

**The Sixth IARP-IEEE/RAS-EURON Joint Workshop on
Technical Challenges for Dependable Robots in Human Environments
May 17-18, 2008, Pasadena, California**

(San Marino Room, Hilton Pasadena)

Final Program

Saturday May 17, 2008

9:00 am – 9:10 am Opening Remarks

Oussama Khatib and Vandii Verma

9:10am – 10:30am SESSION 1, C. Moriconi and Shigeoki Hirai, Chairs

9:10am – 9:30am Needs of Dependability for Industrial and Business Robotic Systems, Shigeoki Hirai and Kohtaro Ohba

9:30am – 9:50am Social Dependability: a proposed evolution for future Robotics, C. Moriconi and R Dell Erba

9:50 am – 10:10 am Bioinspired control of an anthropomorphic robot with learning capabilities, Luca Lonini, Loredana Zollo, Eugeni Guglielmelli

10:10am – 10:30am Online Safety Monitoring Using Safety Modes, Jeremie Guiochet, Powell D., Baudin E., Blanquart JP

10:30am – 10:50am Coffee break

10:50pm – 11:30pm Keynote (Oussama Khatib)

11:30am – 12:10pm SESSION 2, T. Shibata, Chair

11:30am – 11:50pm Redundant Sensing for Localisation in Outdoor Industrial Environments, Jonathan Roberts, Ashley Tews and Sephen Nukse

11:50am – 12:10am Human Interactive Robot for Psychological Enrichment and Robot Therapy, Takanori Shibata

12:10pm – 1:40pm Lunch

1:40pm – 2:30pm Keynote (Maja Mataric)

2:30pm – 3:30pm SESSION 3

Chair: Yoji Yamada and Sukhan Lee

2:30pm – 2:50pm Assistive robots dependability in domestic environments: the ASIBOT kitchen testbed, Alberto Jardon, Antonia Gimenez, Santiago Mantinez, Carlos Balaguer

2:50pm – 3:10pm A NEDO Project Report on The Development of “Toilet-Assists,” Yoji Yamada, Osamu Matsumoto, Keiko Honma, Lee Suwoong, Eiichi Ono

3:10pm – 3:30pm Dependability in Visual Recognition for Manipulation, Sukhan Lee, Seung-Min Baek, Changhyun Choi and Seung Lee

3:30pm – 3:50pm Coffee break

3:50pm – 5:00pm SESSION 4

Chair: Angel del Pobil and Dong-Soo Kwon

3:50pm – 4:20pm From Dependability to Trust Three Aspects of Emotional Interaction in the Home Service Robot, Dong-Soo Kwon, Hyoung-Rock Kim, Young-Min Kim, and Jong-Chan Park

4:20pm – 4:40pm Fast human-robot modeling and related dependability issues, Agostino De Santis and Bruno Siciliano

4:40pm – 5:00pm, A Sensor-Based Approach for Dependable Physical Interaction, Angel del Pobil, Mario Prats, Philippe Martinet, Sukhan Lee, Rudiger Dillmann

8:30pm – 10:30pm Dinner

Sunday May 18, 2008

8:00am – 9:00am Continental Breakfast

9:00am – 9:50am Keynote (Rob Ambrose)

9:50am – 10:30am SESSION 5

Chair: Sungchul Kang

9:50am – 10:10am Evaluation of Collision Detection and Reaction for a Human-Friendly Robot on Biological Tissues, Sami Haddadin, Alin Albu-Schaffer, Alessandro De Luca, and Gerd Hirzinger

10:10am – 10:30am Toward Dependable Manipulation: Safe & Speedy Arm with Variable Stiffness Joints and Reliable Manipulation Using Multi-Modal Information, Changmook Chun, Junho Choi, Woosub Lee, Sungchul Kang, and Munsang Kim

10:30am – 10:50am Coffee break

10:50am – 11:40am Keynote (Antonio Bicchi)

11:40am – 12:20pm SESSION 6

Chair: Alicia Casals

11:40am – 12:00am Compliant strategies based on force, torque, contact and proximity for Human Robot Interaction, Alícia Casals, Xavier Giralt, Manel Frigola and Josep Amat

12:00pm – 12:20pm Carpet, road and air: common challenges for mobile robots in human environments, Cedric Pradalier and Roland Siegwart

12:20pm – 1:50pm Lunch

1:50pm – 2:50pm SESSION 7

Chair: Felix Ingrand

1:50pm – 2:10pm Practices for Improving Robotic Software Reliability in Flight Projects and Research, Khaled Ali and Issa Nesnas

2:10pm – 2:30pm Aspect-Oriented Monitoring of C Programs, Klaus Havelund and Eric Van Wyk

2:30pm – 2:50pm Validation and Verification of Robotic Systems : A Software Approach, Saddek Bensalem and Felix Ingrand

2:50pm – 3:10pm Coffee Break

3:10pm – 4:10pm Panel discussion

Gianmarco Veruggio, Felix Ingrand, Alicia Casals, Sungchul Kang, Angel del Pobil, Dong-Soo Kwon, Yoji Yamada, Sukhan Lee, M Ramada, Takanori Shibata, Oussama Khatib, C. Moriconi , and Jeremie Guiochet

4:10pm – 5:00pm IARP meeting

End of Workshop