## The Kick-off Symposium on Research Center for Neuromorphic Al Hardware

### 7th Dec 2020 14:00-17:00 JST Online (Zoom)



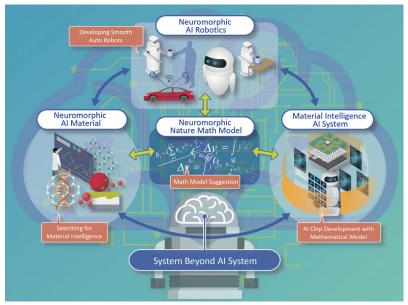






### Kyushu Institute of Technology Prof. Hirofumi Tanaka

Nowadays, artificial intelligence (AI) has penetrated every corner of our society, and human beings are trying to run their civilization with computational systems and information networks. However, today's computational systems for digital computation are inherently incompatible with nature: running AI at the same quality as the brain requires large amounts of computational resources and energy, millions of times more energy than the human brain actually consumes, and will eventually be subject to the problem of power depletion. Will humanity fully benefit from AI robots when the power consumption increases as automated robots frequently return to the charging booth to recharge and move around with huge batteries? What is really needed now is a computational system that allows society to adapt to the environment more flexibly and to achieve a new harmony with nature. Humans must make good use of the power of nature to reduce their impact on the environment while maintaining a high level of productivity and standard of living. We must establish a computational paradigm based on a new worldview that is in harmony with nature. The main theme of our research is "neuromorphic AI hardware" that utilizes material intelligence, which is a potential computational capability of materials. Our goal is to contribute to the next generation of the industry by embodying a brain-type AI system through integrated AI hardware research from materials development to robotics. At the same time, we dream of a future where robots loaded with the hardware we've developed are working everywhere in our society.



Research Center for Neuromorphic Al Hardware

## Schedule

This symposium is composed of two events: the Opening Ceremony of Research Center for Neuromorphic AI Hardware and the 2nd International Symposium on Neuromorphic AI Hardware. You can participate both events by registration via the web site of this center. Please refer next page or the web site (http://www.brain.kyutech.ac.jp/~neuro/). This symposium will be held on Zoom. A Zoom link for the symposium will be sent to your e-mail address that you enter in the registration. From the link, you can participate both events.

#### **Opening Ceremony**

14:00-14:10	Greeting from University	Yasunori Mitani Kyushu Institute of Technology
14:10-14:25	Greeting from Center	Hirofumi Tanaka Kyushu Institute of Technology
14:25-14:35	Congratulatory message	Morio Matsunaga FAIS
14:35-14:45	Congratulatory message	Takeshi Yamakawa Fuzzy Logic Systems Institute

#### The 2nd International Symposium on Neuromorphic AI Hardware

14:50-15:50	Invited talk	Prof. Yoshihiko Horio (Tohoku University) Chair: Hakaru Tamukoh
15:50-16:00	Break	
16:00-17:00	Invited talk	Prof. Wilfred G. van der Wiel (University of Twente, International advisory board of Neumorph center) Chair: Yuki Usami
17:00	Closing remark Photo session	

# Registration

Registraion for this symposium is required. Please access a registration form via following link and enter your name, affiliation, and e-mail address. A Zoom link for the symposium will be sent to your e-mail address that you enter in the registration form.

Registration form: https://forms.gle/XxMETQUaruDqB4V78

This symposium will be held on Zoom. Zoom : https://zoom.us/

If you have questions, please contact to: usami[at]brain.kyutech.ac.jp (Dr. Usami) \* Please replace [at] with @.