

2016 International Conference on Platform Technology and Service (PlatCon 2016)

**Jeju, South Korea
15-17 February 2016**



**IEEE Catalog Number: CFP16B77-POD
ISBN: 978-1-4673-8686-9**

**Copyright © 2016 by the Institute of Electrical and Electronic Engineers, Inc
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

******This publication is a representation of what appears in the IEEE Digital Libraries. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP16B77-POD
ISBN (Print-On-Demand):	978-1-4673-8686-9
ISBN (Online):	978-1-4673-8685-2

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

DETECTING TEXT SIMILARITY ON A SCALABLE NO-SQL DATABASE PLATFORM.....	1
<i>Sergey Butakov, Stepan Murzintsev, Aleksandr Tskhai</i>	
WISE: A WEARABLE PLATFORM FOR PERFORMER-GUIDED MIXED-REALITY INTERACTIVE PERFORMANCE ART.....	6
<i>Chun-Feng Liao, Wei-Chen Lu, Kung Chen, Zack Grannan, Wei-Chen Chang, Yi-Kai Hsiao</i>	
QOS OPTIMIZER	12
<i>Gunjae Yoon, Shineun Lee, Hoon Choi</i>	
PRACTICAL ADDITIVE HOMOMORPHIC ENCRYPTION FOR STATISTICAL ANALYSIS OVER ENCRYPTED DATA.....	17
<i>Taek-Young Youn, Nam-Su Jho, Ku-Young Chang</i>	
SHORTEST PATH NAVIGATION FOR A MIX OF UNDIRECTED AND ONE-WAY ROADS USING K-SPT METHOD.....	24
<i>Kunihiko Kaneko, Shinya Honda</i>	
SITUATION BASED DYNAMIC PLANNING FOR DIALOG SUPPORT WITH HIERARCHICAL KNOWLEDGE	28
<i>Keonsoo Lee, Jae Kwan Kim, Myon Woong Park, Laehyun Kim</i>	
MIDDLEWARE SUPPORT FOR DYNAMIC SENSING APPLICATIONS	32
<i>Ka Lok Man, Danny Hughes, Sheng-Wei Guan, Prudence W. H. Wong</i>	
DEVELOPMENT OF HUMAN BODY REACTION INFORMATION MEASUREMENT SYSTEM BASED ON COLOR ENVIRONMENTS.....	36
<i>Ji Eon Kim, Si-Hyung No, Chang-Won Jeong, Su-Chong Joo</i>	
NETWORK CONNECTIVITY OF IPTV STB LOW POWER MODE.....	40
<i>Sungwon Byon, Eui-Suk Jung, Eunjung Kwon, Yong-Tae Lee, Hyunwoo Lee</i>	
NETWORK INTERWORKING MECHANISM TO REDUCE STANDBY POWER OF SET TOP BOX IN SMART HOME	44
<i>Hyunho Park, Sungwon Byon, Junghak Kim, Eui-Suk Jung, Yong-Tae Lee, Hyunwoo Lee</i>	
A STUDY ON THE FUNDAMENTAL PROPERTIES, FEATURES AND USAGE OF CLOUD SIMULATORS	49
<i>Preethi Josephina Mudialba</i>	
A STUDY ON EFFICIENT LOG VISUALIZATION USING D3 COMPONENT AGAINST APT: HOW TO VISUALIZE SECURITY LOGS EFFICIENTLY?	54
<i>Jaehee Lee, Jinhyeok Jeon, Changyeob Lee, Junbeom Lee, Jaebin Cho, Kyungho Lee</i>	
EVALUATING THE SUITABILITY OF COLOR SPACES FOR IMAGE STEGANOGRAPHY AND ITS APPLICATION IN WIRELESS CAPSULE ENDOSCOPY	60
<i>Khan Muhammad, Jamil Ahmad, Muhammad Sajjad, Seungmin Rho, Sung Wook Baik</i>	
THE IMPACT OF CLOUD TECHNOLOGY ON THE AUTOMATION OF BUSINESSES	63
<i>Preethi Josephina Mudialba</i>	
AUTOMATING WEB TASKS BY SIMULATING BROWSER BEHAVIORS	67
<i>Chun-Hsiung Tseng, Yung-Hui Chen, Yan-Ru Jiang, Pin-Yu Su, Fang-Chi Tsai</i>	
UBIQUITOUS HEALTHCARE PLATFORM FOR CHRONIC PATIENTS.....	72
<i>Dongmin Shin, Dongil Shin, Dongkyoo Shin</i>	
A LITERATURE REVIEW: USABILITY ASPECTS OF UBIQUITOUS COMPUTING	78
<i>Serap Yagmur</i>	
A REAL-TIME COMBINATION OF TEXT-MINING METHODS FOR FLEXIBLE MOVIE RECOMMENDATION IN HUMAN ROBOT INTERACTION	84
<i>Namyeon Lee, Eunji Kim, Ohbyung Kwon</i>	
A STUDY ON KOREAN EFL PRE-SERVICE TEACHERS' MOTIVATIONS IN CHOOSING TEACHING AS A CAREER.....	90
<i>Kyeong-Ouk Jeong</i>	
EMOTION EVALUATION ANALYSIS AND SYSTEM DESIGN OF BIOSIGNAL.....	94
<i>Gilsang Yoo, Sungdae Hong</i>	
A STUDY ON THE FLIPPED INSTRUCTIONAL MODEL TO SUPPORT ACTIVE AND INTERACTIVE LEARNING.....	98
<i>Hwa-Seon Kim, Kyeong-Ouk Jeong</i>	
VIDEO MOTION ANALYSIS FOR LANDSCAPE IMAGE ABSTRACTION	101
<i>Sanghyun Seo, Hunjoo Lee, Youngjun Kim, Wookho Son</i>	

