Provisional Session Schedule as of February 13, 2015

Date \ Room	Room 1	Room 2	Room 3	Room 4
February 28 8:40–10:10	Speech Processing 1 28AM1-1	[Special Session] Advanced Perceptional Monitoring to Support Human Activities 1 28AM1-2	Sensor Network 28AM1-3	[Special Session] Information Network Technologies 28AM1-4
February 28 10:30–12:00	Speech Processing 2 28AM2-1	[Special Session] Advanced Perceptional Monitoring to Support Human Activities 2 28AM2-2	Optimization 1 28AM2-3	Optical Communications 28AM2-4
February 28 14:00–15:30	Nonlinear Circuits and Oscillation 1 28PM1-1	[Special Session] Advanced Perceptional Monitoring to Support Human Activities 3 28PM1-2	Optimization 2 28PM1-3	[Special Session] Communication Network Science and Engineering 1 28PM1-4
February 28 15:50–17:20	Image Processing 1 28PM2-1	Power and Energy Systems 28PM2-2	Modeling, Estimation and Prediction 1 28PM2-3	[Special Session] Communication Network Science and Engineering 2 28PM2-4
March 1 8:40–10:10	Image Processing 2 1AM1-1	Circuit Design 1 1AM1-2	Modeling, Estimation and Prediction 2 1AM1-3	Intelligent Transport Systems 1AM1-4
March 1 10:30–12:00	Image Processing 3 1AM2-1	Circuit Design 2 1AM2-2	Wireless Communications 1 1AM2-3	Nonlinear Circuits and Oscillation 2 1AM2-4
March 1 14:00–15:00	Keynote Speech 1 [Room: Main Hall] KS1: Advances in Computer Vision: Tropical Wood Recognition			
March 1 15:20–16:20	Keynote Speech 2 [Room: Main Hall] KS2: Odor Sensing and Intelligent Classification			
March 2 8:40–10:10	Image Processing 4 2AM1-1	Adaptive Systems 2AM1-2	Wireless Communications 2 2AM1-3	Bio-Signal Processing 1 2AM1-4
March 2 10:30–12:00	Medical Applications 2AM2-1	Modeling, Estimation and Prediction 3 2AM2-2	Computer Vision 2AM2-3	Bio-Signal Processing 2 2AM2-4
March 2 13:30–15:00	Modulation and Equalization 2PM1-1	Detection 2PM1-2	Bifurcation and Chaos 2PM1-3	Watermarking 2PM1-4

- Reception and on-site registration desk will be opened on February 27 (18:00–22:00) at DoubleTree by Hilton Hotel Kuala Lumpur.

- Reception and on-site registration desk on February 28 (7:45–17:00), March 1 (7:45–16:00), and March 2 (7:45–13:00) will be taken in front of Secretarlat Room.

- Banquet will be held on March 1 (19:00–) at DoubleTree by Hilton Hotel Kuala Lumpur.

- Farewell party & Student paper award ceremony will be held on March 2 (evening, after all sessions) at Corus Hotel Kuala Lumpur.

Provisional Advance Program as of February 13, 2015

Keynote Speech 1

Date: March 1, 14:00–15:00
Room: Main Hall
Chair: Azran Azhim (Universiti Teknologi Malaysia)

| KS1 | **Advances in Computer Vision: Tropical Wood Recognition** |

Rubiyah Yusof (MJIIT UTM)

Keynote Speech 2

Date: March 1, 15:20–16:20
Room: Main Hall
Chair: Tetsushi Ueta (Tokushima University)

| KS2 | **Odor Sensing and Intelligent Classification** |

Sigeru Omatu (Osaka Institute of Technology)

28AM1-1: Speech Processing 1

Date: February 28, 8:40–10:10
Room: Room 1
Chair: Requesting

28AM1-1-1 **Fast Separation and Accurate Recognition of Overlapped Speech — Separation by Spectral Subtraction and Acoustic Model Training using Separated Speeches —**

Yuto Dekiura (Nagoya University), Tetsuya Matsumoto (Nagoya University), Yoshinori Takeuchi (Daido University), Hiroaki Kudo (Nagoya University), Noboru Onishi (Nagoya University), Norihide Kitaoka (Tokushima University), Kazuya Takeda (Nagoya University)

28AM1-1-2 **Singing Voice Extraction from Monaural Music Signals Using NMF with HPSS**

Hirotaka Akasaki (Tokyo Denki University), Shigeo Wada (Tokyo Denki University), Shunsuke Takahashi (Tokyo Denki University)

28AM1-1-3　**Robust Voice Activity Detection Method Using Noise Reduction and Clustering**

Shunsuke Fukuoka (Tokyo Denki University), Shigeo Wada (Tokyo Denki University)

28AM1-1-4　**Mean Shift for Direction Finding and Separation of Sound Sources Using Microphone Array**

Nursyafiqah Amirah binti Jasmani (Universiti Teknologi Malaysia), Nozomu Hamada (Universiti Teknologi Malaysia)

28AM1-1-5　**Analysis of Speaker Individual Differences on Modulation Spectrum**

Zhi Zhu (Japan Advanced Institute of Science and Technology), Ryota Miyauchi (Japan Advanced Institute of Science and Technology), Masashi Unoki (Japan Advanced Institute of Science and Technology)

２８AM1−2: [Special Session] Advanced Perceptional Monitoring to Support Human Activities 1

Date: February 28, 8:40–10:10
Room: Room 2
Organizer: Satoshi Suzuki (Tokyo Denki University) and Yasue Mitsukura (Keio University)
Chair: Requesting

28AM1-2-1　**An Analysis of Human-Robot Conversation for Acquiring Personal Characteristics Toward Mutual Assistance Matching**

Reona Gomi (Tokyo Metropolitan University), Tetsuya Kaneko (Tokyo Metropolitan University), Aoi Suzuki (Tokyo Metropolitan University), Eri Sato-Shimokawara (Tokyo Metropolitan University), Toru Yamaguchi (Tokyo Metropolitan University)

