



## Conference Program

the 2018 - 10th International Conference on Knowledge and Smart Technology (KST)

Kantary Hills Hotel, Chiangmai, Thailand

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

January 31 - February 3, 2018

<b>January 31, 2018</b>	<b>15.00-16.30</b>	Registration			
	<b>16.30-17.30</b>	Local Organizing & Technical Program Committee Meeting			
	<b>17:30-20:30</b>	Welcome Reception for Steering & Technical Program Committee and Keynote Speakers @Goodview Village Chiangmai			
<b>February 1, 2018</b>	<b>08.00-08.40</b>	Registration			
	<b>08.40-09.00</b>	<b>Opening Ceremony</b>			
	<b>09.00-09.45</b>	<b>Keynote-I</b>	Dr. Sun-Hwa Hahn (Korea Institute of Science and Technology Information, Republic of Korea) Big data-driven Biomedical research		
	<b>09.45-10.30</b>	<b>Keynote-II</b>	Professor Dr. Pascal Bouvry (University of Luxembourg, Luxembourg) Resource allocation in the Cyberworld		
	<b>10.30-11.00</b>	Break			
		<b>PaperID</b>	<b>Doi Luang meeting room Regular: Computational Intelligence Chair: Komate Amphawan and Uweert Sakawatsoon (BUU, Thailand)</b>	<b>PaperID</b>	<b>Doi Nang meeting room Regular: Emerging Intelligent Technologies Chair: Parawan Barakaew (SUT, Thailand)</b>
	<b>11.00-11.20</b>	1570400478	Integrating Bat Algorithm to Ordinal Optimization for Solving the Facility-Sizing Problem; By Shih-Cheng Horng, Shieh-Shing Lin	1570404035	A Framework for Recommender System Based on Game Theory in Social Networks; By Lu Yang, Tao Hong, Anilkumar Kothali Gopalakrishnan
	<b>11.20-11.40</b>	1570403905	Sampled-data control for continuous-time Markovian jump fuzzy systems; By Junmin Park, PooGyeon Park	1570404049	Short-Term Sales Forecast of Perishable Goods for Franchise Business; By Chao-Lung Yang, Hendri Sutrisno
	<b>11.40-12.00</b>	1570404766	Measure of the Ability Dominance of Tournament Systems and Subjective Judgment; By Tomoyuki Maekawa, Hidehito Honda, Kazuhiro Ueda	1570412878	Automatically Identifying Themes and Trends in Software Engineering Research; By Kenneth Cosh, Sakgasi Ramingwong, Narissara Eiamkanitchat, Lachana Ramingwong
	<b>12.00-13.00</b>	Lunch Steering Committee Meeting & International Consortium in Informatics Meeting / Free Discussion @Doisaket Ballroom			
<b>February 1, 2018</b>		<b>PaperID</b>	<b>Doi Luang meeting room Regular: Computational Intelligence Chair: Kasornwan Sornat (KUT, Thailand)</b>	<b>PaperID</b>	<b>Doi Nang meeting room Regular: Emerging Intelligent Technologies Chair: Anonin Haefflied (NU, Thailand)</b>
	<b>13.00-13.20</b>	1570409242	q-Sine Circular Extreme Learning Machine for High Dimensional Data; By Sarutte Atsawaraungsak, Narin Thipayang	1570413025	Perceived Usability of Teleworking Options in Creative Knowledge Work; By Aaro Hazak
	<b>13.20-13.40</b>	1570409870	Optimizing Location-Routing Problem using Iterative Combination of GA and VNS; By Cheng Jiang, Worapan Kusakunniran	1570413401	A Novel Approach to Extract Important Keywords from Documents Applying Latent Semantic Analysis; By H. M. Mahedi Hasan, Falguni Sanyal, Dipankar Chaki
	<b>13.40-14.00</b>	1570412146	Feature Selection for Composer Classification Method using Quantity of Information; By Ayaka Takamoto; Mitsuo Yoshida; Kyoji Umemura; Yuko Ichikawa	1570413571	Development of Digital Media using Augmented Reality for HM King Prajadhipok's Interests in Arts and Culture; By Porawat Visatsak, Fuangfar Pensiri
	<b>14.00-14.20</b>	1570412670	A Differential Evolution-based Rule Ordering of Cellular Automata for Classification; By Pattapon Wama, Sartra Wongthanavasu, Jetsada Ponkaew		
	<b>14.20-14.50</b>	Break			
		<b>PaperID</b>	<b>Doi Luang meeting room Regular: Computational Intelligence Chair: Chakchai Srisa-ri and Nongnong Chiewchawattana (KUT, Thailand)</b>	<b>PaperID</b>	<b>Doi Nang meeting room Regular: Intelligent applications Chair: Parawan Barakaew and Kasornwan Sornat (KUT, Thailand)</b>
	<b>February 1, 2018</b>	<b>14.50-15.10</b>	1570412727	Time Series based Gastropod Classification; By Janya Onpans, Nutthanon Leelathakul, Sunisa Rimcharoen	1570398057
	<b>15.10-15.30</b>	1570412755	Curriculum Analysis Based on Cerebral Hemisphere Functions Using Association Rule; By Xiangyang; Narissara Eiamkanitchat, Sakgasi Ramingwong; Lachana Ramingwong	1570400875	NavTU: Android Navigation App for Thai People with Visual Impairments; By Nawin Somyat, Teepakorn Wongsansukjaeroen, Wuttinan Longjaeroen; Songyot Nakariyakul
	<b>15.30-15.50</b>	1570412782	3D Model Compression over ASCII Encoded Using Rotational and Reflective Symmetry; By Thanayathon Tayangkanon; Pavadee Sompagdee; Xin Li	1570403939	Thai Lottery Number Reader App for Blind Lottery Ticket Sellers; By Nawin Somyat; Songyot Nakariyakul
	<b>15.50-16.10</b>	1570412850	Efficient weighted-frequent-regular itemsets mining using interval word segments structure; By Kittipa Klangwisian; Komate Amphawan	1570405076	Multi Sensor based Approach for Road Region Extraction for Autonomous Vehicle; By Kanthit Rochan, Aarhti Alagammai, Sujatha J
	<b>16.10-17.00</b>	<b>Move to Night Safari Chiangmai</b>			
	<b>17.00-20:30</b>	<b>Welcome Reception / Banquet @Night Safari Chiangmai</b>			

