7-9 September 2015, Vilanova i la Geltrú, Spain

http://interaccion2015.upc.edu

Special track: Human-Robot Interaction

Special track leader: Alícia Casals (Universitat Politècnica de Catalunya Barcelona Tech and Institute for Bioengineering of Catalonia)

Brief Description:

The move of robotics to the service fields, including medical, domestic and other kind of robot applications in which the robot operates close to humans or even in cooperation with them, has increased the needs for more natural, efficient and safe interfaces. Interaction in these fields may imply physical contact, requirements of interpreting human intention and even interpreting the user's will in applications like rehabilitation in which robot control should rely on the remaining user's movements or in physiological or neurological signals. In the frame of human-computer interaction, the interaction with a robot implies additional challenges since the human becomes a key factor in the robot control loop. This session aims to deal with cognitive, behavioural and physical aspects of this kind of interaction.

Topics of interest:

We invite submissions that deal with issues including, but not limited to:
- Physical human robot interaction
- Gesture and oral interaction
- Activity recognition
- Human intention
- Cognitive human-robot interaction

Objectives:
The objective of this track is to deal with a special and challenging area of Human-Computer Interaction which is the interaction with robots. The expansion of robots to fields in which the interaction with humans is intensive all along their operation periods, together with the variety of operating areas, make this HRI concept to be very open. The goal of this session is to deal with some of the main issues involving this kind of interaction, that is, contact, safety, friendliness, interpretation of human intention and activity, user's will and status, etc; which may involve requirements as context awareness for an effective proactive and adaptive behaviour of the robot to changing human status or working and environment conditions.

Expected audience and outcomes:
Researchers in all areas of robotics, in which the robot behaviour is highly dependent on the working changing conditions, which vary mainly due to the user's needs. The participation in this conference will allow his roboticists participants widen the view to more general HCI issues, which always enrich the scope of the own and closer research.

Important Dates:

Submission Deadline: April 8
Author Notification: May 13
Camera-ready papers due: May 27
Date of the special track: To be confirmed
Conferences dates: Sep 07-09, 2015

Program Committee
Alícia Casals (Universitat Politècnica de Catalunya Barcelona Tech)
Nicolás M. García Aracil (Universidad Miguel Hernández, Elche)
Alfonso Palacios (Tecnocampus Mataró-Maresme)

Submission Guidelines:
All contributions will be reviewed by two members of the PC of this special track
All submissions must follow the conference ACM template. Papers not strictly following the templates will be excluded from the conference proceedings. The first version must be submitted in PDF. Authors should submit an original paper written in English in any of the following submission categories:

Full Papers: Full papers should describe original work that have not previously been published and provide significant results of scientific research. Presentation time for full papers will be 15 minutes plus 5 minutes for questions. Full papers have a maximum of 8 pages.

Short Papers: Short papers should describe innovative work in progress, without significant results yet, that contribute to well-founded research. Presentation time for

short papers will be 10 minutes plus 5 minutes for questions. Short papers have a maximum of 4 pages.

Publications:
All papers accepted for the conference will be published in the conference proceedings under ISBN, on CD-ROM support, as long as the camera-ready submission, registration and copyright document have been received. The conference proceedings will be submitted for indexation by Thomson Reuters Conference Proceedings Citation Index (ISI), INSPEC, DBLP and EI (Elsevier Index).

Accepted full and short papers written in English will be published entirely in the ACM Digital Library.

Conferences Submission System
Papers should be submitted electronically via the Easychair web based submission system. Inside EasyChair the topic "Special Track Human-Robot Interaction" must be selected.

https://easychair.org/conferences/?conf=interaccion2015

Short bio:
Alicia Casals is professor at the Technical University of Catalonia (UPC), in the Automatic Control and Computer Engineering Department. Her background is in Electrical and Electronic Engineering and PhD in Computer Vision. She is currently leading the research group on Robotics and Medical Imaging Program of the Institute for Biomedical Engineering of Catalonia, and is member of the research group GRINS: Intelligent Robotics and Systems at UPC.
Her research is oriented to improve human robot interaction through multimodal perception, focused mainly in the area of medical robotics. In this field she is working both in rehabilitation and assistance as well as in surgical applications.
She has a strong involvement in promoting technology and robotics. As main involvement, from 2001 to 2008 she was the coordinator of the Education and Training key area within Euron, the Network of Excellence: European Robotics Network, and IEEE RAS Vice President for Membership in the period 2008-2009. She has been General Chair of several International Conferences on Robotics, the most relevant, IEEE Int. Conference on Robotics and Automation in 2005. From 2015 Vicepresident of the Technical Committee in Biorobotics of IEEE EMBC. From 2007 she is member of the Institut d'Estudis Catalans and from2014 Vice-President of its Science and Technology Section.

Contact: alicia.casals@upc.edu
Home Page:

http://www.ibecbarcelona.eu/component/option,com_jresearch/id,175/task,show/view,member/