28AM1-2-2　**A Dialogue Analysis of Elderly Person with a Chat Robot**

Yoko Shinoda (Tokyo Metropolitan University), Shun Nomura (Tokyo Metropolitan University), Haeyeon Lee (Tokyo Metropolitan University), Tomoya Takatani (Toyota Motor Corporation), Kazuyoshi Wada (Tokyo Metropolitan University), Eri Sato-Shimokawara (Tokyo Metropolitan University), Toru Yamaguchi (Tokyo Metropolitan University)

28AM1-2-3　**EEG Signal Classification in Listening to Three Pure Tones Composed of Different Frequency Components**

Atsushi Negishi (Keio University), Yasue Mitsukura (Keio University)

28AM1-2-4　**Automatic Alignment System for the Projection Mapping**

Tomohiro Kaneda (Keio University), Yasue Mitsukura (Keio University), Nozomu Hamada (Keio University)

28AM1-3: Sensor Network

Date: February 28, 8:40–10:10
Room: Room 3
Chair: Requesting

28AM1-3-1 Theoretical Analysis for Implantable Device Localization Based on Magnetic Field Detection in Body Area Sensor Network

Shintaro Mori (Fukuoka University), Shigeaki Ogose (Kagawa University)

28AM1-3-2 An Improved Detection Method of the Surface of a Road Using a Depth Sensor for Mobile Robots

Naoki Hatakeyama (Konan University), Masahiro Takimura (Konan University), Masahiro Wada (Konan University), Masahiro Tanaka (Konan University)

28AM1-3-3 Development of Voice Recognition Input Technology for Blind Navigation System

Anuar bin Mohamed Kassim (The University of Tokushima), Takashi Yasuno (The University of Tokushima), Hazriq Izzuan bin Jaafar (Universiti Teknikal Malaysia Melaka), Mohd Shahrieel bin Mohd Aras (Universiti Teknikal Malaysia Melaka)

28AM1-3-4 Identification of Multi-Sensor Trajectory

Masaki Igarashi (Kyushu University), Atsushi Shimada (Kyushu University), Hajime Nagahara (Kyushu University), Rin-ichiro Taniguchi (Kyushu University)

28AM1-3-5 Development of Solar Cell for Autonomous Sensor Network System

Boon Chin Yap (Universiti Teknologi Malaysia), Satoru Matsumoto (Universiti Teknologi Malaysia)

28AM1-4: [Special Session] Information Network Technologies

Date: February 28, 8:40–10:10
Room: Room 4
Organizer: Hidehiro Kanemitsu (Waseda University) and Masaki Hanada (Tokyo University of Information Sciences)
Chair: Hidehiro Kanemitsu (Waseda University)

28AM1-4-1 A Task Scheduling with Response Time Estimation for Efficient Processing in Heterogeneous Systems

Hidehiro Kanemitsu (Waseda University), Masaki Hanada (Tokyo University of Information Sciences)

28AM1-4-2 Evaluation of Throughput Fairness between CUBIC and FAST TCP

Toshiki Sakamoto (Tokyo University of Science), Pingguo Huang (Tokyo University of Science), Hitoshi Watanabe (Tokyo University of Science)

28AM1-4-3 P2P Streaming Method Considering Playback Deadline for Minimizing Playback Interruption Time

Masaki Hanada (Tokyo University of Information Sciences), Yuuki Ishida (Tokyo University of Information Sciences), Hidehiro Kanemitsu (Waseda University)

`28AM2-1`: Speech Processing 2

Date: February 28, 10:30–12:00
Room: Room 1
Chair: Requesting

`28AM2-2`: [Special Session] Advanced Perceptional Monitoring to Support Human Activities 2

Date: February 28, 10:30–12:00
Room: Room 2
Organizer: Satoshi Suzuki (Tokyo Denki University) and Yasue Mitsukura (Keio University)
Chair: Requesting

`28AM2-2-3` **Proposal of Home-Use Telepresence Robot System Based on the User's Personal Space**

Yohei Yamaguchi (Tokyo Metropolitan University), Shota Mitsumura (Tokyo Metropolitan University), Yoshifumi Kokubo (Tokyo Metropolitan University), Eri Sato-Shimokawara (Tokyo Metropolitan University), Toru Yamaguchi (Tokyo Metropolitan University)

`28AM2-2-4` **Developing an Exercise Support System for Elderly People**

Yihsin Ho (Tokyo Metropolitan University), Weifen Hsieh (National Chi Nan University), Yuriko Kaizuka (Tokyo Metropolitan University), Eri Sato-Shimokawara (Tokyo Metropolitan University), Toru Yamaguchi (Tokyo Metropolitan University), Norio Tagawa (Tokyo Metropolitan University)

`28AM2-3`: Optimization 1

Date: February 28, 10:30–12:00
Room: Room 3
Chair: Requesting

`28AM2-3-1` **A Basic Study on Quantum Cooperation of Three Entangled Ants**

Ichiro Iimura (Prefectural University of Kumamoto), Kazuhiro Takeda (National Institute of Technology, Kagoshima College), Shigeru Nakayama (Kagoshima University)

`28AM2-3-2` **Adaptive Optimization of Embedding Parameters by Minimizing Prediction Risks**

Megumi Yokouchi (Ibaraki University), Tomoya Suzuki (Ibaraki University)

`28AM2-3-3` **A Basic Study on Optimization in Permutation Spaces by Quantum-Inspired Evolutionary Algorithm Using Quantum Bit Representation: A Case for Traveling Salesman Problem**

Yoshifumi Moriyama (National Institute of Technology, Ariake College), Ichiro Iimura (Prefectural University of Kumamoto), Tomotsugu Ohno (National Institute of Technology, Ariake College), Shigeru Nakayama (Kagoshima University)

`28AM2-3-4` **Object Conveyance Control System By Multiple Mobile Robots With Dynamic Team**

Purnomo Sejati (Graduate School of The University of Tokushima), Takahiro Kitajima (Graduate School of The University of Tokushima), Takashi Yasuno (Graduate School of The University of Tokushima)

