Code	ID	Paper Title	Author Names	Remarks

G-15 November 21 (Wednesday) 10:20-12:25 Room301

New Approaches to the Language Model in Speech Recognition

Organizer: [Chair] Paul De Palma (Gonzaga University)

Code	ID	Paper Title	Author Names	Remarks
W1-31-1	540	Smoothing of NGram Language Models of Human Chats	Joe Dumoulin, Next IT Corp.	
W1-31-2	541	Automatic Speech Recognition with Syllables and Concepts	Paul Palma, Gonzaga University; Charles Wooters, International Computer Science Institute	
W1-31-3	542	Language Without Words: A Pointillist Model for Natural Language Processing	Peiyou Song, University of New Mexico; Anhei Shu, Rice University; David Phipps, Bowdoin College; Dan Wallach, Rice University; Mohit Tiwari, University of California, Berkeley; Jedidiah Crandall, University of New Mexico; George Luger, University of New Mexico	
W1-31-4	543	English for Spoken Programming	Benjamin Gordon, University of New Mexico; George Luger, University of New Mexico	
W1-31-5	544	A Semantic Architecture For Artificial Conversations	Chayan Chakrabarti, University of New Mexico; George Luger, University of New Mexico	(Teleconference)

JS-2-1 November 21 (Wednesday) 10:20-12:25 Room401

Biologically-inspired Information and Communication Technology I

Organizer: [Chair] Tadashi Nakano (Osaka University), Junichi Suzuki (University of Massachusetts), Tomohiro Shirakawa (National Defense Academy, Japan)
　　　Hiroshi Sato (National Defense Academy, Japan), Phan Cong Vinh (NTT University, Vietnam)

Code	ID	Paper Title	Author Names	Remarks
W1-41-1	76	Self-Stabilizable Symbiosis for Cloud Data Center Applications: A Game Theoretic Perspective	Junichi Suzuki, University of Massachusetts; Paskorn Chamrasert, Chiang Mai University; Chonho Lee, Nanyang Technological University	
W1-41-2	169	Beats as the origin of slow fluctuations in the brain's default-mode network	Teruya Yamanishi, Fukui University of Technology; Jian-Qin Liu, National Institute of Information and Communications Technology; Haruhiko Nishimura, University of Hyogo	
W1-41-3	188	Pattern Stability on Complex-Valued Associative Memory by Local Iterative Learning Scheme	Hiroki Yamamoto, University of Hyogo; Teijiro Isokawa, University of Hyogo; Haruhiko Nishimura, University of Hyogo; Naotake Kamiura, University of Hyogo; Nobuyuki Matsui, University of Hyogo	
W1-41-4	192	On the Filtering Mechanism of Spontaneous Signaling Causality of Brain's Default Mode Network	Jian-Qin Liu, National Institute of Information and Communications Technology; Teruya Yamanishi, Fukui University of Technology; Haruhiko Nishimura, University of Hyogo; Hiroaki Umehara, National Institute of Information and Communications Technology; Sou Nobukawa, University of Hyogo	
W1-41-5	250	Chaotic Resonance in Izhikevich Neuron Model and Its Assembly	Sou Nobukawa, University of Hyogo; Haruhiko Nishimura, University of Hyogo; Teruya Yamanishi, Fukui University of Technology; Jian-Qin Liu, National Institute of Information and Communications Technology	

KY-2   November 21 (Wednesday) 10:20-12:25   Room402

Soft Computing for Power Electronics and Renewable Energy Systems

Organizer: [Chair] Kenya Jin'no (Nippon Institute of Technology), Takayuki Kimura (Nippon Institute of Technology)

W1-42-1	209	Optimal Operation by Recurrent Neural Networks for a Renewable Energy Power-Grid	Keisuke Kimura, Nippon Institute of Technology; Takayuki Kimura, Nippon Institute of Technology	
W1-42-2	214	Application of Independent-minded Particle Swarm Optimization for Design of Class-E Amplifiers	Haruna Matsushita, Kagawa University; Yuichi Tanji, Kagawa University	
W1-42-3	320	Switching Angles Optimization of Single Phase PWM DC-AC Inverter by Particle Swarm Optimizations	Takuya Shindo, Nippon Institute of Technology; Kenya Jin'no, Nippon Institute of Technology	
W1-42-4	344	Incremental learning on a budget and its application to quick maximum power point tracking of photovoltaic systems	Koichiro Yamauchi, Chubu University	
W1-42-5	523	Predictive Simulation of Smart Grid Network System	Hongyu Huang, Nagoya University, Chinese Academy of Science; Noriyuki Kobayashi, Nagoya University; Kazuto Yukita, Aichi Institute of Technology; Yong Cheng, Guangdong Academy of Science; Huafang Guo, Chinese Academy of Science; Zhaohong He, Chinese Academy of Science; Haoran Yuan, Chinese Academy of Science	

