Session No.

Presentation Paper Time Title Author(s)

TP4-1-1 Application of Intelligent Systems

Chair: Hwachang Song (Seoul Nat'l University of Science & Tech.)

Room 1

9:55-11:15, Dec. 4 (Thu.)

TP4-1-1-(1)	327			Su Bin Son, Seoultech; Jung-Su KIM, SEOULTECH;
			Shaving Using a Large-scale Battery Energy	Hwachang Song, Seoultech
			Storage System	
TP4-1-1-(2)	334	10:15	Determining the Placement of BTB Converters for	Remund Labios, Seoultech; Hwachang Song,
			Fault Current Reduction in a Power System by	Seoultech
			Using a Hybrid GA-Tabu Search Method	
TP4-1-1-(3)	318	10:35	Competitive Self-Training Technique for Sentiment	Sola Hong, SKKU; Jaedong Lee; Jee-Hyong Lee
			Analysis in Mass Social Media	
TP4-1-1-(4)	319	10:55	Automatic View Composition for Improving Co-	HyeWoo Lee, Sungkyunkwan University; Kyoungmin
			training	Kim, Sungkyunkwan University; Jaedong Lee; Jee-
				Hyong Lee

TP4-1-2 Intelligent System

Chair: Sang-Yong Rhee (Kyungnam University)

Room 2

9:55-11:15, Dec. 4 (Thu.)

TP4-1-2-(1) 362	9:55	A Feature Selection using Term Association	Sung-Sam Hong, Gachon University; Myung-Mook Han,
			Analysis for The Improvement of Document	Gachon University
			Classification in Text Mining	
TP4-1-2-(2	2) 324			Qian Gao, School of Information, Qilu University
			Preference Profile Construction	of Technology; Young Im Cho, The University of
				Suwon; Jangyoung Kim, University of Suwon
		10:35	Variable Message Frame Generator System	Jung-Sook Kim, Kimpo College
TP4-1-2-(4	4) 35			YEONGYUN KIM, Kyungnam University; Seung Gook
			Magnetic Compass Sensor Using a Smartphone	Hwang, Kyungnam University; Sang-Yong Rhee; DONG
			Interface	HUN KIM

TP4-1-3

Fuzzy Systems 1 Chair: Hitoshi Yano (Nagoya City University)

Room 3

9:55-11:15, Dec. 4 (Thu.)

TP4-1-3-(1)	10		A linear programming based interactive method for	Hitoshi Yano, Nagoya City University
			multiobjective programming problems involving	
			fuzzy coefficients and random variable	
			coefficients	
TP4-1-3-(2)	89		The World of Combinatorial Fuzzy Problems and the	Tomoyuki Yamakami, University of Fukui
			Efficiency of Fuzzy Approximation Algorithms	
TP4-1-3-(3)	189	10:35	Optimal properties of a fuzzy least estimator	Seunghoe Choi, Korea Aerospace University; Jin
			based on new operations	Hee Yoon, Sejong university; Hyeyoung Jung, Seoul
				national university; Woo-Joo Lee, Yonsei
				university
TP4-1-3-(4)	265	10:55	Algorithm to generate the Archimedean, finite,	Milan Petrík, Czech Academy of Sciences; Thomas
			negative tomonoids	Vetterlein

TP4-1-4

Interactive Evolutionary Computation Chair: Makoto Fukumoto (Fukuoka Institute of Technology), Makoto Inoue (Akita National College of Technology)

Room 4

9:55-11:35, Dec. 4 (Thu.)

TP4-1-4-(3)	239	·	Makoto FUKUMOTO, Fukuoka Inst. of Tech.; Shimpei KOGA, Fukuoka Inst. of Tech.
		Composition	roun, rundona moe. or room.
TP4-1-4-(2)	209	IEC for Architectural Floor Planning	Makoto Inoue, Akita National College of Technology: Megumu Hiramoto, Toyohashi University of Technology: Muneyuki Unehara, Nagaoka University of Technology: Koichi Yamada, Nagaoka University of Technology: Hideyuki Takagi, Kyushu University
TP4-1-4-(1)	64	Video Summarization Support by Interactive Evolutionary Computation	Hiroshi Nakamura, Kagoshima University; Satoshi Ono
TP4-1-4-(4)	195	Enhanced Interactive Differential Evolution using Evolutionary Level	Juni-ichi Kushida, Hiroshima City University; Akira Hara, Hiroshima City University; Tetsuyuki Takahama, Hiroshima City University

TP4-1-4-(5)	170	11:15	Subjective Evaluation of Music with Brain Wave Muneyuki Unehara, Nagaoka University of
			Analysis for Interactive Music Composition by IEC Technology; Koichi Yamada, Nagaoka University of
			Technology; Takuma Shimada, Nagaoka University of
			Techno logy

(Presentation time of TP4-1-4-(1) and TP4-1-4-(3) was swapped. Time on this program is the correct time.)

TP4-1-5 Optimization techniques for solving challenging problems 1

Chair: Noritaka Shigei (Kagoshima University)

Room 5

9:55-11:15, Dec. 4 (Thu.)

TP4-1-5-(1)	109	9:55	Show-through Cancellation in Scanned Documents	Mikio Oda, Kurume Nat'l College of Tech.; Hiromi
			Using Two-layer Bidirectional Neural Networks	Miyajima, Kagoshima University
TP4-1-5-(2)	138	10:15	An Approach to Search the Solution of a Puzzle	Keiji Kamei, Nishinippon Institute of Tech.;
			Game by Particle Swarm Optimization	Masashi Nakano
TP4-1-5-(3)	126	10:35	An Algorithm of Set-Based Differential Evolution	Tao Liu, Fukuoka Institute of Technolog;
			for Traveling Salesman Problem	Michiharu Maeda, Fukuoka Institute of Technology
TP4-1-5-(4)	72	10:55	Optimization of Flexible Job-shop Scheduling with	Yasuhiko Morinaga, Nagoya University; Masahiro
			Weighted Tardiness and Setup Worker-Load Balance	Nagao, Nagoya University; MItsuru Sano, Graduate
			in Make-to-order Manufacturing	School of Environment Studies Nagoya University

TP4-1-6 Human Symbiotic Systems 1

Chair: Yoichiro Maeda (Osaka Institute of Technology), Tomohiro Yoshikawa (Nagoya University), Tsuyoshi Nakamura (Nagoya Institute of Technology)

Room 6

9:55-11:35, Dec. 4 (Thu.)

TP4-1-6-(1) 114	9:55	Psychological Effects of Educational-Support	Felix Jimenez, Nagoya university; Tomohiro
		Robots using an Emotional Expression Model	Yoshikawa; Takeshi Furuhashi; Masayoshi Kanoh,
			Chukyo University

TP4-1-6-(2)	116		A Study on Correspondence between Writing Features and Embodied Expertise Onomatopoeias	Hiroki Hojo, Nagoya Institute of Technology; Nozomi Nomachi, Nagoya Institute of Technology; Kenichi Murata, Nagoya Institute of Technology; Tsuyoshi Nakamura, Nagoya Institute of Technology; Masayoshi Kanoh, Chukyo University; Koji Yamada, Institute of Advanced Media Arts and Sciences
TP4-1-6-(3)	132		Applying the Concept of ``Moe'' to Designing Robot's Appearances	Kenta Kato, Nagoya Instititute of Technolo; Masayoshi Kanoh, Chukyo University; Koji Yamada, Institute of Advanced Media Arts and Sciences; Tsuyoshi Nakamura, Nagoya Institute of Technology
TP4-1-6-(4)	142	10:55	Learning Fuzzy Control Parameters for Kite-based Tethered Flying Robot using Human Operation Data	Chiaki Todoroki, University of Fukui; Yasutake Takahashi, University of Fukui; Takayuki Nakamura, University of Fukui
TP4-1-6-(5)	143		Learning Control based on Intention Recognition by Inverted Two-Wheeled Mobile Robot through Interactive Operation	Shinnosuke Nomura, University of Fukui; Takuya Inoue, University of Fukui; Yasutake Takahashi, University of Fukui; Takayuki Nakamura, University of Fukui

TP4-1-7
Biomimetic Approach in Robotics and Mechatronics
Chair: Keigo Watanabe (Okayama University), Fusaomi Nagata (Tokyo University of Science, Yamaguchi)
Room 7
9:55-11:35, Dec. 4 (Thu.)

TP4-1-7-(1)	27	9:55	Basic Design of Graphical User Interface for a	Mamadou Ngom, Tokyo University of Science,
			Desktop NC Machine Tool Controller with a Vision	Yamaguchi; Fusaomi Nagata, Tokyo University of
			Component	Science
TP4-1-7-(2)	43	10:15	Auto Gain-Tuning for Trajectory Following Control	Akimasa Otsuka, Tokyo univercity of science;
			based on Neural Network	Fusaomi Nagata, Tokyo University of Science
TP4-1-7-(3)	173	10:35	Controllers Based on an Invariant Manifold	Yin Yin Aye, Okayama University; Keigo Watanabe;
			Approach for Stabilizing a Nonholonomic Mobile	Shoichi Maeyama; Isaku Nagai, Okayama University
			Robot	
TP4-1-7-(4)	315	10:55	Human Action Recognition Based on the Angle Data	MAIERDAN MAIMAITIMIN, Okayama University; Keigo
			of Limbs	Watanabe; Shoichi Maeyama
TP4-1-7-(5)	300	11:15	An Error Model of Chained Form with Two Inputs	Keigo Watanabe; Tsuyoshi Goto, Okayama
			for a Generalized Stabilization Problem	University; Kimiko Motonaka, Okayama University;
				Shoichi Maeyama; Isaku Nagai, Okayama University

TP4-1-8 Soft Computing and Its Applications 1

Chair: Yan Shi (Tokai University), Takashi Samatsu (Tokai University)

Room 8

9:55-11:35, Dec. 4 (Thu.)

TP4-1-8-(1)	62	9:55	Watermark Design of Two-Dimensional Barcodes on	Takeru Maehara, Kagoshima University; Kentaro
			Mobile Phone Dislpay by Evolutionary Multi-	Nakai; Ryo Ikeda; Koutaro Taniguchi, Kagoshima
			objective Optimization	university; Satoshi Ono
TP4-1-8-(2)	57	10:15	Model Advertising Slogan Selection System Using	Hiroaki Yamane, Keio University; Masafumi
			Collective Wisdom on the Web	Hagiwara
TP4-2-8-(2)	198	10:35	A New Approach to Path-finding by Possibilities	Benoit Vallade, Osaka PrefectureUniversity;
			Search	Tomoharu Nakashima, Osaka Prefecture University
TP4-1-8-(4)	301	10:55	Implementation of The Chess Game Artificial	Kuo-Lan Su, National Yunlin University of Science
			Intelligent Using Moble Robots	& Technology; Li Bo-Yi; Guo Jr-Hung; Kuo-Hsien
				Hsia, FAR EAST UNIVERSITY
TP4-1-8-(5)	295	11:15	A Fuzzy Olfactory Detection System Design	Jr. Hung Guo, National Yunlin University of
				Science & Technology; Kuo-Hsien Hsia, FAR EAST
				UNIVERSITY; Kuo-Lan Su, National Yunlin
				University of Science & Technology

TP4-1-8-(3) is moved to the NEXT time slot TP-4-2-8, and TP4-2-8-(2) is moved to here from TP4-2-8.

TP4-1-9 Soft Computing in Urban and Transport Planning

Chair: Takamasa Akiyama (Kansai University)

Room 9

9:55-11:35, Dec. 4 (Thu.)

TP4-1-9-(1)	384			Hiroaki Inokuchi, Kansai University; Takamasa
				Akiyama, Kansai University
TP4-1-9-(2)	385	10:15	Long Term Estimation of Traffic Demand on Urban	Takamasa Akiyama, Kansai University; Hiroaki
			Expressway by Neural Networks	Inokuchi, Kansai University
TP4-1-9-(3)	201			Raito Matsuzaki, Kansai University; Yoshiko
			School Building of Kansai University	Hanada, Kansai University; Noriaki Muranaka,
				Kansai University
TP4-1-9-(4)	292	10:55		Aderemi Adewumi, University of KwaZulu-Natal;
			Using Pattern Search and Particle Swarm Pattern	Luke Joel, University of KwaZulu-Natal; Babatunde
				Sawyerr, University of KwaZulu-Natal
TP4-1-9-(5)	129	11:15	Multi-Agent Simulation for Promoting Clean Energy	Masashi Okushima, The University of Tokushima;
			Vehicle Considering with Local Interaction	Takamasa Akiyama, Kansai University

TP4-2-1 Maritime Safety System to Support e-Navigation Chair: Jung Sik Jeong (Mokpo Maritime National University) Room 1 12:50-14:50, Dec.4 (Thu.)

