2014 9th International Conference on Computer Science & Education

(ICCSE 2014)

Vancouver, British Columbia, Canada
22-24 August 2014

Pages 1-556

IEEE Catalog Number: CFP1489F-POD
ISBN: 978-1-4799-2952-8

Table of Contents

Oral Sessions

SaA1 FAC Room 1001
Artificial Intelligence
Chair: Tenzin Doleck — McGill Univ.

13:00 - 13:20 SaA1.1
Using Artificial Intelligence to Automatically Test GUI, pp. 3-5.
Abdul Rauf — Al-Imam Mohammad Ibn Saud Islamic Univ.
Mohammad N. Alanazi — Al-Imam Mohammad Ibn Saud Islamic Univ.

13:20 - 13:40 SaA1.2
Mining Case Summaries in BioWorld, pp. 6-9.
Eric Poitras — McGill Univ.
Tenzin Doleck — McGill Univ.
Susanne Lajoie — McGill Univ.

13:40 - 14:00 SaA1.3
Supporting Diagnostic Reasoning by Modeling Help-Seeking, pp. 10-14.
Eric Poitras — McGill Univ.
Amanda Jarrell — McGill Univ.
Tenzin Doleck — McGill Univ.
Susanne Lajoie — McGill Univ.

14:00 - 14:20 SaA1.4
Learning and Identifying the Crucial Proteins in Signal Transduction Networks by a Novel Method, pp. 15-19.
Tong Wang — Shanghai Second Polytechnic Univ.
Jianxin Xue — Shanghai Second Polytechnic Univ.
Wenan Tan — Shanghai Second Polytechnic Univ.
Bicheng Ye — Taiyuan Univ. of Sci. & Tech.

14:20 - 14:40 SaA1.5
Is Differential Evolution with Penalty Function Really Better than CMODE?, pp. 20-23.
Er. Anuj Kumar Parashar — Agra College
Dr. BDK Patro — RBS College
Er. Amit Rawat — Agra College

SaA2 FAC Room 1002
Robotics & Control
Chair: Peter X. Liu — Carleton Univ.

13:00 - 13:20 SaA2.1
MKL-SVM-based Human Detection for Autonomous Navigation of a Robot, pp. 27-31.
Yunfei Zhang — The Univ. of British Columbia
Rajen Bhatt — Bosch RTC
Clarence W. de Silva — The Univ. of British Columbia

13:20 - 13:40 SaA2.2
3D Visual SLAM for an Assistive Robot in Indoor Environments Using RGB-D Cameras, pp. 32-37.
Lili Meng — The Univ. of British Columbia
Clarence W. de Silva — The Univ. of British Columbia
Jie Zhang — Univ. of Sci. & Tech. Beijing

13:40 - 14:00 SaA2.3
Fault Detection in Robot Sensors Using Negative Selection Algorithm, pp. 38-43.
M. Tahir Khan — Univ. of Engineering & Tech. Peshawar
S. Hussain — Univ. of Engineering & Tech. Peshawar
S. Bakhtair — Univ. of Engineering & Tech. Peshawar
A. Zeb Khan — Univ. of Engineering & Tech. Peshawar
S. Javed — Univ. of Engineering & Tech. Peshawar
J. Iqbal — National Univ. of Sci. & Tech.

14:00 - 14:20 SaA2.4
Impedance Control Schemes for Bilateral Teleoperation, pp. 44-49.
Muhammad Tufail — The Univ. of British Columbia
Clarence W. de Silva — The Univ. of British Columbia

14:20 - 14:40 SaA2.5
Artificial Immune System Based Framework for Multi Robot Cooperation, pp. 50-55.
M. Tahir Khan — Univ. of Engineering & Tech. Peshawar
Izhar — Univ. of Engineering & Tech. Peshawar
Fazal Nasir — Univ. of Engineering & Tech. Peshawar
M. Usman Qadir — Univ. of Engineering & Tech. Peshawar
J. Iqbal — National Univ. of Sci. & Tech.

SaA3 FAC Room 1003
Education Reform and Innovation
Chair: Prof. Luis Humberto Gonzalez Guerra — ITESM-Campus Monterrey

13:00 - 13:20 SaA3.1
Teaching Mode Reform and Exploration on the University Computer Basic based on Computational Thinking Training in Network Environment, pp. 59-62.
Boqin Liu — Southwest Univ.
Junmei He — Southwest Univ.

13:20 - 13:40 SaA3.2
Enlarging Intersections between Engineering and Ethics: Thoughts on Engineering Ethics Education, pp. 63-68.
Li Ma — Dalian Univ. of Tech.
Mingfeng Jiang — Dalian Univ. of Tech.

13:40 - 14:00 SaA3.3
Motivational Factors for On-line Distance Learning - An Empirical Investigation, pp. 69-74.
Dr. Mona Alkhattabi — Al-Imam Muhammad Ibn Saud Univ.

