

Code	ID	Paper Title	Author Names	Remarks
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LA-6 November 23 (Friday) 10:10-12:40

Room301

Language Processing

Organizer: [Chair] Altynbek Sharipbayev (Gumilyov Eurasian National University), Sholpan Jomartova (al-Farabi Kazakh National University), Gulmira Bekmanova (Gumilyov Eurasian National University)

F1-31-1	279	Augmented attribute grammar in meaning of natural languages sentences	Ualsher Tukeyev, Al-Farabi Kazakh National University; Diana Rakhimova, Al-Farabi Kazakh National University	
F1-31-2	429	Understanding of Kazakh language with using of link grammar	Zhandos Zhumanov, al-Farabi Kazakh National University	(Teleconference)
F1-31-3	437	Time Line Inference from Story Sentence with Time Series	Hiroki Takimoto, Nagano National College of Technology; Noriyuki Okumura, Kagawa National College of Technology; Masashi Mizuno, Nagano National College of Technology	
F1-31-4	452	Semantic neural network model of morphological rules of the agglutinative languages	Altynbek Sharipbayev, L.N. Gumilyov Eurasian National University; Gulmira Bekmanova, L.N. Gumilyov Eurasian National University; Aigerim Buribayeva, L.N. Gumilyov Eurasian National University; Banu Yergesh, L.N. Gumilyov Eurasian National University; Assel Mukanova, L.N. Gumilyov Eurasian National University; Arman Kaliyev, L.N. Gumilyov Eurasian National University	
F1-31-5	107	An Approach to Linguistic Summarization based on Comparison among Multiple Time-series Data	Mizuki Kobayashi, Ochanomizu University; Ichiro Kobayashi, Ochanomizu University	
F1-31-6	121	An Approach to Extraction of Causal Chains among Events in Multiple Documents	Hitomi Sawamura, Ochanomizu University; Ichiro Kobayashi, Ochanomizu University	

G-9-1 November 23 (Friday) 10:10-12:40

Room401

Health Care Informatics I

Organizer: [Chair] Haruhiko Nishimura (University of Hyogo), Kilho Shin (University of Hyogo), Yuko Mizuno-Matsumoto (University of Hyogo)

F1-41-1	45	Response in Cingulate Cortex to Emotional Stimuli to Evaluate Personality Stability in fMRI	Yuko Mizuno-Matsumoto, University of Hyogo; Takuto Hayashi, Aino University; Eika Okamoto, University of Hyogo; Daisuke Miwa, University of Hyogo; Tetsuya Asakawa, University of Hyogo; Makoto Kato, National Institute of Information and Communications Technology; Tsutomu Murata, National Institute of Information and Communications Technology	
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F1-41-2	88	Frequency analysis of shunt sounds in the arteriovenous fistula on hemodialysis patients	Atsu Todo, Sakai Hospital Kinki University Faculty of Medicine; Tomomi Kardonaka, Sakai Hospital Kinki University Faculty of Medicine; Ayako Ueno, Sakai Hospital Kinki University Faculty of Medicine; Masanori Yoshioka, Sakai Hospital Kinki University Faculty of Medicine; Masami Mitani, Sakai Hospital Kinki University Faculty of Medicine; Hitoshi Katsurao, Sakai Hospital Kinki University Faculty of Medicine; Noriyuki Someya, Sakai Hospital Kinki University Faculty of Medicine; Hirofumi Hasegawa, Sakai Hospital Kinki University Faculty of Medicine; Yasumasa Hitomi, Ayabe Municipal Hospital; Takayuki Nishigaki, National Cerebral and Cardiovascular Center; Yuko Mizuno-Matsumoto, University of Hyogo	
F1-41-3	91	Electronic Medical Records Privacy Preservation through k-Anonymity Clustering Method	Moonshik Shin, Korea Advanced Institute of Science and Technology; Sunyong Yoo, Korea Advanced Institute of Science and Technology; Kwang Hyung Lee, Korea Advanced Institute of Science and Technology; Doheon Lee, Korea Advanced Institute of Science and Technology	
F1-41-4	119	An online support system for promotion of a behavior change for persons with metabolic syndrome	Shoko Tani, National Cerebral and Cardiovascular Center; Hiroshi Narazaki, University of Hyogo; Michiaki Iwata, National Cerebral and Cardiovascular Center; Ryo Haraguchi, National Cerebral and Cardiovascular Center; Hiroshi Inada, University of Hyogo; Kazuo Nakazawa, Research Institute National Cerebral and Cardiovascular Center	
F1-41-5	186	A Hypothesis-generating Support System Using Medical Records for Clinical Knowledge Acquisition	Kazuya Okamoto, Kyoto University Hospital; Hiroko Tanaka, Kyoto University Hospital; Tadamasu Takemura, Kyoto University Hospital; Naoto Kume, Kyoto University Hospital; Tomohiro Kuroda, Kyoto University Hospital; Hiroyuki Yoshihara, Kyoto University Hospital	
F1-41-6	222	Development of a Support System for Diabetic Patients at Home Using a Smartphone	Hiroshi Narazaki, University of Hyogo; Shoko Tani, National Cerebral and Cardiovascular Center; Jun Ishizaki, Osaka Saiseikai Suita Hospital; Kazuo Nakazawa, Research Institute National Cerebral and Cardiovascular Center; Hiroshi Inada, University of Hyogo; Haruhiko Nishimura, University of Hyogo	