TP4-2-1-(1)	I 7		[Invited Talk] On Intelligent Maritime Navigation	
				Ships & Ocean Engineering
TP4-2-1-(2)	346			Kim Kwangil, Mokpo National Maritime Unv.; Jung-
			Vessel Trajectories for e-Navigation	Sik Jeong, Mokpo Nat'l Maritime Univ.; Gyei-kark
				Park, Mokpo Nat'l Maritime Univ.
TP4-2-1-(3)	325	13:30		HyungGi Jo, Yonsei University; Sungjin Jo;
				Sewoong Jun; Changyong Yoon; Euntai Kim
TP4-2-1-(4)	326		Rear-end Collision Warning System Using Linear	Jhonghyun An, Yonsei univ; Baehoon Choi, yonsei
			Discriminant Analysis	univ; Beomseong Kim, yonsei univ; Jaeho Hwang,
				Hyundai Mobis Co., Ltd; Euntai Kim
TP4-2-1-(5)	345	14:10	A Feasibility Study of PNT Integrity Provision	Ki-Yeol SEO, KRISO
			for Maritime Applications	
TP4-2-1-(6)	344	14:30	Assessment of ENC Sounding by Delaunay	Dongwoo Kang, KRISO; Sewoong Oh, KRISO; Wooseong
			Triangulation method in aspect of fine	Shim, KRISO; Sunyoung Kim, KRISO
			compilation for safe navigation	

TP4-2-2 Intelligent Robotics
Chair: Yasunori Takemura (Nippon Bunri University), Kazuo Ishii (Kyushu Institute of Technology)
Room 2
12:50-14:50, Dec. 4 (Thu.)

TP4-2-2-(1)	102	12:50	Development of Universal Robot Gripper Using MR $lpha$	Yuki Okatnai, Kyushu Insitute of Technology;
			Fluid	Takeshi Nishida, Kyushu Institute of Technology
TP4-2-2-(2)	99	13:10	Development of Autonomous Underwater Vehicle	Tomoaki Himeno, Nippon Bunri University; Yasunori
			"OCTA" for coastal survey	Takemura, Nippon Bunri University; Daichi Ando,
				Nippon Bunri University; Hiroaki Haraguchi,
				Nippon Bunri University; Yu Adachi, Nippon Bunri
				University; Cheyoung Park, Nippon Bunri
				Universiyt; Ken Matsuoka, Nippon Bunri
				Universiyt; Yuki Soejima, Nippon Bunri University

TP4-2-2-(3)	87		Development of Universal Jamming Gripper with a	Takeshi Nishida, Kyushu Institute of Technology
			Force Feedback Mechanism	
TP4-2-2-(4)	199	13:50	Proposition of a Three Layers Architecture for	Benoit Vallade, Osaka PrefectureUniversity;
			Adaptable Artificial Intelligence	Alexandre David, Osaka Prefecture University;
				Tomoharu Nakashima, Osaka Prefecture University
TP4-2-2-(5)	207	14:10	Adaptative Motion Control System of a Snake-like	Takayuki Matsuo, KCT; Kazuo Ishii
			Robot Using a Neural Oscillator Netowork	
TP4-2-2-(6)	251	14:30	Dead-lock Free Mobile Robot Navigation Using	Tharindu Weerakoon, Kyushu Institute of
			Modified Artificial Potential Field	Technology; Kazuo Ishii; Amir Ali Nassiraei,
				Kyushu Institute of Technology

TP4-2-3 Soft Computing 1

Chair: Yutaka Hatakeyama (Kochi University)

Room 3

12:50-14:30, Dec. 4 (Thu.)

TP4-2-3-(1)	80	12:50	Level evaluation system for Cardiotocography	Yutaka Hatakeyama, Kochi university; Hiromi Kataoka; Noriaki Nakajima; Teruaki Watabe;
				Yoshiyasu Okuhara
TP4-2-3-(2)	226			Motoki Hayakawa, Chubu University; Shoya Ueda,
			potential before the eye movement	Chubu University; Arao Funase, Nagoya Institute
				of Technology; Akitoshi Itai, College of
				Engineering, Chubu University
TP4-2-3-(3)	21	13:30	A Cooperative Driving Control Protocol for	Chehung Lin, Tokyo Institute of Technology;
			Cooperation Intelligent Autonomous Vehicle using	Fangyan Dong, Tokyo Institute of Technology;
			VANET Technology	Kaoru Hirota, Tokyo Institute of Technology
TP4-2-3-(4)	176	13:50	A Rule-based Approach for Improving Kinect	Ketchart Kaewplee, Pae; Nirattaya Khamsemanan;
			Skeletal Tracking System with an Application on	Cholwich Nattee
			Standard Muay Thai Maneuvers	
TP4-2-3-(5)	60	14:10	Tractable Infinite Order Markov Analysis for	Shohei Hidaka, JAIST; Takuma Torii, JAIST; Akira
			Iterated Games with Learners	Masumi, JAIST

TP4-2-4 Signal Processing and Machine Learning for Neurotechnology 1 Chair: Tomasz M. Rutkowski (University of Tsukuba)
Room 4
12:50-14:10, Dec. 4 (Thu.)

TP4-2-4-(1)	241		Bayesian Delay Time Estimation of Brainwaves	Reo Togashi, The University of Electro-Comm;
			Using N100 Response in Tactile-force Brain-	Yoshikazu Washizawa, The University of Electro-
			computer Interface	Communications; Shota Kono, University of
				Tsukuba; Tomasz Rutkowski, University of Tsukuba
TP4-2-4-(2)	185		Hybrid-BCI: Classification of Auditory and Visual	Gaochao Cui, Saitama Institute of Technolog;
			Related Potentials	Qibin Zhao; Jianting Cao; Andrzej Cichocki
TP4-2-4-(3)	266	13:30	Brain-computer Interface Using Ambisonics-	Bertrand Hieronymus, University of Tsukuba;
			reproduced Dynamic Sound Image Effects	Hiromu Mori, University of Tsukuba; Tomasz
				Rutkowski, University of Tsukuba
TP4-2-4-(4)	308	13:50	ANN-Based Nerve Damage Preservation System for	Dilok Puanhvuan, Mahidol University; Sarawin
			Neurosurgical Operation	Khemmachotikun, Mahidol University; Sorayouth
				Chumnanvej, Mahidol University; Yodchanan
				Wongsawat, Mahidol University

TP4-2-5 Optimization techniques for solving challenging problems 2 Chair: Mikio Oda (Kurume National College of Technology) Room 5 12:50-14:10, Dec. 4 (Thu.)

TP4-2-5-(1)	110			Hirofumi Miyajima, Kagoshima Univercity; Noritaka
			transformation of input variables	Shigei, Kagoshima University; Hiromi Miyajima,
				Kagoshima University
TP4-2-5-(2)	145	13:10		Noritaka Shigei, Kagoshima University; Hideaki
			OFDM Signal	Kumashiro, Kagoshima University; Hiromi Miyajima,
				Kagoshima University
TP4-2-5-(3)	228	13:30	A* Algorithm-Based Initial Route Construction for	Yogi Anggun Saloko Yudo, Kagoshima University;
			Mobile Relay on WSN	Noritaka Shigei, Kagoshima University; Hiromi
				Miyajima, Kagoshima University
TP4-2-5-(4)	41	13:50	An Augmented Automatic Choosing Control of Formal	Tomohiro Hachino, Kagoshima University; Hitoshi
			Linearization Filter Type by ABC Algorithm and	Takata, Kagoshima University; Soichiro Osako,
			Its Application to Electric Power Systems	Kagoshima University; Hiromi Miyajima, Kagoshima
				University; Kazuo Komatsu, Kumamoto National
				College of Technology; Kimihisa Kawabata, Kyushu
				Sangyo University

Chair: Yoichiro Maeda (Osaka Institute of Technology), Tomohiro Yoshikawa (Nagoya University), Tsuyoshi Nakamura (Nagoya Institute of Technology)

Room 6

12:50-13:50, Dec. 4 (Thu.)

TP4-2-6-(1)	71	12:50	Effectiveness of Kansei model in Healthy Eating	Ryouta Oku, Kansai University; Hiroshi
			Habits Support System	Takenouchi, Fukuoka Institute of Technology;
				Masataka Tokumaru, Kansai University
TP4-2-6-(2)	269	13:10	Attention Prediction System Based on Eye Tracking	Mao Wang, University of Fukui; Yoichiro Maeda,
			and Saliency Map by Fuzzy Neural Network	Osaka Institute of Technology; Yasutake
				Takahashi, University of Fukui; Kazuki Naruki,
				Osaka Institute of Technology
TP4-2-6-(3)	206	13:30	Development of Human-Friendly Robot's Waist with	Koki Matsumoto, Kanagawa University; Yoshiaki
			Passive Collision Force Suppression Mechanism	Ono, Kanagawa University; Hun-ok Lim, Kanagawa
				University

TP4-2-7 System analysis and optimization Chair: Kazutoshi Sakakibara (Toyama Prefectural University) Room 7 12:50-14:50, Dec.4 (Thu.)

TP4-2-7-(1)	220		Multi-agent Simulation Model of Urban Traffic	Takuya Matsumoto, Kobe University; Kazutoshi
			Behavior of Inhabitants Applying Optimization	Sakakibara, Toyama Prefectural University;
			Techniques	Hisashi Tamaki, Kobe University
TP4-2-7-(2)	192	13:10	An Evolutionary Multi-criterion Optimization	Kazuma Nagafune, College; Watanabe Shinya;
				Hiroyuki Shioya, Muroran Institute of Technology
			Strength Distribution for Sparse CT Image	
			Reconstruction	
TP4-2-7-(3)	203	13:30	Optimization of design of decentralized energy	Kazutoshi Sakakibara, Toyama Prefectural
			networks by mathematical programming techniques	University; Takuya Matsumoto, Kobe University;
				Ittetsu Taniguchi, Ritsumeikan University;
				Hisashi Tamaki, Kobe University
TP4-2-7-(4)	197	13:50	A Call-based Integer Programming Model for Static	Tsutomu Inamoto, Ehime University; Yoshinobu
			Elevator Operation Problems	Higami, Ehime University; Shin-ya Kobayashi,
				Ehime University
TP4-2-7-(5)	290	14:10	Evaluation of Hetero Sensitivity of Pheromone	Hisayuki Sasaoka, Asahikawa National College of
			with Ant Colony Optimization	Technology

TP4-2-7-	-(6)	259	14:30	Integer	Programming	Approach	Based	on l	Pattern	for	Makoto	Ohara,	Kobe	University;	Hisashi	Tamaki,
				a Class	of Staff Sch	neduling	Problem	ıs			Kobe Ur	niversi [.]	ty			

TP4-2-8 Soft Computing and Its Applications 2

Chair: Yan Shi (Tokai University), Takashi Samatsu (Tokai University)

Room 8

12:50-14:10, Dec. 4 (Thu.)

TP4-2-8-(1)	291	12:50	New Adaptive Algorithm for Frequency Selective	Lianming Sun, The University of Kitakyushu
			OFDM Channels	
TP4-1-8-(3)	136	13:10	Approximation-based adaptive tracking control of	Huanqing Wang, Bohai University; Hongyan Yang;
			stochastic nonlinear systems with a general form	Yan SHI; Hamid Reza Karimi
TP4-2-8-(3)	224	13:30	Optimal Solution for Supplier Selection based on	Vivek Kumar, IISJ; S Srinivasan, PDM Engineering
			SMART Fuzzy Case Base Approach	College Bhadurgarh HR India ; Subhra Das, Amity
				University Gurgaon, India
TP4-2-8-(4)	347	13:50	Motion Control of a Walking Support Robot	Yina WANG, Kouchi university of technolog; Shuoyu
			Considering Pressure and Thrust from Users	WANG

TP4-2-8-(2) is moved to the PREVIOUS session TP4-1-8, and TP4-1-8-(3) is moved to here from TP4-1-8.

TP4-2-9 Machine Learning 2

Chair: Sachio Saiki (Kobe University)

Room 9

12:50-14:50, Dec. 4 (Thu.)

