

Emerging Technologies Talk

Ballroom G+J (Experience Hall), Level 3

Wednesday 07 December 2016

13:00 – 13:15

Emerging Technologies Talk Welcome and Introduction - *Including an overview of review process and results*

- Yuichi Itoh, Emerging Technologies Chair
- Bing-Yu Chen, Emerging Technologies Co-Chair

13:15 – 14:15

Emerging Technologies Talk 1: Haptics

Session Chair: Kouta Minamizawa, Keio University

- **EV-Pen: An Electro vibration Haptic Feedback Pen for Touchscreens**
 - Qinglong Wang, Kochi University of Technology, Jilin University
 - Xiangshi Ren, Kochi University of Technology
 - Xiaoying Sun, Jilin University
- **Bottomless Joystick**
 - Yuichiro Katsumoto, National University of Singapore
- **Cross-Field Haptics: Tactile Device Combined with Magnetic and Electrostatic Fields for Push-Pull Haptics**
 - Satoshi Hashizume, University of Tsukuba
 - Kazuki Takazawa, University of Tsukuba
 - Amy Koike, University of Tsukuba
 - Yoichi Ochiai, University of Tsukuba

14:25 – 15:45

Emerging Technologies Talk 2: Robotics

Session Chair: Takuji Narumi, The University of Tokyo

- **Phygital Field: an Integrated Field with a Swarm of Physical Robots and Digital Images**
 - Takefumi Hiraki, The University of Tokyo
 - Shogo Fukushima, The University of Tokyo
 - Takeshi Naemura, The University of Tokyo
- **Coded Skeleton: Programmable Deformation Behaviour for Shape Changing Interfaces**
 - Miyu Iwafune, Shibaura Institute of Technology
 - Ohshima Taisuke, The University of Tokyo
 - Ochiai Yoichi, University of Tsukuba
- **HapticAid: Wearable Haptic Augmentation System for Enhanced, Enchanted and Empathised Haptic Experiences**
 - Tomosuke Maeda, Keio University Graduate School of Media Design
 - Roshan Peiris, Keio University Graduate School of Media Design
 - Masashi Nakatani, Keio University Graduate School of Media Design

- Yoshihiro Tanaka, Nagoya Institute of Technology / JST, PRESTO
- Kouta Minamizawa, Keio University Graduate School of Media Design

- **Stylus Assistant: Designing Dynamic Constraints for Facilitating Stylus Inputs on Portable Displays**
 - Long-Fei Lin, National Taiwan University
 - Shan-Yuan Teng, National Taiwan University
 - Rong-Hao Liang, National Taiwan University
 - Bing-Yu Chen, National Taiwan University

Thursday, 08 December 2016

13:00 – 14:20

Emerging Technologies Talk 3: Displays

Session Chair: Toshikazu Ohshima, Ritsumeikan University

- **Gushed Light Field: Design Method for Aerosol-based Fog Display**
 - Ippei Suzuki, University of Tsukuba School of Informatics
 - Shuntarou Yoshimitsu, Waseda University
 - Keisuke Kawahara, University of Tsukuba
 - Nobutaka Ito, The University of Tokyo
 - Atsushi Shinoda, University of Tsukuba
 - Akira Ishii, University of Tsukuba
 - Takatoshi Yoshida, The University of Tokyo
 - Yoichi Ochiai, University of Tsukuba

- **SkyAnchor: No Latency Anchoring of Mid-air Images onto Real Objects**
 - Hajime Kajita, The University of Tokyo
 - Naoya Koizumi, The University of Electro-Communications
 - Takeshi Naemura, The University of Tokyo

- **Towards VR and AR: 360° Light Field Display with Mid-air Interaction**
 - Yifan Peng, The University Of British Columbia
 - Chen Su, Zhejiang University
 - Qing Zhong, Zhejiang University
 - Rui Wang, Zhejiang University
 - Haifeng Li, Zhejiang University
 - Xu Liu, Zhejiang University
 - Wolfgang Heidrich, King Abdullah University Of Science And Technology (KAUST)

- **Reality Forge: Interactive Dynamic Multi-Projection Mapping**
 - Christian Siegl, Computer Graphics Group, University of Erlangen Nuremberg
 - Matteo Colaiani, Computer Graphics Group, University of Erlangen Nuremberg
 - Vanessa Lange, Computer Graphics Group, University of Erlangen Nuremberg
 - Marc Stamminger, Computer Graphics Group, University of Erlangen Nuremberg
 - Frank Bauer, Computer Graphics Group, University of Erlangen Nuremberg

14:30 – 15:50

Emerging Technologies Talk 4: VR/AR

Session Chair: Ryoko Ueoka, Kyushu University

- **Coded Facial Expression**
 - Toshiyuki Amano, Wakayama University

- **Emotion Hacking VR (EH-VR): Amplifying Scary VR Experience by Accelerating Real Heart Rate Using False Vibrotactile Biofeedback**
 - Ryoko Ueoka, Kyushu University
 - Ali AlMutawa, Kyushu University
 - Hikaru Katsuki, Kyushu University

- **VibroPlay: Authoring Three-Dimensional Spatial-Temporal Tactile Effects with Direct Manipulation**
 - Da-Yuan Huang, National Taiwan University
 - Liwei Chan, Keio University
 - Xiao-Feng Jian, National Taiwan University
 - Chiun-yao Chang, National Taiwan University
 - Mu-Hsuan Chen, National Taiwan University
 - De-Nian Yang, Academia Sinica
 - Yi-ping Hung, National Taiwan University
 - Bing-Yu Chen, National Taiwan University

- **Pinscreen: 3D Avatar from a Single Image**
 - Hao Li, Pinscreen
 - Shunsuke Saito, Pinscreen
 - Jens Fursund, Pinscreen
 - Lingyu Wei, Pinscreen
 - Liwen Hu, Pinscreen
 - Chao Yang, Pinscreen
 - Ronald Yu, Pinscreen
 - Kyle Olszewski, Pinscreen
 - Stephen Chen, Pinscreen
 - Isabella Benavente, Pinscreen
 - Yen-Chun Chen, Pinscreen

15:50 – 16:05

Emerging Technologies Prize Ceremony

- Yuichi Itoh, Emerging Technologies Chair
- Bing-Yu Chen, Emerging Technologies Co-Chair