 RoboCom++ Project, and is supported by the euRobotics Topic Groups on Robot Companions and on Bio-Inspired Robotics.

AGENDA			
START	END	WHAT	WHO
16:15	16:20	Welcome and introduction	Paolo Dario (Scuola Superiore Sant'Anna), Italy
16:20	16:50	Session 1: The academic viewpoint	
16:20	16:25	Rethinking Robotics for the Robot Companion of the future	Paolo Dario (Scuola Superiore Sant'Anna), Italy
16:25	16:35	The Robotics Flagship: Proposal for the Preparatory Action	Cecilia Laschi (Scuola Superiore Sant'Anna), Italy
16:35	16:40	Bioinspiration for life-like robot abilities	Barbara Mazzolai (Istituto Italiano di Tecnologia), Italy
16:40	16:45	Cognitive abilities for future robots	Tamim Asfour (Karlsruhe Institute of Technology), Germany
16:45	16:50	Robotics for European growth: how robots can respond to the needs of industry and society	Stefano Stramigioli (University of Twente), The Netherlands
16:50	17:00	Session 2: The industrial viewpoint	
16:50	17:00	Advanced robotic systems designed to work with people and for people	Geoff Pegman, R.U.Robots, United Kingdom
17:00	17:45	Session 3: Round table discussion and interactive session	
	17:45	End of the meeting	