

Minutes of the Neural Systems and Applications Technical Committee (NSA TC)

2021 Annual Meeting

Location: Virtual Zoom Meeting.

Date: Tuesday, 25 May 2021

Time: 6:30 to 7:30 EDT

1 Attendees

- | | |
|-----------------------------------|------------------------------|
| 1. Yoko Uwate (Chair) | uwate@tokushima-u.ac.jp |
| 2. Arindam Basu | arindam.basu@ntu.edu.sg |
| 3. Xuan 'Silvia' Zhang | xuan.zhang@wustl.edu |
| 4. Melika Payvand | melika@ini.uzh.ch |
| 5. Jason Eshraghian | jeshraghian@gmail.com |
| 6. Takao Marukame | takao.marukame@toshiba.co.jp |
| 7. Donald Y.C. Lie | donald.lie@ttu.edu |
| 8. Jim Harkin | jg.harkin@ulster.ac.uk |
| 9. Charlotte Frenkel [◇] | charlotte@ini.uzh.ch |

[◇] Candidate new members

2 Opening, approval of the meeting agenda and the 2020 Neural Systems and Applications (NSA) meeting minutes

The Chair, Yoko Uwate, welcomed the Neural Systems and Applications Technical Committee (NSA TC) members and opened the meeting. She also introduced the meeting agenda and the NSA TC unanimously approved the proposed agenda.

The 2020 NSA meeting minutes were shared with the attendees by means of the committee's web page and email before the meeting. No objections were received. Furthermore, during meeting, the Chair asked the Technical Committee (TC) member to vote the approval of the 2020 meeting minutes, which were approved unanimously.

3 NSA highlights

The ISCAS 2021 paper statistics were presented by the Chair. The NSA tracks received a total of 119 submissions (13.8% decrease from last year). The total number of accepted papers for the NSA track was 69, giving an acceptance rate of 57.98%. 32 out of the 69 accepted papers were presented in an oral session while 37 papers were presented in a poster session. Our track was represented this year with 7 oral sessions and 5 poster session.

4 Best paper award

The Chair, Yoko Uwate, presented the procedure for selecting the best paper and honorary mention awards. The 10 papers with the best score in the original first-round review process were selected for a second-round re-score conducted by three volunteer members of the TC. There was a tie among the 2nd and the 3rd place papers, resulting in two honorary mention awards. The following papers were selected according to the above process:

Best paper: “A 64.1mW Accurate Real-Time Visual Object Tracking Processor with Spatial Early Stopping on Siamese Network” Soyeon Kim, Sangjin Kim, Sangyeob Kim, Donghyeon Han, Hoi-Jun Yoo

Honorable mention: “A Spike-Event-Based Neuromorphic Processor with Enhanced On-Chip STDP Learning in 28nm CMOS” Yi Zhong, Xiaoxin Cui, Yisong Kuang, Kefei Liu, Yuan Wang, Ru Huang

Honorable mention: “DeepTempo: A Hardware-Friendly Direct Feedback Alignment Multi-Layer Tempotron Learning Rule for Deep Spiking Neural Networks” Cong Shi, Tengxiao Wang, Junxian He, Jianghao Zhang, Liyuan Liu, Nanjian Wu

The whole process was coordinated by Chair-elect Arindam Basu.

5 TC activities

The Chair, Yoko, encouraged members to make more contributions by sharing their activities to be compiled into the report, pointing out that only a fraction of the members in the TC submitted their activities for the compilation of the annual report. The Chair asked for volunteers for the Distinguished Lecturer program and for ISCAS 2021 Track Chairs.

Yoko presented a few highlights from the relevant session to be held at the recent Telluride workshop—TAC21: Neuromorphic tactile sensing for physical interaction and understanding.

Melika Payvand raised the question of the TC report format that may not best reflect the breadth and wide range of activities conducted by the members. Xuan ‘Silvia’ Zhang concurred with the comment and expressed similar concern.

6 New members

1. Charlotte Frenkel (nominated by Yoko Uwate)

After the candidate introduced herself, she was asked to enter into the virtual breakout room and the chair called for any comments on the candidate. After a short discussion a vote was held for the NSA membership candidates listed above. The applicant was unanimously accepted as members of the NSA TC.

7 Officers for 2021-2022

The list of officers for the next year is same as elected last year. The team is as follows:

Past-Chair Yoko Uwate

Chair Arindam Basu

Chair-Elect Xuan ‘Silvia’ Zhang

Secretary Melika Payvand

Secretary-Elect Jason Eshraghian

8 End of meeting

No further discussion was needed and the meeting was adjourned.