February 2, 2018		Registration			
	PaperID	<b>Doi Luang meeting room</b> <b>Regular: Computational Intelligence</b> <b>Chair: Kittichai Lasangnansri (KMUT-IT, Thailand)</b>	PaperID	<b>Doi Nang meeting room</b> <b>Regular: Intelligent applications</b> <b>Chair: Parawut Vitasak (KMUT-NR, Thailand) and</b> <b>Changyong Boonsongseokul (BUU, Thailand)</b>	
	08.50-09.10	1570412928	Discovery and Visualization of Expertise Evolution and Tendency; By Kallaya Songklang; Akara Prayote	1570407645	Armhand Gesture Recognition on Electromyography Signal for Virtual Control; By Tanasnee Phienthrakul
	09.10-09.30	1570413067	Mining Acceleration Data for Smartphone-based Fall Detection; By Luopoi Pipanmaekaporn; Paritud Wichinawakul; Suwattchai Kamolsantiroj	1570409200	DWT/DCT-based Invisible Digital Watermarking Scheme for Video Stream; By Jantana Panyavarnorn; Paramate Horkaew
	09.30-09.50	1570413225	Longest Matching and Rule-based Techniques for Khmer Word Segmentation; By Pakriang Long; Veera Boonjing	1570410379	Lowercase Letters in Text-Based CAPTCHA: A Visual Perception Analysis; By Chatpong Tangmanee
	09.50-10.10	1570413383	A Lossless Image Compression Algorithm using Differential Subtraction Chain; By Chirathep Chianphatthanakit; Anuparp Boonsongseokul; Somjet Suppharangsarn	1570412665	Polar Space Contour Detection for Automated Optic Cup Segmentation; By Wuttichai Luangrungrong; Krisana Chinnasarn
	10.10-10.30	1570413588	Creative Knowledge Employees' Assessment of Flexitime Utilisability; By Aaro Hazak	1570412973	Automatic Crochet Pattern Generation from 2D Sketching; By Pikanate Nakjan; Sukanya Ratanatayanon; Natchayar Porwongsawang
	10.30-11.00	Break			

	PaperID	<b>Doi Luang meeting room</b> <b>Regular: Intelligent Computer Networks and Systems</b> <b>Chair: Paramate Horkaew (SU-T, Thailand)</b>	PaperID	<b>Doi Nang meeting room</b> <b>Regular: Intelligent Computer Networks and Systems</b> <b>Chair: Anuparp Boonsongseokul (BUU, Thailand)</b>	
February 2, 2018	11.00-11.20	1570393535	An Intelligent Renewables-based Power Scheduling System for Internet of Energy; By Chern-Jung Huang; Jui-Ting Hsiao; Chao-Yang Deng; Kai-Wen Hu	1570412876	A System for Ultraviolet Monitoring, Alert, and Prediction; By Chanon Puranannak; Saruda Yanavanch; Chanawong Tongpoon; Tanasnee Phienthrakul
	11.20-11.40	1570397331	Real Time Air Quality Monitoring; By Sumanth Reddy Enigala; Hamid Shahmasser	1570413083	Activity Recognition of Multiple Subjects for Homecare; By Oscar T.-C. Chen; Hung Manh Ha; Wei-Chih Lai
	11.40-12.00	1570402962	Multi-step-ahead Host Load Prediction with GRU Based Encoder-Decoder in Cloud Computing; By Chenglei Peng; Yang Li; Yao Yu; Yu Zhou; Sidan Du	1570413552	A Security Architecture Framework for Critical Infrastructure with Ring-based Nested Network Zones; By Sarayut Chaisuriya; Somruk Keretio; Surasak Sangunpong; Prasong Praneetpolrang
	12.00-13.00	Lunch			