14:00 - 14:20 SaA3.4
Tutoring Model to Guide Students in Programming Courses to Create Complete and Correct Solutions, pp. 75-80.
L. H. Gonzalez-Guerra — Tecnologico de Monterrey
A. J. Leal-Flores — Tecnologico de Monterrey

14:20 - 14:40 SaA3.5
Skills Frameworks: A Tool for Reform in Information Technology Higher Education, pp. 81-86.
Mehdi Asgrahani — CPIT - New Zealand
Venky Shankararaman — Singapore Management Univ.

SaB1 FAC Room 1001
Artificial Intelligence
Chair: Sungho Kim — Yeungnam Univ.

14:40 - 15:00 SaB1.1
An Automatic Classification System for the Stock Comments, pp. 89-92.
Shuyi Hong — Xiamen Univ.
Xue Han — Xiamen Univ.
Lirong Tian — Xiamen Univ.
Linkai Luo — Xiamen Univ.

15:00 - 15:20 SaB1.2
A Novel Data Mining Approach for Soil Classification, pp. 93-98.

K Aditya Shastry — Nitte Meenakshi Inst. of Tech.
Sanjay H A — Nitte Meenakshi Inst. of Tech.
Kavya H — Nitte Meenakshi Inst. of Tech.

15:20 - 15:40 SaB1.3
A Gentzen System for the Description Logic, pp. 99-102.
SUN Yu — Chinese Academy of Sciences Yunnan Normal Univ.
SUI Yuefei — Chinese Academy of Sciences

15:40 - 16:00 SaB1.4
K-closely Subgraph of Probability Attribute Graph and its Mining Algorithm, pp. 103-108.
Chunying Zhang — Hebei United Univ.
Liya Wang — Hebei United Univ.
Ailing Sun — Hebei United Univ.
Baoxiang Liu — Hebei United Univ.

16:00 - 16:20 SaB1.5
Variation Analysis of 24 Hour Winter Infrared Images for Small Target Detection, pp. 109-114.
Sungho Kim — Yeungnam Univ.
Kyung-Tae Kim — POSTECH
Sohyun Kim — Agency for Defense Development

SaB2 FAC Room 1002
Robotics & Control
Chair: Armandina Juana Leal Flores — ITESM-Campus Monterrey

14:40 - 15:00 SaB2.1
Autonomous Robot Navigation with Self-learning for Collision Avoidance with Randomly Moving Obstacles, pp. 117-122.
Yunfei Zhang — The Univ. of British Columbia
Clarence W. de Silva — The Univ. of British Columbia
Dijia Su — The Univ. of British Columbia
Youtai Xue — The Univ. of British Columbia

15:00 - 15:20 SaB2.2
An Experimental Setup for Dynamic Control of Robot Manipulators, pp. 123-128.
Yanjun Wang — Univ. of British Columbia
Clarence W. de Silva — Univ. of British Columbia

15:20 - 15:40 SaB2.3
Mechatronic Design for Regenerative Chatter Control in Turning Using Artificial Immune System, pp. 129-134.
S.M.Karim Tabatabaei — Isfahan Univ. of Tech.
Saeed Behbahani — Isfahan Univ. of Tech.
Clarence W. de Silva — The Univ. of British Columbia

15:40 - 16:00 SaB2.4
A Systematic Approach for Functional Decomposition of Mechatronic System Design Using Mechatronic Design Quotient (MDQ), pp. 135-139.
Hani Balkhair — Univ. of British Columbia
Clarence W. de Silva — Univ. of British Columbia

16:00 - 16:20 SaB2.5
Formulation of a State-space Model for a Parallel Manipulator Using Linear Graphs, pp. 140-146.
Shujun Gao — The Univ. of British Columbia
Clarence W. de Silva — The Univ. of British Columbia

SaB3 FAC Room 1003
Education Reform and Innovation
Chair: Carsten Lecon — Aalen Univ.

14:40 - 15:00 SaB3.1
URI Online Judge Academic: A Tool for Algorithms and Programming Classes, pp. 149-152.
Jean Luca Bez — Universidade Regional Integrada
Neilor A. Tonin — Universidade Regional Integrada
Paulo R. Rodegheri — Universidade Regional Integrada

15:00 - 15:20 SaB3.2
Virtual Blended Learning - Virtual 3D Worlds and their Integration in Teaching Scenarios, pp. 153-158.
Carsten Lecon — Univ. of Applied Siences Aalen
Markus Herkersdorf — TriCAT

15:20 - 15:40 SaB3.3
On Fostering Critical Thinking and Integrating Reading and Writing Instruction under Web Condition, pp. 159-163.
ZHU Yuanyuan — Northwestern Polytecnical Univ.
WANG Jian — Northwestern Polytecnical Univ.
ZHANG Yi — Northwestern Polytecnical Univ.