`28AM2-4`: Optical Communications

Date: February 28, 10:30–12:00
Room: Room 4
Chair: Requesting

`28AM2-4-1` **All-Optical Noise Suppression by QD-SOA Based MZI**

Yuma Furuya (Tokyo University of Science), Gou Hosoya (Tokyo University of Science), Hiroyuki Yashima (Tokyo University of Science)

28PM1-1: Nonlinear Circuits and Oscillation 1

Date: February 28, 14:00–15:30
Room: Room 1
Chair: Requesting

28PM1-2: [Special Session] Advanced Perceptional Monitoring to Support Human Activities 3

Date: February 28, 14:00–15:30
Room: Room 2
Organizer: Satoshi Suzuki (Tokyo Denki University) and Yasue Mitsukura (Keio University)
Chair: Requesting

28PM1-2-1 A Screening Device of Diabetic Peripheral Neuropathy Based on the Perception of Micro-Vibration Patterns

Hideyuki Sawada (Kagawa University), Keiji Uchida (SCA Corporation), Junichi Danjo (Kagawa University), Yu Nakamura (Kagawa University)

28PM1-2-2 Tactile Glove Using SMA Wires for Presenting Pseudo-Tactile Sensations in VR Space

Yoshiaki Iwatani (Kagawa University), Hideyuki Sawada (Kagawa University)

28PM1-2-3 Verification of Expansion of Body Schema Induced by TENS on Driving

Noriko Kimura (Tokyo Denki University), Akira Ichinose (Tokyo Denki University), Takumi Matsumura (Tokyo Denki University), Satoshi Suzuki (Tokyo Denki University)

28PM1-2-4 Electrical Muscle Stimulation to Be Activated Inferior Parietal Lobule by Modification of Body Schema

Yusuke Murata (Tokyo Denki University), Satoshi Suzuki (Tokyo Denki University)

28PM1-3: Optimization 2

Date: February 28, 14:00–15:30
Room: Room 3
Chair: Requesting

28PM1-3-1 Two-level Pipeline Structure of Particle Swarm Optimization

Ke Fan (Waseda University), Kui-Ting Chen (Waseda University), Peikun Wang (Waseda University), Takaaki Baba (Waseda University)

28PM1-3-2 A Hardware Implementation of Particle Swarm Optimization with Adaptive Multi-Swarm Strategy

Peikun Wang (Waseda University), Kui-Ting Chen (Waseda University), Ke Fan (Waseda University), Takaaki Baba (Waseda University)

28PM1-3-3 Optimization of Computational Resource Allocation for SDN-Based Mobile Core Network

Kohei Hayashi (Tokyo University of Science), Mikio Hasegawa (Tokyo University of Science), Shoji Yozo (National Institute of Information and Communications Technology)

28PM1-3-4 Human Visual Recognition for LED Light with DC or PWM Drive

Chihiro Ishikawa (National Institute of Technology, Anan college), Mineyuki Nishio (National Institute of Technology, Anan college), Nobutomo Uehara (National Institute of Technology, Anan college), Masaru Kamano (National Institute of Technology, Anan college), Emiko Yasuno (National Institute of Technology, Anan college), Yohsuke Kinouchi (The University of Tokushima)

28PM1-4: [Special Session] Communication Network Science and Engineering 1

Date: February 28, 14:00–15:30
Room: Room 4
Organizer: Shintaro Arai (NIT, Kagawa College)
Chair: Requesting

28PM1-4-1 **Iterative Multi-Cell Channel Estimation for Inter-Cell Interference Suppression**

Taisuke Abe (Chiba Institute of Technology), Takahiko Saba (Chiba Institute of Technology)

28PM1-4-2 **Effect of Short NAV in Heterogeneous Ad-Hoc Networks to Mitigate Receiver Blocking Problem**

Kenji Sugimoto (Toyohashi University of Technology), Yuichi Miyaji (Toyohashi University of Technology), Hideyuki Uehara (Toyohashi University of Technology)

28PM1-4-3 **Efficient Multi-Path Construction and Assignment Considering Inter-Path Interference Using a Mobile Agent in Ad-Hoc Network**

Fumihisa Yamanobe (Kanagawa Institute of Technology), Shigeki Shiokawa (Kanagawa Institute of Technology)

28PM1-4-4 **Estimation of Mathematical Neuron Model Parameters Only from Spike Sequences**

Shun-ichi Komatsuzaki (Tokyo University of Technology), Hideyuki Kato (Tokyo University of Technology), Hiroaki Kurokawa (Tokyo University of Technology)

28PM2-1: Image Processing 1

Date: February 28, 15:50–17:20
Room: Room 1
Chair: Requesting

28PM2-1-1 **Input Interface using Air Character Recognition**

Yusaku Yamazaki (University of Tokushima), Kenji Terada (University of Tokushima), Karungaru Stephen (University of Tokushima)

28PM2-1-2 **A Study of Gradient Direction of Spatio-Temporal HOG Features for Unusual Situation Detection**

Sachi Kuranishi (Okayama Prefectural University), Hitoshi Yamauchi (Okayama Prefectural University), Hironori Takimoto (Okayama Prefectural University)

28PM2-1-3 **Object Detection with Deformable Part Models and Deep Convolutional Neural Networks**

Shinya Ohtani (Kobe University), Nobutaka Kuroki (Kobe University), Tetsuya Hirose (Kobe University), Masahiro Numa (Kobe University)

28PM2-1-4 **Object Detection and Identification for Waste Electronic Equipment Recycling**

Wee Yien Ann (Universiti Teknologi Malaysia), Nozomu Hamada (Universiti Teknologi Malaysia)

28PM2-2: Power and Energy Systems

Date: February 28, 15:50–17:20
Room: Room 2
Chair: Requesting

28PM2-2-1 **Experimental Study of Cell Voltage Equalizer Using Resonance for Series-Connected Energy Storage Cells**

Kazutaka Mizota (Tokushima University), Kenji Yamanaka (Tokushima University), Masahide Hojo (Tokushima University)