	PaperID	<b>Doi Luang meeting room</b> <b>Regular: Intelligent Computer Networks and Systems</b> <b>Chair: Pratek Jitgermsarnjan and Pasi Kallonen (TU-VA, Thailand)</b>	PaperID	<b>Doi Nang meeting room</b> <b>Special Session: Cognitive Science and Human Perception</b> <b>Chair: Prof. Kazuo Saito (Waseda University, The University of Tokyo, Japan) and Prof. Roberto Caldara (University of Zurich, Switzerland)</b>	
February 2, 2018	13.00-13.20	1570403758	Smart Detection and Reporting of Potholes via Image-Processing using Raspberry-Pi Microcontroller; By Mae Garcillanosa; Jian Mikee Pacheco; Rowie Reyes; Junelle Joy San Juan	1570403816	Audiovisual semantic congruency effect with onomatopoeia; By Antonio Fidalgo; Kohske Takahashi; Aiko Murata; Katsumi Watanabe
	13.20-13.40	1570403965	Application for outdoor dust monitoring using RF wireless power transmission; By Hyun-Sik Choi	1570405404	Prosopagnosia or Prosopodysgnosia - Facing up to a change of concepts; By Thomas Alrik Sørensen; Morten Storm Overgaard
	13.40-14.00	1570407546	Wireless Sensor Networks for Microclimate Monitoring in Edamame Farm; By Jigne Norbu; Theerapat Pobkret; Sateha Siyang; Chayanan Khunarak; Thinley Namgyel; Teerakit Kercharoen	1570412139	Is Choice Overload Replicable?; By Atsunori Ariga
	14.00-14.20	1570408127	A Study of Air Pollution Smart Sensors LPWAN via NB-IoT for Thailand Smart Cities 4.0; By Sarun Duangsuwan; Aekarong Takam; Rachan Nujankaew; Panyawi Jamjareegulgarn	1570412326	Link between color-space association, left-right confusion, mirror image copy, and autistic traits; By Hanako Ikeda; Makoto Wada; Katsumi Watanabe
	14.20-14.50	Break			

February 2, 2018			<b>Doi Luang meeting room</b> <b>Regular: Intelligent Computer Networks and Systems</b> <b>Chair: Komote Amphawan and Punit Kulkasorn</b> <b>(BU - Thailand)</b>		<b>Doi Nang meeting room</b> <b>Special Session: Image Processing, Computer Vision,</b> <b>Human Perception, Knowledge-based System and its</b> <b>Applications</b> <b>Chair: Manee Phothisonthai (SMIT, Thailand)</b>
	14.50-15.10	1570408749	Prediction of Acidity Levels of Fresh, Roasted Coffees Using E-nose and Artificial Neural Network; By Yu Thazin, Theerapat Pobkrut, Teerakiat Kerdcharoen	1570412711	Readiness of Local Government Websites for Eastern Economic Corridor (EEC); By Prajaks Jitgermdan
	15.10-15.30	1570408755	Effects of supplementary LED light on the growth of lettuce in a smart hydroponic system; By Thinley Namgyel, Chayanin Khunarak, Satetha Siyang, Theerapat Pobkrut, Jigme Norbu, Teerakiat Kerdcharoen	1570413316	Building Minimal Classification Rules for Breast Cancer Diagnosis; By Phonthep Douangnoulack, Veera Boonjing
	15.30-15.50	1570410138	Bi-slotted Fast Query Tree-based Anti-Collision Algorithm for Large Scale of RFID Systems; By Yoschamin Sasiwat	1570413593	Detection and Recognition of the Myanmar Characters from the Dissimilar Images; By Ohmmar Khin, Montri Phothisonthai, Somsak Choomchuay
	15.50-16.10	1570410208	A smart photovoltaic system with Internet of Thing: A case study of the smart agricultural greenhouse; By Anukit Saokaew, Oran Chiochan, Ekkarat Boonchieng	1570417238	Distributed Scheduling of Electric Vehicles in a Residential Area in Thailand; By Tumisang K Nguavaiva; Somsak Kittipiyakul
	16.10-16.30	1570412827	Smart Hydroponic Lettuce Farm using Internet of Things; By Tanabut Changmai, Sethavidh Gertphol, Pariyanuj Chulaka	1570413573	Classification of in vitro blood stages of Plasmodium falciparum Based on Fuzzy Inference System; By Suchada Tantisatrapong; Montri Phothisonthai
	16.30	<b>Closing Ceremony</b>			
February 3, 2018	08.30-09.00	Registration			
	09.00-12.00	Thailand Research Consortium for Informatics Field Trips (Chiangmai University)			
	12.00	<b>Conclude Consortium</b>			