15:40 - 16:00 SaB3.4
Chinese and Australian Students Learning to Work Together Online - Proposal to Expand the New Colombo Plan to the Online Environment, pp. 164-168.
Tom Worthington — Australian National Univ.

16:00 - 16:20 SaB3.5
Delivering Software Engineering Education Through LEGO Robotics, pp. 169-174.
Ira Weissberger — Univ. of Virginia's College at Wise
Abrar Qureshi — Univ. of Virginia's College at Wise
Ali Qureshi — Central High School

SuA1 FAC Room 1001
Big Data & Cloud Computing
Chair: Kunhui Lin — Xiamen Univ.

8:30 - 8:50 SuA1.1
Chances and Challenges Confronting Securities Industry and the Countermeasures in Big Data and Cloud Computing Era, pp. 177-182.
Li Ma — Dalian Univ. of Tech.
Mingfeng Jiang — Dalian Univ. of Tech.

8:50 - 9:10 SuA1.2
Performance Evaluation of Operating Systems in the Private Cloud with XenServer Hypervisor Using SIGAR Framework, pp. 183-188.
P. Vijaya Vardhan Reddy — Osmania Univ.
Dr. Lakshmi Rajamani — Osmania Univ.

9:10 - 9:30 SuA1.3
The Context-aware and Collaboration of Education Cloud Resources, pp. 189-192.
Liu Wenzhi — Suzhou Vocational Univ.
Huang Xiusi — Tianjin Univ.
Liu Zhaobin — Suzhou Vocational Univ.

9:30 - 9:50 SuA1.4
The Research of Recommendation System Based on Hadoop Cloud Platform, pp. 193-196.
Chunzhi Wang — Hubei Univ. of Tech.
Zhou Zheng — Hubei Univ. of Tech.
Zhuang Yang — Hubei Univ. of Tech.

9:50 - 10:10 SuA1.5
Model for Cloud Computing Security Assessment Based on AHP and FCE, pp. 197-202.
Zhu Ruo-xin — Information Engineering Univ.
CUI Xiao-jie — Information Engineering Univ.
GONG Shi-jun — Information Engineering Univ.
REN Hong-kang — Information Engineering Univ.
CHEN Ke — Information Engineering University Key Laboratory of Geological Information Technology, Ministry of Land & Resources

SuA2 FAC Room 1002
Robotics & Control
Chair: Peter X. Liu — Carleton Univ.

8:30 - 8:50 SuA2.1
A Framework of Design Weakness Detection through Machine Health Monitoring for the Evolutionary Design Optimization of Multi-domain Systems, pp. 205-210.
Min Xia — The Univ. of British Columbia
Clarence W. de Silva — The Univ. of British Columbia

8:50 - 9:10 SuA2.2
Autonomous and Cooperative Multi-robot System for Multi-object Transportation, pp. 211-217.
Pegah Maghsoud — Univ. of British Columbia
Clarence W. de Silva — Univ. of British Columbia
Muhammad Tahir Khan — Univ. of Engineering & Tech.

9:10 - 9:30 SuA2.3
Design of a Self-tuning Controller for Local Water Quality Adjustment, pp. 218-222.
Teng Li — The Univ. of British Columbia
Clarence W. de Silva — The Univ. of British Columbia
Sushanta Mitra — The Univ. of Alberta

9:30 - 9:50 SuA2.4
A Multi-agent Hybrid Cognitive Architecture with Self-awareness for Homecare Robot, pp. 223-228.
Yu Du — Univ. of British Columbia
Clarence W. de Silva — Univ. of British Columbia
Dong Liu — Dalian Univ. of Tech.

9:50 - 10:10 SuA2.5
Particle Filtering-Based Tracking and Localization on Context-Aware Robotic System, pp. 229-234.
Kun Wang — Carleton Univ.
Xiaoping P. Liu — Carleton Univ.

10:10 - 10:30 SuA2.6
Social Robot as an Assitive Tool in the Classroom, pp. 235-238.
Paulina Velez Nunez — Escuela Superior Politecnica de Chimborazo

SuA3 FAC Room 1003
Education Reform and Innovation
Chair: Yu Zhang — Shanghai Univ. of Engineering Sci.

8:30 - 8:50 SuA3.1
The Research on Multimedia Software Engineering Based on Software Life Cycle, pp. 241-244.
Yu Zhang — Shanghai Univ. Of Engineering Sci.

8:50 - 9:10 SuA3.2
Applying PBL Approach to Improve the Teaching Effect of IS Project Management Unit, pp. 245-248.
Wang Na — Shanghai Ocean Univ.

9:10 - 9:30 SuA3.3
Re-engineering Adult Education through Students' Production of Cyberart to Support Curriculum Learning, pp. 249-252.
Lucio Teles — Univ. of Brasilia

9:30 - 9:50 SuA3.4
Research on Close Collaboration between Scientific Research Projects and Experimental Teaching, pp. 253-256.
Shou Qingyun — Tongji Univ.
Lin Yi — Tongji Univ.
Zang Jianbin — Tongji Univ.

