Schedule

Day	Time	Activity & Place		
Oct. 31 (Fri.)	15:00-19:00	Registration (Nanyang Hotel)		
	18:00-21:00	Welcome Reception (Nanyang Hotel)		
Nov. 1 (Sat)	09:00-10:00	Registration (Multifunctional Academic Conference Hall, Main Teaching Bldg.)		
	10:00-10:20	Opening Ceremony (Multifunctional Academic Conference Hall)		
	10:20-11:00	Plenary Talk A (Multifunctional Academic Conference Hall)		
	11:00-11:20	Tea Break		
	11:20-12:00	Plenary Talk B (Multifunctional Academic Conference Hall)		
	12:00-13:30	Lunch		
	13:30–15:10	1PM1-A:Power and Control (B103, Main Teaching Bldg.)	1PM1-B:Synchronization (B104, Main Teaching Bldg.)	
	15:10-15:30	Teal	Break	
	15:30-17:10	1PM2-A: Medical Applica- tions (B103)	1PM2-B: Neural Networks (B104)	
	18:00-21:00	Excursion 1: Tang-Paradise		
Nov. 2 (Sun)	08:30–10:10	2AM1-A: Computer Vision Applications (B103)	2AM1-B: Optimization and Detection (B104)	
	10:10-10:30	Tea Break		
	10:30-12:10	2AM2-A: Human Image Pro- cessing (B103)	2AM2-B: Wireless Communi- cation and Sensor Networks (B104)	
	12:10-13:40	Lunch		
	13:40-15:20	2PM1-A: Multi-Dimensional Image Processing (B103)	2PM1-B: Ad Hoc Networks (B104)	
	15:20-15:40	Tea l	Tea Break	
	15:40-17:20	2PM2-A: Image Processing Applications (B103)	2PM2-B: Communication Sys- tems (B104)	
	18:00-21:00	Banquet(Na	nyang Hotel)	
Nov. 3 (Mon)	08:30–17:00	Excursion 2: Museum of The Terra-Cotta Warriors and Horses of Qin Shihuang		
	18:00-21:00	Farewell Party(De-Fa-Chang Restaurant		

Technical Program

1AM1: Plenary Talk A

Date: November 1 (Sat) 10:20–11:00 Room: P Chair: Xuguang Lan (Xi'an Jiaotong University)

 1AM1-1
 SkyClass, a Novel e-Learning System over Satellite and Computer Network
 1

 Qinghua Zheng (Xi'an Jiaotong University)
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1AM2: Plenary Talk B

Date: November 1 (Sat) 11:20–12:00 Room: P Chair: Yoshihiko Horio (Tokyo Denki University)

1AM2-1Data Mining CNN to Circuit Modeling Based on Covariance Structural Analysis

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Mamoru Tanaka (Sophia University), Yuko Zennyoji (NTT Data Corporation), Hisashi Aomori (Sophia University)

1PM1-A: Power and Control

Date: November 1 (Sat) 13:30–15:10 Room: A Chair: Seiichiro Katsura (Keio University)

1PM1-A-1 [Invited Talk] Optimal Core and Wire of Resonant Inductor for Class-E Amplifier

Hiroo Sekiya (Wright State University), Marian K Kazimierczuk (Wright State University)

1PM1-A-2 An Investigation of the Reliability Simulation of Electric Power Supply System	7			
Hitoshi Watanabe (Tokyo University of Science), Seiiichi Muroyama (NTT Facilities Research In- stitute), Takashi Takeda (NTT Facilities, Inc.), Masaki Hanada (Tokyo University of Science)				
1PM1-A-3 Data Compression Method for Real-World Haptics Using DCT Hiroyuki Tanaka (Keio University), Kouhei Ohnishi (Keio University)	11			
1PM1-A-4 Design of Bilateral Control System with Disturbance Observer Based on Hybrid Matrix	15			

Shigeru Susa (Keio University), Kouhei Ohnishi (Keio University)

Filter Design of ZMP Disturbance Observer for Walking Stabilization of Biped 1PM1-A-5 19 Robot

Tomoya Sato (Keio University), Sho Sakaino (Keio University), Kouhei Ohnishi (Keio University)

1PM1-B: Synchronization

Date: November 1 (Sat) 13:30-15:10 Room: B Chair: Mamoru Tanaka (Sophia University) [Invited Talk] Spatio-Temporal Phenomena of Coupled Multi-State Chaotic 1PM1-B-1 23 Circuits Masahiro Wada (Konan University), Yoshifumi Nishio (Tokushima University) **Comparison between Cross-Coupled Chaotic Circuits and Direct-Coupled** 1PM1-B-2 27 **Chaotic Circuits** Yumiko Uchitani (Tokushima University), Yoshifumi Nishio (Tokushima University) Multi-Phase Synchronization Phenomena in RF CMOS LC Oscillators Cou-1PM1-B-3 31 pled by Mutual Inductors Toshihiro Kawanari (University of Fukui), Seiichiro Moro (University of Fukui) **1PM1-B-4** Synchronization Phenomena in Three Oscillators Coupled by a Resonator 35 Chikayasu Higashi (Tokushima University), Yoshifumi Nishio (Tokushima University) Several Types of Oscillatory Phenomena among the Plasmodium of Physarum 39 1PM1-B-5 Polycephalum Kuniyasu Shimizu (Meiji University), Tetsuro Endo (Meiji University), Yuji Aoyama (Meiji University), Tetsuya Ogura (Meiji University), Mikito Yokoyama (Meiji University)

