



Conference Program

the 2017 - 9th International Conference on Knowledge and Smart Technology (KST)

Amari Pattaya Hotel, Chon Buri Province, Thailand

Organized by KST Research Lab, Faculty of Informatics, Burapha University, Chonburi, Thailand

February 1-4, 2017

February 1, 2017	15.00-17.00	Registration					
	17.00-18.00	Steering & Technical Program Committee Meeting					
	18:00-20:30	Welcome Reception for Steering & Technical Program Committee and Keynote Speaker					
February 2, 2017	08.00	Registration					
	08.45	Opening Ceremony / Aranda meeting room					
	09.00	Keynote-I	Professor Dr. Katsumi Watanabe (Faculty of Science and Engineering, Waseda University, Tokyo, Japan)				
			Explicit and Implicit Aspects of Human Cognition and Behavior				
	09.50	Keynote-II	Professor Dr. Thomas Mandl (Information Science, University of Hildesheim, Germany)				
			Text Mining, Patent Retrieval and its Evaluation: Finding paths in the Labyrinth between Legal and Technical Challenges				
	10.40-11.00	Break					
		PaperID	Catleya meeting room Regular: Computational Intelligence Chair: Dr.Sunisa Rimcharoen (BUU, Thailand)	PaperID	Rimsuan 2 meeting room Regular: Emerging Intelligent Technologies & Intelligent applications Chair: Dr. Paramate Horkaew (SUT, Thailand)	PaperID	Mokara meeting room Regular: Intelligent Computer Networks and Systems Chair: Dr.Nutthanon Leelatrakul (BUU, Thailand)
	11.00	3	Distinguishing ACL Patients from Healthy Individuals using Multilayer Perceptron on Motion Patterns; By Worapan Kusakunniran, Nantawat Prachasri, Nattaporn Dirakbussarakom and Duangkamol Yangchaem	40	Towards an open monitoring platform for improving energy efficiency and thermal comfort in public buildings; By Antony Harfield and Waraporn Rattanongphisat	18	User Preferences Profiling Based on User Behaviors on Facebook Page Categories; By Rachsuda Jiamthapthaksin and Than Htike Aung
	11.20	4	Merging Artificial Immune System and Ordinal Optimization for Solving the Optimal Buffer Resource Allocation of Production Line; By Shih-Cheng Horng and Shieh-Shing Lin	95	An integrated smart technology system: A case study of logistic management of Electricity Generation Authority of Thailand (EGAT); By Oran Chieochan, Aukit SaoKaew and Ekkarat Boonchieng	71	Improvement of Container Scheduling for Docker using Ant Colony Optimization; By Chanwit Kaewkasi and Kornrathak Chuenmuneewong
	11.40	5	Research of Mining Algorithms for Uncertain Spatio-temporal Co-occurrence Pattern; By Zhanquan Wang, Bowen Lu, Fangli Ying, Man Kong and Minwei Tang	15	Human Fall Detection by Using the Body Vector; By Siriporn Pattamaset, Theekapun Charoenpong, Patsama Charoenpong and Chamaporn Chianrabutra	77	Impacts of Low Power Listening on Network Monitoring in Wireless Sensor Networks; By Krita Pattamasiriwat and Chaiporn Jaikaeo
	12.00-13.00	Lunch					