28PM2-2-2 **Wind Speed Prediction Model Using Neural Networks Classified By Observed Wind Speed**

Youhei Miyabe (The University of Tokushima), Takahiro Kitajima (The University of Tokushima), Takashi Yasuno (The University of Tokushima)

28PM2-2-3 **Experimental Study of Filter-Less Single-Phase Sine Wave Inverter**

Daishi Shimakawa (The University of Tokushima), Kenji Yamanaka (The University of Tokushima), Masahide Hojo (The University of Tokushima)

28PM2-2-4 **Investigation of a Control Method of Antilock Brake System for Electric Vehicles Using an Electric Motor**

Takeshi Kawakami (The University of Tokushima), Kenji Yamanaka (The University of Tokushima), Masahide Hojo (The University of Tokushima)

28PM2-3: Modeling, Estimation and Prediction 1

Date: February 28, 15:50–17:20
Room: Room 3
Chair: Requesting

28PM2-3-1 **Quality Assurance Algorithm of Brachytherapy Seeds of Iodine-125 for Automatic Instrument Device BSQAS**

Takahiro Kitajima (The University of Tokushima), Akinobu Kuwahara (The University of Tokushima), Takashi Yasuno (The University of Tokushima), Minoru Sakama (The University of Tokushima), Masaki Takatsuki (The University of Tokushima), Takaharu Yamada (Dairyu Precision Machine Co. Ltd.), Teruyoshi Ichiraku (Dairyu Precision Machine Co. Ltd.), Hisashi Takai (Dairyu Precision Machine Co. Ltd.)

28PM2-3-2 **Emission Analysis of Diesel Engine Fulled with Water-in-Diesel Emulsion Fuel**

Nurul Aiyshah binti Mazlan (Universiti Teknologi Malaysia), Ahmad Muhsin Ithnin (Universiti Teknologi Malaysia), Mohamad Azrin Ahmad (Universiti Teknologi Malaysia), Wira Jazair Yahya (Universiti Teknologi Malaysia)

28PM2-3-3 **Sensor-Less Force Detection for NC Machine**

Kazuhiro Suzuki (Tokyo Denki Univ.), Hiroshi Igarasi (Tokyo Denki Univ.)

`28PM2-3-4` **Task Performances of Mobile Robot with Behavior Control Algorithm Based on Human's Decision-Making Skills**

Takuya Matsumoto (The University of Tokushima), Takashi Yasuno (The University of Tokushima)

`28PM2-3-5` **Application of Sediment Quality Guideline on the Assessment of Heavy Metal Pollution in the Straits of Malacca**

Noor Fazreen Dzulkali (Universiti Selangor), Azran Azhim (Universiti Teknologi Malaysia)

`28PM2-4`: [Special Session] Communication Network Science and Engineering 2

Date: February 28, 15:50–17:20
Room: Room 4
Organizer: Shintaro Arai (NIT, Kagawa College)
Chair: Requesting

`28PM2-4-1` **A Pull-Based Data Dissemination in Content Centric Vehicular Networks**

Yutaro Okamoto (Sophia University), Masaki Bandai (Sophia University)

`28PM2-4-2` **A Rate Adaptation Mechanism Coping with Temporary Packet Losses in Wireless LANs**

Taiga Aoki (Sophia University), Masaki Bandai (Sophia University)

`28PM2-4-3` **Small-World Network Model Based Routing Construction Method for Wireless Sensor Networks**

Sho Motegi (Chiba University), Nobuyoshi Komuro (Chiba University), Hiroo Sekiya (Chiba University)

`28PM2-4-4` **Investigation on Relationship Between Communication Distance and Receiving Characteristics in Image-Sensor-Based Visible Light Communication**

Yuki Ohira (NIT, Kagawa College), Eisho Souke (NIT, Kagawa College), Shintaro Arai (NIT, Kagawa College), Takaya Yamazato (Nagoya University), Tomohiro Yendo (Nagoka University of Technology), Hiraku Okada (Nagoya University), Toshiaki Fujii (Nagoya University), Koji Kamakura (Chiba Institute of Technology)

`1AM1-1`: Image Processing 2

Date: March 1, 8:40–10:10
Room: Room 1
Chair: Requesting

`1AM1-1-1` **Detection of Abandoned Object by Pan-Tilt Camera**

Takuma Ogawa (University of Tokushima), Momoyo Ito (University of Tokushima), Shin-ichi Ito (University of Tokushima), Minoru Fukumi (University of Tokushima)

`1AM1-1-2` **Improved Colorization Algorithm Using Lp Norm Minimization**

Kazunori Uruma (Tokyo University of Science), Tomohiro Takahashi (Tokyo University of Science), Katsumi Konishi (Kogakuin University), Toshihiro Furukawa (Tokyo University of Science)

1AM1-2: Circuit Design 1

Date: March 1, 8:40–10:10
Room: Room 2
Chair: Requesting

1AM1-3: Modeling, Estimation and Prediction 2

Date: March 1, 8:40–10:10
Room: Room 3
Chair: Requesting

`1AM1-3-3` **Phase Separation Dynamics in Multi-Component System**

Shinji Sumitani (NIT, Anan College), Mio Kobayashi (NIT, Anan College), Kohtaro Yamada (NIT, Anan College)

`1AM1-3-4` **On a Nonlinear Filter for Multi-Measurement Systems via Formal Linearization Based on Chebyshev Interpolation**

Kazuo Komatsu (Kumamoto National College of Technology), Hitoshi Takata (Kagoshima University)

`1AM1-3-5` **Combustion Performance Analysis of Diesel Engine Fuelled with Water-in-Diesel Emulsion Fuel**

Nuur 'Azzalia binti Ruzi (University Teknologi Malaysia), Ahmad Muhsin Ithnin (Universiti Teknologi Malaysia), Mohamad Azrin Ahmad (Univerisit Teknologi Universiti), Wira Jazair Yahya (Universiti Teknologi Malaysia)

