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Sunday, 13 March 2022

Time (JST) Time (CET) Title

#### 16:00-16:20 8:00-8:20 Opening Ceremony

16:00-16:10 Remark from General chair 16:10-16:20 Conference program overview

#### 16:20-17:20 8:20-9:20 Keynote Talk

Session Chair: TBD

Prof. Thad Starner (Georgia Institute of Technology)

Title: TBA

# 17:40-19:00 9:40-11:00 Featured Session "SIP project on Human-interaction platform technology"

17:40-17:43

Opening talk

Prof. Yuichiro Anzai, Director of SIP Human interaction platform technology, JSPS, Japan

17:43-17:53

Overview of the SIP project on Human-interaction platform technology Dr. Masaaki Mochimaru

Sub-director of SIP Human interaction platform technology, AIST, Japan 17:53-17:57

Introduction – Development of supporting and training technology for cognitive interaction in service fields

Dr. Hiroshi Sato

Human Informatics and Interaction Research Institute, AIST, Japan

17:57-18:05

Skills training using VR technology for awareness and priority judgment in customer service

Dr. Takashi Okuma

Human Augmentation Research Center, AIST, Japan

18:05-18:13

TBD

Dr. Jun Ogata

Artificial Intelligence Research Center, AIST, Japan

18:13-18:21

Semantic Interpretation in MICSUS, a Multi-modal Dialog System for Long-term Care of Older People

Dr. Kentaro Torisawa

NICT, Japan

18:21-18:29

Digitizing hammering operation in tunnel inspection with wearable camera system toward skill learning and training

Takafumi Sassa RIKEN, Japan

18:29-18:37

How Can Cognitive Science And Technology Contribute To Student Learning?

Prof. Kazuo Hiraki

University of Tokyo, Japan

18:37-18:45

Tele-medicine AI & Tele-monitoring AI technologies adaptation to Nursing care

Mr. Teppei Sakano

Allm, Japan

18:45-19:10

Panel discussion (Q&A)

Moderator: Dr. Hiroshi Sato, AIST

#### 19:20-20:20 11:20-12:20 Oral Session SUN.1 #Interface

Session Chair: TBD

- GazeBreath: Input Method Using Gaze Pointing and Breath Selection, Ryoya Onishi, Tao Morisaki, Shun Suzuki, Saya Mizutani, Takaaki Kamigaki, Masahiro Fujiwara, Yasutoshi Makino and Hiroyuki Shinoda (Full paper)
- EyeMove Towards Mobile Authentication using EOG Glasses, Kirill Ragozin, Karola Marky, Jie Lu and Kai Kunze (Short paper)
- Understanding Challenges and Opportunities of Technology-Supported SignLanguage Learning, Sarah Faltaous, Torben Winkler, Christina Schneegass, Uwe Gruenefeld and Stefan Schneegass (Full paper)
- E-MASK: A Mask-Shaped Interface for Silent Speech Interaction with Flexible Strain Sensors, Yusuke Kunimi, Masa Ogata, Hirotaka Hiraki, Motoshi Itagaki, Shusuke Kanazawa and Masaaki Mochimaru (Full paper)
- Knock K nock: A Children-oriented Vocabulary Learning Tangible User Interaction System, Xinrui Fang, Takuro Watanabe, Chengshuo Xia and Arthur Torck (Short paper)

## Monday, 14 March 2022

Time (JST) Time (CET) Title

## 11:00-12:00 3:00-4:00 Oral Session MON.1 #Sense, Communication, Prosthesis

Session Chair: TBD

- Pudica: A Framework For Designing Augmented Human-Flora Interaction, Olivia Seow, Cedric Honnet, Simon Perrault and Hiroshi Ishii (Short paper)
- ARcall: Real-Time AR Communication using Smartphones and Smartglasses, Hemant Bhaskar Surale, Yu Jiang Tham, Brian A. Smith and Rajan Vaish (Full paper)

- Morphace: An Integrated Approach for Designing Customizable and Transformative Facial Prosthetic Makeup, Cathy Mengying Fang, Sijia Wang, Yiyao Yang, Kexin Lu, Maria Vlachostergiou and Lining Yao (Full paper)
- On Eliciting a Sense of Self when Integrating with Computers, Valdemar Danry, Pat Pataranutaporn, Florian Floyd Mueller, Pattie Maes and Sang-Won Leigh (Full paper)
- Immersive Virtual Reality Simulations of Bionic Vision, Justin Kasowski and Michael Beyeler (Full paper)

## 14:40-15:25 6:40-7:25 Oral Session MON.2 #Human-Robot interaction Session Chair: TBD

- Synchronous and Asynchronous Manipulation Switching of Multiple Robotic Embodiment Using EMG and Eye Gaze, Yukiya Nakanishi, Masaaki Fukuoka, Shunichi Kasahara and Maki Sugimoto (Full paper)
- The Reference Frame of Robotic Limbs Contributes to the Sense of Embodiment and Motor Control Process, Kuniharu Sakurada, Ryota Kondo, Fumihiko Nakamura, Masaaki Fukuoka, Michiteru Kitazaki and Maki Sugimoto (Full paper)
- Analysis and Observation of Behavioral Factors Contributing to Improvement of Embodiment to a Supernumerary Limb, Nonoka Nishida, Yukiko Iwasaki, Theophilus Teo, Masaaki Fukuoka, Maki Sugimoto, Po-Han Chen, Fumihiro Kato, Michiteru Kitazaki and Hiroyasu Iwata (Short paper)
- Parallel Ping-Pong: Exploring Parallel Embodiment through Multiple Bodies by a Single User, Kazuma Takada, Midori Kawaguchi, Akira Uehara, Yukiya Nakanishi, Mark Armstrong, Adrien Verhulst, Kouta Minamizawa and Shunichi Kasahara (Full paper)