		PaperID	Catleya meeting room Regular: Computational Intelligence Chair: Dr.Sunisa Rimcharoen (BUU, Thailand)	PaperID	Rimsaun 2 meeting room Regular: Intelligent applications Chair: Dr. Antony Harfield (NU, Thailand)	PaperID	Mokara meeting room Human-Machine Interaction Workshop and Applications by ECTI Thailand Association Chair: Dr.Montri Phothisonothai (KMITL, Thailand)
February 2, 2017	13.00	6	Integrating Labeled Latent Dirichlet Allocation into Sentiment Analysis of Movie and General Domains; By Ryan Coughlin, Jean-Charles Coetsier and Rachsuda Jiamthapthaksin	21	An Intelligent System Architecture for Meal Assistant Robotic Arm; By Adna Sento, Pannawit Srisuk and Yuttana Kitjaidure		
	13.20	7	Adaptive Artificial Bee Colony Algorithm for solving the Capacitated Vehicle Routing Problem; By Sununta Mingprasert and Ruedee Masuchan	27	Low Cost Weather Station for Climate-Smart Agriculture; By Sonam Tenzin, Satetha Siyang, Theerapat Pobkrut and Teerakiat Kerdcharoen		
	13.40	8	Polysemy Detection in Distributed Representation of Word Sense; By Kana Oomoto, Haruka Oikawa, Eiko Yamamoto, Mitsuo Yoshida, Masayuki Okabe and Kyoji Umemura	28	Volatile Urine Biomarkers Detection in Type 2 Diabetes towards Use as Smart Healthcare Application; By Phuntsho Choden, Thara Seesaard, Tanthip Eamsa-Ard, Chutintorn Sriphrapadang and Teerakiat Kerdcharoen		
	14.00	17	3D Body Shape Clustering based on PSO by multi-fitness function; By Pornthep Sarakon, Supiya Charoensiriwath, Bunyarit Uyyanonvara and Hirohiko Kaneko	29	Electronic Nose Based Wireless Sensor Network for Soil Monitoring in Precision Farming System; By Ugyen Dorji, Theerapat Pobkrut and Teerakiat Kerdcharoen		
	14.20	19	Vehicle Detection on a Pint-Sized Computer; By Thanida Tangkocharoen and Ananta Srisuphab	42	Vietnamese-Thai Machine Translation using Rule-based Model; By Tung Nguyen Ba Son and Pusadee Seresangtakul		
	14.40-15.10	Break					

		PaperID	Catleya meeting room Regular: Computational Intelligence Chair: Dr.Nuthanon Leelatrakul (BUU, Thailand)	PaperID	Rimsaun 2 meeting room Regular: Intelligent applications Chair: Dr.Chalermpan Fongsamut (BUU, Thailand)	PaperID	Mokara meeting room Human-Machine Interaction Workshop and Applications by ECTI Thailand Association Chair: Dr.Montri Phothisonothai (KMITL, Thailand)
February 2, 2017	15.10	20	Thai Local Product Recommendation Using Ontological Content based Filtering; By Natedao Thocharat	43	Fault Detection for Circulating Water Pump Using Time Series Forecasting and Outlier Detection; By Manassakan Sanayha and Peerapon Vateekul		
	15.30	24	Study of Discretization Methods in Classification; By Kittichai Lavangnananda and Supharoek Chattanachot	45	A Gated Recurrent Unit Neural Network for Chinese Word Segmentation; By Xuelian Li, Hong Duan and Mu Xu		
	15.50	25	Majority Voting based on Q-Gaussian Activation Function Circular Extreme Learning Machine; By Sarutte Atsawaraungsuk	53	Time-Frequency Ratio Hashing for Content-Based Audio Retrieval; By Petcharat Panyapanuwat, Suwatchai Kamonsantiroj and Luepol Pipanmaekaporn		
	16.10	26	Inverse Kinematics Solution using Neural Networks from Forward Kinematics Equations; By Pannawit Srisuk, Adna Sento and Yutthana Kitjaidure	64	Isarn Dharma Alphabets Lexicon For Natural Language Processing; By Nongnud Phai boon and Pusadee Seresangtakul		
	16.00-17.00	Steering Committee Meeting / Mokara meeting room					
	17.00-18.00	The 3rd Meeting of International Consortium in Informatics (ICI Meeting) / Mokara meeting room					
	18.00-20:30	Welcome Party / Dinner at Aranda meeting room					