`1AM1-4`: Intelligent Transport Systems

Date: March 1, 8:40–10:10
Room: Room 4
Chair: Requesting

`1AM1-4-1` **Analysis of Driver's Eye-gaze Movements at Near-miss Events**

Taito Mori (The University of Tokushima), Momoyo Ito (The University of Tokushima), Shin-ichi Ito (The University of Tokushima), Minoru Fukumi (The University of Tokushima)

`1AM1-4-2` **Performance Analysis of AMSPSO on Capacitated Vehicle Routing Problem with Time Window**

Kui-Ting Chen (Waseda University), Yijun Dai (Waseda University), Ke Fan (Waseda University), Baba Takaaki (Waseda University)

`1AM1-4-3` **Sliding Mode Fuzzy Controller for Autonomous Underwater Vehicle under Determine Disturbances**

Vina Putranti (Universiti Teknologi Malaysia), Zool Ismail (Universiti Teknologi Malaysia), Bazli Mokhar (Universiti Teknologi Malaysia)

`1AM1-4-4` **Fundamental Study for Driving Scene Classification using Bag of Keypoints**

Koji Miyai (The University of Tokushima), Momoyo Ito (The University of Tokushima), Shin-ichi Ito (The University of Tokushima), Minoru Fukumi (The University of Tokushima)

`1AM1-4-5` **Development of Smart Static Bicycle Exercise by Using Magnetorheological Brake for Rehabilitant**

Tham Chun Yang (Universiti Teknologi Malaysia), Saiful Amri Mazlan (Universiti Teknologi Malaysia), Ubaidilah bin Sabino (Universiti Teknologi Malaysia), Lailatul Hamidah binti Mohd Hamdan (Universiti Teknologi Malaysia), Irfan Bahiuddin (Universiti Teknologi Malaysia)

1AM2-1: Image Processing 3

Date: March 1, 10:30–12:00
Room: Room 1
Chair: Requesting

1AM2-1-1 **Adaptive Multi-Directional Image Reduction Method**

Kohki Ueda (Ritsumeikan University)

1AM2-1-2 **Architecture of a JPEG Noise Reduction Method with Total Variation**

Toshihito Onishi (Kobe University), Nobutaka Kuroki (Kobe University), Tetsuya Hirose (Kobe University), Masahiro Numa (Kobe University)

1AM2-1-3 **Method for Expanding Adaptive Multi-Directional Images**

Kazuma Abe (Ritsumeikan University)

1AM2-1-4 **A Reaction-Diffusion Algorithm for Texture Generation Towards Motion-Vector Estimation of Textureless-Objects**

Miho Ushida (Hokkaido University), Kazuyoshi Ishimura (Hokkaido University), Alexandre Schmid (Swiss Federal Institute of Technology (EPFL)), Tetsuya Asai (Hokkaido University), Masato Motomura (Hokkaido University)

1AM2-2: Circuit Design 2

Date: March 1, 10:30–12:00
Room: Room 2
Chair: Requesting

1AM2-2-1 **Attack Alert Circuit for Hardware Trojan in an Embedded System**

Yasushi Tsukada (Ritsumeikan University), Takeshi Kumaki (Ritsumeikan University), Takeshi Fujino (Ritsumeikan University), Masaya Yoshikawa (Meijo University)

1AM2-2-2 **Scalable and Highly Parallel Architecture for Restricted Boltzmann Machines**

Kodai Ueyoshi (Hokkaido University), Tetsuya Asai (Hokkaido University), Masato Motomura (Hokkaido University)

1AM2-2-3 **Low Power Single-Slope ADC with Intermittent-Working Time to Digital Converter**

Daisuke Uchida (Hokkaido University), Masayuki Ikebe (Hokkaido University), Junichi Motohisa (Hokkaido University), Eiichi Sano (Hokkaido University)

1AM2-2-4 **The Intermittent-Operation Control LSI for Ultra-Low-Power Camera: Green Smart Secure Eyes**

Tatsuro Hitomi (Ritsumeikan University), Shota Ueguchi (Ritsumeikan University), Takeshi Kumaki (Ritsumeikan University), Takeshi Fujino (Ritsumeikan University)

1AM2-3: Wireless Communications 1

Date: March 1, 10:30–12:00
Room: Room 3
Chair: Requesting

1AM2-3-1 **Construction of an Efficient Node Joining Protocol for Cluster-Based Cognitive Radio Ad-Hoc Network**

Nafees Mansoor (Universiti Teknologi Malaysia), A. K. M. Muzahidul Islam (Universiti Teknologi Malaysia), Mahdi Zareei (Universiti Teknologi Malaysia), Asim Zeb (Universiti Teknologi Malaysia), Sabariah Baharun (Universiti Teknologi Malaysia), Shozo Komaki (Universiti Teknologi Malaysia)

1AM2-3-2 **Congestion Degree Estimation for Railway Using Wireless LAN Control Frames**

Takayuki Yamakawa (Sophia University), Masakatsu Ogawa (Sophia University), Yujin Miyagawa (Sophia University)

1AM2-3-3 **An Extension Method of the Periods of Generalized Mutually Orthogonal ZCZ Sequence Sets**

Hideyuki Torii (Kanagawa Institute of Technology), Takahiro Matsumoto (Yamaguchi University), Makoto Nakamura (Kanagawa Institute of Technology)

1AM2-3-4 **Design and Implementation of Wireless Networks Optimized by Cognitive Radio Functions**

Masaki Satoh (Tokyo University of Science), Mikio Hasegawa (Tokyo University of Science)

1AM2-4: Nonlinear Circuits and Oscillation 2

Date: March 1, 10:30–12:00
Room: Room 4
Chair: Requesting

1AM2-4-1 **Stability Control with a Threshold Value of the Stepping Motor**

Daisuke Ito (Tokushima University), Tetsushi Ueta (Tokushima University)

1AM2-4-2 **Bifurcations and Phase Differences of Nonlinear Coupled Dictyostelium System**

Kenji Hishikawa (Tokushima University), Daisuke Ito (Tokushima University), Tetsushi Ueta (Tokushima University)