1PM2-A: Medical Applications

Date: November 1 (Sat) 15:30-17:10 Room: A Chair: Takahiko Saba (Chiba Institute of Technology)

43 1PM2-A-1 [Invited Talk] Selective Microwave Energy Absorption in Metamaterial

Yoshio Nikawa (Kokushikan University)

Imaging Measurement Device of Gripped Attitude Based on Hand Dimensions 1PM2-A-2 47 and Digital Hand Model

Takuya Takahashi (Shibaura Institute of Technology), Yoshimitsu Aoki (Keio University), Masaaki Mochimaru (AIST), Makiko Kouchi (AIST)

Synthesis of Panoramic MRI Volumes by Registering Partially Overlapping 51 1PM2-A-3 **Data Using Mutual Information**

Chiaki Doi (Keio University), Hideo Saito (Keio University), Mitsunori Tada (Digital Human Research Center)

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Yoshio N	ikawa (Kokushikan University)	

1PM2-B: Neural Networks

Date: November 1 (Sat) 15:30-17:10 Room: B Chair: Seiichiro Moro (University of Fukui) [Invited Talk] Feedforward Neural Networks with Fluctuation of Structure for 1PM2-B-1 **Chaotic Time Series Learning** Yoko Uwate (UZH / ETH Zurich), Yoshifumi Nishio (Tokushima University), Ruedi Stoop (UZH / ETH Zurich) Effect of Periodic External Inputs for Neural Network Structures and Dynam-1PM2-B-2 ics through the STDP

Hideyuki Kato (Saitama University), Tohru Ikeguchi (Saitama University)

Performance of Quadratic Assignment Problem by Hopfield NN with Recalling 1PM2-B-3 67 the Best Memory

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Hironori Kumeno (Tokushima University), Yoshifumi Nishio (Tokushima University)

An Analysis of Chaotic Noise Injected to Backpropagation Algorithm in Feed-1PM2-B-4 70 forward Neural Network

Azian Azamimi (Tokushima University), Yoko Uwate (UZH / ETH Zurich), Yoshifumi Nishio (Tokushima University)

1PM2-B-5 Growing Grid with False-Neighbor Degree

Haruna Matsushita (Tokushima University), Yoshifumi Nishio (Tokushima University)

2AM1-A: Computer Vision Applications

Date: November 2 (Sun) 08:30–10:10 Room: A Chair: Kuizhi Mei (Xi'an Jiaotong University)

2AM1-A-1 Parallel and Perpendicular Constraint for SLAM in Indoor Environment 78

Jihua Zhu (Xi'an Jiaotong University), Nanning Zheng (Xi'an Jiaotong University), Zejian Yuan (Xi'an Jiaotong University), Yongjian He (Xi'an Jiaotong University)

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Shaoyi Du (Xi'an Jiaotong University), Nanning Zheng (Xi'an Jiaotong University), Shihui Ying (Shanghai University), Gaofeng Meng (Xi'an Jiaotong University), Jianyi Liu (Xi'an Jiaotong University)

2AM1-A-3 Optical Flow Based Vision-SLAM

Wei Liu (Xi'an Jiaotong University), Nanning Zheng (Xi'an Jiaotong University), Zejian Yuan (Xi'an Jiaotong University), Kai Sheng (Xi'an Jiaotong University), Xiangming Peng (Xi'an Jiaotong University)

Wet/Dry Classification Method with Reflect and Incident Light Observed from 2AM1-A **Single Camera**

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Hsin Guan (Jilin University), Xin Jia (Jilin University), Zhenhai Gao (Jilin University)

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2AM1-B: Optimization and Detection

Date: November 2 (Sun) 08:30–10:10 Room: B Chair: Hiroo Sekiya (Wright State University)

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Yoshihiko Horio (Tokyo Denki University), Kazuyuki Aihara (University of Tokyo)

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Chi-Tsun Cheng (Hong Kong Polytechnic University), Kia Fallahi (University of Calgary), Henry Leung (University of Calgary), Chi K. Tse (Hong Kong Polytechnic University)

2AM1-B-3 Adaptable Routing Strategy in Traffic Flow

Takayuki Kimura (Hong Kong Polytechnic University), Tohru Ikeguchi (Saitama University), Chi K. Tse (Hong Kong Polytechnic University)

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(Xi'an Jiaotong University), Lan Wu (Air Force Engineering University)

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Tsuyoshi Moriyama (Tokyo Polytechnic University)

2AM2-B: Wireless Communication and Sensor Networks

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