TP4-2-9-(1)	387		Consumer-Oriented ReceiptLog Service Platform for	
			Effective Applications	Kobe University; Shinsuke Matsumoto; Masahide
				Nakamura
TP4-2-9-(2)	155	13:10	A Blind Source Extraction Algorithm with a	Tsubasa INOUE, Nishinippon Institute of tech.;
			Unimodular Constraint	Takashi ITAHASHI, Showa University Karasuyama
				Hospital
TP4-2-9-(3)	256			Nitchan Jianwattanapaisarn, SIIT, Thammasat
			Silhouette data extracted by Microsoft Kinect	University; Athiwat Cheewakidakarn, SIIT,
				Thammasat University; Nirattaya Khamsemanan;
				Cholwich Nattee
TP4-2-9-(4)	274	13:50	Acceleration of reinforcement learning via game-	Kenta Igushi, Chubu University; Takaya Ogiso,
			based renewal energy management system	Chubu University; Koichiro Yamauchi, Chubu
				University

TP4-2-9-(5)	261	14:10	An Approach for Classifying Geometric	Chaninthorn Amornsawaddirak, SIIT; Cholwich
			Relationships in Handwritten Mathematical	Nattee; Nirattaya Khamsemanan
			Expressions using Inductive Logic Programming	
TP4-2-9-(6)	133	14:30	Interpretation system for geological research	Ravil Muhamedyev, IITU; Yan Kuchin, IITU;
			data based on machine learning algorithms	Syrymbet Iskakov , IITU; Kirill Yakunin, IITU;
				Pavel Gricenko, IITU

Intelligent System for Robotics and Vehicles Chair: Young-Jae Ryoo (Mokpo National University) TP4-3-1 Room 1

15:05-17:05, Dec. 4 (Thu.)

TP4-3-1-(1)	16	15:05	[Invited Talk] The Lightest Child-sized Humanoid	Young-Jae Ryoo, Mokpo National University
			Robot, CHARLES	
TP4-3-1-(2)	245	15:45	Quasi-continuous Exponential Stabilizing	Shogo Nonaka, Saga University; Takeshi Tsujimura,
			Controller Using Single Input Absorption Control	Saga University; Kiyotaka Izumi, Saga University
			by Invariant Manifold	
TP4-3-1-(3)	358	16:05	ZMP Based Walking Pattern Generation of Child-	Young-Jae Ryoo, Mokpo National University; Kinam
			sized Humanoid Robot : CHARLES(Cognitive Humanoid	Lee, Mokpo National University
			Autonomous Robot with Learning and Evolutionary	
			System)	
TP4-3-1-(4)	355	16:25	Socially Wise Mediated Reality for Hollistic	Youngho Lee, Mokpo National University; Jongmyung
				Choi, Mokpo National University; Young-Jae Ryoo
TP4-3-1-(5)	356	16:45	Electric Driven Three-Wheeled Robotic Vehicle	Young-Jae Ryoo, Mokpo National University; Gyujin
			(Robicle) for Personal Mobility System	Jo, Mokpo National University

TP4-3-3

Machine Learning 1 Chair: Yutaka Hatakeyama (Kochi University)

Room 3

15:05-16:45, Dec. 4 (Thu.)

TP4-3-3-(1)	14	Twitter-TTM: An Efficient Online Topic Modeling for Twitter considering Dynamics of User Interests and Topic Trends	Kentaro Sasaki, Nagoya University; Tomohiro Yoshikawa; Takeshi Furuhashi
TP4-3-3-(2)	28	Discovery of Various Sequential Patterns within Top-k from Sequential Data	Shigeaki Sakurai, Toshiba corporation; Minoru Nishizawa, Toshiba Solutions Corporation

TP4-3-3-(3)	342		Using Cluster Ensemble to Improve Classification	Natthakan Iam-On, MFU; Tossapon Boongoen, RTAFA
			of Student Dropout in Thai University	
TP4-3-3-(4)	267	16:05	Forecasting Students' Future Academic Records	Hirotaka Itoh, Nagoya Institute of Technology;
			Using Bayesian Network	Yuma Itoh, Nagoya ; Kenji Funahashi, Nagoya
				Institute of Technology; Daisuke Yamamoto, Nagoya
				Institute of Technology; Shoici Saito, Nagoya
				Institute of Technology; Hiroshi Matsuo, Nagoya
				Institute of Technology; Ichi Takumi, Nagoya
				Institute of Technology
TP4-3-3-(5)	44	16:25	A Data Adjustment Method of Low-priced Data-glove	Yutaro Mori, Nagoya Institute of Technology;
			Corresponding with each User Hand	Kenji Funahashi, Nagoya Institute of Technology

TP4-3-4 Signal Processing and Machine Learning for Neurotechnology 2 Chair: Tomasz M. Rutkowski (University of Tsukuba)
Room 4
15:05-16:05, Dec. 4 (Thu.)

TP4-3-4-(1)	298	15:05	Virtual Reality Feedback Environment for Brain	Waldir Marin Neto; Kensuke Shimizu, University of
			Computer Interface Paradigm Using Tactile and	Tsukuba; Hiromu Mori, University of Tsukuba;
			Bone-conduction Auditory Modality Paradigms	Tomasz Rutkowski, University of Tsukuba
TP4-3-4-(2)	163	15:25	Tactile Pressure Brain-computer Interface Using	Kensuke Shimizu, University of Tsukuba; Hiromu
			Point Matrix Pattern Paradigm	Mori, University of Tsukuba; Shoji Makino,
				University of Tsukuba; Tomasz Rutkowski,
				University of Tsukuba
TP4-3-4-(3)	76	15:45	Multilinear Tensor Rank Estimation via Sparse	Tatsuya Yokota, RIKEN; Andrzej Cichocki, RIKEN
			Tucker Decomposition	

TP4-3-5 Clustering -Fundamentals and Applications- 1
Chair: Yuchi Kanzawa (Shibaura Institute of Technology)
Room 5
15:05-16:25, Dec. 4 (Thu.)

TP4-3-5-(1)	25	15:05	Two-Stage Clustering Using One-Pass K-Medoids and	Sadaaki Miyamoto, University of Tsukuba; Yusuke
			Medoid-Based Agglomerative Hierarchical	Tamura, University of Tsukuba
			Algorithms	
TP4-3-5-(2)	81	15:25	On New Sequential Hard c-Medoids	YUKIHIRO HAMASUNA, Kinki University; Yasunori
				Endo, University of Tsukuba

TP4-3-5-(3)	69		Tsubasa Hirano, University of Tsukuba; Yasunori Endo, University of Tsukuba; Naohiko Kinoshita, Graduate School of Sys. and Info. Eng., University of Tsukuba,; YUKIHIRO HAMASUNA, Kinki University
TP4-3-5-(4)	83		Shunsuke Iwata, Osaka Prefecture University; Katsuhiro Honda, Osaka Prefecture University; Akira Notsu, Osaka Prefecture University

TP4-3-6 Data Mining and Knowledge Discovery Based on Statistical Methods

Chair: Kuniyoshi Hayashi (Okayama University), Kyo Koki (Obihiro University of Agriculture and Veterinary Medicine)

Room 6

15:05-16:25, Dec. 4 (Thu.)

TP4-3-6-(1)	182	15:05	Automatic Annotation of Papers Metadata using LOD	
				Toshihiko Wakahara, Fukuoka Institute of
				Technology Technology
TP4-3-6-(2)	184	15:25	Detecting a change point using statistical	Kuniyoshi Hayashi, Okayama University; Koji
			sensitivity analysis based on the influence	Kurihara, Okayama University
			function	
TP4-3-6-(3)	211	15:45		Edson Hiroshi Aoki, Teralytics Pte. Ltd.; Shaohui
			sensor network mapping	Foong, SUTD; Dushyanth Madhavan, ST Kinetics; Yew
				Long Lo, SGH
TP4-3-6-(4)	363			Koki Kyo, Obihiro University of Agriculture and
			Its Application to Industries in Japanese	Veterinary Medicine; Hideo Noda, Tokyo University
			Prefectures	of Science

TP4-3-7 Self-Organizing Maps

Chair: Hiroshi Wakuya (Saga University), Kikuo Fujimura (Tottori University)

Room 7

17:20-19:00, Dec. 4 (Thu.) (This session is moved to the NEXT time slot. Time shown here is the correct time.)

TP4-3-7-(1)	22	17:20	Incremental Learning with Self-Organizing Neural	Tomohiro Miyakoda, Kure National College of
			Grove	Tech.; Hirotaka Inoue, Kure National College of
				Tech.

TP4-3-7-(2)	123	17:40	Development of Sound Source Estimation Techniques	Kikuo Fujimura, Tottori University; Ken Nishioka,
			using Binaural Sound - Creation of Self-	Tottori University; Isao Nakanishi, Tottori
			Organizing Maps by real-time data -	University; Shigang Li, Tottori University
TP4-3-7-(3)	317	18:00	Basic Research of Reinforcement Learning with	Hiroshi Dozono, Saga University; Ryou Egami, Saga
				University
TP4-3-7-(4)	248	18:20	Smoothed Data Density Histogram on Self-	Yuriko Tsunoda, Kyushu Institute of Technology;
			Organizing Map and Its Application to Cluster	Hideaki Kawano, Kyushu Institute of Technology;
				Hiroshi Maeda, Kyushu Institute of Technology
TP4-3-7-(5)	236	18:40	A Consideration on Visualization of Temporal	Hiroshi Wakuya, Saga University; Shohei Matsuoka,
			Signals by Feedback SOM	Saga University; Hideaki Itoh, Saga University;
				Sang-Hoon Oh, Mokwon University

TP4-3-8

Intelligent Control Chair: Kazuyuki Kobayashi (Hosei University), Seiji Yasunobu (University of Tsukuba) Room 8

15:05-17:05, Dec. 4 (Thu.)

TP4-3-8-(1)	82			Hugang Han, Pref. Univ. of Hiroshima; Yuki
				Higaki, Pref. Univ. of Hiroshima
TP4-3-8-(2)	74	15:25	Development of a fast self-localization algorithm	
				Kobayashi, Hosei University; Kajiro Watanabe,
				Hosei University
TP4-3-8-(3)	124			Mikito Takahashi, Hosei University; Kazuyuki
			obstacle avoidance module by using LIDAR for	Kobayashi, Hosei University; Kajiro Watanabe,
			mobile robot	Hosei University; Tetsuo Kinoshita, Hosei
				University
TP4-3-8-(4)	127	16:05	Development of collision-free-area detection	Shinnosuke Tokuda, Hosei University; Kazuyuki
			algorithm for mobile robot	Kobayashi, Hosei University; Kajiro Watanabe,
				Hosei University; Tetsuo Kinoshita, Hosei
				University
TP4-3-8-(5)	128	16:25	LIDAR based target object classification by using	Yoshitaka Fukuda, Hosei university; Kazuyuki
			reflection intensity	Kobayashi, Hosei University; Kajiro Watanabe,
				Hosei University; Tetsuo Kinoshita, Hosei
				University
TP4-3-8-(6)	154	16:45	A Cooperative Parking System Based on Fuzzy	Saki Matoba, Tsukuba University; Seiji YASUNOBU,
				University of Tsukuba

TP4-3-9 Cool Systems Engineering 1

Chair: Keitaro Naruse (University of Aizu), Masahito Yamamoto (Hokkaido University), Michiko Watanabe (Kitami Institute of Technology)

Room 9

15:05-16:25, Dec. 4 (Thu.)

TP4-3-9-(1)	148	15:05	Aggregation and Application of Community Tourism	Taku Okuno, Future University Hakodate
			Information Contents by Using Linked Open Data	
TP4-3-9-(2)	289	15:25	Unsmooth Field Sweeping by Balistic Random Walk	Kazuya Tamura, University of Aizu; Keitaro
			of Multiple Robots in Unsmooth Terrain	Naruse, University of Aizu
TP4-3-9-(3)	258	15:45	"Name-color" synesthesia making consistency test	Sakurai Eiki, University of Aizu; Cai DongSheng;
				Ippeita Dan; Nobuyoshi Asai
TP4-3-9-(4)	260	16:05	Self-organized Flocking in Mobile Robots Based on	Toshiyuki Yasuda, Hiroshima University; Akitoshi
			Frontal Interaction and Leadership Rules	Adachi, Hiroshima University; Kazuhiro Ohkura,
				Hiroshima University

TP4-4-1 Big Data Application

Chair: Keon Myung Lee (Chungbuk National University)

Room 1

17:20-19:00, Dec. 4(Thu.)