SK-2 November 23 (Friday) 10:10-12:40

Room402

Brain-Computer Interface and Brain-Machine Interface

Organizer: [Chair] Suguru N. Kudoh (Kwansei Gakuin University), Aaro Funase (Nagoya Institute of Technology)

F1-42-1	206	Feature Extraction of EEG Spectrum for Steady-State Visual Evoked Potentials Detection	Akitoshi Itai, Chubu University; Aaro Funase, Nagoya Institute of Technology	
F1-42-2	304	Development of Estimation Method about Activity States for NIRS-based BCI System	Sho Okasaka, Kochi University of Technology; Yukinobu Hoshino, Kochi University of Technology	

F1-42-3	306	Brain Computer Interface by use of Electroencephalograms from Right Frontal Area	Takahiro YAMANOI, Hokkai-Gakuen University; Hisashi TOYOSHIMA, Japan Technical Software; Toshimasa YAMANZAKI, Kyushu Institute of Technology; Shin-ichi OHNISHI, Hokkai-Gakuen University; Michio SUGENO, European Center for Soft Computing; Elie Sanchez, The University of Mediterranean	
F1-42-4	491	SSVEP frequency detection methods considering background EEG	Toshihisa Tanaka, Tokyo University of Agriculture and Technology; Cheng Zhang, Tokyo University of Agriculture and Technology; Hiroshi Higashi, Tokyo University of Agriculture and Technology	
F1-42-5	533	RatCar: A whole-body neuromuscular locomotion prosthetic device with exoskeletal robotic limbs for a rat	Osamu Fukayama, The University of Tokyo; Ryosuke Nakanishi, The University of Tokyo; Hiroshi Otsuka, The University of Tokyo; Takafumi Suzuki, The University of Tokyo; Kunihiko Mabuchi, The University of Tokyo	
F1-42-6	534	Cerebellum-Machine Interface to Understand Cerebellar Roles in Motor Learning	Yutaka Hirata, Chubu University	

JS-13 November 23 (Friday) 10:10-12:40

Room403

Bio-inspired Perspectives to Trade-off Problems

Organizer: [Chair] Hiroyuki Ohta (National Defense Medical College), Junichi Suzuki (Univeristy of Massachusetts)

F1-43-1	313	Loosely Symmetric Reasoning to Cope with The Speed-Accuracy Trade-off	Yu Kohno, Tokyo Denki University; Tatsuji Takahashi, Tokyo Denki University	
F1-43-2	319	Presynaptic inhibition balances the trade-off between differential sensitivity and reproducibility	Hiroyuki Ohta, National Defense Medical College; Daisuke Uragami, Tokyo University of Technology; Yasuhiro Nishida, National Defense Medical College; James Houk, Northwestern University	
F1-43-3	328	Balancing between incremental learning and generalization by structured mutual inhibition	Daisuke Uragami, Tokyo University of Technology; Hiroyuki Ohta, National Defense Medical College	
F1-43-4	376	A theoretical approach to animal's impulsive preference	Yoshiya Yamaguchi, Tamagawa University; Yutaka Sakai, Tamagawa University	
F1-43-5	416	Giant mitochondria-driven sperm elongation: A potential promoter of reproductive isolation in divers insect species.	Tatsuhiko Noguchi, National Defense Medical College	
F1-43-6	502	Origin of Meta-Symbol : Navagation and Point Logic	Yukio Gunji, Kobe University; Tomoko Sakiyama, Kobe University	

JS-9 November 23 (Friday) 10:10-12:15

Room404

Human System Interaction on Brain and Robot

Organizer: [Chair] Yinlai Jiang (Kochi University of Technology), Isao Hayashi (Kansai University), Shuoyu Wang (Kochi University of Technology)