9:50 - 10:10 SuA3.5
An Assessment Method to Evaluate Team Project Based Engineering Design, pp. 257-260.
Jongwan Kim — Daegu Univ.

SuB1 FAC Room 1001
Big Data & Cloud Computing
Chair: Li Ma — Dalian Univ. of Tech.

10:25 - 10:45 SuB1.1
A K-means Clustering with Optimized Initial Center Based on Hadoop Platform, pp. 263-266.
Kunhui Lin — Xiamen Univ.
Xiang Li — Xiamen Univ.
Zhongnan Zhang — Xiamen Univ.
Jiahong Chen — Xiamen Univ.

10:45 - 11:05 SuB1.2
An Approach to Cluster Mobile Users Based on Time and Location, pp. 267-271.
Jiaxing Wu — Xiamen Univ.
Zhongnan Zhang — Xiamen Univ.
Huailin Dong — Xiamen Univ.
Qingfeng Wu — Xiamen Univ.
Lei Hu — Xiamen Univ.

11:05 - 11:25 SuB1.3
Outlier Detection Using Neighborhood Radius Based on Fractal Dimension, pp. 272-276.
Lei Hu — Xiamen Univ.
Zhongnan Zhang — Xiamen Univ.
Huailin Dong — Xiamen Univ.
Kunhui Lin — Xiamen Univ.

11:25 - 11:45 SuB1.4
Exploration on Control Quality of Continuous Casting Blank Based on Cloud Manufacturing, pp. 277-280.
Dachao HU — Shanghai Inst. of Tech.
Xiuxia HAO — Shanghai Inst. of Tech.
Dingping Ye — Chinese Academy of Sciences

11:45 - 12:05 SuB1.5
Investigation about Popularity of Cloud Services on Social Culture Education Resource, pp. 281-284.
Wei Zhou — Beijing Jiaotong Univ.
Binyue Cui — Hebei Univ. of Economics & Business
Qingguo Shi — Beijing Jiaotong Univ.

SuB2 FAC Room 1002
Communication Technology
Chair: Saleh Al-Saleem — King Saud University National Center for Assessment in Higher Education (QIYAS)

10:25 - 10:45 SuB2.1
Genetic Algorithm Based Analysis of Envelope Using Complex Analytical Wavelet Transform, pp. 287-290.
Lianfen Huang — Xiamen Univ.
Xiongpeng Wu — Xiamen Univ.
Caidan Zhao — Xiamen Univ.
Minghui Gao — Xiamen Univ.
Haiyan Xiong — Xiamen Univ.

10:45 - 11:05 SuB2.2
A Review of Security Considerations and Palm Based Authentication Scheme for Computer Based Testing, pp. 291-293.
Saleh M. Al-Saleem — King Saud University National Center for Assessment in Higher Education
Hanif Ullah — National Center for Assessment in Higher Education

11:05 - 11:25 SuB2.3
OOP-based Device-to-Device Communication Simulator Design of LTE Network, pp. 294-297.
Lianfen Huang — Xiamen Univ.
Ziwen Su — Xiamen Univ.
Zhibin Gao — Xiamen Univ.
Zhijian Lin — Xiamen Univ.
Tianli Hu — Xiamen Univ.
Minghui Liwang — Xiamen Univ.

11:25 - 11:45 SuB2.4
Using an E-Talk Pen to Promote Phonological Awareness on Communication Training, pp. 298-302.
Chien-Yu Lin — National Univ. of Tainan
Hua-Chen Chai — Da Chen Elementary

11:45 - 12:05 SuB2.5
A Textual Polarity Analysis Based on Reviewer Identity Disclosure and Product Sales, pp. 303-308.
Mingchu LI — Dalian Univ. of Tech.
Zhe QI — Dalian Univ. of Tech.
Kun LU — Dalian Univ. of Tech.
Cheng GUO — Dalian Univ. of Tech.

SuB3 FAC Room 1003
Computer Education
Chair: Chien-Yu Lin — National Univ. of Tainan

10:25 - 10:45 SuB3.1
An Empirical Study: Develop and Evaluation a Mobile Serious Game on Environmental Education, pp. 311-315.
Tsung-Li Wang — Shu-Te Univ.
Ya-Fen Tseng — Chung Hwa Univ. of Medical Tech.

10:45 - 11:05 SuB3.2
Benefits of an Introductory Course in Computer Game Development, pp. 316-321.
Timothy E. Roden — Lamar Univ.