TP4-4-1-(1)	I1			Jee-Hyong Lee, Sungkyunkwan University
			Recommendation Approach by Splitting Content	
			Consuming Logs	
TP4-4-1-(2)	335	17:40	Latent Keyphrase Generation by Combining	Taemin Cho, Sungkyunkwan University; Hana Cho;
			Contextually Similar Primitive Words	Jaedong Lee: Jee-Hyong Lee
TP4-4-1-(3)	336	18:00	Automatic Generative Design to Meet Customer's	Solji Kang, Chungbuk National University; Gowoo
			Preferences	Kim, Chungbuk National University; Keon Myung
				Lee, Chungbuk National University; Hyeon Gu Kim,
				Chungbuk National University
TP4-4-1-(4)	337	18:20	An Improvement of Weighted PageRank to Handle the	Sang-yeon Lee; Young-gi Kim, Chungbuk National
			Zero Link Similarity	University; Seok-Jong Lee; Keon Myung Lee,
				Chungbuk National University
TP4-4-1-(5)	322	18:40	K-means Clustering based SVM Ensemble Methods for	Jaedong Lee; Jee-Hyong Lee, Sungkyunkwan
			Imbalanced Data Problem	University

Chair: Shinichi Yoshida (Kochi University of Technology)

Room 2

17:20-19:00, Dec. 4(Thu.)

TP4-4-2-(1)	93		An Adaptive Differential Evolution Considering	Tetsuyuki Takahama, Hiroshima City University;
				Setsuko Sakai, Hiroshima Shudo University
TP4-4-2-(2)	31	17:40	Ensemble Learning of Rule-based Evolutionary	Shingo Mabu, Yamaguchi University; Masanao
			Algorithm Using Multi Layer Perceptron for Stock	Obayashi; Takashi Kuremoto, Yamaguchi University
			Trading Models	
TP4-4-2-(3)	210	18:00	Leveraging Evolutionary Multiobjective Games for	Yi Cheng-Ren, University of Massachusetts,
			Configuring Cloud-integrated Body Sensor Networks	Boston; Junichi Suzuki, University of
				Massachusetts, B; Dung Phan, University of
				Massachusetts, Boston; Shingo Omura, OGIS
				International, Inc.; Ryuichi Hosoya, University
				of Massachusetts, Boston
TP4-4-2-(4)	262	18:20	Preference-Based NSGA-II for Many-Objective	Yuki Tanigaki, Osaka Prefecture University;
			Knapsack Problems	Kaname Narukawa, Honda Research Institute Europe
				GmbH; Yusuke Nojima, Osaka Prefecture University;
				Hisao Ishibuchi, Osaka Prefecture University
TP4-4-2-(5)	111	18:40	Myogenic potential pattern discernment method	Takahiro Hashimoto, Saga University; Takeshi
			using genetic programming for hand gesture	Tujimura, Saga university; Kiyotaka Izumi, Saga
				university

TP4-4-3 Fuzzy Systems 2

Chair: Yusuke Nojima (Osaka Prefecture University)

Room 3

17:20-18:40, Dec. 4(Thu.)

TP4-4-3-(1)	53	17:20	Stabilization Control of an Inverted Pendulum by	Jin Arai, University of Fukui; Ryusuke Hata,
			Complex-valued Neuro-Fuzzy Learning Algorithm	University of Fukui; Kazuyuki Murase, University
				of Fukui
TP4-4-3-(2)	54			Ryusuke Hata, University of Fukui; Kazuyuki
				Murase, University of Fukui
TP4-4-3-(3)	175	18:00	Collaborative Maneuver Planning Using Fuzzy	Peter Ng, The Hong Kong Polytechnic University
			Integral In RTS game	
TP4-4-3-(4)	302	18:20	Genetic Lateral Tuning of Membership Functions as	Yusuke Nojima, Osaka Prefecture University; Yuji
			Post-processing for Hybrid Fuzzy Genetics-based	Takahashi, Osaka Prefecture University; Hisao
			Machine Learning	Ishibuchi, Osaka Prefecture University

TP4-4-4 Soft Computing Methodologies for Computer-aided Diagnosis
Chair: Syoji Kobashi (University of Hyogo), Hiroharu Kawanaka (Mie University), Miho Ohsaki (Doshisha University)
Room 4
17:20-18:40, Dec. 4(Thu.)

TP4-4-4-(1)	284	Array Sensors	YUSUKE TANIGUCHI, University of Hyogo; Hiroshi Nakajima, OMRON Corporation; Naoki Tsuchiya, OMRON Corporation; Junichi Tanaka, OMRON Corporation; Aita Fumiji, OMRON Corporation;
			Yutaka Hata, University of Hyogo
TP4-4-(2)	152	and LPC Cepstrum for the Prediction of Liver	Miho Ohsaki, Doshisha Üniversity; Akifumi Miyazaki; Shigeru Katagiri; Hideto Yokoi; Katsuhiko Takabayashi
TP4-4-4-(3)	394		Kazuhiko Tamaki, Mie University; Hiroharu Kawanaka
TP4-4-4-(4)	396	Morphological changes of aging brain structure in MRI analysis	Syoji Kobashi, University of Hyogo; Naotake Kamiura, University of Hyogo

TP4-4-5 Clustering -Fundamentals and Applications- 2 Chair: Yukihiro Hamasuna (Kinki University) Room 5 17:20-18:40, Dec. 4(Thu.)

TP4-4-5-(1)	84		A Comparative Study on Clustering-based Group	Akira Suwa, Osaka Prefecture University;
			Scenario Summarization in AHP	Katsuhiro Honda, Osaka Prefecture University;
				Akira Notsu, Osaka Prefecture University; Tomoe
				Entani, University of Hyogo
TP4-4-5-(2)	13	17:40	On Bezdek-type Fuzzy Clustering for Categorical	Yuchi Kanzawa, Shibaura Institute of Technology
			Multivariate Data	
TP4-4-5-(3)	49	18:00	Privacy Preserving Fuzzy Co-clustering with	Daiji Tanaka, Osaka Prefecture University;
			Distributed Cooccurrence Matrices	Toshiya Oda, Osaka Prefecture University;
				Katsuhiro Honda, Osaka Prefecture University;
				Akira Notsu, Osaka Prefecture University

TP4-4-5-(4)	65	18:20	Evidential	seed-based	semi-supervised	clustering	Violaine	Antoine,	LIMOS;	Nicola	s Labroche,	LIP6;
							Viet Vu,	Thai Ngu	yen Uniν	versity	of Technol	ogy

TP4-4-6 Soft Computing Techniques for Computer Vision

Chair: Motonori Doi (Osaka Electro-Communication University), Yoshimichi Ito (Osaka Electro-Communication University), Toshihiko Watanabe (Osaka Electro-Communication University)

Room 6

17:20-19:00, Dec. 4(Thu.)

TP4-4-6-(1)	368	17:20	An Aditional Simple Calibration Method for Kinect	Toshihiko Watanabe
			Based on CMAC	
TP4-4-6-(2)	364	17:40	Robust Estimation for Camera Homography by Fuzzy	Toshihiko Watanabe
			RANSAC Algorithm with Reinforcement Learning	
TP4-4-6-(3)	187	18:00	Robust Color Object Tracking Method against	Motonori Doi, Osaka Electro-Comm Uni.; Takaaki
			Illumination Color Change	Matsumoto; Akira Kimachi; Shogo Nishi; Norikazu
				Ikoma
TP4-4-6-(4)	217	18:20	Estimation of Geometric Parameters in 3D	Yoshimichi Ito, Osaka Electro-Comm. University;
			Reconstruction Problems Using Linear Matrix	Katsumi Irie; Shun Otsuka
			Inequalities	
TP4-4-6-(5)	59	18:40	Real-Time 3D Data Reduction and Reproduction of	Tomoko Yonezawa, Kansai University; Ken Ueda,
			Spatial Model using Line Detection in RGB Image	Kansai University

TP4-4-7 Affective Mediation and Intermediation through Multimodal Interaction

Chair: Tomoko Yonezawa (Kansai University)

Room 7

15:05-16:45, Dec.4(Thu.) (This session is moved to the PREVIOUS time slot. Time shown here is the correct time.)

TP4-4-7-(1)		Integrated Narrative Generation System	Taisuke Akimoto, The University of Electro- Communications; Takashi Ogata, Iwate Prefectural University
TP4-4-7-(2)	196	Expanded Literary Theory for Automatic Narrative Generation	Takashi Ogata, Iwate Prefectural University
TP4-4-7-(3)	278	Caring Expressions	Kunihiko Fujiwara, Kansai University; Jumpei Nishinaka, Kansai University; Naoto Yoshida, Kansai University; Tomoko Yonezawa, Kansai University

TP4-4-7-(4)	279	with Selective Information in Dialog	Tomoko Yonezawa, Kansai University; Yukari Nakatani, kansai University; Naoto Yoshida, Kansai University; Ayaka Kawamura, Kansai University
TP4-4-7-(5)	281	•	Hirotake Yamazoe, Osaka University; Tomoko Yonezawa, Kansai University; Shinji Abe

TP4-4-8 Intelligent Processing in Medical and Welfare Devices
Chair: Noboru Takagi (Toyama Prefectural University), Kouki Nagamune (University of Fukui)
Room 8
17:20-18:40, Dec. 4(Thu.)

TP4-4-8-(1)	252	17:20	Research of Rehabilitation Aid Device with DOF Constraintable Mechanism for Hemiplegic Upper Limbs	Koutaro Taniguchi, Kagoshima university; Yong YU, Kagoshima university; Tomokazu Noma, Kagoshima University; Ryota Hayashi, Kagoshima University; Shuji Matsumoto, Kagoshima University; Megumi Shimodozono; kazumi Kawahira
TP4-4-8-(2)	117	17:40	An Analysis of EndoButton Displacement and Attitude in Anterior Cruciate Ligament Reconstruction Using Bone Tunnel Axis	Yosuke Uozumi, University of Fukui; Kouki Nagamune, University of Fukui; Naoki Nakano, Kobe University; Kanto Nagai, Kobe University; Yuichiro Nishizawa, Kobe University; Shinya Oka, Kobe University; Daisuke Araki, Kobe University; Yuichi Hoshino, Kobe University; Takehiko Matsushita, Kobe University; Ryosuke Kuroda, Kobe University; Masahiro Kurosaka, Kobe University
TP4-4-8-(3)	118	18:00	A Measurement System of Manual Test Movement Using Marker from Optical Device	Feng Zhang, University of Fukui; Kouki Nagamune, University of Fukui; Shogo Kawaguchi, University of Fukui
TP4-4-8-(4)	119	18:20	A Development of Force Distribution Measurement System Around Greater Trochanter Under Pelvic Belt	Yusuke Shimizu, University of Fukui; Kouki Nagamune, University of Fukui GraduateSchool of Engineering; Keisuke Oe, Kobe University Graduate School of Medicine; Lee Yang, Kobe University Graduate School of Medicine; Takahiro Nikura, Kobe University Graduate School of Medicine; Ryosuke Kuroda, Kobe University; Masahiro Kurosaka, Kobe University

TP4-4-9 Cool Systems Engineering 2

Chair: Keitaro Naruse (University of Aizu), Masahito Yamamoto (Hokkaido University), Michiko Watanabe (Kitami Institute of Technology)

Room 9

17:20-18:40, Dec. 4 (Thu.)

TP4-4-9-(1)	233		Hybrid Genetic Algorithm with Priority Rule-based	
			Reconstruction for Flexible Job-shop Scheduling	Iizuka, Hokkaido University; Masahito Yamamoto,
				Hokkaido University
TP4-4-9-(2)	179	17:40	Insertion-based Particle Swarm Optimization with	Masaya Honjo, Hokkaido University; Hiroyuki
			Local Interaction	Iizuka, Hokkaido University; Masahito Yamamoto,
				Hokkaido University
TP4-4-9-(3)	172	18:00	Visualization of Spread of Topic Words on Twitter	Keigo Anma, University of Aizu; Shunsuke Wada,
			using Stream Graphs and Relational Graphs	University of Aizu; Kanto Nakayama, University of
				Aizu; Yuki Akamatsu, University of Aizu; Yuichi
				Yaguchi, University of Aizu; Keitaro Naruse,
				University of Aizu
TP4-4-9-(4)	194	18:20	Information Flow Clustering via Similarity of a	Naoki Terunuma, University of Aizu; Yuichi
			Propagation Tree	Yaguchi, University of Aizu; Yutaka Watanobe,
				University of Aizu; Ryuichi Oka, University of
				Aizu

TP5-1-1 Cognitive Robotics 1

Chair: Takenori Obo, Naoyuki Kubota (Tokyo Metropolitan University), Honghai Liu (University of Portsmouth) Room 1

8:40-10:00, Dec.5 (Fri.)