1AM2-4-3 **Circuit Implementation of Controlling Chaos Using Pseudo Periodic Orbit**

Shota Mano (Tokushima University), Daisuke Ito (Tokushima University), Tetsushi Ueta (Tokushima University)

1AM2-4-4 **Sound Creation Based on Multi-oscillation Dynamics**

Naruno Fujii (Sophia University), Masaki Bandai (Sophia University), Yoshifumi Nishio (Tokushima University), Mamoru Tanaka (Sophia University)

1AM2-4-5 **Investigation of Oscillation Death in Strongly Coupled Polygonal Oscillatory Networks**

Yoko Uwate (Tokushima University), Yoshifumi Nishio (Tokushima University)

2AM1-1: Image Processing 4

Date: March 2, 8:40–10:10
Room: Room 1
Chair: Requesting

2AM1-1-1 **Ensemble SIFT-Based Shape Regression Model for Facial Feature Point Detection**

Koichi Takahashi (Keio University), Yasue Mitsukura (Keio University)

2AM1-1-2 **Bayer Demosaicing with Example-Based Super-Resolution**

Kyosuke Miyahara (Kobe University), Nobutaka Kuroki (Kobe University), Tetsuya Hirose (Kobe University), Masahiro Numa (Kobe University)

2AM1-1-3 **Robust Face Recognition System Using Phase Only Correlation Method**

Yusuke Niwa (Tokyo Denki University), Shigeo Wada (Tokyo Denki University)

2AM1-1-4 **Tracking Roadside Signage Observed by Drivers**

Katsuya Sakoyama (Nagoya University), Chiyomi Miyajima (Nagoya University), Norihide Kitaoka (University of Tokushima), Kazuya Takeda (Nagoya University)

2AM1-2: Adaptive Systems

Date: March 2, 8:40–10:10
Room: Room 2
Chair: Requesting

2AM1-2-1 **Oscillation Characteristics of CPG Model Interconnected DC Motors**

Kazuya Yamamoto (The University of Tokushima), Anuar Bin Mohamed Kassim (The University of Tokushima), Takashi Yasuno (The University of Tokushima), Akinobu Kuwahara (The University of Tokushima)

2AM1-2-2 **Implementation of Programming Error Understanding Tools for Programming Learners in the Elementary Grades**

Yasuyuki Takimoto (Shikoku University), Satoshi Togawa (Shikoku University), Kazuhide Kanenishi (Tokushima University)

2AM1-2-3 **Walking Control of Quadruped Robot Using Complex-Valued CPG Network with ZMP Feedback on Irregular Terrain**

Takafumi Inoue (The University of Tokushima), Takahiro Kitajima (The University of Tokushima), Takashi Yasuno (The University of Tokushima)

2AM1-2-4 **Study on Active Control of Engine Noise without Error Sensors**

Daiki Mori (Hiroshima City University.), Shunsuke Ishimitsu (Hiroshima City University.), Takuma Sagawa (Hiroshima City University.), Kouhei Miyamoto (Hiroshima City University.), Keisuke Namekawa (Suzuki Motor Corporation), Toshihisa Takagi (Suzuki Motor Corporation), Takanori Chino (Suzuki Motor Corporation), Kazuki Yoshida (Suzuki Motor Corporation), Kenta Suzuki (Suzuki Motor Corporation), Kouji Hamada (Suzuki Motor Corporation), Hiroki Nakano (Suzuki Motor Corporation)

The Introduction of Magnetroheological Valve In Stepper Machine for Rehabilitation Application

Muhammad Nashrul bin Ramli (Universiti Teknologi Malaysia), Saiful Amri Mazlan (Universiti Teknologi Malaysia), Fitrian Imaduddin (Universiti Teknologi Malaysia), Burhanuddin Ichwan (Universiti Teknologi Malaysia), Izyan Iryani (Universiti Teknologi Malaysia), Mohd Yazid (Universiti Teknologi Malaysia), Yasser Abd Fatah (Universiti Teknologi Malaysia)

2AM1-3: Wireless Communications 2

Date: March 2, 8:40–10:10
Room: Room 3
Chair: Requesting

2AM1-3-1   **An ICI Reduced Modulation for Non-Orthogonal Frequency Division Multiplexing**

Keisuke Hatakeyama (Tokyo City University), Tadatomo Sato (Tokyo City University)

2AM1-3-2   **Weight Convergence Algorithm for Inter-User Interference Cancellation Precoding Method in MU-MIMO Downlink**

Yuma Kimura (Tokyo City University), Kaname Oba (Tokyo City University), Tadatomo Sato (Tokyo City University)

2AM1-3-3   **Android Based Battery Monitoring System for Electric Vehicle**

Ahmad Zharif bin Wahid (Universiti Teknologi Malaysia)

2AM1-3-4   **A High Speed Ranging Method for Multiple Mobile Devices**

Jun Takada (Sophia University), Bandai Masaki (Sophia University)

2AM1-4: Bio-Signal Processing 1

Date: March 2, 8:40–10:10
Room: Room 4
Chair: Requesting

2AM1-4-1   **Online Removal of Eye Blink Artifact from Electroencephalogram Signals Using Adaptive Filtering**

Faridah Abd Rahman (Universiti Teknologi Malaysia), Mohd Fauzi Othman (Universiti Teknologi Malaysia)

2AM1-4-2   **Estimation of Physical Burden in Daily Living Activity by Wearable Sensors**

Daiki Hiraoka (Tokushima University), Minoru Fukumi (Tokushima University), Koji Kashihara (Tokushima University)

2AM1-4-3   **Influence of Acoustic Intensity on Decellularization Using Sonication Treatment**

Mohammad Shafiq (Universiti Teknologi Malaysia), Azran Azhim (Universiti Teknologi Malaysia), Yuji Morimoto (National Defence Medical College), Ktsuko Furukawa (University of Tokyo), Takashi Ushida (University of Tokyo)

2AM1-4-4 **A Method to Detect Uncomfortable Feeling of Listeners by Biological Information — Supporting System to Hold a Conversation for Smooth Communication —**

