

Technical Program

9AM1: Chaos Application

Date: December 9, 09:10–10:45

Room: K206

Chair: Seiichiro Moro (University of Fukui)

- 9AM1-1** *[Invited Talk] 1-D Return Maps with a Flat Part and its Application* 1
Yusuke Matsuoka (Hosei University), Toshimichi Saito (Hosei University)
- 9AM1-2** *An Improved Digital Watermarking Method Using Bernoulli Shift Chaotic Maps* 3
Ryo Makita (Konan University), Masahiro Wada (Konan University)
- 9AM1-3** *Bifurcations of Simplified $v-i$ Coupled BVP Oscillators* 4
Yusuke Nishiuchi (Tokushima University), Tetsushi Ueta (Tokushima University), Hiroshi Kawakami (Tokushima University)
- 9AM1-4** *Research on Synchronization of Chua's Circuit with Transmission Lines* 5
Yuki Nakaaji (Tokushima University), Yoshifumi Nishio (Tokushima University)
- 9AM1-5** *Investigation of Asymmetrical Coupled Chaotic Circuit Systems* 6
Yasuteru Hosokawa (Shikoku University), Yoshifumi Nishio (Tokushima University)

9AM2: Cellular Networks

Date: December 9, 10:55–12:30

Room: K206

Chair: Kenya Jinno (Kanto Gakuin University)

- 9AM2-1** *[Invited Talk] A Spatial Domain Sigma-Delta Modulation via DT-CNN* 7
Hisashi Aomori (Sophia University), Tsuyoshi Otake (Tamagawa University), Nobuaki Takahashi (IBM), Mamoru Tanaka (Sophia University)
- 9AM2-2** *The Range to Generate Phase-Wave Phenomena in 1-Dimension 2-Layer Cellular Neural Networks* 9
Koji Urabe (Niihama College of Technology), Yoshifumi Nishio (Tokushima University)

- 9AM2-3 *Neighbor, Corner and Perfect Synchronization Phenomena of the Oscillating CNN* 10
 Lei Shaochong (Xi'an Jiao Tong University), Basnet Kumar (Hitachi Global Strage Tech.), Mamoru Tanaka (Sophia University)
- 9AM2-4 *Global Path Searching Based on Winner Take All Circuits on Variable Resistive Network* 11
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- 9AM2-5 *On Learning of Digital Multi-Layer Perceptrons* 12
 Tohru Abe (Hosei University), Satoshi Suzuki (Hosei University), Toshimichi Saito (Hosei University)

9PM1: Learning of Networks

Date: December 9, 13:30–15:20

Room: K206

Chair: Masahiro Wada (Konan University)

- 9PM1-1 *[Invited Talk] Digital Spiking Neuron and its Learning Potential* 13
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- 9PM1-2 *Basic Property of Particle Swarm Optimization* 15
 Eiji Miyagawa (Hosei University), Satoshi Suzuki (Hosei University), Toshimichi Saito (Hosei University)
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- 9PM1-5 *SOM Considering False Neighboring Neuron for Effective Feature Extraction* 18
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- 9PM1-6 *Gray Scale Display Reflecting Each Slice of Learning Results Using Shooting SOM* 19
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9PM2: Design and Analysis of Circuit Networks

Date: December 9, 15:30–17:20

Room: K206

Chair: Yasuteru Hosokawa (Shikoku University)

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