11:05 - 11:25 SuB3.3
A New Method of Learning: M-Learning (Mobile Learning), pp. 322-325.
Manpreet Singh Bhullar — Khalsa College Patiala

11:25 - 11:45 SuB3.4
Effectiveness of Interactive Teaching Materials on Special Education and Assistive Technology, pp. 326-330.
Chien-Yu Lin — National Univ. of Tainan
Shu-hua Chen — Guei-nan Elementary School

11:45 - 12:05 SuB3.5
Optimization of the Learning Process in a New Digital Learning Environment, pp. 331-334.
Zhang Guoying — Second Military Medical Univ.
Zhang Xiang — Shanghai Branch China Construction Bank

SuC1 FAC Room 1001
Computer Application
Chair: Hsi-Yung Feng — The Univ. of British Columbia

13:00 - 13:20 SuC1.1
The New Approach of Preventing the Electromagnetic Information Leakage, pp. 337-340.
Zhang Jiemin — Jimei Univ.
Sun Haimeng — Jimei Univ.

13:20 - 13:40 SuC1.2
Improved Radial Basis Function Based Parameterization for Facial Expression Animation, pp. 341-346.
Zhida Li — The Univ. of British Columbia
Ji Ma — The Univ. of British Columbia
Hsi-Yung Feng — The Univ. of British Columbia

13:40 - 14:00 SuC1.3
Elderly Personal Intention Recognition by Activity and Context Recognition in Smart Home, pp. 347-350.
Yujia Ge — Zhejiang Gongshang Univ.
Bin Xu — Zhejiang Gongshang Univ.

14:00 - 14:20 SuC1.4
Wireless Data Transmission between iOS Client and Web Server, pp. 351-354.
Baoqin Liu — Beijing Information Tech. College
Xiaolei Zhang — Beijing Information Tech. College
Xianzhen Ren — Beijing Information Tech. College

SuC2 FAC Room 1002
Computer Graphics
Chair: BOGDAN SMOLKA — Silesian Univ. of Tech.

13:00 - 13:20 SuC2.1
Seal Identification Based on SIFT and Edge Direction Histogram, pp. 357-361.
Ning Ding — Univ. of Sci. & Tech. Liaoning
Xue-dong Zhang — Univ. of Sci. & Tech. Liaoning
Zhi-feng Wang — Univ. of Sci. & Tech. Liaoning
Chuan Wan — Univ. of Sci. & Tech. Liaoning

13:20 - 13:40 SuC2.2
Robustified Vector Median Filter, pp. 362-367.
Bogdan Smolka — Silesian Univ. of Tech.

13:40 - 14:00 SuC2.3
Smartphone Landmark Image Retrieval Based on Lucene and GPS, pp. 368-371.
Kunhui Lin — Xiamen Univ.
Jia Li — Xiamen Univ.
Wei Huang — Xiamen Univ.
Chao Fang — Broadcasting & TV Network Xiamen

14:00 - 14:20 SuC2.4
Analysis of Emergency Evacuation Path and its Demonstration Application in Highly-crowded Building, pp. 372-375.
Jiang Huixian — Fujian Normal Univ.
Su Lei — Fujian Normal Univ.
Zhang Wenkai — Fujian Normal Univ.

SuC3 FAC Room 1003
Curricula and Courseware Design
Chair: Mohd Najib Hamdan — Universiti Pendidikan Sultan Idris

13:00 - 13:20 SuC3.1
Revisiting Polya's Approach to Foster Problem Solving Skill Development in Software Engineers, pp. 379-384.
Mark A. Allison — Florida International Univ.
Sui F. Joo — Broward College

13:20 - 13:40 SuC3.2
The Implication of Realistic Levels of the Computer Based Animation Character: A Conceptual Framework, pp. 385-389.
Mohd Najib Hamdan — Universiti Pendidikan Sultan Idris
Ahmad Zamzuri Mohamad Ali — Universiti Pendidikan Sultan Idris

13:40 - 14:00 SuC3.3
Intercultural Training in a Blended Learning Environment in Japanese Higher Education, pp. 390-393.
Yuko Kato — Jin-ai Univ.
Izumi Suwa — Univ. of Fukui
Yoshitomo Itakura — Univ. of Fukui
Toshiyuki Hamada — Univ. of Fukui
Jousuke Kuroiwa — Univ. of Fukui
Tomohiro Odaka — Univ. of Fukui

SuD1 FAC Room 1001
Computer Application
Chair: Hsi-Yung Feng — The Univ. of British Columbia

14:40 - 15:00 SuD1.1
Pavement Crack Detection Based on Improved Tensor Voting, pp. 397-402.
Bin Qian — Nanjing Univ. of Sci. & Tech.
Zhenmin Tang — Nanjing Univ. of Sci. & Tech.
Wei Xu — Nanjing Univ. of Sci. & Tech.

15:00 - 15:20 SuD1.2
On Developing Data Integration and Mining Platform for Classical Chinese Literature Study, pp. 403-406.
Xun Li — Xiamen Univ.
Cong Cao — Xiamen Univ.
Fan Yang — Xiamen Univ.
Xiao Chen — Xiamen Univ.
Xin Shane Li — Louisiana State Univ.
Mingfen Huang — Xiamen Univ.

