2015 12th International Joint Conference on Computer Science and Software Engineering

(JCSSE 2015)

Songkhla, Thailand 22-24 July 2015



IEEE Catalog Number: ISBN:

CFP1532P-POD 978-1-4799-1967-3

Table of Contents

Computational Intelligence		
Object Detection based on Fast Template Matching through Adaptive Partition Search Wisarut Chantara, Yo-Sung Ho	1	
Human Activity Recognition from Basic Actions Using Graph Similarity Measurement Nattapon Noorit, Nikom Suvonvorn	7	
Robust Human Tracking Based on Multi-Features Particle Filter Tassaphan Suwannatat, Nakorn Indra-Payoong, Krisana Chinnasarn	12	
Resourceful Method to Remove Mixed Gaussian-Impulse Noise in Color Image Sakon Chankhachon, Sathit Intajag	18	
Video Authentication using Spatio-Temporal Signature for Surveillance System Teerasak Kroputaponchai, Nikom Suvonvorn	24	
An Automated Stock Recommendation System from Stock Investment Research using Domain Specific Information Extraction Tayida Tapjinda, Nutchaya Leelasupakul, Potsawee Vechpanich, Nakornthip Prompoon, Chate Pattanothai	30	
High Level Fusion of Profile-based Human Action Recognition using Multi-view RGBD Information Pongsagorn Chalearnnetkul, Nikom Suvonvorn	36	
Exploiting the Topology Property of Social Network for Rumor Detection Yekang Yang, Kai Niu, ZhiQiang He	41	
Dynamic Contour Matching for Hand Gesture Recognition from Monocular Image Ariyawat Chonbodeechalermroong, Thanarat H Chalidabhongse,	47	
Fall Detection using Directional Bounding Box Apichet Yajai, Annupan Rodtook, Krisana Chinnasarn, Suwanna Rasmequan	52	
Vehicle Tracking in Low Hue Contrast Based on CAMShift and Background Subtraction Nitipat Sirikuntamat, Shin'ichi Satoh, Thanarat H Chalidabhongse	58	
The Constant Time of Predictive Algorithm for Music Recommendation with Time Context Sumet Darapisut, Jakkarin Suksawatchon, Ureerat Suksawatchon	63	
Constructing a Phonetic Transcribed Text Corpus for Southern Thai Dialect Speech Recognition Sittichok Aunkaew, Montri Karnjanadecha, Chai Wutiwiwatchai	69	
E-Commerce Web Page Classification Based on Automatic Content Extraction Warid Petprasit, Saichon Jaiyen	74	
Using Word-cooccurrence to Determine Health Problems from Health-Care documents Onuma Moolwat	78	
Applying KSE-test and K-means clustering towards Scalable Unsupervised Intrusion Detection <i>Thanachai Jirachan, Krerk Piromsopa</i>	82	
A New Ensemble Model based on Linear Mapping, Non-Linear Mapping and Probability Theory for Classification Problems Anusorn Charleonnan, Saichon Jaiyen	88	
Bank Direct Marketing Analysis of Asymmetric Information Based on Machine Learning <i>Pumitara Ruangthong, Saichon Jaiyen</i>	93	

Information Technology	
Electronic Health Information Standard based on CDA for Thai Medical System: focused on Medical Procedures in Medium-sized Hospitals (HOSxP) Worapan Kusakunniran, Kittikhun Thongkanchorn, Napat Sarutiyapithorn, Nutrugee Wisawanart, Mutita Saowaneepitak	97
Controlled and Collaborative Presentation via Tablet PCs for Classroom and Meeting Room Uses Prissadang Suta, Pornchai Mongkolnam, Wichai Eamsinvattana	102
Accommodation Recommendation System from User Reviews based on Feature-based Weighted Non-negative Matrix Factorization Method Pariyawit Jatukannyaprateep, Thanatcha Lerttripinyo, Nakornthip Prompoon, Chate Pattanothai Pattanothai	108
Applying QR Code and Mobile Application to Improve Service Process in Thai Hospital Chayakrit Charoensiriwath, Navaporn Surasvadi, Suporn Pongnumkul, Thunyasit Pholprasit	114
Software Engineering	
A Knowledge Transfer Framework for Secure Coding Practices Maleerat Sodanil, Nalinpat Porrawatpreyakorn, Gerald Quirchmayr, A Min Tjoa	120
Tai Chi Thought and Research on Software Problems Ming-zhen Liu, Ya-feng Liu	126
Applied Research on a Software Black Box Ming-zhen Liu	132
Distributed Agile Patterns for Offshore Software Development Maryam Kausar, Adil Al-Yasiri	
Dual Semiosis Analysis Model - Managing Customer-focused Service Innovation Winai Nadee, Muna Alhammad, Amaad Uppal, Samnan Ali, Stephen Gulliver	144
Method for Mobile User Interface Design Patterns Creation for iOS Platform Thara Wetchakorn, Nakornthip Prompoon	150
A Visual Editor for Language-Independent Scripting for BPMN Modeling Jessada Wiriyakul, Twittie Senivongse	156
Predicting Cross-Site Scripting (XSS) Security Vulnerabilities in Web Applications Mukesh Kumar Gupta, Mahesh Chandra Govil, Girdhari Singh	162
Test Cases Prioritization for Software Regression Testing Using Analytic Hierarchy Process Piyakarn Klindee, Nakornthip Prompoon	168
Video Surveillance as a Service Cost Estimation and Pricing Model Thanathip Limna, Pichaya Tandayya	174
Formal Verification of JADE Behaviour: A Modeling Approach Chittra Roungroongsom, Denduang Pradubsuwun	180

