# SOSUKE ICHIHASHI

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#### **EDUCATION**

Kyoto University 2016-2020

Bachelor of Engineering, Global Engineering (GPA: 2.99/4.00)

Innovative Disaster Prevention Technology and Policy Research Lab (Supervisor: Dr. Takahiro Sayama)

# The University of Texas at Austin

2018-2019

Exchange Student, Electrical and Computer Engineering University Honors (Fall 2018)

# The University of Tokyo

2020-2022

Master of Science in Interdisciplinary Information Studies Candidate (GPA: 3.95/4.00)

Information Somatics Lab (Supervisor: Dr. Masahiko Inami)

#### **TEACHING & ADVISING**

## Teaching Assistant

November 2020 - March 2021

Information Somatics Lab, The University of Tokyo

- Explored pleasantness of haptic stimuli on the forearm with an undergraduate student.
- Developed a haptic device surrounding the forearm, providing rotational skin stretch distribution.

#### RESEARCH EXPERIENCE

# Undergraduate Research

April 2019 - March 2020

Disaster Prevention Technology and Policy Research Lab, Kyoto University

- Optimized rainfall-runoff model parameters for 120 rivers in Japan with combinatorial optimization.
- Showed the relationship between geological and runoff characteristics.

Master Student April 2020 - Present

Information Somatics Lab, The University of Tokyo

- Research interactive thermal feedback to augment human perception and cognition.
- Developed and evaluated a non-contact rapid thermal feedback method using infrared rays and a shutter mechanism, examined its applications, and presented it at international conferences.
- Investigated the qualitative and psychophysical characteristics of the aforementioned method and submitted the paper to CHI 2022.

## TECHNICAL STRENGTHS

Hardware Prototyping Arduino, Raspberry Pi, Fusion360, 3D printing, Laser cutting

Software Prototyping Unity, TouchDesigner

Programming Language Python, Fortran, Matlab, C, C++, Java, C#
Other Software ArcGIS, AutoCAD, Gurobi, Revit, SketchUp, Tiled

#### CONFERENCE PRESENTATIONS

1. The effect of temperature presentation according to the gaze of others on remote communications. Sosuke Ichihashi, Arata Horie, Zendai Kashino, Shigeo Yoshida, and Masahiko Inami. International Symposium on Measurement and Control in Robotics 2021 (ISMCR 2021). 2021.

2. High-Speed Non-Contact Thermal Display Using Infrared Rays and Shutter Mechanism.

Sosuke Ichihashi, Arata Horie, Masaharu Hirose, Zendai Kashino, Shigeo Yoshida, and Masahiko Inami.

In Adjunct Proceedings of the 2021 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2021 ACM International Symposium on Wearable Computers (UbiComp-ISWC '21 Adjunct). 2021.

# • Best Paper Award.

- 3. The effect of temperature presentation according to the gaze of others on remote communications. Sosuke Ichihashi, Arata Horie, Zendai Kashino, Shigeo Yoshida, and Masahiko Inami. The 26th Annual Conference of Virtual Reality Society of Japan (VRSJ 2021). 2021. in Japanese.
- 4. Rapid Thermal Presentation by Controlling Infrared Irradiance using a Shutter Mechanism. Sosuke Ichihashi, Arata Horie, Zendai Kashino, Shigeo Yoshida, and Masahiko Inami. Information Processing Society of Japan Entertainment Computing 2021 (IPSJ EC 2021). 2021. in Japanese.
- 5. Preliminary Study on Orientation Perception with Far Infrared Stimulus.

  Sosuke Ichihashi, Arata Horie, Hiroto Saito, Zendai Kashino, and Masahiko Inami.

  The Society of Instrument and Control Engineering System Integration Division Conference (SICE SI 2020). 2020. in Japanese.

## AWARDS, SCHOLARSHIPS & FUNDS

Best Paper Award 2021

Best paper presented at MIMSVAI 2021.

# SICE SI Haptics Committee Research Fund

2021

Fund for haptics research (\$500).

Only five students are selected from undergraduate and graduate students in Japan.

## Kyoto University Civil Engineering Society Funds

2017, 2019

2017: Disaster prevention lectures at elementary schools in Indonesia (\$2,000 for 2 weeks).

2019: International internship at Toyo Construction Co, Ltd. Philippine Branch (\$2,000 for 2 weeks).

### JASSO Overseas Study Support Program

2018-2019

Scholarship for outstanding Japanese students to study abroad (\$75,000 for 10 months)

## University Honors (Fall 2018)

2018

Completion of a full course load with outstanding grades.

#### **EXTRACURRICULAR ACTIVITIES**

Instructor 2017

Kyoto University Disaster Prevention School in Indonesia

Held disaster prevention schools at eight elementary schools in Indonesia. I also acted in a play to deliver disaster prevention knowledge in Indonesian language.

Vice President 2018-2020

Kyoto University Muslim Student Association

Co-founded the association to help Muslim students with their lives in Kyoto and to promote non-Muslim's understandings on Muslim customs.

## REFERENCES

## Masahiko Inami

Professor

Research Center for Advanced Science and Technology, The University of Tokyo drinami@star.rcast.u-tokyo.ac.jp

# Zendai Kashino

Assistant Professor

Research Center for Advanced Science and Technology, The University of Tokyo kashino@star.rcast.u-tokyo.ac.jp

# Takahiro Sayama

 $Associate\ Professor$ 

Disaster Prevention Research Institute, Kyoto University sayama.takahiro.3u@kyoto-u.ac.jp