Nao Tsuzuki (The University of Tokushima), Shin-ichi Ito (The University of Tokushima), Momoyo Ito (The University of Tokushima), Minoru Fukumi (The University of Tokushima)

2AM1-4-5 **Recellularization of Decellularized Aorta Tissue Prepared by Sonication Treatment with Vascular Smooth Muscle Cells**

Nurul Syazwani (Universiti Teknologi Malaysia), Takashi Ushida (University of Tokyo), Azran Azhim (Universiti Teknologi Malaysia)

2AM2-1: Medical Applications

Date: March 2, 10:30–12:00
Room: Room 1
Chair: Requesting

2AM2-1-1 **Automatic Search for Blood Vessel Intersection in Eye Fundus Image and Calculation of Vein Diameter Ratio**

Kawachi Miyu (Yamaguchi University), Uchino Eiji (Yamaguchi University & Fuzzy Logic Systems Institute), Furukawa Shota (Yamaguchi University), Suetake Noriaki (Yamaguchi University)

2AM2-1-2 **Design of Arm Movement Sequence for Upper Limb Managements after Stroke**

Khairunizam WAN (Universiti Malaysia Perlis), Rashidah Suhaimi (Universiti Malaysia Perlis), Aswad A.R (Universiti Malaysia Perlis), D. Hazry (Universiti Malaysia Perlis), Shahriman AB (Universiti Malaysia Perlis), Zuradzman M. Razlan (Universiti Malaysia Perlis), Mohd Asri Ariffin (Universiti Sains Malaysia)

2AM2-1-3 **F_0 and O_q Variations versus Vocal Pathologies Using the MAPACI Database**

Asma Belhaj (Laboratory of Systems and Signal Processing Nation), Aicha Bouzid (Laboratory of Systems and Signal Processing Nation), Noureddine Ellouze (Laboratory of Systems and Signal Processing Nation)

2AM2-1-4 **Effectiveness of Averaged Learning Subspace Method for Application to Coronary Plaque Tissue Classification**

Shinichi Miwa (Yamaguchi University), Shota Furukawa (Yamaguchi University), Eiji Uchino (Yamaguchi University), Noriaki Suetake (Yamaguchi University)

2AM2-1-5 **Force Distribution Control for MR Cushion**

Kazuki Suda (Tokyo Denki University), Ki Ando (Tokyo Denki University), Hiroshi Igarashi (Tokyo Denki University)

2AM2-2: Modeling, Estimation and Prediction 3

Date: March 2, 10:30–12:00
Room: Room 2
Chair: Requesting

2AM2-2-1 **Application of Signal Processing Technology in Monitering High Risk Slope to Predict Landslides in Malayisa**

Swee Peng Koay (Universiti Sains Malaysia), Habibah Lateh (Universiti Sains Malaysia), Naoki Sakai (National Research Inst. for Earth Science and Disaster Prevention), Hiroshi Fukuoka (Niigata University)

2AM2-2-2 **Study on the Self-Location Estimation by Using Serial Images to Optimze Artificial Bee Colony Algorithm**

Junya Irie (Meiji University), Yuji Kageyama (Meiji University), Shin Nagata (Meiji University), Tatsuya Takino (Meiji University), Izuru Nomura (Meiji University), Hiroyuki Kamata (Meiji University)

2AM2-2-3 **Nonlinear Prediction for Photovoltaic Generation Systems with Automatic Power Leveling**

Tatsuro Furusawa (Nagaoka University of Technology), Tadashi Tsubone (Nagaoka University of Technology)

2AM2-2-4 **Nonlinear AR-DCC Portfolio Model Considering Liquidity of Imperfect Markets**

Satoshi Inose (Ibaraki University), Tomoya Suzuki (Ibaraki University)

2AM2-2-5 **Improving Predictive Power and Risk Reduction of the Portfolio Models Based on Principal Component Analysis**

Kazuki Yanagisawa (Ibaraki University), Tomoya Suzuki (Ibaraki University)

2AM2-3: Computer Vision

Date: March 2, 10:30–12:00
Room: Room 3
Chair: Requesting

2AM2-3-1 **LatentSVM Using χ^2 Kernel**

Sho Torii (The University of Electro-Communications), Haruhisa Taiahashi (The University of Electro-Communications)

2AM2-3-2 **Feature Extraction from Wearable Sensors for Human Action Recognition**

Stephen Karungaru (University of Tokushima)

2AM2-3-3 **Human Action Recognition Using Deep Recurrent CNN**

Masahiko Tsujita (University of Electro-Communications), Haruhisa Takahashi (University of Electro-Communications)

2AM2-3-4 **Ball Trajectory Extraction in Team Sports Videos by Focusing on Ball Holder Candidates for the Play Search & 3D Virtual Display System**

Junji Kurano (Keio University), Masaki Hayashi (Keio University), Taiki Yamamoto (Keio University), Hirokatsu Kataoka (Tokyo University), Masamoto Tanabiki (Panasonic), Junko Furuyama (Panasonic), Yoshimitsu Aoki (Keio University)

`2AM2-3-5` **Human Action Recognition Using MRF and HOG Features**

Kazuki Kubota (University of Electro-Communications)

`2AM2-4`: Bio-Signal Processing 2

Date: March 2, 10:30–12:00
Room: Room 4
Chair: Requesting

`2AM2-4-1` **A Novel Animal Model for Subcutaneous Methicillin-Resistant Staphylococcus Aureus Infection Using Transgenic lys-EGFP Mice, Rendered Neutropenic**

Natasha Zulaziz (Universiti Teknologi Malaysia), Azran Azhim (Univesiti Teknologi Malaysia), Naomi Himeno (iCAT Co. Osaka), Hiromi Miyazaki (National Defence Medical College), Manabu Kinoshita (National Defence Medical College), Daizoh Saitoh (National Defence Medical College), Yuji Morimoto (National Defence Medical College)

`2AM2-4-2` **A Segmental Bayes to Estimate Model Parameters from Neuronal Spike Trains with Complicated Dynamics**