Necessary Skills and Attitudes for Development Team Members in Scrum: Thai Experts' and Practitioners' Perspectives

Olarn Rojanapornpun, Pornchai Mongkolnam, Penprapa Bootla

Computer Networks and Communications	
Classification Model of Network Intrusion using Weighted Extreme Learning Machine Worachai Srimuang, Silada Intarasothonchun	190
An Optimization Approach to Capacity Planning of Aggregators and Resource Provisioning in Cloud Providers for Meteorological Sensor Network Nay Myo Sandar, Lin Min Min Myint, Sivadon Chaisiri	195
Distributed Game Theory-based Routing Protocol for Cognitive Radio Ad-hoc Networks Soodeh Amiri, Ghasem Mirjalily Jamshid Abouei	201
A Security Model of Voice Eavesdropping Protection over SIP-based VoIP with XTR Cryptography Nikarn Thuayabat, Supachai Tangwongsan	207
Unequal Initial Energy Assignment in Wireless Sensor Networks Pichatorn Eak-Une, Pornavalai Chotipat	212
An Efficient and Scalable Coordinating Algorithm for Distributed Network Intrusion Detection System Tewapong Wongkhuenkaew, Pruet Boonma	218
Expansion of Vehicular Cloud Services on crossroads using Fuzzy Logic and Genetic Algorithm Erfan Arzhmand, Hossein Rashid	224
Computer Systems	
A novel secure channel selection rule for spatial image steganography Tuan Duc Nguyen, Somjit Arch-Int, Ngamnij Arch-Int	230
Accelerator Circuits for Quantum Simulation Yuranan Kitrungrosakul, Prabhas Chongstitvatana	236
Modeling and Analysis of Two-factor Authentication Protocol for USB Digital Evidence Acquisition Devices Siripoom Laptikultham, Suratose Tritilanunt	241
Human Activity Monitoring System Based on WSNs Jakkrit Sriwan, Wannarat Suntiamorntut	247
Software Application and Development	
Design and Implementation of a Family Robot Yu-Han Kao, Wen-June Wang	251
Analyzing and Searching Process of Internet Username and Password Stored in Random Access Memory (RAM) Sasithorn Thongjul, Suratose Tritilanunt	257
Shopping Navigation System for Visual Impaired People Based on Proximity-Based Technology Kulvaree Chankrachang, Taweekiat Trongwongsa, Nakornthip Prompoon, Chate Pattanothai	263
A Linear-Clustering Algorithm for Controlling Quality of Large Scale Water-Level Data in Thailand Nuttapon Pattanavijit, Peerapon Vateekul, Kanoksri Sarinnapakorn	269
An Information Extraction Framework for Legal Documents: a Case Study of Thai Supreme Court Verdicts Kankawin Kowsrihawat, Peerapon Vateekul	275

Knowledge and Data Management	
CLUS: A New Hybrid Sampling Classification for Imbalanced Data Wanthanee Prachuabsupakij	281
Concept drift for CRD prediction in broiler farms Kritsada Channoi, Suthathip Maneewongvatana,	287
Monitoring and Visualizing the Daily Activities and In-house Locations Using Smartphone Sittichai Sukreep, Pornchai Mongkolnam, Chakarida Nukoolkit	291
Alternating Least Squares with Incremental Learning Bias Than Htike Aung, Rachsuda Jiamthapthaksin,	297
Information Retrieval	
	005
KeyGraph and Wordnet Hypernyms for Topic Detection Kasun Perera, Damitha Karunarathna,	303
DistEQ: Distributed Equality Query Processing on Encoded Bitmap Index Naphat Keawpibal, Jarunee Duangsuwan, Wiphada Wettayaprasit, Ladda Preechaveerakul, Sirirut Vanichayobon	309
Multimedia and Computer Graphics	
Applying Relief Mapping on Augmented Reality Kosin Kalarat	315
Workflow Translation and Dynamic Invocation for Image Processing Based on OpenCV Attasuntorn Traisuwan, Pichaya Tandayya,	319
First Person Movement Control with Palm Normal and Hand Gesture Interaction in Virtual Reality Chaowanan Khundam	325
Computational Science and Engineering	
Computational Science and Engineering	
Smartphone Posture Monitoring System to Prevent Unhealthy Neck Posture Worawat Lawanont, Pornchai Mongkolnam,	331
A Faster Algorithm for the Tree Containment Problem for Binary Nearly Stable Phylogenetic Networks Jittat Fakcharoenphol, Tanee Kumpijit,	337