IEEE Int. Symposium on
Haptic Audio-Visual Environments and Games (HAVE 2012)
October 8-9, 2012, Munich, Germany

Technical Program
(2012-09-17)

Monday, October 8 / Morning

08:00 – 08:50 Registration

08:50 – 09:00 Welcome

09:00 – 10:00 Keynote
  Approaches to human-machine interfacing: in and out the body
  Patrick van der Smagt (DLR/TUM, Germany)

10:00 – 10:30 Coffee Break

10:30 – 12:10 Session 1: Psychophysics and perceptual aspects
  • Perceived Intensity of Tool-Transmitted Vibration: Effects of Amplitude
    and Frequency. Inwook Hwang, Jongman Seo, Myongchan Kim, Seungmoon
    Choi (Pohang University of Science and Technology, Republic of Korea)
  • Conveying perceptible virtual tactile maps with a minimalist sensory
    substitution device. Luca Brayda and Claudio Campus (Italian Institute of
    Technology, Italy)
  • How to improve group performances on colocated synchronous
    manipulation tasks? Jean Simard, Adrien Girard, Anais Mayeur, Mehdi
    Ammi (CNRS-LIMSI, Univ. Paris-Sud, France)
  • Tone-2 Tones Discrimination Task Comparing Audio and Haptics. Lorenzo
    Picinali (De Montfort University, UK), Christopher Feakes (De Montfort
    University, UK), Davide Mauro (Università degli Studi di Milano, Italy), and
    Brian FG Katz (LIMSI-CNRS, Universite Paris-Sud, France).

12:10 – 13:40 Lunch Break

Monday, October 8 / Afternoon

13:40 – 15:20 Session 2: Teleoperation
  • Towards Multi-DOF Model Mediated Teleoperation: Using Vision to
    Augment Feedback. Bert Willaert (KU Leuven, Belgium), Jeannette Bohg
    (Max Planck Institute for Intelligent Systems, Tübingen, Germany), Hendrik
Van Brussel (KU Leuven, Belgium), Günter Niemeyer (Willow Garage Inc., Menlo Park, USA)

- Bi-modal assistance functions and their effect on user perception and movement coordination with telesurgery systems. Verena Nitsch, Berthold Färber (Universität der Bundeswehr München, Munich, Germany), Anja Hellings, Stefan Jörg, Andreas Tobergte, Rainer Konietzchke (Institute for Robotics and Mechatronics, DLR, Oberpfaffenhofen, Germany)

- Adaptive Impedance Control of a Haptic Teleoperation System for Improved Transparency. Uhn Joo Na, Minh Hung Vu (Kyungnam University, Changwon, Korea)

- Stability Analysis of Haptic Shared control and its Application on a Mobile Assistive Robot. Huanran Wang, Xiaoping P. Liu (Carleton University, Ottawa, Canada)

15:20 – 15:50 Coffee Break

15:50 – 17:30 Session 3: Evaluation and Quality of Experience

- Evaluation of Driving Skills Using an HMM-based Distance Measure. Reza Haghighi Osgouei and Seungmoon Choi (Pohang University of Science and Engineering, Republic of Korea)

- Evaluating the Quality of Experience of Haptic-based Applications through Mathematical Modeling. Abdelwahab Hamam and Abdulmotaleb El Saddik (University of Ottawa, Canada)

- Comparison of In-Car Touchpads With Adaptive Haptic Feedback. Andreas Blattner, Klaus Bengler (Technische Universität München, Germany), Werner Hamberger (AUDI AG, Ingolstadt, Germany), Sebastian Schnieder (University of Wuppertal, Germany)

- Evaluating Transport and Application Layer Protocols for Haptic Applications. G. Kokkonis, K. E. Psannis, M. Roumeliotis, S. Kontogiannis (University of Macedonia, Greece), Y. Ishibashi (Nagoya Institute of Technology, Japan)

18:00 Aperitif

18:30 Workshop Dinner (Löwenbräukeller München)

Tuesday, October 9 / Morning

09:00 – 10:40 Session 4: Man Machine Interaction

- A Robust Method of Detecting Hand Gestures Using Depth Sensors. Yan Wen, Chuanyan Hu, Guanghui Yu, Changbo Wang (East China Normal University, Shanghai, China)

- Dynamic Hand Gesture Recognition from Bag-of-Features and Local Part Model. Muhammad R. Abid, Feng Shi and Emil M. Petriu (University of Ottawa, Canada)
- **Robotic Gaze Control using Reinforcement Learning.** Martin Rothbucher, Christian Denk, Klaus Diepold (Technische Universität München, Germany)
- **Analyzing Human and Virtual Agent Interaction Under Irrational Decision Making.** Mohammad H. Mamduhi and Sandra Hirche (Technische Universität München, Germany)

10:40 – 11:10 Coffee Break

11:10 – 12:00 **Session 5: Applications and case studies I**
- **Audio-Haptic You-are-here Maps On a Mobile Touch-enabled Pin-Matrix Display.** Limin Zeng, Gerhard Weber (Technische Universität Dresden, Germany), Ulrich Baumann (Metec AG, Stuttgart)
- **Skin Stretch Feedback for Gaming Environments.** Ashley L. Guinan, Markus N. Montandon, Nathaniel A. Caswell, and William R. Provancher (University of Utah, USA)

12:00 – 13:30 Lunch Break

**Tuesday, October 9 / Afternoon**

13:30 – 15:40 **Session 6: Applications and case studies II**
- **Haptic Rendering of Photographs.** David Lareau and Jochen Lang (University of Ottawa, Canada)
- **3D Compositing: Object insertion based on 2.5D format.** Suxing Liu, Monica Caballero (Fundacio Barcelona Media, Barcelona, Spain)
- **Haptic designation strategy for collaborative molecular modeling.** Adrien Girard, Malika Auvray, Mehdi Ammi (CNRS-LIMSI, Paris-Sud University, Orsay, France)
- **Design of a serious game for learning vibrotactile messages.** Bob-Antoine J. Menelas, Martin J.-D. Otis (University of Quebec at Chicoutimi, Canada)
- **The HTML5 Haptics Plugin.** Hussein Al Osman, Jongeun Cha and Abdulkotaleb El Saddik (University of Ottawa, Canada)

15:20 – 16:00 Coffee Break and Farewell