

Workshop, 6th March, 15:30
Rational Design of Robotic Systems:
Where do we go from here?

This workshop is about 'Putting the social into robotics'. Participants will get a chance to obtain a greater knowledge of the design challenges in future industrial and academic robotic systems and to participate in setting the agenda for how to proceed.



Autonomous Robot Design

ITechnic Ltd

UNIVERSITY OF SOUTHERN DENMARK

Social-robots, robotic co-workers, and advanced handling robots are examples of robots that are inherent socio-technical systems. Such systems are strongly multi-disciplinary and notoriously hard to design, especially when compliance with demands of dependability, ethical, legal, and societal aspects have to be guaranteed.

This workshop seeks to elucidate these design challenge through keynote addresses that also advocate the need for more rational multi-disciplinary design approaches to address them. Through active participation from the audience we then address several questions centered on: Where do we go from here?

In this context, several questions will be raised and sought answered. Among others:

- What are the 5 most critical challenges we are facing in the coming years with respect to rational robotic system design?
- What competences will we need to address them?
- What functions should social robots work with?
- How can we envisage building stronger emotional relationships with and through robots?
- Where does the border between apps and robots lie?

Agenda & Speakers

The workshop is equally focused on research and industrial aspects. The first half is a lecture session. The second half is a hands-on workshop, engaging the participants in active discussion.

15:30 – 15:00	Welcome. Lars Dalgaard, DTI
15:35 – 15:55	Presentation. Lars Dalgaard, DTI
15:50 – 16:10	Presentation. Barnabas Wetton, Kolding School of Design
16:10 – 16:15	Introduction to workshop method. Barnabas Wetton, Kolding School of Design
16:15 – 16:45	Workshop. Barnabas Wetton, Kolding School of Design; Lars Dalgaard, DTI; John Hallam, SDU; David Bisset, iTechnic
16:45 – 17:15	Discussion of results. Barnabas Wetton, Kolding School of Design
17:15 – 17:30	Closing and perspectives. Lars Dalgaard, DTI

Key topics

- Socio-technical systems

Workshop category

- Presentations
- Hands-on tutorial

Organizers

- Lars Dalgaard, Danish Technological Institute, Centre for Robot Technology, Denmark, ldd@dti.dk. **EURON member.**
- John Hallam, University of Southern Denmark, Maersk McKinney Moller Institute, Denmark, john@mmmi.sdu.dk. **EURON member.**
- David Bisset, iTechnic Ltd., UK, david@itechnic.co.uk. **EUROP member.**
- Barnabas Wetton, Kolding School of Design, Denmark, bsw@dskd.dk.

Planned follow-up

The overall results of the workshop will be used to strengthen to focus of the April 2012 application for a new FP7 Coordination Action (CA) or Specific Support Action (SA) in the area of *Rational Design of Robotic Systems*; a joint forum for both industry and academia across multiple domains and disciplines.

Further information

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The European Robotics Forum, organized by the European robotic networks EURON, EUROP, the euRobotics Coordination Action and hosted by The Danish Technological Institute, is in the field of robotics the meeting point for engineers, scientists and business people from all over Europe. The event will take place from 5-7 March 2012 in Odense, Denmark. More than 300 robotics researchers from industry and academia, as well as entrepreneurs and public investors, are expected to discuss the latest developments, research challenges and business opportunities for European robotics.

This year's theme of the European Robotics Forum is "European Robotics towards new horizons".

For more information, registration for the forum, and to become a exhibitor, please visit the official European Robotics Forum 2012 website at <http://europeanrobotics12.eu/>