TP5-1-1-(1)	13			Honghai Liu, the University of Portsmouth
			Capabilities to Prostheses: Sening, Algorithms	
			and Applications	
TP5-1-1-(2)	98	9:20	ConBe Robot: The Development of Self-Perception	Sakmongkon Chumkamon, Kyushu Institute of
			and Expression in Face-to-Face Interaction	Technology; hayashi Eiji, Kyushu Institute of
				Technology
TP5-1-1-(3)	159	9:40		Muhammad Fahmi Abdul Ghani, Universiti Tenaga
			Sensor for Indoor mapping	Nasional; Khairul Salleh Mohamed Sahari,
				Universiti Tenaga Nasional; Chu Kiong Loo,
				Universiti Malaya

TP5-1-2

Brain Computing Systems 1 Chair: Takahiro Yamanoi (Hokkai-Gakuen Univ.), Suguru N. Kudoh (Kwansei Gakuin Univ.)

Room 2 8:40-10:00, Dec.5 (Fri.)

TP5-1-2-(1)	313			Isao Hayashi, Kansai University; Toshiyuki Maeda, Hannan University; Masanori Fujii, Hannan
				University; Tokio Tasaka, Doshisha University
TP5-1-2-(2)	254	9:00	Stability of neuronal electrical activity pattern	Yoshinori Matsui, Kwansei Gakuin University;
			evoked by two inputs stimulation.	Hidekatsu Ito, Kwansei Gakuin University; Wataru
				Minoshima; Suguru Kudoh
TP5-1-2-(3)	255	9:20	Improving performance and accuracy of the P300	Yuya Yamamoto, Nagoya University; Tomohiro
			speller via a second display	Yoshikawa; Takeshi Furuhashi
TP5-1-2-(4)	276	9:40	Validation of long-term changes of evoked	Fukui Yasuhiro, Kwansei Gakuin University;
			response with Self-Orgnization Map	Hidekatsu Ito, Kwansei Gakuin University; Wataru
				Minoshima; Suguru Kudoh

TP5-1-3 Neural Networks

Chair: Haruhiko Nishimura (University of Hyogo)

Room 3

8:40-10:00, Dec. 5 (Fri.)

TP5-1-3-(1)	66	8:40	Gradual Information Maximization to Clarify the Importance of Company Creeds	Ryozo Kitajima, Graduate School of Science and Technology, Tokai University; Ryotaro Kamimura, IT Education Center and Graduate School of Science and Technology, Tokai University
TP5-1-3-(2)	112		Q-learning in Continuous State-Action Space with Redundant Dimensions by Using a Selective Desensitization Neural Network	Takaaki Kobayashi, University of Tsukuba; Takeshi Shibuya, University of Tsukuba; Masahiko Morita, University of Tsukuba
TP5-1-3-(3)	367		Stochastic Weight Update for Recurrent Networks	Rudolf Jaksa, Technical University Kosice; Juraj Koscak; Peter Sincak, Technical University Kosice
TP5-1-3-(4)	150		Analysis of Routes to Chaos in Izhikevich Neuron Model with Resetting Process	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

TP5-1-4 Intelligent Logistics & Automation Systems
Chair: Yong-Tae Kim (Hankyong National University)
Room 4
8:40-10:00, Dec. 5 (Fri.)

TP5-1-4-(1)	360	8:40	Design of Simplified Fuzzy Logic Control System	BYUNG-JAE CHOI, DAEGU UNIVERSITY; Hyunho Yoo,
			for Segway Mobile Robot	Daegu University
TP5-1-4-(2)	340	9:00	Navigation Method Using Fuzzy Line Tracking for	Nguyen Truc, Hankyong National University; Eun-
			the Transportation Robot	Hey Sun, Hankyong National University; Young-Min
				Kim, Hankyong National University; Yong-Tae Kim,
				Hankyong National University
TP5-1-4-(3)	348	9:20	Platform of Tracked Electric Tower Wagon for Eco-	Young-Jae Ryoo, Mokpo National University;
			Friendly Agriculture	Youngjun Lee, Mokpo National University
TP5-1-4-(4)	353	9:40	PassSign: A New Autographic Password Recognition	Gi-Chul Yang, Mokpo National University
			Scheme for Intelligent Robots and Vehicles	

TP5-1-5

Rough sets, granular computing and their application 1
Chair: Hiroshi Sakai (Kyushu Institute of Technology)
Room 5
8:40-9:40, Dec.5 (Fri.)

TP5-1-5-(1)	30	8:40	Conjoint Effects of R&D on the Financial	Kao-Yi Shen, Chinese Culture University; Gwo-
			Performance of Semiconductor Companies: Rule-	Hshiung Tzeng, National Taipei University; Min-
			Based Granular Computing	Ren Yan, Chinese Culture UNiversity; Kuo-Ming
				Chien, National Applied Research Laboratories
TP5-1-5-(2)	374	9:00	Data Mining Approaches to the Characterizations	Renato Shibata, Osaka University; Masahiro
			of Nominees for FIFA Ballon d'Or Award	Inuiguchi
TP5-1-5-(3)	380	9:20	Clustering and Forecasting of Region of Interest	Wei QUAN, Waseda University; Watada Junzo, Waseda
			by Dividing Screen into Meshes in Video Frames	University

TP5-1-6

Biomedical Soft Computing Based on Human Sciences 1
Chair: Masahiro Nakano (Junshin Gakuen University)
Room 6
8:40-10:00, Dec. 5 (Fri.)

TP5-1-6-(1)	398			Seizaburo Arita, Kansai Medical University; Hiroyuki Hashshizume, Kasaoka Hand & UE Center
			Diagnostic System for Carpal Tunnel Syndrome with	
			two layers of diagnostic filters using clinical	Department of Central Division of
				Radiology, Okayama University Hospital
TP5-1-6-(2)	399			Satoru Takagi, Kogakuin University; Hiroaki Uesu,
			Undergraduate Students in Mathematics Lectures	Waseda University
			applying the Kano Model	
TP5-1-6-(3)	400			Syaiful Anam, Yamaguchi University; Eiji Uchino,
			Method Based on Morphology and Fractal	Yamaguchi University; Noriaki Suetake, Yamaguchi
				University
TP5-1-6-(4)	401	9:40	Human Detection Using a Salient Region	Gu Teng-Long, Kyushu Institute of Technology; Joo
				Tan, Kyushu Institute of Technology; Yutaro
				Yamamura; Seiji Ishikawa, Kyushu Institute of
				Technology Technology

TP5-1-7 Application to managerial decision making 1 Chair: Dongjoon Lee (NUCB), Sangheon Han(NUCB) Room 7 8:40-10:00, Dec. 5 (Fri.)

TP5-1-7-(1)	158			Hajime Eguchi, Nagoya Institute of Technology
			and knowledge of production staff	
TP5-1-7-(2)	153	9:00	A practical approaches to decrease the	Sangheon Han, NUCB
			consistency index in AHP	
TP5-1-7-(3)	130	9:20	Price versus Quantity Competition with Asymmetric	DongJoon Lee, NUCB; Joonghwa Oh, Nagoya
				University of Commerce & Business
TP5-1-7-(4)	247	9:40	Growth Potential Analysis with Application to a	Zheua Zhang, OIU; Sangsu HAN, Osaka International
			Business Simulation Game by DEA	University

TP5-1-8 Intelligent Approaches and Applications 1 Chair: C. W. Tao and Jyh-Yeong Chang Room 8 8:40-10:00, Dec.5 (Fri.)

TP5-1-8-(1)	312	8:40	Similarity Based ART 1 Model for Automatic Die Defect Detection and Classification	Jyh-Yeong Chang, National Chiao Tung University; Wei-Lun Chang, Department of Electrical Engineering, Chiao Tung University, Hsinchu TAIWAN
TP5-1-8-(2)	165	9:00	Enhanced Simultaneous Localization and Mapping (ESLAM) for Mobile Robots	Tung-Yuan Lin, National Taiwan Normal Univers; Chen-Chien Hsu, National Taiwan Normal University; Wei-Yen Wang; Yin-Tien Wang, Tamkang University; I-Hsum Li
TP5-1-8-(3)	70	9:20	Design of a DSP-based biaxial solar tracking system	C.W. Tao, National ILan University; Chen-Chia Chuang, Depart. E.E., NIU; Chia-Wen Chang
TP5-1-8-(4)	97	9:40	Expert systems for Information Security Management and Audit. Implementation phase issues.	Lyazzat Atymtayeva, Kazakh-British Technical Unive; maksat Kanatov, KBTU; Bagdat Yagaliyeva, KBTU

TP5-1-9

Human assist intelligent systems and service robots 1
Chair: Hakaru Tamukoh (Kyushu Institute of Technology), Eiichi Inohira (Kyushu Institute of Technology)
Room 9
8:40-10:00, Dec. 5 (Fri.)

TP5-1-9-(1)	115		Development of Positioning Device for Evaluation of Omni-directional Collision Detecting Bumper	Noriyuki SHIMPUKU, Kyushu Institute of Technology; Asahi MATSUKI, Kyushu Institute of
			of online are controlled controlled becoming bumper	Technology; Hiroyuki MIYAMOTO, Kyushu Institute
				of Technology
TP5-1-9-(2)	162	9:00	Complementary Filter for Orientation Estimation:	Romy Widodo, Kyushu Institute of Technology;
			Adaptive gain based on dynamic acceleration and	Hiraku Edayoshi, Kyushu Institute of Technology;
			its change	Chikamune Wada, Kyushu Institute of Technology
TP5-1-9-(3)	249	9:20	Color Conversion Algorithm for Color Blindness	Hideaki Orii, Fukuoka University; Hideaki Kawano,
			using Self-Organizing Map	Kyushu Institute of Technology; Hiroshi Maeda,
				Kyushu Institute of Technology; Takaharu Kouda,
				Fukuoka University
TP5-1-9-(4)	177	9:40	Development of Tendon-Driven Robotic Hand for	Yuki Kamogawa, Kanagawa University; Hun-ok Lim,
			Biped Humanoid Robot	Kanagawa University

TP5-2-1 Cognitive Robotics 2

Chair: Takenori Obo, Naoyuki Kubota (Tokyo Metropolitan University), Honghai Liu (University of Portsmouth)

Room 1

10:15-11:15, Dec. 5 (Fri.)

TP5-2-1-(1)	137	10:15	Robot-Human Handover Based on Position and	Futoshi Kobayashi, Kobe University; Kouki
			Posture of Human Hand	Okamoto; Fumio Kojima
TP5-2-1-(2)	275	10:35	Humanoid Behaviour Learning through Visuomotor	Farhan Dawood, University of Malaya; Chu Kiong
			Association by Self-Imitation	Loo, Universiti Malaya
TP5-2-1-(3)	369	10:55	Word-of-mouth Recommender System using Preference	Jun Shimazaki, Tokyo Metropolitan University;
			Extraction based on IEC	Takenori Oobo , Tokyo Metropolitan University;
				Naoyuki Kubota

TP5-2-2

Brain Computing Systems 2 Chair: Takahiro Yamanoi (Hokkai-Gakuen Univ.), Suguru N. Kudoh (Kwansei Gakuin Univ.)

Room 2

10:15-11:35, Dec. 5 (Fri.)

TP5-2-2-(1)	271			Junichi Suzuki, University of Massachusetts, B;
			Intrabody Nanoscale Sensor Networks	Pruet Boonma, Chiang Mai University
TP5-2-2-(2)	178	10:35	Causal Analysis Based on Integration of Different	
			Indices	OMRON Corporation; Hiroshi Nakajima, OMRON
				Corporation
TP5-2-2-(3)	238	10:55	The effects of transient abolishment of	Ohki Yuto, Kwanseigakuin University; Hidekatsu
			electrical activity on dynamics in a dissociated	Ito, Kwansei Gakuin University; Wataru Minoshima;
				Suguru Kudoh
TP5-2-2-(4)	167	11:15	Fractal Dimension Methods to Determine Optimum	Hossein Siamaknejad, University of Malaya; Liew
			EEG Electrode Placement for Concentration	Wei Shiung, University of Malaya; Chu Kiong Loo,
			Estimation	Universiti Malaya

TP5-2-3

Machine Learning 3 Chair: Keisuke Yamazaki (Tokyo Institute of Technology)

Room 3

10:15-11:35, Dec.5 (Fri.)