YN-1   November 21 (Wednesday) 10:20-12:25   Room403

Computational Intelligence and Machine Learning for Environmental Modelling and Informatics

Organizer: Shinji Fukuda (Kyushu University), [Chair] Bernard De Baets (Ghent University)

W1-43-1	118	Improvement of individual-based models for wild animals in river ecosystem	Masatoshi DENDA, Public Works Research Institutes	
W1-43-2	177	GA-Based Simulation-Optimization Approach for Designing Fish Habitat in Canal	Shigeya Maeda, Ibaraki University	
W1-43-3	351	Preference Based Modeling of Rheotaxis of Ayu (Plecoglossus Altivelis Altivelis)	Rina Febrina, Yamaguchi University; Hiroyuki Noguchi, Yamaguchi University; Masahiko Sekine, Yamaguchi University; Ariyo Kanno, Yamaguchi University; Tsuyoshi Imai, Yamaguchi University; Takaya Higuchi, Yamaguchi University	
W1-43-4	423	Road Curb Detection using 3D Lidar and Integral Laser Points for Intelligent Vehicles	Wentao Yao, Tsinghua University; Zhidong Deng, Tsinghua University; Lipu Zhou, Tsinghua University	(Teleconference)
W1-43-5	424	A Short Review on the Application of Computational Intelligence and Machine Learning in the Bioenvironmental Sciences	SHINJI FUKUDA, KYUSHU UNIVERSITY; Bernard De Baets, Ghent University	

KY-1   November 21 (Wednesday) 10:20-12:25   Room404

Kansei Modeling in Art

Organizer: [Chair] Takayuki Shimotomai (Tamagawa University), Shohei Kato (Nagoya Institute of Technology)

W1-44-1	220	Beat Playing System Based on Rhythmic Human Motions	Yasuhiro Suzuki, Nagoya Institute of Technology; Ryosuke Yamanishi, Ritsumeikan University; Shohei Kato, Nagoya Institute of Technology	

W1-44-2	379	Model for viewing art	Takayuki Shimotomai, Tamagawa University; Hideyuki Takahashi, Tamagawa University; Takashi Omori, Tamagawa University	
W1-44-3	410	Mapping Model from Chord to Color	Takayuki Shimotomai, Tamagawa University; Eriko Aiba, National Institute of Advanced Industrial Science and Technology; Takashi Fujisawa, Nagasaki University; Noriko Nagata, Kwansei Gakuin University; Takashi Omori, Tamagawa University	
W1-44-4	425	Extraction of groove feelings from drum data using non-negative matrix factorization	Yoshito Ohya, Meiji University; Terumasa Tokunaga, Research Organization for Information Science & Technology; Kazuyuki Nakamura, Meiji University	
W1-44-5	274	Chord Character Evaluation Model Based on Harmoniousness: Application to Music Mood Visualization Interface	Eriko Aiba*, National Institute of Advanced Industrial Science and Technology; Kensuke Tobitani, Kwansei Gakuin University; Takayuki Shimotomai, Tamagawa University; Mitsuaki Tani, Kwansei Gakuin University; Noriko Nagata, Kwansei Gakuin University; Takashi Fujisawa, Nagasaki University	

TI-1   November 21 (Wednesday) 10:20-12:25   Room405

Data-Centric Science on Environment and Tourism

Organizer: [Chair] Hiroshi Tsuda (Doshisha University), Hideki Katagiri (Hiroshima University), Takumi Ichimura (Prefectural University of Hiroshima)

W1-45-1	131	Evolving GPS Position Correction Function Using Genetic Programming	Jung Yi Lin, Ching Yun University; Ming Chih Tung, Ching Yun University; Chia Hui Chang, Ching Yun University; Chao Chung Liu, Ching Yun University; Ju Fu Peng, Ching Yun University	
W1-45-2	145	Enterprise Innovation Model Considering Environmental Costs	Ke Ding, Osaka University; Koji Okuhara, Osaka University	
W1-45-3	331	Versatile Route Planning for Sightseeing with Tourist's Satisfaction Dependent on Fatigue Degree	Takashi Hasuike, Osaka University; Hideki Katagiri, Hiroshima University; Hiroe Tsubaki, The Institute of Statistical Mathematics; Hiroshi Tsuda, Doshisha University	
W1-45-4	409	An Interactive Approach to Multiobjective Tour Route Planning Problems	Hideki Katagiri, Hiroshima University; Takeshi Uno, The University of Tokushima; Kosuke Kato, Hiroshima Institute of Technology; Hiroshi Tsuda, Doshisha University ; Hiroe Tsubaki, The Institute of Statistical Mathematics	
W1-45-5	446	The Empirical Analysis via the Corporate Brand Power Evaluation Model	Hiroshi Tsuda, Doshisha University	