SECURE MUTUAL AUTHENTICATION PROTOCOL FOR RFID BASED ON ELLIPTIC CURVE CRYPTOGRAPHY	105
<i>Amjad Ali Alamr, Firdous Kausar, Jong Sung Kim</i>	
A METHOD OF HANDLING METAMODEL BASED ON XML DATABASE FOR SW VISUALIZATION.....	112
<i>Hyun Seung Son, R. Young Chul Kim</i>	
PARALLEL IMPLEMENTATIONS OF SIMON AND SPECK.....	115
<i>Taehwan Park, HwaJeong Seo, Howon Kim</i>	
VERTICAL HANDOVER DECISION BASED ON RBF APPROACH FOR UBIQUITOUS WIRELESS NETWORKS.....	121
<i>Sunisa Kunarak</i>	
AUTOMATIC GENERATION METHOD OF STATE TRANSITION MAPPING TREE.....	125
<i>Je-ho Park, Young B. Park, Soo-Kyung Choi</i>	
DEVELOPMENT OF INTERACTIVE CHATTING GAME BASE ON SENTIMENT ANALYSIS METHOD.....	130
<i>Shin Jin Kang, Jin Hyoung Ahn, Hong Min, Soo-Kyun Kim</i>	
EFFECTS OF DICTOGLOSS ON KOREAN STUDENTS' L2 LEARNING: A REVIEW FOR RESEARCH SYNTHESIS.....	132
<i>Je-Young Lee</i>	
KOREAN STUDENTS' PERCEPTION OF THE CURRICULUM FOR CREATIVITY AND PERSONAL CHARACTER.....	136
<i>Je-Young Lee, Young-Joo Jeon</i>	
SECURITY THROUGH AUTHENTICATION INFRASTRUCTURE IN OPEN MARITIME CLOUD.....	139
<i>Donghyeok Lee, Namje Park</i>	
IMPROVE PERFORMANCE AND THROUGHPUT OF VMS FOR SCIENTIFIC WORKLOADS IN A CLOUD ENVIRONMENT.....	141
<i>Syed Asif Raza Shah, Amol Hindurao Jaikar, Sangwook Bae, Seo-Young Noh</i>	
SW VISUALIZATION FRAMEWORK FOR SAFE SOFTWARE	147
<i>So Young Moon, Bo Kyung Park, R. Young Chul Kim</i>	
TRANSACTION AUTHENTICATION SCHEME BASED ON ENHANCED SIGNATURE RTD FOR NFC PAYMENT SERVICE ENVIRONMENTS	152
<i>Sung-Wook Park, Im-Yeong Lee</i>	
MAPPING SW DEVELOPMENT PROCESS WITH SAFETY PROCESS FOR SAFE SOFTWARE.....	156
<i>So Young Moon, R. Young Chul Kim</i>	
CODE COMPLEXITY ON BEFORE & AFTER APPLYING DESIGN PATTERN THROUGH SW VISUALIZATION.....	161
<i>So Young Moon, Bo Kyung Park, R. Young Chul Kim</i>	
UX DESIGN GUIDELINE FOR HEALTH MOBILE APPLICATION TO IMPROVE ACCESSIBILITY FOR THE VISUALLY IMPAIRED	166
<i>Woo Jin Kim, Il Kon Kim, Man Ki Jeon, Jongoh Kim</i>	
PERFORMANCE ANALYSIS OF NAS AND SAN STORAGE FOR SCIENTIFIC WORKFLOW	171
<i>Amol Jaikar, Syed Asif Raza Shah, Seo-Young Noh, Sangwook Bae</i>	
TWISTER PLATFORM FOR MAPREDUCE APPLICATIONS ON A DOCKER CONTAINER.....	175
<i>Yunhee Kang, R. Young Chul Kim</i>	
NETWORK OPERATION AND MANAGEMENT SYSTEM FOR LOW-POWER WIRELESS SENSOR NETWORK.....	178
<i>Kyeseon Lee, Jae-Hong Ryu, Nae-Soo Kim</i>	
VISUALIZATION FOR THE ASSESSMENT MODEL OF AN SIMPLIFIED TEST MATURITY MODEL (TMM).....	182
<i>Woo Sung Jang, R. Young Chul Kim, Bo Kyung Park, C. R. Carlson, Ki Du Kim</i>	
REFINING AN ASSESSING MODEL FOR SIMPLIFIED TMM.....	186
<i>Bo Kyung Park, So Young Moon, Ki Du Kim, Woo Sung Jang, R. Young Chul Kim, C. R. Carlson</i>	
LONG SHORT TERM MEMORY RECURRENT NEURAL NETWORK CLASSIFIER FOR INTRUSION DETECTION.....	191
<i>Jihyun Kim, Jaehyun Kim, Huong Le Thi Thu, Howon Kim</i>	
IMPROVING USE CASE POINT (UCP) BASED ON FUNCTION POINT (FP) MECHANISM	196
<i>Bo Kyung Park, So Young Moon, R. Young Chul Kim</i>	
DEMPSTER-SHAFER FUSION BASED GENDER RECOGNITION FOR SPEECH ANALYSIS APPLICATIONS	201
<i>Jamil Ahmad, Khan Muhammad, Soon-il Kwon, Sung Wook Baik, Seungmin Rho</i>	