F1-44-1	163	Configuration of Slave and Endoscope in Surgical Robot based on Brain Activity Measurement	Satoshi Miura, Waseda University; yo Kobayashi, Waseda University; kazuya kawamura, Chiba University; Masatoshi Seki, Waseda University; Yasutaka Nakashima, Waseda University; Takehiko Noguchi, Waseda University; Yuki Yokoo, Waseda University; Masakatsu Fujie, Waseda University	
F1-44-2	165	Brain Activity Measurement Based Evaluation of Active Control of a Treadmill	Yuki Yokoo, Waseda University; Yasutaka Nakashima, Waseda University; Satoshi Miura, Waseda University; Yoshikazu Ogaya, Waseda University; Takeshi Ando, Waseda University; Yo Kobayashi, Waseda University; Masakatsu Fujie, Waseda University	
F1-44-3	336	User Directional Intention Identification for a Walking Support Walker - Adaptation to Individual Differences with Fuzzy Learning	Yinlai Jiang, Kochi University of Technology; shuoyu Wang, Kochi University of Technology; Kenji Ishida, Kochi University; yo Kobayashi, Waseda University; Masakatsu Fujie, Waseda University	
F1-44-4	480	An Improved Adaptive Controller with Parameter Optimization by GA for an Omni-directional Walker	Renpeng Tan, Kochi University of Technology; shuoyu Wang, Kochi University of Technology; Yinlai Jiang, Kochi University of Technology; Kenji Ishida, Kochi University; yo Kobayashi, Waseda University; Masakatsu Fujie, Waseda University	
F1-44-5	499	An Evaluation of pdi-Boosting for Brain-Computer Interfaces	Isao Hayashi, Kansai University; Shinji Tsuruse, Panasonic System Solutions Co.,Ltd.	

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Room405

Computational Intelligence in Management Controlling

Organizer: [Chair] Janos Botzheim (Tokyo Metropolitan University), Péter Földesi (Széchenyi István University)

NK-2 November 23 (Friday) 10:35-11:00

Room405

Memetic Computing: Algorithmic Development and Applications

Organizer: [Chair] Janos Botzheim (Tokyo Metropolitan University), Giovanni Iacca (INCAS3), Ferrante Neri (De Montfort University)

NK-3 November 23 (Friday) 11:00-12:40

Room405

Learning Systems in Dynamic Environment

Organizer: Norio Baba (Osaka Kyoiku University), Eiji Mizutani (National Taiwan University of Science And Technology), Naoyuki Kubota (Tokyo Metropolitan University)

Session Chair: Janos Botzheim (Tokyo Metropolitan University)

F1-45-1	463	Investigating the Effect of Overtriage on Hospital Arrival Times of Critically Injured Casualties during a Major Incident using Agent-Based Simulation	Glenn Hawe, Durham University; Duncan Wilson, Durham University; Graham Coates, Durham University; Roger Crouch, Durham University	
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F1-45-2	260	Energy and Cost Optimal Design for the Reconstruction of Residential Building Envelopes by Bacterial Memetic Algorithms	Arpad Csik, Szechenyi Istvan University; Janos Botzheim, Tokyo Metropolitan University; Janos Balazs, DigitIQ Ltd.; Tamas Csoknyai, University of Debrecen; Jozsef Levente Hontvári, DigitIQ Ltd.
F1-45-3	136	Formation Behavior of Multi-robot for Exploration and Monitoring	Yutaka Yasuda, Tokyo Metropolitan University; Naoyuki Kubota, Tokyo Metropolitan University
F1-45-4	233	The Fuzzy Position Control for the Four Rotor Flying Robot	Shohei Noda, Kanagawa University; Hiroyuki Masuta, Kanagawa University; Hun-ok Lim, Kanagawa University
F1-45-5	419	Investigation of Robust Solution of Evolutionary Algorithms in Dynamic Environments	Hisashi Handa, Kindai University
F1-45-6	478	Multi-scale Q-Learning of A Mobile Robot in Dynamic Environments	Noriko Takase, Tokyo Metropolitan University; Naoyuki Kubota, Tokyo Metropolitan University; Norio Baba, Osaka Kyoiku University

HK-1-3 November 23 (Friday) 10:10-11:50

Room406

Intelligent Systems in Medicine and Healthcare III

Organizer: [Chair] Hiroharu Kawanaka (Mie University), Miho Ohsaki (Doshisha University), Yutaka Hatakeyama (Kochi University)