15:20 - 15:40 SuD1.3
A Trust Model for Wireless Sensor Networks Based on Multi-factors, pp. 407-410.
Wang Tianhua — Shanghai Electronic Certificate Authentication Co., Ltd
Wang Na — Shanghai Second Polytechnic Univ.

SuD2 FAC Room 1002
Software Engineering
Chair: Natasha NV Ferreira — Univ. of Johannesburg

14:40 - 15:00 SuD2.1
An Energy Management Strategy for Energy-sustainable Cyber-physical System, pp. 413-418.
Yongqi Ge — Northwestern Polytechnical Univ.
Yunwei Dong — Northwestern Polytechnical Univ.
Hongbing Zhao — Xi'an Power Supply Bureau

15:00 - 15:20 SuD2.2
Proving that the Release Management Process Can Enhance Throughput in Software Development Projects, pp. 419-424.
Natasha N. Vito Ferreira — Univ. of Johannesburg
Josef J. Langerman — Univ. of Johannesburg

15:20 - 15:40 SuD2.3
The Correlation between Personality Type and Individual Performance on an ICT Project, pp. 425-430.
Natasha N. Vito Ferreira — Univ. of Johannesburg
Josef J. Langerman — Univ. of Johannesburg

15:40 - 16:00 SuD2.4
A Multi-objective Decision Support Mechanism for Reverse Auction, pp. 431-434.
Dong-Her Shih — National Yunlin Univ. of Sci. & Tech.
Ming-Hung Shih — Iowa State Univ.
Po-Yuan Shih — National Formosa Univ.

16:00 - 16:20 SuD2.5
A Novel Trust-Based Secure Data Aggregation for Internet of Things, pp. 435-439.
Yanbing Liu — Chongqing Univ. of Posts & Telecommunications
Xuehong Gong — Chongqing Univ. of Posts & Telecommunications
Congcong Xing — Nicholls State Univ.

SuD3 FAC Room 1003
Engineering Training
Chair: M. Tahir Khan — Univ. of Engineering and Technology Peshawar

14:40 - 15:00 SuD3.1
Collaborative Learning: Implication of Online Forum in English Academic Writing for Engineering Students, pp. 443-448.
Dr Voyce Li — The Hong Kong Polytechnic Univ.

15:00 - 15:20 SuD3.2
A Virtual Mechanical Manufacturing Experimental System, pp. 449-452.
Qingni Hu — Dalian Univ. of Tech.
Shoulin Sun — Dalian Univ. of Tech.
Hengzhen Dai — Dalian Univ. of Tech.

15:20 - 15:40 SuD3.3
The Design of E-Learning Service Model Based on SIP Protocol, pp. 453-456.
Yiming Chen — Xiamen Univ.
Yuliang Tang — Xiamen Univ.

15:40 - 16:00 SuD3.4
A Highly Motivated Blended Learning Model Oriented to Computer Engineering Educators, pp. 457-461.
Panagiotis Angelopoulos — Computer Tech. Inst. & Press
Michael Paraskevas — Computer Tech. Inst. & Press, Technological Educational Inst. of Western Greece
Isidoros Perikos — Computer Tech. Inst. & Press
Thomas Zarouchas — Computer Tech. Inst. & Press

16:00 - 16:20 SuD3.5
An Approach for Designing Test Bank in Adaptive Learning System, pp. 462-464.
Qingchun Hu — East China Univ. of Sci. & Tech.
Yong Huang — Shanghai Distance Education Group

SuE1 FAC Room 1001
Web Application
Chair: Wan Gang — Wuhan Vocational College of Software & Engineering

16:35 - 16:55 SuE1.1
Research on the Situation Analysis Model of Social Network Relation Based on Set Pair Connection Potential, pp. 467-472.
Chunying Zhang — Hebei United Univ.
Liya Wang — Hebei United Univ.
Baoxiang Liu — Hebei United Univ.

16:55 - 17:15 SuE1.2
E&VRobot: A Crawler of Education and Vocation, pp. 473-476.
Gang Wan — Wuhan Vocational College of Software & Engineering
Yi Ding — Wuhan Vocational College of Software & Engineering
Bing Li — Wuhan Univ.
Xiaohu Tan — Wuhan Funshion Online Technologies Ltd

17:15 - 17:35 SuE1.3
An Exploration on Analysis of Local Public Opinion Based on Sina Weibo Associated with Regional Web Community, pp. 477-480.
Binyue CUI — Hebei Univ. of Economics & Business
Wei ZHOU — Beijing Jiaotong Univ.
Zhiqiang HE — Hebei Univ. of Economics & Business
Shigeki YOKOI — Nagoya Univ.

