

# IEEE CASS Outreach Initiative 2021

## IEEE CASS Shanghai and Shikoku Chapters Joint Workshop on Circuits and Systems (SSJW 2021)

### Event Report

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(General Secretaries, SSJW 2021)

Date: January 6, 2021

1. Event name: IEEE CASS Shanghai and Shikoku Chapters Joint Workshop on Circuits and Systems (SSJW 2021)

<https://chaos.keiei.shikoku-u.ac.jp/SSJW21/>

2. Date: November 24, 2021

3. Place: Hybrid

Tokushima University, Japan

Shanghai Jiao Tong University, China

Zoom:

<https://us02web.zoom.us/j/85669802203?pwd=YS9xcmpadmXnaVg3MnlCQ0lBNDJXZz09>

Meeting ID: 856 6980 2203

Pass code: 016594

4. Attendance: IEEE Members: 20, Guests: 20.

5. Metrics to measure its success:

- A. Number of participants of the conference.  
target: 50, result: 40
- B. Number of papers presented during the conference.  
target: 25, result: 12

6. Schedule:

Nov 24 (TUE)

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WORKSHOP LUNCH

11:30-12:30 (CST), 12:30-13:30 (JST)

OPENING CEREMONY

13:00-13:05 (CST), 14:00-14:05 (JST)

Peilin Liu (Shanghai Jiaotong University, China)

INVITED TALK 1

13:05-13:35 (CST), 14:05-14:35 (JST)

"Visual Translation: From Image and Video to Language"

Prof. Hanli Wang (Tongji University, China)

INVITED TALK 2

13:35-14:05 (CST), 14:35-15:05 (JST)

"Wireless Power Transfer System Design for Robot Arm"

Prof. Hiroo Sekiya (Chiba University, Japan)

TECHNICAL PRESENTATIONS

14:15-15:55 (CST), 15:15-16:55 (JST)

"On Perceptual Lossy Compression: The Cost of Perceptual

Reconstruction and An Optimal Training Framework"

by Zeyu Yan (Shanghai Jiao Tong University, China)

"COVID-19 Transmission Simulation with Intervention of  
Distancing in School Class Movement by Using Multi-Agent  
Simulation"

by Masaki Saito (Tokushima University, Japan)

"Advanced Integrate-and-Fire Neuron Array Design and  
Application"

by XiangAo Qi (Shanghai Jiao Tong University, China)

"Comparison of Complex Network by Synchronization Phenomena  
of Coupled Oscillators Considering Euclidean Distance"

by Kiichi Yamashita (Tokushima University, Japan)

"A Computationally Efficient, Hardware Re-configurable Architecture for QRS Detection and ECG Authentication"  
by Weihong Yan (Shanghai Jiao Tong University, China)

"Dataset for Classification of Shiitake Mushrooms using Convolutional Neural Networks"  
by Kazuki Satokawa (Tokushima University, Japan)

"Beam Selection Algorithm for Beamspace HAP-MIMO Systems Based on Statistical CSI"  
by Shiyi Zou (Shanghai Jiao Tong University, China)

"Object Extraction using SPOT Template and Concentric Contour Detection Template in Cellular Neural Networks"  
by Sosuke Nakano (Tokushima University, Japan)

"A Modified K-means User Grouping Design for HAP Massive MIMO Systems"  
by Guorong Zhang (Shanghai Jiao Tong University, China)

"Investigating Network Performance in terms of Synchronization of Oscillators in Complex Networks"  
by Tsuyoshi Isozaki (Tokushima University, Japan)

#### CLOSING CEREMONY

15:55-16:00 (CST), 16:55-17:00 (JST)  
Yoko Uwate (Tokushima University, Japan)

#### BANQUET DINNER

17:00-19:00 (CST), 18:00-20:00 (JST)

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#### 7. Detail:

The CASS Shanghai Chapter and Shikoku Chapter have co-organized IEEE CASS Shanghai and Shikoku Chapters Joint Workshop on Circuits and Systems (SSJW) annually from 2007. We believe that this joint workshop is a very unique event organized by two of CASS chapters located in different countries and has been very successful to stimulate the chapters' activities as well as to raise international awareness among young scholars and young students.

In 2021, we organized SSJW in hybrid format (Tokushima University, Shanghai Jiao Tong University, and Zoom) due to the continuous covid-19 pandemic, on the 24th of November. After Prof. Peiling Liu, the Shanghai Chapter Chair, welcomed the attendee, 2 invited talks were delivered. Prof. Hanli Wang of Tongji University, China, talked about "Visual Translation: From Image and Video to

Language", and Prof. Hiroo Sekiya of Chiba University, Japan, talked about "Wireless Power Transfer System Design for Robot Arm".

