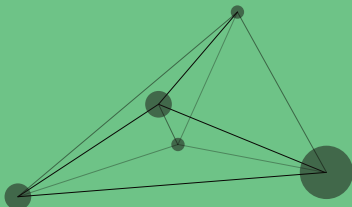
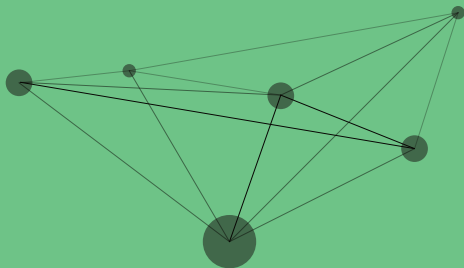




Augmented Humans

16–17 March 2020 | Kaiserslautern, Germany
augmented-humans.org



<< Program Overview >>

Monday March 16th

9.10 Opening

9.40 Keynote: **Stelarc**

10.40 Break

11.00 Session 1: **Perception I - Light**

12.20 Break

13.40 Session 2: **Perception II - Vibration**

15.10 Break

15.30 Poster & Demo Showcase

16.00 Session 3: **Moving and Experiencing the Body**

<< Program Overview >>

Tuesday March 17th

- 9.10 Keynote: **Kasper Hornbæk**
- 10.20 Break
- 11.00 Session 4: **Sports and Gestures**
- 12.10 Break
- 13.30 Session 5: **Cognition**
- 14.00 Break
- 15.20 Session 6: **HCI Futures, from Skin to Cells**
- 16.30 Break
- 16.50 Keynote: **Enkelejda Kasneci**
- 18.15 Closing & Award Ceremony

<< Keynotes >>

Stelarc

Contemporary Chimeras: Creepy, Uncanny and Contestable Bodies

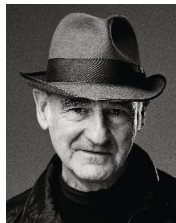


Photo taken by Peter Cheng

Kasper Hornbæk

Research Problems in Body-based User Interfaces



Enkelejda Kasneci

It's in Your Eyes - How Eye Tracking will Shape our Future



<< Materials >>

Remote Sessions

Please check the program on the conference web-page for access to the remote sessions and discussions. You can find the password below.

Papers | Proceedings

The proceedings are available (in pdf format) here:

<https://cloud.dfki.de/owncloud/index.php/s/D5FiTLk2mmGDafi>

Posters

Posters are available here:

<https://cloud.dfki.de/owncloud/index.php/s/rWWrcJjLCYCaNbg>



Remote Access Code:

DiscussionAHs2020

<< Session 1 >>

Perception I - Light

Monday March 16th, 11.00 - 12.20

- **Eye-based Interaction Using Embedded Optical Sensors on an Eyewear Device for Facial Expression Recognition**
Katsutoshi Masai, Kai Kunze and Maki Sugimoto
- ① **Altering the Speed of Reality? Exploring Visual Slow-Motion to Amplify Human Perception using Augmented Reality**
Pascal Knierim, Thomas Kosch, Gabrielle LaBorwit and Albrecht Schmidt
- **DehazeGlasses: Optical Dehazing with an Occlusion Capable See-Through Display**
Yuichi Hiroi, Takumi Kaminokado, Atsushi Mori and Yuta Itoh
- ① **Vision Extension For Ball Camera by Using Image Completion**
Tsubasa Kitayama, Shio Miyafuji and Hideki Koike
- **OmniView: An Exploratory Study of 360 Degree Vision using Dynamic Distortion based on Direction-of-Interest**
Feng Liang, Kevin Stevanus, Kai Kunze, Holger Baldauf and Yun Suen Pai