SuE3 FAC Room 1003
Engineering Training
Chair: Ahmad Zamzuri Mohamad Ali — Universiti Pendidikan Sultan idris

16:35 - 16:55 SuE3.1
Hardware-Software Visualization to Learn Programming, pp. 483-487.
Ahmad Zamzuri Mohamad Ali — Universiti Pendidikan Sultan Idris
Siti Rosminah Md Derus — Universiti Pendidikan Sultan Idris

16:55 - 17:15 SuE3.2
Experiment Teaching Reform for Software Testing Course Based On CDIO, pp. 488-491.
Zhu Bin — Shanghai Second Polytechnic Univ.
Zhang Shiming — Shanghai Second Polytechnic Univ.

17:15 - 17:35 SuE3.3
An Experiment of Computer Curriculum Reform Based on CDIO

Educational Framework, pp. 492-494.
Zhang Shiming — Shanghai Second Polytechnic Univ.
Zhu Bin — Shanghai Second Polytechnic Univ.

17:35 - 17:55 SuE3.4
Development and Evaluation of Eclipse Plugin Tool for Learning Programming Style of Java, pp. 495-499.
Masayuki Arai — Teikyo Univ.

17:55 - 18:15 SuE3.5
The Research of CDIO in Measuring and Controlling Technology and Instrument Major (MCTIM), pp. 500-503.
Wang Guimei — Hebei Univ. of Engineering
Li Xiaomei — Hebei Univ. of Engineering
Zhang Ling — Hebei Univ. of Engineering

Poster Sessions

SaP1
Artificial Intelligence

SaP1.1
Classification of Diabetes Disease Using TCM Electronic Nose Signals and Ensemble Learning, pp. 507-511.
Qiang Li — Xiamen Univ.
Li-Sang Liu — Fujian Univ. of Tech.
Fan Yang — Xiamen Univ.
Zhe-Zhou Zheng — Fujian Univ. of Traditional Chinese Medicine
Xue-Juan Lin — Fujian Univ. of Traditional Chinese Medicine
Qing-Hai Wu — Fujian Univ. of Traditional Chinese Medicine

SaP1.2
License Plate Recognition Based on Intrinsic Image Decomposition Algorithm, pp. 512-515.
Huazhen Li — Xiamen Univ.
Changle Zhou — Xiamen Univ.
Wei Xue — Xiamen Univ.
Yinbin Guo — Xiamen Univ.

SaP1.3
A Revisit to the Class Imbalance Learning with Linear Support Vector Machine, pp. 516-521.
Yang Fan — Xiamen Univ.
Zheng Kai — Xiamen Univ.
Li Qiang — Xiamen Univ.

SaP1.4
The Research of Personalized Learning System Based on Learner Interests and Cognitive Level, pp. 522-526.
Yang Qinghong — Jiangxi Normal Univ.
Yuan Dule — Jiangxi Normal Univ.
Zhang Junyu — Jiangxi Normal Univ.

SaP1.5
Structure Design about Fuzzy Rule Based on Context Sensitive Constraint, pp. 527-530.
Zhang Kejia — Northeast Petroleum Univ.
Li Chunsheng — Northeast Petroleum Univ.

SaP1.6
Prediction of Pitch Using Neural Network with Unified Particle Swarm Optimization, pp. 531-535.
Wei-min Qi — Jianghan Univ.
Xiong-Feng XianYu — Jianghan Univ.
Quan Zhou — Jianghan Univ.
Xia Zhang — Jianghan Univ.

SaP1.7
Location-based Personalized Mobile Search, pp. 536-539.
Kunhui Lin — Xiamen Univ.
Jie Liu — Xiamen Univ.
Ming Qiu — Xiamen Univ.
Kaijie Guo — Xiamen Univ.

SaP1.8
A Hybrid Recommendation Algorithm Based on Hadoop, pp. 540-543.
Kunhui Lin — Xiamen Univ.
Jingjin Wang — Xiamen Univ.
Meihong Wang — Xiamen Univ.

SaP1.9
Imbalance Data Classification Algorithm Based on SVM and Clustering Function, pp. 544-548.
Kai-biao Lin — Xiamen Univ. of Technology Yuan Ze Univ.
Wei Weng — Xiamen Univ. of Tech.
Robert K.Lai — Yuan Ze Univ.
Ping Lu — Xiamen Univ. of Tech.

SaP2
Big Data & Cloud Computing

SaP2.1
Structural Damage Detection Based on Semi-supervised Fuzzy C-means Clustering, pp. 551-556.
Zhen Liu — Xiamen Univ.
Qifeng Zhou — Xiamen Univ.
Yuanyuan Zhang — Xiamen Univ.
Youling Chen — Xiamen Univ.
Sen Qi — Xiamen Univ.
Qijun Chi — Xiamen Univ.

SaP2.2
WEB Data Mining Applications in E-commerce, pp. 557-559.
Yonghua Zhao — Wuhan Univ. of Tech.
Hong Lin — Wuhan Univ. of Tech.