During the workshop, 10 presentations were given by students. The organizing committee chose 6 best student papers and gave the awards. The numbers of the participants and the papers are short to the target numbers. We think that this is because the format turned into hybrid.

The next SSJW is under planning to be held in physical or hybrid format, in 2022. Finally, we would like to appreciate to the IEEE CAS Society for supporting us to organize this event.

### 8. Pictures:

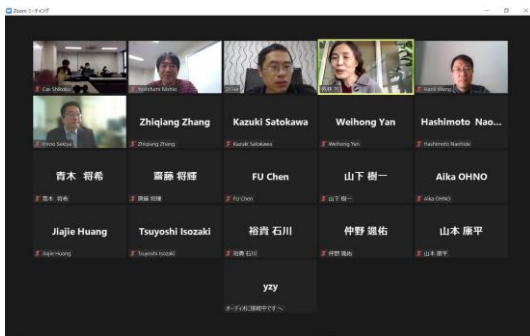


Fig. 1: Opening ceremony.

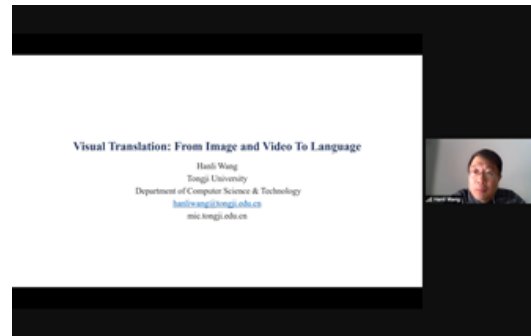


Fig. 2: Invited talk by Prof. Wang.

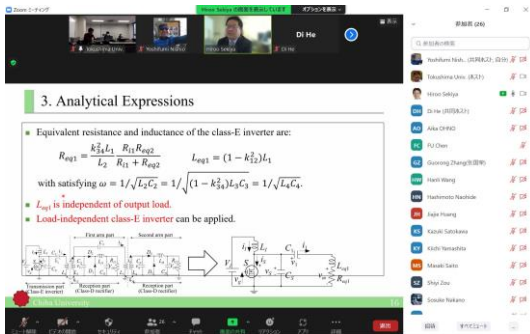


Fig. 3: Invited talk by Prof. Sekiya.

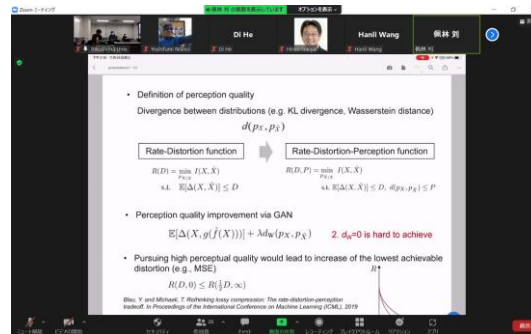


Fig. 4: Presentation.

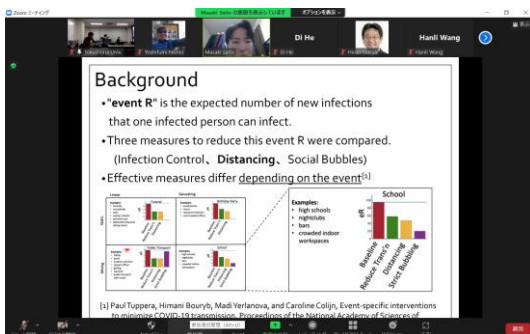


Fig. 5: Presentation.

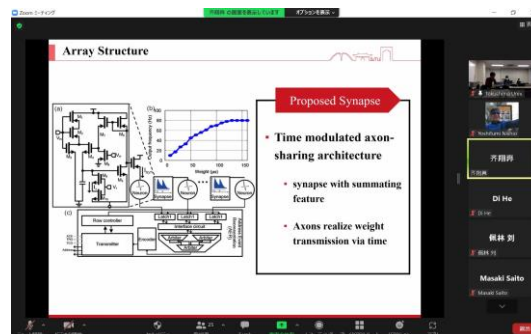


Fig. 6: Presentation.

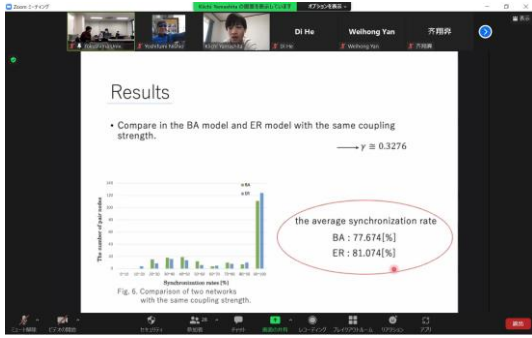


Fig. 7: Presentation.



Fig. 8: Presentation.



Fig. 9: Closing ceremony.



Fig. 10: Tokushima University.