Legend

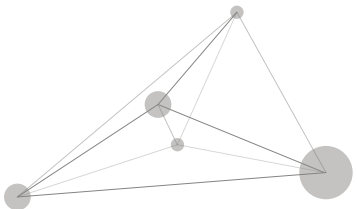
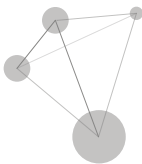
- full paper, 15+5 min presentation slot, including Q&A
- ① short paper, 7+3 min presentation slot, including Q&A

<< Session 2 >>

Perception II - Vibration

Monday March 16th, 13.40 - 15.10

- **The Lateral Line: Augmenting Spatiotemporal Perception with a Tactile Interface**
Matti Krüger, Christiane B. Wiebel-Herboth and Heiko Wersing
- **HapticPointer: A Neck-worn Device that Presents Direction by Vibrotactile Feedback for Remote Collaboration Tasks**
Akira Matsuda, Kazunori Nozawa, Kazuki Takata, Atsushi Izumihara and Jun Rekimoto
- **GenVibe: Exploration of Interactive Generation of Personal Vibrotactile Patterns**
Erik Pescara, Florian Dreschner, Karola Marky and Michael Beigl
- **Manipulatable Auditory Perception in Wearable Computing**
Hiroki Watanabe and Tsutomu Terada
- ① **Novel Input and Output opportunities using an Implanted Magnet**
Paul Strohmeier and Jess McIntosh



<< Session 3 >>

Moving and Experiencing the Body

Monday March 16th, 16.00 - 17.40

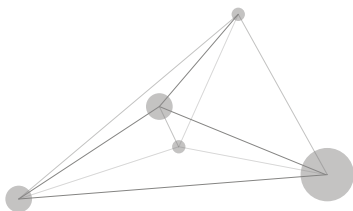
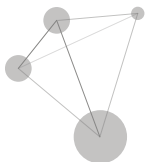
- ① **Sensor Glove Implemented With Artificial Muscle Set For Hand Rehabilitation**
Biyuan Wang, Nobuhiro Takahashi and Hideki Koike
- **Accelerating Skill Acquisition of Two-Handed Drumming using Pneumatic Artificial Muscles**
Takashi Goto, Swagata Das, Pedro Lopes, Yuichi Kurita and Kai Kunze
- **PoseAsQuery: Full-Body Interface for Repeated Observation of a Person in a Video with Ambiguous Pose Indexes and Performed Poses**
Natsuki Hamanishi and Jun Rekimoto
- **Investigation of Effective Parts for Rotation and Translation of the Legs Using Hanger Reflex**
Hanamichi Sanada, Masato Kobayashi, Kon Yuki and Hiroyuki Kajimoto
- **Go-Through: Disabling Collision to Access Obstructed Paths and Open Occluded Views in Social VR**
Jens Reinhardt and Katrin Wolf
- **Remote Treatment System of Phantom Limb Pain by Displaying Body Movement in Shared VR Space**
Kenta Saito, Atsushi Okada, Yu Matsumura and Jun Rekimoto

<< Session 4 >>

Sports and Gestures

Tuesday March 17th, 10.40 - 12.10

- ① **KissGlass: Greeting Gesture Recognition using Smart Glasses**
Richard Li, Juyoung Lee, Thad Starner and Woontack Woo
- **ExemPoser: Predicting Poses of Experts as Examples for Beginners in Climbing Using a Neural Network**
Katsuhito Sasaki, Keisuke Shiro and Jun Rekimoto
- **waveSense: Low Power Voxel-tracking Technique for Resource Limited Devices**
Anusha Withana, Tharindu Kaluarachchi, Chanaka Singhabahu, Shanaka Ransiri and Suranga Nanayakkara
- **The Jungle Warm-Up Run: Augmenting Athletes with Coach-Guided Dynamic Game Elements**
Frederik Wiehr, Marko Vujic, Antonio Krueger and Florian Daiber
- **Archery shots visualization by clustering and comparing from angular velocities of bows**
Midori Kawaguchi, Mitake Hironori and Shoich Hasegawa