February 3, 2017		Registration						
	08.00	PaperID	Catleya meeting room Regular: Computational Intelligence Chair: Dr.Sartra Wongthanavas (KKU, Thailand)	PaperID	Rimsaun 2 meeting room Joint Workshop on the 3rd Patent Mining and its Applications & Digital Science- based Issue Resolution Chair: Prof.Thomas Mandl, (Information Science University of Hildesheim, Germany)	PaperID	Mokara meeting room Special Session on Cognitive Science and Human Perception Chair: Prof. Katsumi Watanabe (Waseda University / the University of Tokyo, Japan) and Prof. Roberto Caldara (University of Fribourg, Switzerland)	
	09.00	37	Mining weighted-frequent-regular itemsets from transactional database; By Kittipa Klangwisana and Komate Amphawan	IPAMIN-01	Building Issue-Data Maps to Support the Resolution of Socio-National Issues; By Mi-Nyeong Hwang, Seungwoo Lee and Heeyoung Oh	55	Visual Attention is Captured by Task-Irrelevant Faces, but Not by Pareidolia Faces; By Atsunori Ariga and Katsuhiko Arihara	
	09.20	39	Applying One-Versus-One SVMs to Classify Multi-Label Data with Large Labels Using Spark; By Suthipong Daengduang and Peerapon Vateekul	IPAMIN-02	Study on Extracting Implicit Patterns of Patent Data based on Timeline; By Athita Onuean, Jangwon Gim, Yunji Jang and Hanmin Jung	97	Impacts of cue reliability and explicit instruction on visual attention; By Kanji Tanaka and Katsumi Watanabe	
	09.40	41	Sentiment Analysis For Short Chinese Text Based On Character-level Methods; By Yanxin An, Xinhuai Tang and Bin Xie	IPAMIN-03	An Improved Author-Topic over Time Model; By Guochao Sun, Shuo Xu, Xiaodong Qiao and Hongqi Han	98	A left eye bias for female faces; By Nayla Sokhn, Francesca Bertoli and Roberto Caldara	
	10.00	44	Multiple ARIMA Subsequences Aggregate Time Series Model to Forecast Cash in ATM; By Paisit Khanarsa and Krung Sinapiromsaran	IPAMIN-04	The Clustering Analysis Method of Technology Competitor Based on Patent Text Terms; By Yongsheng Yu, Hongqi Han, Changqing Yao and Zhong Li	99	Time-Frequency Based Coherence Analysis of Red and Green Flickering Visual Stimuli for EEG-Controlled Applications; By Suchada Tantisatirapong, Panisa Dechwechprasit, Wongwit Senavongse, and Montri Phothisonothai	
	10.20-10.50	Break						

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February 3, 2017	10.50	49	3DDIR: The Distance Interior Ratio of Volumetric Models for Object Recognition; By Chinnawat Wongwises, Natsuda Kaothanthong and Wasit Limprasert	IPAMIN-05	Experimental Study of Time Series-based Dataset Selection for Effective Text Classification; By Yeonghun Chae, Do-Heon Jeong and Taehong Kim	100	Relations between personality traits and empathy for social pain and physical pain; By Aiko Murata and Katsumi Watanabe	
	11.10	51	A Character-level Convolutional Neural Network with Dynamic Input Length for Thai Text Categorization; By Thanabhat Koomsubha and Peerapon Vateekul	IPAMIN-06	SVM-based Web Content Mining with Leaf Classification Unit from DOM-tree; By Yeongsu Kim and Seungwoo Lee	23	Automatic Text Imprint Analysis from Pill Images; By Siroratt Suntronsuk and Sukanya Ratanotayanon	
	11.30	70	Thai Finger-Spelling Sign Language Recognition Using Global and Local Features with SVM; By Thongpan Pariwat and Pusadee Seresangtakul	IPAMIN-07	Ambiguity in Patent Vocabulary; By Jens Bertram and Thomas Mandl	33	Hand Posture Estimation from 2D Image Sequence by Hand Landmark Identification; By Pargorn Puttapirat and Theekapun Charoenpong	
	11.50-13.00	Lunch						

