Workshop

Humanoids: What’s Next?
Applications, challenges and Perspectives

December 7th, 2010, Nashville, USA

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Why Humanoids?

Building Humanoids = Building Human-Centered Technologies

- Assistants/companions for people in different ages, situations, activities and environments in order to improve the quality of life
- Key technologies for future robotic systems
- Experimental platforms to study theories from other disciplines
Ultimate goals

- **24/7 integrated complete** humanoid robot systems able to **act and interact** in human-centered environments and to perform a variety of tasks

- Humanoid robots rich with sensorimotor capabilities as an indispensible requirement to implement **cognitive capabilities in technical systems**

- **Reproducible** complete humanoid systems in terms of mechanical design, mechantronics, hardware and software architecture

- **Interoperability**: Common/shared complex platforms with standard/common/open-software
ARMAR meets Angelika Merkel in Karlsruhe
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Obama meets HRP-4 and Katzuhito
Humanoids program today

9:00-10:30 Tutorial/Workshop AM

10:30-11:00 Coffee Break

11:00-12:00 Plenary Talk

12:00-13:30 Lunch

13:30-18:20 Tutorial/Workshop PM

(Organizers set their PM start and end time)

Panel discussion: Co-X
3:30 – 15:30
Henrik Christensen, Georgia Institute of Technology

Elena Messina, National Institute of Standards & Technology
Rodney Brooks, Heartland Robotics
James Wells, General Motors
Marc Raibert, Boston Dynamics
Speakers

• Ron Arkin, Georgia Tech, USA
• Yoshi Nakamura, University of Tokyo, Japan
• Stefan Schaal, USC, USA
• Jean-Paul Laumond, LAAS, France
• Kazuhito Yokoi, AIST, Japan
• Rod Grupen, UMass, USA
• Aude Billard and Dan Grollmann, EPFL, Switzerland
• Giulio Sandini, IIT, Italy
• Rüdiger Dillmann, KIT, Germany
• Eiichi Yoshida, AIST, Japan
• James Kuffner, Google & CMU, USA