<< Session 5 >>

Cognition

Tuesday March 17th, 13.30 - 14.40

- **Design of Altered Cognition with Reshaped Bodies**
Kenichiro Shirota, Makoto Uju, Yurike Chandra, Elaine Czech, Roshan L. Peiris and Kouta Minamizawa
- **Wearable Reasoner: Towards Enhanced Human Rationality Through A Wearable Device With an Explainable AI Assistant**
Valdemar Danry, Pat Pataranutaporn, Yaoli Mao and Pattie Maes
- **SpotlessMind - A Design Probe for Eliciting Attitudes towards Sharing Neurofeedback**
Passant El.Agroudy, Xiyue Wang, Evgeny Stemasov, Teresa Hirzle, Svetlana Shishkovets, Siddharth Mehrotra and Albrecht Schmidt
- **Facilitating Experiential Knowledge Sharing through Situated Conversations**
Ryo Fujikura and Yasuyuki Sumi

<< Session 6 >>

HCI Futures, from Skin to Cells

Tuesday March 17th, 15.00 - 16.20

- **VersaTouch: A Versatile Plug-and-Play System that Enables Touch Interactions on Everyday Passive Surfaces**
Yilei Shi, Haimo Zhang, Jiashuo Cao and Suranga Nanayakkara
- **WristLens: Enabling Single-Handed Surface Gesture Interaction for Wrist-Worn Devices using Optical Motion Sensor**
Hui-Shyong Yeo, Juyoung Lee, Andrea Bianchi, Alejandro Samboy, Hideki Koike, Woontack Woo and Aaron Quigley
- **PDMSkin: On-Skin Gestures with Printable Ultra-Stretchable Soft Electronic Second Skin**
Tobias Röddinger, Michael Beigl, Daniel Wolffram, Matthias Budde and Hongye Sun
- **Sketching On-Body Interactions using Piezo-Resistive Kinesiology Tape**
Paul Strohmeier, Narges Pourjafarian, Marion Koelle, Cedric Honnet, Bruno Fruchard and Jürgen Steimle
- **Living Bits: Opportunities and Challenges for Integrating Living Microorganisms in Human-Computer Interaction**
Pat Pataranutaporn, Angela Vujic, Misha Sra, David Kong and Pattie Maes

<< Demos & Posters >>

EgoSpace: Augmenting Egocentric Space by Wearable Projector

Yuya Adachi, Haoran Xie, Takuma Torii, Haopeng Zhang and Ryo Sagisaka

Towards a Wearable for Deep Water Blackout Prevention

Frederik Wiehr, Andreas Höh and Antonio Krueger

High-speed Projection Method of Swing Plane for Golf Training

Tomohiro Sueishi, Chikara Miyaji, Masataka Narumiya, Yuji Yamakawa and Masatoshi Ishikawa

GymSoles++: Using Smart Wearables to Improve Body Posture when Performing Squats and Dead-Lifts

Don Samitha Elvitigala, Denys J.C. Matthies, Chamod Weerasinghe and Suranga Nanayakkara

e2-MaskZ: A Mask-type Display with Facial Expression Identification using Embedded Photo Reflective Sensors

Akino Umezawa, Yoshinari Takegawa, Katsuhiro Suzuki, Katsutoshi Masai, Yuta Sugiura, Maki Sugimoto, Yutaka Tokuda, Diego Martinez Plasencia, Sriram Subramanian, Masafumi Takahashi, Hiroaki Taka and Keiji Hirata

Understanding Face Gestures with a User-Centered Approach Using Personal Computer Applications as an Example

Yenchin Lai, Benjamin Tag, Kai Kunze and Rainer Malaka

<< Demos & Posters >>

Augmented Workplace: Human-Sensor Interaction for Improving the Work Environment

Yutaka Arakawa

Conformal Wearable Devices for Expressive On-Skin Interaction

Aditya Shekhar Nittala, Arshad Khan and Jürgen Steimle