TP5-2-3-(1)	39	10:15	Two Statistical Methods for Grouping Vehicles in	Fumito Nakamura, Tokyo Institute of Technology;
			Traffic Flow Based on Probabilistic Cellular	Keisuke Yamazaki, Tokyo Institute of Technology
			Automata	
TP5-2-3-(2)	40	10:35	The Optimal Hyperparameter for Bayesian	Keisuke Yamazaki, Tokyo Institute of Technology
			Clustering and its Application to the Evaluation	
			of Clustering Results	

TP5-2-3-(3)	61	10:55		Koki Saito, Osaka Prefecture University; Akira Notsu, Osaka Prefecture University; Katsuhiro Honda, Osaka Prefecture University
TP5-2-3-(4)	214		An Approach to Category Classification of Cosmetics Reviews based on Brand Names	Sayuri Anbe, Ochanomizu University; Ichiro Kobayashi, Ochanomizu University

TP5-2-4 Recommender Systems

Chair: Jee-Hyong Lee (Sungkyunkwan University)

Room 4

10:15-11:35, Dec.5 (Fri.)

TP5-2-4-(1)	215		· · · · · · · · · · · · · · · · · · ·	AARON, CHI YI LING, DONGSEO UNIVERSITY; Dae-Ki
			Collaborative Filtering	Kang, Dongseo University
TP5-2-4-(2)	316	10:35	Improving a Recommender System by Collective	Bu Sung Kim, Sungkyunkwan University; Heera Kim;
			Matrix Factorization with Tag Information	Jaedong Lee; Jee-Hyong Lee
TP5-2-4-(3)	330	10:55	Group Recommendation System: Focusing on Home	Noo-ri Kim, Sungkyunkwan University; Jee-Hyong
			Group User in TV Domain	Lee
TP5-2-4-(4)	320	11:15	Comparison of Techniques for Time Aware TV	SungTak Oh, Sungkyunkwan University; Noo-ri Kim,
			Channel Recommendation	Sungkyunkwan University; Jaedong Lee; Jee-Hyong
				Lee

Rough sets, granular computing and their application 2 Chair: Masahiro Inuiguchi (Osaka University) TP5-2-5

Room 5

10:15-11:15, Dec. 5 (Fri.)

TP5-2-5-(1)	371		Empty-Stringizing of the False Value in Crisp and	Takehiro Tanaka; Tetsuya Murai, Hokkaido
				University; Yasuo Kudo, Muraran IT; Seiki Akama
TP5-2-5-(2)	383	10:35	Some Properties of Interrelated Attributes in	Yasuo Kudo, Muroran Institute of Technolog;
			Relative Reducts for Interrelationship Mining	Tetsuya Murai, Hokkaido University
TP5-2-5-(3)	357	10:55	Toward the Enhancement of the getRNIA System for	Mao Wu, Kyushu Institute of Technology; Naoto
			Rough-Set Based Data Analysis	Yamaguchi, Kyushu Institute of Technology; Chenxi
				Liu, Kyushu Institute of Technology; Hiroshi
				Sakai

Chair: Masahiro Nakano (Junshin Gakuen University)

Room 6

10:15-11:35, Dec. 5 (Fri.)

TP5-2-6-(1)	402		Histogram of Spatio Temporal Local Binary Patterns for Human Action Recognition	Sk. Md. Masudul Ahsan, Kyushu Institute of Technology; Joo Tan, Kyushu Institute of Technology; Yutaro Yamamura; Seiji Ishikawa, Kyushu Institute of Technology
TP5-2-6-(2)	403	10:35		Masahiro Nakano, Junshin Gakuen University; Makoto Matsuura, Junshin Gakuen University; Hiroyuki Matsuura, National Center for Geriatrics and Gerontology; Masaaki Tamagawa, Kyushu Institute of Technology; Toru Yukimasa, University of Occupational and Environmental Health
TP5-2-6-(3)	404	10:55	Small-angle measurements of proton-carbon nuclear reaction for secondary dose estimation	Y. Uozumi; T. Hashiguchi, Kyushu University; H. Yoneshige, Kyushu University; A. Sonoda, Kyushu University; Y. Koba, National Institute for Radiological Sciences
TP5-2-6-(4)	405	11:15	Relationship between logistic chaos and randomness using a matrix of probabilities and its application to the classification of time series	Seizaburo Arita, Kansai Medical University

TP5-2-7 Application to managerial decision making 2 Chair: Dongjoon Lee (NUCB), Sangheon Han(NUCB) Room 7 10:15-10:55, Dec. 5 (Fri.)

TP5-2-7-(1)	253	10:15	Real time decision making forecasting using Data	Md Asaduzzaman, University of Fukui; Kazuyuki
			mining and Decision tree	Murase, University of Fukui
TP5-2-7-(2)	240	10:35		Zheua Zhang, OIU; Ridwan Achyar, Osaka International University; Sangsu HAN, Osaka International University

Room 8 10:15-11:35, Dec.5 (Fri.)

TP5-2-8-(1)	56	10:15	Moral Judgment System Using Evaluation	Masahiro Yamamoto, Keio University; Masafumi
				Hagiwara
TP5-2-8-(2)	51	10:35	Mining Implict Outlier Purchasing Behaviors from	Li-Jen Kao, Hwa Hsia Institute of Technology; Yo-
			Fan Group Marketing Data	Ping Huang, National Taipei University of
				Technology Technology
TP5-2-8-(3)	67	10:55	Feature Genes Selection and Classification with	Jin-Tsong jeng, NFU; Shun-Feng Su, NTUST; Chih-
			SVM for Microarray Data of Lung Tissue	Ching Hsiao, Kao Yuan University
TP5-2-8-(4)	63	11:15	Adaptive Incremental Sliding Mode Controller for	Mei-Yung Chen, National Taiwan Normal Univers;
				Chieh-Kuo Lin, Nation Taiwan Normal University
			Motor and Chattering Reduction	

TP5-2-9 Human assist intelligent systems and service robots 2
Chair: Hakaru Tamukoh (Kyushu Institute of Technology), Eiichi Inohira (Kyushu Institute of Technology)
Room 9
10:15-11:15, Dec. 5 (Fri.)

	TP5-2-9-(1)	174	10:15	Estimation and Improvement of Foot Pressure	FANG JIN, Kyushu Institute of Technology;
				Measurement System for Standing-Up Motion in	Tadahiro Arima, Kyushu Institute of Technology;
				Elderly	Chikamune Wada, Kyushu Institute of Technology
	TP5-2-9-(2)	379			Tomas Cadrik, Technical university of Kosice;
				Optimization Algorithm for Finding Rules in an	Marián Mach, Technical university of Kosice;
					Peter Sincak, Technical University Kosice
	TP5-2-9-(3)	351	10:55	User's Moving Intention Identification for Human	Shen Bo, Kochi university of technology; Wang
				Support Robot	Shuoyu, Kochi University of Technology; Wang
L					Yina, Kochi University of Technology

TP5-3-1 Brain Computing Systems 3
Chair: Takahiro Yamanoi (Hokkai-Gakuen Univ.), Suguru N. Kudoh (Kwansei Gakuin Univ.)
Room 1
15:35-16:35, Dec. 5 (Fri.)

TP5-3-1-(1)	I2	15:35	[Invited Talk] Elucidation of Brain Functions by Ta	akahiro Yamanoi, Hokkai Gakuen University
			Dipole Estimation of EEGs	
			and its Applications to Brain Computer Interface	

TP5-3-1-(2)	106	Extracting Train Driver's Perception Strategies	Yukio Horiguchi, Kyoto University; Takayuki
		Using Interpretive Structural Modeling	Suzuki, Kyoto University; Tetsuo Sawaragi, Kyoto
			University; Hiroaki Nakanishi, Kyoto University;
			Tetsuya Nakamura, West Japan Railway Company;
			Michinori Muneshige, West Japan Railway Company;
			Hidefumi Nishimoto, West Japan Railway Company;
			Tomoharu Takimoto, West Japan Railway Company

TP5-3-2 Fuzzy Systems 3

Chair: Jun Yoneyama (Aoyama Gakuin Universiy)

Room 2

15:35-16:55, Dec.5 (Fri.)

TP5-3-2-(1)	94			Maslina Zolkepli, Tokyo Institute of Technology;
			Automatic Switch between ensembles of Clustering	Fangyan Dong, Tokyo Institute of Technology;
			Methods	Kaoru Hirota, Tokyo Institute of Technology
TP5-3-2-(2)	120	15:55	Output Feedback Control Design with Guaranteed	Jun Yoneyama, Aoyama Gakuin Universiy; Kenta
			Cost of Takagi-Sugeno Fuzzy Systems	Hoshino, Aoyama Gakuin University
TP5-3-2-(3)	147	16:15	Likelihood Inference based on Fuzzy Data in	Seunghoe Choi, Korea Aerospace University;
			Regression Model	Hyeyoung Jung, Seoul National University; Woo Joo
				Lee, Yonsei University; Jin hee Yoon, Sejong
				University
TP5-3-2-(4)	218	16:35	Privacy Preserving Extraction of Fuzzy Rules from	Jiang Jinsai, Osaka Prefecture University; Umano
			Distributed Data with Different Attributes	Motohide, Osaka Prefecture University

TP5-3-3 Soft Computing 2

Chair: Manabu Shimakawa (Kumamoto National College of Technology)

Room 3

15:35-16:55, Dec. 5 (Fri.)

TP5-3-3-(1)	100	15:35	Study on Stairs Detection using RGB-Depth Images	Soichiro Murakami, Kumamoto NCT; Manabu
				Shimakawa: Takashi Kato: Kimiyasu Kiyota
TP5-3-3-(2)	29	15:55	Local Binary Feature Based on Census Transform	Yasufumi Touma, Kyushu Institute of Technology;
			for Mobile Robot	Hayato Hagiwara, Kyushu Institute of Technology;
				Kenichi Asami, Kyushu Institute of Technology;
				Mochimitsu Komori, Kyushu Institute of Technology

TP5-3-3-(3)	146	16:15	A Pedestrian Detection Method Using the Extension	Yuki Nakashima, Kyushu Institute of Technology;
			of the HOG Feature	Joo Tan, Kyushu Institute of Technology; Seiji
				Ishikawa, Kyushu Institute of Technology
TP5-3-3-(4)	234	16:35	Hybrid Feedback GMDH-type Neural Network Using	Tadashi Kondo, Tokushima University; Junji Ueno,
			Principal Component-Regression Analysis and Its	Tokushima University; Schoichiro Takao, Tokushima
			Application to Medical Image Recognition of Heart	University
			Regions	

TP5-3-4 Intelligent system of industrial applications Chair: Youngchul Bae (Chonnam National University) Room 4

15:35-17:15, Dec. 5 (Fri.)

TP5-3-4-(1)	333		Development of heat generating system based on small wind turbine system	Furqan Asghar, Kunsan national university; se- yoon kim, kunsan national university; Sung Ho
			•	kim, kunsan national university
TP5-3-4-(2)	321			Regin Cabacas, Kunsan National University; Hyunho
			Prioritization Scheme for Wireless Body Area	Yang, Dept. of Teecommunication and Information
			Networks	Engineering Kunsan National University; In-Ho Ra,
				Dept. of Information and Telecommunications
				Engineering Kunsan National Univ.
TP5-3-4-(3)	304	16:15	Mathematical Analysis of Line Intersection	sajina Pradhan; Suk-seung Hwang, Chosun
				University
TP5-3-4-(4)	306	16:35	Implementation of Motor Controller using Zynq EPP	Younf Pil Lee, READONE TECHNOLIGES CO., LTD; Yong
				seon Moon, Sunchon National University; HuangLin
				Yun, Chonnam. National University; Youngchul Bae,
				Chonnam National University
TP5-3-4-(5)	20		Adaptive Observer-based Tracking Control of Underactuated Surface Vessels	Bong Seok Park, Chosun Univ'

TP5-3-5 Medical and Human Assist Systems

Chair: Kazuo Kiguchi (Kyushu University)

Room 5

15:35-16:55, Dec. 5 (Fri.)

TP5-3-5-(1) 329	9 15:35	Estimation of Upper-Limb Motion in Sagittal Plane Yoshiaki Hayashi, Saga University
		Based on EEG Signals

TP5-3-5-(2)	352	15:55	A Study on Motion Modification Force in	Kazuo Kiguchi, Kyushu University; Atsushi Komori,
			Perception-Assist for a Lower-Limb Power-Assist	Kyushu University; Taiki Kouno, Kyushu University
			Exoskeleton	
TP5-3-5-(3)	283	16:15	Mechanism study for Microsurgical Robotic System	Jumpei Arata, Kyushu University; Hattori Masashi,
			that can induce Multisensory Illusion	Nagoya Institute of Technology; Masamichi
				Sakaguchi, Nagoya Institute of Technology; Ryu
				Nakadate, Kyushu University; susumu Oguri, Kyushu
				University; Makoto Hashizume, Kyushu University
TP5-3-5-(4)	144	16:35	Mammographic Density Classification	Piyamas Suapang, Rangsit University

TP5-3-6
Biomedical Soft Computing Based on Human Sciences 3
Chair: Seiji Ishikawa (Kyushu Institute of Technology)
Room 6

15:35-16:35, Dec. 5 (Fri.)