Huu Hoang (Ritsumeikan University, Japan), Isao T. Tokuda (Ritsumeikan University, Japan)

`2AM2-4-3` **Visceral Fat Accumulation Influenced Blood Flow Velocity in Hypertensive Subjects**

Zulaika Hamdon (Universiti Teknologi Malaysia), Azran Azhim (Universiti Teknologi Malaysia), A Rahman Rasyada (Universiti Teknologi Malaysia), Masataka Akutagawa (Tokushima University), Takahiro Emoto (Tokushima University), Yohsuke Kinouchi (Tokushima University)

`2AM2-4-4` **Classification of EEG Signals from Nursery School Children in an Immersion or not in the Feeling for Portable Applications**

Suguru Kanoga (Keio University), Yasue Mitsukura (Keio University)

`2AM2-4-5` **Sensibility Evaluation in Listening to Music by Bio-Sensing**

Mayuko Kida (Keio University), Yasue Mitsukura (Keio University)

`2PM1-1`: Modulation and Equalization

Date: March 2, 13:30–15:00
Room: Room 1
Chair: Requesting

`2PM1-1-1` **Efficient Blind Modulation Detection Using Sub-optimum Maximum Likelihood Function in Multiple Antennas**

Kenta Honma (Saitama University), Tetsuya Shimamura (Saitama University)

`2PM1-1-2` **Theoretical Analysis of OPPM OCDMA with Consecutive MAI**

Masahiro Nishino (Tokyo University of Science), Hirohumi Terao (Tokyo University of Science), Hiroyuki Yashima (Tokyo University of Science), Gou Hosoya (Tokyo University of Science)

`2PM1-1-3` **Comparisons of Extended Mapping Patterns for BICM-ID with Spatial Modulation**

Ryo Tomioka (Tokyo City University), Tadatomo Sato (Tokyo City University)

`2PM1-1-4` **Coded Modulation with Constellation Shaping for QAM**

Yuki Taniguchi (Tokyo University of Science), Gou Hosoya (Tokyo University of Science), Hiroyuki Yashima (Tokyo University of Science)

`2PM1-2`: Detection

Date: March 2, 13:30–15:00
Room: Room 2
Chair: Requesting

`2PM1-2-1` **Technical Trading Strategy Using the Reaction to Financial Market Jumps**

Hiroya Koizumi (Ibaraki University), Tomoya Suzuki (Ibaraki University)

`2PM1-2-2` **Self-Location Estimation by the Multilayered Evolutional Triangle Similar Matching**

Shin Nagata (Meiji University), Yuji Kageyama (Meiji University), Junya Irie (Meiji University), Hiroyuki Kamata (Meiji University)

`2PM1-2-3` **Study on the Self-Location Estimate by the Accelerated-KAZE Features**

Yuji Kageyama (Meiji University), Junya Irie (Meiji University), Shin Nagata (Meiji University), Tatsuya Takino (Meiji University), Izuru Nomura (Meiji University), Hiroyuki Kamata (Meiji University)

`2PM1-2-4` **Morphological Pattern Spectrum-Based Image Manipulation Detection**

Kyosuke Kageyama (Ritsumeikan), Takeshi Kumaki (Ritsumeikan), Takeshi Ogura (Ritsumeikan), Takeshi Fujino (Ritsumeikan)

`2PM1-3`: Bifurcation and Chaos

Date: March 2, 13:30–15:00
Room: Room 3
Chair: Requesting

`2PM1-3-1` **Bifurcation Analysis of Manifold Piecewise Linear System with Delay and Its Control**

Asuka Nishimura (Nagaoka University of Technology), Tadashi Tsubone (Nagaoka University of Technology)

`2PM1-3-2` **Discrete-Time Dynamic Image Segmentation Based on Oscillations in a Coupled System with Adaptive Coupling**

Mio Kobayashi (NIT, Anan College), Tetsuya Yoshinaga (The University of Tokushima)

| 2PM1-3-3 | **Analysis of Bifurcation Phenomena in a Circuit with Multiple Inputs** |

Takahiro Hiramure (Oita University), Takayuki Fujii (Oita University), Hiroyuki Asahara (Fukuoka University), Takuji Kousaka (Oita University)

| 2PM1-3-4 | **Stability Calculation of Period-m Solution in an Impact Pair** |

Hiroki Amano (Oita University), Hiroyuki Asahara (Fukuoka University), Takuji Kousaka (Oita University)

| 2PM1-3-5 | **Alternans in a Mathematical Crustacean Cardiac Model** |

Tomoya Tarumoto (Kagawa University), Toru Yazawa (Tokyo Metropolitan University), Hiroyuki Kitajima (Kagawa University)

2PM1-4: Watermarking

Date: March 2, 13:30–15:00
Room: Room 4
Chair: Requesting

| 2PM1-4-1 | **Detection of Image Manipulation Using Reversible Histogram Shifting Watermark** |

Yuki Obara (Tokyo Denki University), Shigeo Wada (Tokyo Denki University)

| 2PM1-4-2 | **An Embedding Method Using Morphological Wavelet Transform Based on Max-Plus Algebra for Digital Watermarking** |

Mitsuo Ikeda (Ritsumeikan University), Takeshi Kumaki (Ritsumeikan University), Takeshi Ogura (Ritsumeikan University)

| 2PM1-4-3 | **A Correlation-Based Image Watermarking Technique via Highpass Filtering** |

Takeshi Okino (Ehime University), Shogo Takagi (Ehime University), Toshiyuki Uto (Ehime University), Kenji Ohue (Ehime University)

| 2PM1-4-4 | **A Blind Watermarking Scheme Based on Combined Complex Transforms** |

Takeshi Okino (Ehime University), Toshiyuki Uto (Ehime University), Kenji Ohue (Ehime University)

| 2PM1-4-5 | **A Digital Watermarking Scheme Using Reference Images** |

Shinya Matsufuji (Yamaguchi University), Keisuke Shiozaki (Yamaguchi University), Takahiro Matsumoto (Yamaguchi University), Yuta Ida (Yamaguchi University)