IH-5   November 21 (Wednesday) 10:20-12:25   Room406

Computational Intelligence in Brain Computer Interface

Organizer: [Chair] Isao Hayashi (Kansai University), Tetsuya Miyoshi (Toyohashi Sozo University), Toshihiko Watanabe (Osaka Electro-Communication University)

W1-46-1	468	Improvement of spelling speed in P300 speller using transition probability of letters	Eri Samizo, Nagoya University; Tomohiro Yoshikawa, Nagoya University; Takeshi Furuhashi, Nagoya University	
W1-46-2	479	Incremental learning to reduce the burden of machine learning for P300 speller	Takanori Yokoi, Nagoya University; Tomohiro Yoshikawa, Nagoya University; Takeshi Furuhashi, Nagoya University	
W1-46-3	503	Analysis of driving behavior based on driving experience using DS	Tetsuya Miyoshi, Toyohashi Sozo University; Hidetoshi Nakayasu, Kanagawa University	

W1-46-4	524	Online learning of feature detectors from natural images with the probabilistic WKL rule	Jasmin Leveille, Boston University; Isao Hayashi, Kansai University; Kunihiko Fukushima, Fuzzy Logic Systems Institute	
W1-46-5	536	Analysis of music appreciation by Kansei evaluation and brain activity	Mayu Kakegawa, Tokyo University of Technology; Ryo Komiyama, Tokyo University of Technology; Yuko Masakura, Tokyo University of Technology; Masayuki Kikuchi, Tokyo University of Technology	

G-3-1   November 21 (Wednesday) 10:20-12:25   Room504

Biomimetic Computation for Robotics and Machines I

Organizer: [Chair] Yutaka Maeda (Kansai University), Keigo Watanabe (Okayama University), Fusaomi Nagata (Tokyo University of Science)

W1-54-1	24	Network-Based Subsumption Architecture for Multiple Mobile Robots System	Fusaomi Nagata, Tokyo University of Science, Yamaguchi; Akimasa Otsuka, Tokyo University of Science; Keigo Watanabe, Okayama University	
W1-54-2	147	Speed Up Method for Neural Network Learning by Using GPGPU	Yuta Tsuchida, Osaka Prefecture University; Michifumi Yoshioka, Osaka Prefecture University	
W1-54-3	194	A mutual effect model of desires and emotions in emotion for robots with growth function	Hiromi Nagano, Kansai University; Masataka Tokumaru, Kansai University; Miho Harata, Kansai University	
W1-54-4	200	Performance of First-order Configuration Prediction for Redundant Manipulators based on Avoidance Manipulability	Yang Hou, Okayama University; Akira Yanou, Okayama University; Mamoru Minami, Okayama University; Yosuke Kobayashi, Okayama University; Satoshi Okazaki, Okayama University	
W1-54-5	249	Underactuated Control for a Fire Truck-type Mobile Robot Using an Invariant Manifold Theory	Keigo Watanabe, Okayama University; Yuka Ueda, Okayama University; Isaku Nagai, Okayama University	

LA-2   November 21 (Wednesday) 10:20-11:35   Room505

Education Informatics

LA-3   November 21 (Wednesday) 11:35-12:25   Room505

Information Security

Organizer: [Chair] Altynbek Sharipbayev (Gumilyov Eurasian National University), Assel Omarbekova (Gumilyov Eurasian National University),
            Kanat Kozhakhmet (Kazakh-British Technical University)

W1-55-1	43	An Extraction and Classification Method of Broken Line Elements in Mathematical Graphs for Automating Translation of Tactile Graphics	Ryoji Nagaya, Toyama Prefectural University; Jianjun Chen, Toyama Prefectural University; Noboru Takagi, Toyama Prefectural University	
W1-55-2	79	Real time keyword extraction for e-Learning system supporting Quiz	Haruhiko Takase, Mie University; Hiroharu Kawanaka, Mie University; Shinji Tsuruoka, Mie University	
W1-55-3	116	Presenting Mathematical Web Pages for Understanding Lectures	Kuniko Yamada, Osaka City University; Hiroshi Ueda, ATR Creative Inc.; Harumi Murakami, Osaka City University; Ikuo Oka, Osaka City University	
W1-55-4	211	A novel reversible watermarking scheme based on block energy difference for medical images	Tiegang Gao, Nankai University; qiaolun Gu, Tianjin University of Technology and Education	

| W1-55-5 | 395 | Methodology and Ontology of Expert System for Information Security Audit | Lyazzat Atymtayeva, Kazakh-British Technical University; Gerda Bortsova, Kazakh-British Technical University; Atsushi Inoue, Eastern Washington University; Kanat Kozhakhmet, Kazakh-British Technical University | |