NETWORK ASSISTANCE TO LOCALIZATION AND MAPPING FOR OUTDOOR AUGMENTED REALITY IN CELLULAR NETWORK	205
<i>Junseong Bang, Dongchun Lee, Hunjoo Lee, Wookho Son</i>	
THE EFFECTIVENESS OF CULTURAL INCLUSIVE HEALTH EDUCATION PERADOGY FOR TAIWAN INDIGENOUS ELEMENTARY STUDENTS THROUGH E-PLATFORM: AN CASE IN TAYAL, PAIWAN AND BUNUN TRIBES.....	209
<i>Kuo-Yuan Hwa, Kai-Lung Wang</i>	
PERFORMANCE EVALUATION OF FIRMWARE CRYPTOGRAPHIC MODULES ON VARIOUS MCU ENVIRONMENTS.....	219
<i>Hyunjung An, Seunghwan Yun, Okyeon Yi</i>	
A COLLABORATIVE SPACE AND ITS ENTITIES: THE IMPORTANCE OF ROLES AND RELATIONSHIP OF ENTITIES	223
<i>Zainura Idrus, Siti Z. Z. Abidin, N. Omar, Zanariah Idrus</i>	
TWITTER NEWS IN EDUCATION PLATFORM FOR COLLABORATIVE LEARNING.....	229
<i>Yongsung Kim, Byeongjin Na, Jinwoong Park, Seungmin Rho, Eenjun Hwang</i>	
A STUDY ON THE CREATIVE ART CURRICULUM FOR YOUNG CHILDREN THROUGH VIRTUAL INTERCULTURAL EXCHANGE	233
<i>Jee Hyun Bae</i>	
ORGANIZATIONAL BENEFITS OF COMPUTERIZED PHYSICIAN ORDER ENTRY (CPOE) SYSTEM IN PAKISTAN	237
<i>Suleman Atique, Yen-Liang Lee, Syed-Abdul Shabbir, Chien-Yeh Hsu, Hsiao-Hsien Rau</i>	
SUGGESTION ON TEACHERS' BELIEFS RESEARCH ON TEACHING ENGLISH AS A LINGUA FRANCA	240
<i>Koun Choi, Young-Joo Jeon</i>	
STUDY ON THE IMPROVEMENT REMEDY OF DIGITAL TEXTBOOK'S APPLICATION FROM PRE-SERVICE TEACHERS' PERSPECTIVES	244
<i>Sunhee Park, Kyungsun Park, Hyeon Yun</i>	
RELATIONS BETWEEN SCIENCE ACTIVITIES OF STEAM AND JOB CHOICE ON HIGH SCHOOL STUDENTS	248
<i>Jeungeun Cho, Hyoungbum Kim</i>	
STUDY OF MARKET SCALE AND SHARE ESTIMATION METHODOLOGY ON EFFECTIVE FEASIBILITY ANALYSIS OF GOVERNMENT R&D PROGRAM RELATED TO INFORMATION TECHNOLOGY	251
<i>JaeHyuk Cho, BongHoon Kim, ChangHo Choi, HyoNam Jeong</i>	
DETECTION AND RESPONSE OF IDENTITY THEFT WITHIN A COMPANY UTILIZING LOCATION INFORMATION	254
<i>Yucheol Cho, Sangjin Lee</i>	