T	P5-3-6-(1)	188	15:35	Analysis of Single-Trial Event-Related Potentials	Hiroki Higa, University of the Ryukyus; Takeshi
					Tamaki, University of the Ryukyus
T	P5-3-6-(2)	73	15:55	Context-specific biological network construction	Yousang Jo, KAIST; Doheon Lee, KAIST; Kwang H.
					Lee, KAIST
T	P5-3-6-(3)	24	16:15	Protein Named Entity Classification with	Sagara Sumathipala, Nagaoka University of
				Probabilistic Features Derived from GENIA Corpus	Technolo; Koichi Yamada, Nagaoka University of
				and MEDLINE	Technology; Muneyuki Unehara, Nagaoka University
					of Technology

TP5-3-7 Forecasting

Chair: Kazuhiro Takeyasu (Tokoha University), Yasuo Ishii (Osaka International University)

Room 7

15:35-17:15, Dec. 5 (Fri.)

TP5-3-7-(1)	286	15:35	Possibility Predict Japanese Artist's Reputation	Kawahata Yasuko, Kyushu University; Etsuo Genda,
			in the world using the Mathematical Model of Hit	Kyushu University; Akira Ishii, Tottori
			Phenomena	University
TP5-3-7-(2)	11	15:55	A Hybrid Method for Forecasting With An	Kazuhiro Takeyasu, Tokoha University; Daisuke
			Introduction of a Day of the Week Index to the	Takeyasu, The Open University of Japan; Hirotake
			Daily Shipping Data of Sanitary Materials	Yamashita, Chubu University

TP5-3-7-(3)	15	Overall Sensitivity Analysis Utilizing Bayesian Network for the Questionnaire Investigation on SNS	Tsuyoshi Aburai, Doshisha University; Kazuhiro Takeyasu, Tokoha University
TP5-3-7-(4)	17	A hybrid method to improve forecasting accuracy	Yasuo Ishii, Osaka International University; Kazuhiro Takeyasu, Tokoha University
TP5-3-7-(5)	58		Yuki Higuchi, Setsunan University; Hiromasa Takeyasu, Kagawa Junior College; Kazuhiro Takeyasu, Tokoha University

Intelligent Approaches and Applications 3 Chair: Chen-Chia Chuang and Chih-Ching Hsiao TP5-3-8 Room 8

15:35-16:55, Dec.5 (Fri.)

TP5-3-8-(1)	12			Chen-Chia Chuang, Depart. E.E., NIU; Shun-Feng
			regression networks for interval-valued data with	Su, NTUST; Chih-Wen Li, NIU; Jin-Tsong jeng, NFU;
			outliers	Chih-Ching Hsiao, Kao Yuan University
TP5-3-8-(2)	23	15:55	The Difficulty Estimation Method for Mystery	Seiya Hiraoka, KNCT; Noriyuki Okumura, Kagawa
				National College of Technology
TP5-3-8-(3)	38	16:15	Multi-Root I/O Virtualization Based Redundant	Sendren Sheng-Dong Xu, National Taiwan University
			Systems	of; Chia-Hong Wang, Grad. Inst. of Automation
				and Control, National Taiwan Uni. of Sci. & Tech.
				; Teng-Chang Chang; Shun-Feng Su, NTUST
TP5-3-8-(4)	273	16:35	Autonomous landing System for Aerial Mobile Robot	Min-Fan Ricky Lee, National Taiwan University of
			Cooperation	Science and Technology; Shun-Feng Su; Jie-Wei
				Eric Yeah, National Taiwan University of Science
				and Technology; Husan-Ming Huang, National Taiwan
				University of Science and Technology; Jonathan
				Chen, University of California Los Angeles

TP5-3-9

New Generation Computing Paradigm Chair: Akihiro Fujiwara (Kyushu Institute of Technology)

Room 9

15:35-17:15, Dec. 5 (Fri.)

TP5-3-9-(1)	221	15:35	Subjective Speed Evaluation on Striped Image	Shunta Ando; Kaori Yoshida, Kyushu Institute of Technology
TP5-3-9-(2)	288	15:55	An Implementation of Tracing Attacks on Advanced Persistent Threats by Using Actors Model	Takatoshi Murakami, Kyushu Institute of Technology; Shuhei Kumano, Kyushu Institute of Technology; Hiroshi Koide, Kyushu Institute of Technology
TP5-3-9-(3)	294	16:15	Evolutionary Algorithms for the Pursuit Problem	Keisuke Tahara, Kyushu Institute of Technology; Eiji Miyano, Kyushu Institute of Technology
TP5-3-9-(4)	151	16:35	Human-based Genetic Algorithm for Facilitating Practical Use of Data in the Internet	Ryosuke Hasebe, Kyushu Institute of Technology; Rina Kouda, Kyushu Institute of Technology; Kei Ohnishi, Kyushu Institute of Technology; Masaharu Munetomo, Information Initiative Center, Hokkaido University
TP5-3-9-(5)	105		Enzymatic Numerical P Systems for basic operations and sorting	Shohei Maeda, Kyushu Institute of Technology; Akihiro Fujiwara, Kyushu Institute of Technology

TP6-1-1 Intelligent Image and Signal Processing 1

Chair: Gerald Schaefer; Md. Atiqur Rahman Ahad (Loughborough University; University of Dhaka)

Room 1

9:55-10:55, Dec. 6 (Sat.)

ſ	TP6-1-1-(1)	I 4	9:55	[Invited Talk] Addressing class imbalance in	Gerald Schaefer, Loughborough University
				pattern classification problems	
ſ	TP6-1-1-(2)	140	10:35	Multi-tensor Completion for Estimating Missing	Chao Li, RIKEN Brain Science Institute; Lili Guo,
				Values in Video Data	Harbin Engineering University; Andrzej Cichocki,
					RIKEN

TP6-1-2 Digital Monozukuri

Chair: Aynur Unal (Ansal University), Jay Rajasekera (International University of Japan), Durgesh Kumar Mishra

Room 2

9:55-10:55, Dec. 6 (Sat.)

TP6-1-2-(1)	212	9:55	Design and Analysis of Electric Micro Vehicle	Ichirota Kanai, Kanagawa University; Naoki
			with Tubular Frame Structure	Fujinami; Hun-ok Lim, Kanagawa University
TP6-1-2-(2)	377	10:15	Simulation and Analysis of vector control of	Abhishek Jain, Ansal University; Aynur Unal;
			Induction Motor	Sumit Maitra, Ansal University; Antimdev Mishra,
				Ansal University

TP6-1-2-(3) 391	10:35	Early detection of Heart Diseases	using ANN	Chandraveer Rathore, Ansal University; Aynur
				Unal; Shivaen Katial; Antimdev Mishra, Ansal
				University; Saurabh Juneja, Ansal University

TP6-1-3 Decision Making and Soft Computing Techniques under Uncertainty

Chair: Takashi Hasuike (Osaka University)

Room 3

9:55-10:35, Dec. 6 (Sat.)

[]	[P6-1-3-(1)	160	9:55	Constructive Method for Appropriate Membership	Takashi Hasuike, Osaka University; Hideki
				Function Integrating Fuzzy Entropy with Smoothing	Katagiri, Hiroshima University; Hiroe Tsubaki,
				Function into Interval Estimation	The Institute of Statistical Mathematics
Π	[P6-1-3-(2)	104	10:15	Predicting Human Decisions from Eye-Tracking	Haruhiko Takeuchi, AIST
				Records	

TP6-1-4 Human Friendly Computing and Systems 1

Chair: Atsushi Inoue (Eastern Washington University)

Room 4

9:55-10:55, Dec. 6 (Sat.)

TP6-1-4	4-(1)	343	9:55	Fundamental Frequency of Child-Directed Speech	Mark VanDam, Washington State University; Paul De
					Palma, Washington State University
TP6-1-4	4-(2)	349	10:15	Perceptual Color Space: Motivations, Methodology,	Pakizar Shamoi, KBTU; Hiroharu Kawanaka; Atsushi
				Applications	Inoue
TP6-1-4	4-(3)	280	10:35	An Interactive Stuffed-toy Device for	Haruka Mase, Kansai University; Yuya Yoshida;
				Communicative Description on Twitter	Tomoko Yonezawa, Kansai University

TP6-1-5 Image and Medical Image Processing 1

Chair: Hidetaka Arimura (Kyushu University)

Room 5

9:55-10:55, Dec. 6 (Sat.)

Ī	TP6-1-5-(1) 2	204	9:55	Automatic Identification of Lung Candidate Shuji Tanaka, Kyushu Institute of Technology	٦
				Nodules from TemporalSubtraction Images by Using	
				Chest CT Images	

TP6-1-5-(2)	85	10:15	Three-Dimensional Non-Rigid Registration of	Shota Yamada, Kyushu Institute Of Technology
			Thoracic CT Image Based on Finite Element Method	
TP6-1-5-(3)	86	10:35	Automatic Detection of GGO Regions on CT Images	Keisuke Yokota, Kyusyu Institute of Technology
			in LIDC Dataset Based on Statistical Features	

TP6-1-6 Application to Business

Chair: Yukio Kodono (Osaka International University), Yoshiyuki Yabuuchi (Shimonoseki City University)

Room 6

9:55-10:55, Dec. 6 (Sat.)

TP6-1-6-(1)	296			Yoshiyuki Matsumoto, Shimonoseki City University
			including a large variation	
TP6-1-6-(2)	55	10:15	The Management Strategy of Master Kong based on	CHIH SHENG CHIA, Graduate School of Osaka Inter;
			Fuzzy VRIO Analysis	Yukio Kodono, Osaka International University
TP6-1-6-(3)	157	10:35	Fuzzy Robust Regression Models based on	Yoshiyuki Yabuuchi, Shimonoseki City University;
			Granularity and Possibility Distribution	Junzo Watada, Waseda University

TP6-1-7 Total Environment for Text Data Mining 1

Chair: Mitsunori Matsushita (Kansai University)

Room 7

9:55-10:35, Dec. 6 (Sat.)

ſ	TP6-1-7-(1)	244	9:55	Constructing Knowledge Using Exploratory Text	Naoya Otsuka, Kansai University; Mitsunori
				Mining	Matsushita, Kansai University
ſ	TP6-1-7-(2)	52	10:15	Harmful Comments Extraction from a Bulletin Board	Yoko Nishihara, Ritsumeikan University; Kazuki
				System using Word Meaning and Impression on	Iwasa; Junichi Fukumoto; Ryosuke Yamanishi
				Thread Context	

(TP6-1-7-(3) is moved to poster session.)

TP6-1-8 Collective Intelligence and Intelligent Data Analysis

Chair: Katsuhiro Honda (Osaka Prefecture University)

Room 8

9:55-11:15, Dec. 6 (Sat.)

TP6-1-8-(1)	50	9:55	Epidemic Process Simulator by Multi Agent	Hattori Yuichi, Osaka Prefecture University;
				Akira Notsu, Osaka Prefecture University;
				Katsuhiro Honda, Osaka Prefecture University
TP6-1-8-(2)				Tomoe Entani, University of Hyogo
TP6-1-8-(3)	19	10:35	Exclusive Condition on Item Partition in Fuzzy	Katsuhiro Honda, Osaka Prefecture University;
			Co-clustering Based on K-L Information	Chi-Hyon Oh, Osaka University of Economics and
			Regularization	Law; Akira Notsu, Osaka Prefecture University
TP6-1-8-(4)	42	10:55	Utility of Turning Spot Learning under Complex	Yuki Tezuka, Osaka Prefecture University; Akira
			Goal Search and the Limit of Memory Usage	Notsu, Osaka Prefecture University; Katsuhiro
				Honda, Osaka Prefecture University

TP6-2-1 Intelligent Image and Signal Processing 2

Chair: Gerald Schaefer; Md. Atiqur Rahman Ahad (Loughborough University; University of Dhaka)

Room 1

11:10-12:30, Dec. 6 (Sat.)