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February 3, 2017	13.00	47	Mining High-Utility Itemsets with Irregular Occurrence; By Supachai Laoviboon and Komate Amphawan	68	Reducing Waiting Time in Automatic Captioned Relay Service using Short Pause in Voice Activity Detection; By Kiettiphong Manovisut, Nattanun Thatphithakkul and Pokpong Songmuang	36	DCSeg: Decoupled CNN for Classification and Semantic Segmentation; By Robail Yasrab, Naijie Gu, Xiaoci Zhang and Asad Khan
	13.20	54	Rule Extraction from Electroencephalogram Signals Using Support Vector Machine; By Anuchin Chatchinarat, Kok Wai Wong and Chun Che Fung	69	Automated segmentation of media-adventitia and lumen from intravascular ultrasound images using non-parametric thresholding; By Anusorn Wong-Od, Annupan Rodtook, Suwanna Rasmeequan and Krisana Chinnasarn	46	A Search for Geometric-Shape Objects in a Vector Image: Scalable Vector Graphics (SVG) File Format; By Chanon Seel-audom, Wassana Naiyapo and Varin Chouvatut
	13.40	59	Multiclass Support Vector Machine for Classification Spatial Data form Satellite Image; By Kanita Tangthaikwan and Narongdech Keeratipranon	75	Improving Thai-English Word Alignment for Interrogative Sentences in SMT by Grammatical Knowledge; By Kanyalag Phodong and Rachada Kongkachandra	50	CodeMage : Educational Programming Environment For Beginners; By S.J. Whittall, W.A.C. Prashandi, G.L.S. Himasha, D.I. De Silva and T. K. Suriyawansa
	14.00	79	Dog Cough Sound Classification Using Artificial Neural Network and the Selected Relevant Features from Discrete Wavelet Transform; By Panchana Kakabutr, Kullanan Sae Chen, Viewpaka Wangvisavawit, Praisan Padungweang and Olarn Rojanapornpun	83	iShop – Shopping application for visually challenged; By Dilshan De Silva, M.R. Aaquibah Nashry, Saraniya Varathalingam, Rubika Murugathas and T. K. Suriyawansa	58	Fine Tuning for Green Screen Matting; By Thanathorn Phoka, Warayu Jariyawattanarat and Attawith Sudsang
	14.20	80	University Ranking Prediction System by Analyzing Influential Global Performance Indicators; By Anika Tabassum, Mahamudul Hasan, Shibir Ahmed, Rahnuma Tasmin, Deen Md. Abdullah and Tasnim Musharrat	88	Automatic Discovering Success Factor Relationship Entities in Articles using Named Entity Recognition; By Supattra Niboonkit, Worarat Krathu and Praisan Padungweang	73	Computational Analysis of Blood Parameters Separate by Centrifuge Technique; By Anon Wangboon, Pattarapong Phasukkit and Mongkol Keawbumrung
	14.40-15.10	Break					

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	15.10	82	Social Network User Identification; By Laikhram Jamjuntra, Pantakan Chartsuwan, Peerapong Wonglimsamut, Kriengkrai Porkaew and Umaporn Supasitthimethee			74	Applied Integral Intensity Projection To Find The Numbers Of The Parking Spots; By Bunyawath Thepsathit, Vongsathorn Kaosaiyananda, Akara Charoensuk and Pramaul Choorat
	15.30	86	Discovering interesting itemsets based on change in regularity of occurrence; By Sumalee Eisariyodom and Komate Amphawan			76	Obstacle detection algorithm for unmanned aerial vehicles using binocular stereoscopic vision; By Pakorn Ueareeworakul and Saiyan Saiyod
	15.50	89	Partition-based Overlapping Clustering Using Clusters' Parameters and Relations; By Tanawat Limungkura and Peerapon Vateekul			91	Pattern Extraction from Northern Thai Fabrics Using Flexibly Matching Segments: Sarong Teenjok and Lanna Textiles; By Nattha Vasantapan and Varin Chouvatut
	16.10	96	Automated Cyberbullying Detection using Clustering Appearance Patterns; By Walisa Romsaiyud, Kodchakorn Na Nakornphanom, Pimpaka Prasertsilp, Piyaporn Nurarak and Pirom Konglerd				
	16.30	Closing the Conference Ceremony					

February 4, 2017	08.30-09.00	Registration					
	09.00-12.00	Thailand Research Consortium for Informatics Field Trips (Burapha University)					
	12.00	Closing the Consortium Ceremony					