# 16:00-18:40 8:00-10:40 Featured Session "JIZAI body & Cybernetic being" organized by JST ERATO JIZAI body project & JST Moonshot Cybernetic being project

#### 16:00-16:15 Introduction of JST ERATO JIZAI body project

Masahiko Inami (The University of Tokyo)

#### 16:15-16:30 Introduction of JST Moonshot Cybernetic being

Kouta Minamizawa (Keio University Graduate School of Media Design)

#### 16:30-17:30 Panel discussion

#### Panelists:

Shunichi Kasahara (Sony CSL)
Takuji Narumi(The University of Tokyo)
Michiteru Kitazaki (Tovohashi University of Technology)

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Yoichi Miyawaki (The University of Electro-Communications)

#### **Moderators:**

Masahiko Inami (The University of Tokyo)

Kouta Minamizawa (Keio University Graduate School of Media Design)

17:30-17:40 Short break

## 17:40-18:40 Shot-gun research introductions by young researchers Moderators:

Midori Kawaguchi (Keio University Graduate School of Media Design)

#### Presenters:

Yukiko Iwasaki (Waseda University)

Yusuke Matsuda (Toyohashi University of Technology)

Junya Nakamura (Toyohashi University of Technology)

Daichi Ueda (The University of Electro-Communications)

Masaaki Fukuoka (Keio University)

Yuji Hatada (The University of Tokyo)

Chi-Lan Yan (The University of Tokyo)

Hagiwara Takayoshi (Keio University Graduate School of Media Design)

Ximing Shen (Keio University Graduate School of Media Design)

Yan He (Keio University Graduate School of Media Design)

## 19:00-20:00 11:00-12:00 Oral Session MON.3 #Physical training/Sports Session Chair: TBD

 SkiSim: A comprehensive Study on Full Body Motion Capture and Real-TimeFeedback in VR Ski Training, Jana Hoffard, Xuan Zhang, Erwin Wu, Takuto Nakamura and Hideki Koike (Full paper)

 Skiing, Fast and Slow: Evaluation of Time Distortion for VR Ski Training, Takashi Matsumoto, Erwin Wu and Hideki Koike (Full paper)

- A System for Augmenting Humans' ability to Learn Kendama Tricks through Virtual Reality Training, Hitoshi Kawasaki, Sohei Wakisaka, Hiroto Saito, Atsushi Hiyama and Masahiko Inami (Full paper)
- Improving balance ability through Pneumatic Gel Muscle (PGM)-based Augmentation: an Evaluation Study, Priyanka Ramasamy, Masato Hamada, Swaqata Das and Yuichi Kurita (Full paper)
- Singing Knit: Soft Knit Biosensing for Augmenting Vocal Performances, Courtney N. Reed, Sophie Skach, Paul Strohmeier and Andrew P. McPherson (Full paper)

## 20:20-21:40 12:20-13:40 Poster/Demo Session 1 TBA

## Tuesday, 15 March 2022

Time (JST) Time (CET) Title

TBA

16:20-17:20 8:20-9:20 Oral Session TUE.1 #Haptics

Session Chair: TBD

- Scenario-based Investigation of Acceptance of Electric Muscle Stimulation, Ambika Shahu, Philipp Wintersberger and Florian Michahelles (Full paper)
- DualEMS: Two-Channel Arbitrary Waveform Electrical Muscle Stimulation Device to Design Interference Stimulation, Hiroki Ohara and Shoichi Hasegawa (Full paper)
- DragTapVib: An On-Skin Electromagnetic Drag, Tap, and Vibration Actuator for Wearable Computing, Likun Fang, Ting Zhu, Erik Pescara, Yiran Huang, Yexu Zhou and Michael Beigl (Full paper)
- Exploring Feedback-based Testing Effects for Skin Reading, Granit Luzhnica, Aleksandra Krajnc and Eduardo Veas (Short paper)
- Increasing the Perceived Speed of Dynamic Handheld Shape Displays through Visuo-Haptic Illusions, Antonin Cheymol, Yutaro Hirao, Shigeo Yoshida and Hideaki Kuzuoka (Full paper)

#### 17:40-18:40 9:40-10:40 Oral Session TUE.2 #VR/AR

Session Chair: TBD

- Cyborgs, Human Augmentation, Cybernetics, and JIZAI Body, Masahiko Inami, Daisuke Uriu, Zendai Kashino, Shigeo Yoshida, Hiroto Saito, Azumi Maekawa and Michiteru Kitazaki (Full paper)
- A New Mask for a New Normal: Investigating an AR Supported Future under COVID-19, Zendai Kashino, Daisuke Uriu, Ziyue Zhang, Shigeo Yoshida and Masahiko Inami (Full paper)
- The Butterfly Effect: Novel Opportunities for Steady-State Visually-Evoked Potential Stimuli in Virtual Reality, Jonas Auda, Uwe Gruenefeld, Thomas Kosch and Stefan Schneegass (Full paper)
- Dynamic Appearance Augmentation Method that Enables Easy Prototyping of Masks for Performance, Motoyasu Masui, Yoshinari Takegawa and Keiji Hirata (Full paper)
- SocialSlider: Changing the Transparency of Avatars, Anna E. M. Wolf, Jens Reinhardt, Marco Kurzweg and Katrin Wolf (Full paper)

#### 19:20-20:00 11:20-12:00 Closing Ceremony

19:20-19:30 Conference statistics by Program chair

19:30-19:50 Award ceremony

19:50-20:00 Remark from General chair