Γ	TP6-2-1-(1)	I 5	11:10	[Invited Talk] Challenges and Constraints of	Md. Atiqur Rahman Ahad, University of Dhaka
				Action Analysis	
Γ	TP6-2-1-(2)	46	11:50	A Three-Dimensional Macrophages Movement Analyser	Benjamin Culeux, Osaka Prefecture University;
					Tomoharu Nakashima, Osaka Prefecture University
Γ	TP6-2-1-(3)	246	12:10	Object Recognition based on Inhibition-of-Return	Yasuto Tamura, Kanagawa university; Hun-ok Lim,
				Control using Particle Filter	Kanagawa University

TP6-2-2 Methods and Applications of Soft Computing Chair: Sungshin Kim (Pusan National University) Room 2 11:10-12:30, Dec. 6 (Sat.)

TP6-2-2-(1)	45	11:10	Sequence Alignment of Dynamic Intervals for	Jiacang Ho, Dongseo University; Dae-Ki Kang,
			Keystroke Dynamics based User Authentication	Dongseo University
TP6-2-2-(2)	213	11:30	Novel Naive Bayes Based on Attribute Weighting in	Zhongliang Xiang, Weifang University of Science;
			Kernel Density Estimation	Xiangru Yu, Weifang University of Science; ALEX
				MING HUI WONG, DONGSEO UNIVERSITY; Dae-Ki Kang,
				Dongseo University
TP6-2-2-(3)	331	11:50	Fuzzy Decision Tree based GentleBoost Algorithm	Hansoo Lee, Pusan National University; Sungshin
			for Detecting Chaff Echo in Weather Radar Data	Kim, Pusan National University

Ī	TP6-2-2-(4)	332	12:10	Short-term hourly load forecasting using PSO-	Jungwon Yu; Hansoo Lee, Pusan National
				based AR model	University; Yeongsang Jeong; Sungshin Kim, Pusan
					National University

TP6-2-4

Human Friendly Computing and Systems 2 Chair: Atsushi Inoue (Eastern Washington University)

Room 4

11:10-12:30, Dec. 6 (Sat.)

TP6-2-4-(1)	134	11:10	Fast Algorithm for Character Line Extraction from	Katsunari Goto, Mie University; Chinthaka
			Handwritten Examination Papers	Premachandra, Tokyo University of Science; Shinji
				Tsuruoka; Haruhiko Takase; Hiroharu Kawanaka
TP6-2-4-(2)	131	11:30	Study on Logotype Design Based on Target	Kento Hagiyama, University of Tsukuba; Takehisa
			Impression	Onisawa, University of Tsukuba
TP6-2-4-(3)	113	11:50		Takashi Matsumoto, Mie Univercity; Yuta Shin;
			Redundant Spikes -Automatic Adjustment of Hidden	Haruhiko Takase; Hiroharu Kawanaka; Shinji
			Units-	Tsuruoka
TP6-2-4-(4)	108	12:10		Masahiro Ootsuka, Tokyo University of Science;
			and Its Fundemental Controlling Approach	Chinthaka Premachandra, Tokyo University of
				Science; Kiyotaka Kato, Tokyo University of
				Science

TP6-2-5 Image and Medical Image Processing 2

Chair: Hyoungseop Kim (Kyushu Institute of Technology)

Room 5

11:10-12:30, Dec. 6 (Sat.)

TP6-2-5-(1)	101	11:10	An approach of exposure dose reduction of cone-	HIDEMI KAMEZAWA, Kyushu Univercity; HIDETAKA
			beam computed tomography in an image guided	ARIMURA, Kyushu University; KATSUTOSHI SHIRIEDA;
			patient positioning system by using various noise	NOBORU KAMEDA; MASAFUMI OHKI
			suppression filters	
TD 0 0 E (0)				
TP6-2-5-(2)	88	11:30	High Speed Image Registration of Head CT and MR	Mio Kisaki, kisakikit
TP6-2-5-(2)			Images Based on Levenberg-Marquardt Algorithm	Mio Kisaki, kisakikit
TP6-2-5-(2)			Images Based on Levenberg-Marquardt Algorithm	Mio Kisaki, kisakikit Atsushi Yoshida, Kyushu Institute of Technology

TP6-2-5-(4) 303	12:10	An Image Registration Method for Head CTA and MRA Hyoungseop Kim, Kyushu Institute of Technology
		Images Using Mutual Inforamtion on Volumes of
		Interest

TP6-2-7 Total Environment for Text Data Mining 2

Chair: Mitsunori Matsushita (Kansai University)

Room 7

11:10-12:10, Dec. 6 (Sat.)

TP6-2-7-(1)	36	11:10	Proposal of Support Tools for Analyzing RDF	Yasufumi Takama, Tokyo Metropolitan University;
			Database Using TETDM	Koichi Tashiro, Tokyo Metropolitan University
TP6-2-7-(2)	37	11:30	Research on Text Data Mining of Hospital Patient	Muno Kushima, University of Miyazaki; kenji
			Records Within Electronic Medical Records	araki, University of Miyazaki Hospital; muneou
				suzuki, University of Miyazaki Hospital;
				tomoyoshi yamazaki, University of Miyazaki
				Hospital; noboru sonehara, National institute of
				informatics
TP6-2-7-(3)	90	11:50	Knowledge Emergence using Total Environment for	Wataru Sunayama, Hiroshima City University
			Text Data Mining	

Poster Chair: Yukinobu Hoshino (Kochi University of Technology) 14:15-15:20, Dec. 5 (Fri.)

Poster-(1) 139 14:15 A similarity-based M(1, 2, 3) approach for rating Junhu Ruan, Dalian University of Technolog; Yan SHI; Takashi Samatsu, Tokai University the security of network systems Poster-(2) 277 14:15 Behavior-based Autonomous Cooperative Control of Gen'ichi Yasuda, Nagasaki Institute of Applied Intelligent Mobile Robot Systems with Embedded ISc i ence Petri Nets 14:15 Mutual Learning Using Nonlinear Perceptron Daisuke Saito, Nihon University; Kazuyuki Hara, Poster-(3) 75 Nihon University Satoshi Ito. Tottori University; Masaki Murata. Poster-(4) 14:15 Order Estimation of Japanese Paragraphs by Supervised Machine Learning Tottori University; Masato Tokuhisa, Tottori University; Qing Ma, Ryukoku University Poster-(5) 91 14:15 Electrostatic Induction Methods for Human Walking Koichi Kurita, Kinki University Motion Detection 14:15 Extraction and Categorization of Transition Sanako Hori, Tottori University; Masaki Murata. Poster-(6) Information from Large Volume of Texts Using Tottori University; Masato Tokuhisa, Tottori Patterns and Machine Learning University; Qing Ma. Ryukoku University

Poster-(7)	96		Construction of Concept Network from Large Numbers of Texts for Information Examination Using TF-IDF and Deletion of Unrelated Words	Yuta Doen, Tottori University; Masaki Murata, Tottori University; Ryuta Otake, Tottori University; Masato Tokuhisa, Tottori University; Qing Ma, Ryukoku University
Poster-(8)	34	14:15	The new proposal of the calculation for the significance degree by once SOM learning	Matashige Oyabu, KIT; Heizo Tokutaka, SOM Japan Inc.; Masaaki Ohkita, SOM Japan Inc.; Masaharu Seno, Okayama University; Makoto Ohki, Tottori University
Poster-(9)	16	14:15	Visualizing Regression data by Supervised Generative Topographic Mapping	Nobuhiko Yamaguchi, Saga University
Poster-(10)	103		Fuzzy Particle Swarm Optimization Applied to Neuroevolution	Hidehiko Okada, Kyoto Sangyo University
Poster-(11)	205		A Note on the Representation of the Choquet Integral Based on the Derivative of Fuzzy Measure	Shinsuke Nakamura, Tokyo Institute of Technology; Toshiaki Murofushi, Tokyo Institute of Technology
Poster-(12)	48	14:15	Fuzzy Relational Database Model Using Relational Calculus	Mohammad Akbar, Kyushu University; Yoshihiro Mizoguchi, Kyushu University
Poster-(13)	149	14:15	Fuzzy Tracking Control of Underactuated Ship	Do Wan Kim, Hanbat National University
Poster-(14)	270	14:15	Estimation of Hyperparameters in Probabilistic Slow Feature Analysis	Akihito Takeuchi, Kobe University; Toshiaki Omori, Kobe University
Poster-(15)	180	14:15	An automated observation system for elderly people using acoustic information	Kin Kin, Sojo university; Hiroyuki Nishi, Sojo university; Yoshimasa Kimura, Sojo university; Toshio Kakinoki, Sojo university
Poster-(16)	181	14:15	A study of an automatic hammering test using pattern recognition	Yuichi Nakashima, Sojo university; Hiroyuki Nishi, Sojo university; Yoshimasa Kimura, Sojo university; Toshio Kakinoki, Sojo university
Poster-(17)	121	14:15	Unsupervised Weight Parameter Estimation for Exponential Mixture Distribution based on Symmetric Kullback-Leibler Divergence	Masato Uchida, Chiba Institute of Technology
Poster-(18)	122	14:15	Tight Lower Bound of Generalization Error in Ensemble Learning	Masato Uchida, Chiba Institute of Technology
	243	14:15	Simulation for Effect of Extracellular Electric Field on Neuronal Response	Takafumi Shimamoto, Kobe University; Toshiaki Omori, Kobe University; Toru Aonishi, Tokyo Institute of Technology; Seiichi Ozawa, Kobe University
Poster-(20)	397	14:15	Local Feature Selection by Visual Saliency and its Embedding to Image Representation	Yuki Shinomiya, Electronic and Photonic System Engineering Kochi University of Technology Kochi,; Yukinobu Hoshino, Kochi University of Technology

Poster-(21)	242	14:15	Sound masking for achieving speech privacy with	Takahiro Tamesue, Yamaguchi University
			parametric acoustic array speaker	
Poster-(22)	208	14:15	Towards Efficient Closed Pattern Mining from	Hirohisa Seki, Nagoya Inst. Technology; Yohei
			Distributed Multi-Relational Data	Kamiya, Nagoya Inst. Technology
Poster-(23)	285	14:15	Vehicle Robot Platoon Experiment By Using Multi-	Eisuke Kita, Nagoya University
			Leader Vehicle Following Model	
Poster-(24)	282	14:15	An Evaluation of Visual Function using Blue	Risa Sakurai, University of Hyogo; Tadamasa
			Contrast Sensitivity	Takemura, Graduate School of Medicine; Tomohiro
				Kuroda, Kyoto University Hospital; Atuta Yoshida,
				University of Tokushima; Hiroyuki Horio,
				University of Hyogo; Hiroshi Tamura, Kyoto
				University Hospital
Poster-(25)	299	14:15	A Generalized Equilibrium Value-Based Approach	Chenxia Jin, Hebei University of Science an; Yan
			for Solving Fuzzy Transportation Problems with	SHI; Fachao Li
			Triangular Fuzzy Numbers	
Poster-(26)	135	14:15	Can electrical stimulation of the tensor fascia	Sota Nakano, Kyushu Institute of Technology;
			lata muscle decrease the maximum adduction force	Wataru Ikeda, Kyushu Institute of Technology;
			of the hip joint?	Chikamune Wada, Kyushu Institute of Technology
Poster-(27)	216		Hand Motion Recognition Using Near Infrared	Ganbayar Batchuluun; Bayanmunkh Odgerel, PaiChai
			Proximity Sensor	University; Chang Hoon Lee, Paichai University,
. (00)				Daejon, Korea
Poster-(28)	47	14:15	Selection of students for low income family	Ling Ling Ung, University of Technology MARA;
. (00)		1.4.1=	program using fuzzy algorithm	Zamali Tarmudi, University of Technology MARA
Poster-(29)	227	14:15		Marek Ogiela, AGH University of Sci and Tech;
			Exchange	Piotr Sułkowski, AGH University of Science and
D (00)	000	44.45		Technology
Poster-(30)	230	14:15	Cognitive Information Systems in Secure	Lidia Ogiela, AGH University of Science and
			Information Management and Personalized	Technology; Marek Ogiela, AGH University of Sci
			Cryptography	and Tech; Urszula Ogiela, AGH University of
D+ (01)	005	14.15	The analysis of COVED and the district	Science and Technology
Poster-(31)	225	14:15	The analysis of SSVEP evoked by the modulated	Shoya Ueda, Chubu University; Akitoshi Itai,
TDC 1 7 (0)	77	14.15	visual stimulus in medium and high frequencies	College of Engineering, Chubu University
TP6-1-7-(3)	77		Adding Possible Antonym Relations to Japanese	Tatsuya Senbon, Osaka Electro-Communication;
			Word Network for Domain Specific Sentiment	Kazuhiro Takeuchi, Osaka Electro-Communication
		1 7 (0	Analysis	University

(TP6-1-7-(3) is moved from TP6-1-7 to poster session.)