F1-46-1	130	Fuzzy Object Shape Model for Newborn Brain MR Image Segmentation	Aya Hashioka, University of Hyogo; Kei Kuramoto, University of Hyogo; Syoji Kobashi, University of Hyogo; Yuki Wakata, Hyogo College of Medicine; Kumiko Ando, Hyogo College of Medicine; Reiichi Ishikura, Hyogo College of Medicine; Yutaka Hata, University of Hyogo
F1-46-2	300	A Fuzzy Time-Series Prediction Model with Multi-Biological Data for Health Management	Hideaki Tanii, University of Hyogo; Hiroshi Nakajima, Omron Corporation; Naoki Tsuchiya, Technology and Intellectual Property H.Q., Omron Corporation; Kei Kuramoto, University of Hyogo; Syoji Kobashi, University of Hyogo; Yutaka Hata, University of Hyogo
F1-46-3	364	Fuzzy Estimation System on Gait Independence Level by Footprint Dynamics	Takamoto Yagi, University of Hyogo; Takahiro Takeda, University of Hyogo; Katsunori Sueyoshi, Ishikawa Hospital; Yoshitetsu Oshiro, Ishikawa Hospital; Yutaka Hata, University of Hyogo
F1-46-4	375	Human Brain Ultrasound-mediated Diagnosis in Emergency Medicine and Home Health Care	Naomi Yagi, University of Hyogo; Yoshitetsu Oshiro, Ishikawa Hospital; Tomomoto Ishikawa, Ishikawa Hospital; Yutaka Hata, University of Hyogo

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Room406

Robot's Mind and Behavioral Design

Organizer: [Chair] Tomoko Yonezawa (Kansai University)

F1-46-5	252	Evolution of Neural Controllers for Robot Formation	Genci Capi, University of Toyama
F1-46-6	455	Modulating Reinforcement-Learning Parameters using Agent Emotions	Rickard von Haugwitz, Chalmers University of Technology; Yoshifumi Kitamura, Research Institute of Electrical Communication, Tohoku University; Kazuki Takashima, Research Institute of Electrical Communication, Tohoku University

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Room504

Advanced Information Systems

Session Chair: [Chair] Shigeaki Sakurai (Toshiba Solutions Corporation)

F1-54-1	128	Matrix-Vector Multiplication and Triangular Linear Solver Using GPGPU for Symmetric Positive Definite Matrices Derived from Elliptic Equations	Thiago Martins, University of Sao Paulo; Jacqueline Kian, EPUSP; Andre Sato, University of Sao Paulo; Marcos Tsuzuki, University of Sao Paulo	
F1-54-2	515	Implementation of an Intelligent System for Identifying Vessels Exhibiting Abnormal Navigation Patterns	Gyei-kark Park, Mokpo National Maritime University; Taeho HONG, Mokpo National Maritime University; Doyeoun Kim, Mokpo National Maritime University; Jung-sik Jeong, Mokpo National Maritime University	
F1-54-3	340	Ability-Based Expression Control for Secure Spaces	Shun Hattori, Muroran Institute of Technology	
F1-54-4	358	Robust Tracking Method based on Particle Filter for Crossing of Targets with Similar Appearances	Gaku Watanabe, Chubu University; Shinji Fukui, Aichi University of Education; Keisuke Takechi, Chubu University; Yuji Iwahori, Chubu University; Robert Woodham, University of British Columbia	
F1-54-5	477	Digital Public Address System with Central Control using Operational MICOM	Jung-Sook Kim, Kimpo College	
F1-54-6	61	Prediction of Attractive Evaluation Objects based on Trend Rules and Topic Dictionary	Shigeaki Sakurai, Toshiba Solutions Corporation; Kyoko Makino, Toshiba Solutions Corporation; Shigeru Matsumoto, Toshiba Solutions Corporation	

G-6 November 23 (Friday) 10:10-12:40

Room505

Collective Intelligence and Intelligent Data Analysis

Organizer: [Chair] Katsuhiro Honda (Osaka Prefecture University)

F1-55-1	22	Information Compression Effect Based on PCA for Reinforcement Learning Agents' Communication	Akira Notsu, Osaka Prefecture University; Katsuhiro Honda, Osaka Prefecture University; Ichihashi hidetomo, Osaka Prefecture University; ido ayaka, Osaka Prefecture University; Yuki Komori, Osaka Prefecture University	
F1-55-2	102	Process of Group Decision Making From Group and Individual Viewpoints	Tomoe Entani, Kochi University	
F1-55-3	157	FCM-type Co-clustering with Exclusive Partition of Selected Items and Application to Collaborative Filtering	Katsuhiro Honda, Osaka Prefecture University; Chi-Hyon Oh, Osaka University of Economics and Law; Akira Notsu, Osaka Prefecture University; Ichihashi hidetomo, Osaka Prefecture University	
F1-55-4	158	Template-based Fuzzy Clustering with Cluster-wise Coordinate Transformation	Katsuhiro Honda, Osaka Prefecture University; Shotaro Osaka, Osaka Prefecture University; Akira Notsu, Osaka Prefecture University; Ichihashi hidetomo, Osaka Prefecture University	
F1-55-5	254	Quantitative Common Sense Estimation System and Its Application to Automatic Membership Function Generation	Yuta Igawa, Keio University; Masafumi Hagiwara, Keio University	
F1-55-6	318	DEA approach embedding the analyst's intention	Kazushige Inoue, Osaka Prefecture University; Shingo Aoki, Hiroshima Institute of Technology	