TOWARDS REDUCING ENERGY CONSUMPTION USING INTER-PROCESS SCHEDULING IN PREEMPTIVE MULTITASKING OS.....	259
<i>Samih M. Mostafa, Shigeru Kusakabe</i>	
DIGITAL FORENSICS TECHNOLOGY MANAGEMENT PLATFORM	265
<i>SangJun Jeon, SangJin Lee</i>	
DISTINGUISHING ATTACK ON XO-64.....	271
<i>Tran Song Dat Phuc, Changhoon Lee</i>	
IMPACT OF DYNAMIC SCHEDULING FOR DUAL CORE ARCHITECTURE USING VHDL	276
<i>Joseph M. Arul, Han-Yao Ko</i>	
FRAMEWORK OF LOT ORDER PEGGING FOR SEMICONDUCTOR MANUFACTURING	282
<i>Jae-Gon Kim, June-Young Bang, Seung-Kil Lim, Byung H. Kim</i>	
PERFORMANCE EVALUATION OF MULTITHREADED COMPUTATIONS FOR CPU BOUNDED TASK	286
<i>Jin Kim, Sung Yun Yu, Jinsoo Park</i>	
CASE STUDY OF FLIPPED LEARNING IN PRE-SERVICE SCIENCE TEACHERS CLASS	291
<i>Mabyong Yoon, Haksung Kim, Jonghak Lee</i>	
PROFILING JOB ACTIVITIES OF BATCH SYSTEMS IN THE DATA CENTER	294
<i>Sang Un Ahn, Sang Oh Park, Jin Kim</i>	
EFFECTIVE SYSTEM CONSTRUCTION FOR DATACENTER WITH USES MULTIPLE BATCH SYSTEM.....	299
<i>Jin Kim, Sang Un Ahn</i>	
A CASE STUDY FOR THE ENHANCED PERFORMANCE MEASUREMENT MODEL IN MOBILE BUSINESS ENVIRONMENT	303
<i>Ahyoung Kim, Junwoo Lee, Mucheol Kim</i>	

AN ADAPTIVE TRANSCURSIVE ALGORITHM FOR DEPTH ESTIMATION IN DEEP LEARNING NETWORKS	309
<i>Uthra Kunathur Thikshaja, Anand Paul, Seungmin Rho, Deblina Bhattacharjee</i>	
ESTABLISHING A CLOUD-BASED INDIGENOUS ELEMENTARY SCHOOL E-LEARNING SYSTEM ASSIMILATING INTO INDIGENOUS CULTURE FOR HEALTH SCIENCE EDUCATION - SOUTH-PAIWAN TRIBE EXPERIENCE.....	312
<i>Yen-Liang Lee, An-Cheng Chen, Kai-Lung Wang, Cheng-Mei Chen, Chien-Yeh Hsu, KuoYuan Hwa, Hsiao-Hsien Rau, Yi-Chun Chen, Hung-Wen Chiu, Cheng-Jheng Yao</i>	
USABLE AUTHENTICATION MECHANISMS FOR MOBILE DEVICES: AN EXPLORATION OF 3D GRAPHICAL PASSWORDS	318
<i>Zhen Yu, Ilesanmi Olade, Hai-Ning Liang, Charles Fleming</i>	
Author Index	