SaP2.3
Design of Cloud Services Platform Based on JSON, pp. 560-565.
Yin Qun — Kunming Univ. of Sci. & Tech.
Zhang Jianbo — Kunming Univ. of Sci. & Tech.

SaP2.4
Probe into Setting up Big Data Processing Specialty in Chinese Universities, pp. 566-569.
Yangqing Zhu — Foshan Univ.
Jun Zuo — Foshan Univ.

SaP2.5
The Management of Big Data Tables Based on Oracle Partition Technology, pp. 570-572.
Muxiu Zhu — Ningbo Dahongying Univ.
Xianjiu Zhang — Fujian Newland Computer Co.,ltd

SaP2.6
K-medoids Clustering Based on MapReduce and Optimal Search of Medoids, pp. 573-577.
Ying-ting Zhu — China Academy of Railway Sci.
Fu-zhang Wang — China Academy of Railway Sci.
Xing-hua Shan — China Academy of Railway Sci.
Xiao-yan Lv — China Academy of Railway Sci.

SaP2.7
Research on Role of Cloud Computing in Virtual Operation Performance Management, pp. 578-581.
Hongxia ZHANG — Shenyang Univ. of Chemical Tech.
Xiaojun LIU — Shenyang Univ. of Chemical Tech.

SaP2.8
Analysis of the Impact of Cloud Computing Technology to E-government Performance Evaluation, pp. 582-585.
Hongxia ZHANG — Shenyang Univ. of Chemical Tech.
Yue PI — Shenyang Univ. of Chemical Tech.

SaP2.9
The Research and Application of College Teaching Resources Construction in Cloud Environment, pp. 586-589.
Wang Li_li — Northeast Petroleum Univ.
Gao Xin_cheng — Northeast Petroleum Univ.

SaP2.10
The Design of College Teaching Resources Management Platform Based on Cloud Computing, pp. 590-593.
Wang Li_li — Northeast Petroleum Univ.
Gao Xin_cheng — Northeast Petroleum Univ.

SaP2.11
Design and Implementation of Dig-based Educational Resource Library, pp. 594-597.
Yuan Jiugen — Jiangxi Sci. & Tech. Normal Univ.
Zhang Wenting — Jiangxi Normal Univ.
Xing Ruonan — Jiangxi Normal Univ.

SaP3
Communication Technology

SaP3.1
Research and Exploration of the Key Elements of Food Safety Data Analysis System Based on the Food Safety Traceability System, pp. 601-605.
Yan Ma — Fuzhou Entry-exit Inspection & Quarantine Bureau of the P.R.China
Yongqiu Lin — Fuzhou Entry-exit Inspection & Quarantine Bureau of the P.R.China
Jianjun Liu — China Certification & Inspection Group Fujian Co., Ltd.
Zhen Liu — Xiamen Univ.

SaP3.2
Design of Property Management System Server Based on the Asterisk, pp. 606-609.
Xiao Zhou — Shandong Univ.
Yamin Zheng — Shandong Univ.
Ang Wang — Shandong Univ.

SaP3.3
Threshold-crossing Theory Based Analysis Method for Peak Value Interval Prediction of Mobile Service Requests in Campus Wireless Network, pp. 610-614.
Xia Tian — Shanghai Second Polytechnic Univ.

SaP3.4
Improved Adaptive Demosaicking Using Directional Weighting, pp. 615-618.
Xiao Zhou — Shandong Univ.
Fanfan Yang — Shandong Univ.
Chunxiao Zhang — Shandong Univ.
Chengyou Wang — Shandong Univ.

SaP3.5
Research on Distributed Fault Detection Using a Recurrent Neural Network in Sensor Networks, . *T* !
Wei-min Qi — Jianghan Univ.
Jie Xiao — Huazhong Univ. of Sci. & Tech.

SaP3.6
A Q-learning-based Downlink Resource Scheduling Method for Capacity Optimization in LTE Femtocells, pp. 625-628.
Bin Wen — Xiamen Univ.
Zhibin Gao — Xiamen Univ.
Lianfen Huang — Xiamen Univ.
Yuliang Tang — Xiamen Univ.
Hongxiang Cai — China Mobile Communications Corporation

SaP3.7
Load-Modifiable Content-Based Publish/Subscribe Architecture over Structured Peer-to-Peer Networks, pp. 629-634.
Shangzhou Li — Chinese Academy of Sciences
Pin Lv — Chinese Academy of Sciences
Haibo Wang — Chinese Academy of Sciences
Junping Song — Chinese Academy of Sciences

SaP3.8
MEMS Chip Quality Detection by Fast Image Matching Method, pp. 635-639.
Lin Lin — Xiamen Ocean Vocational College
Liu Zhen — Xiamen Univ.

SaP3.9
The Research of Human-Machine Interactions Unity on IOS and Android Smartphone Platform, pp. 640-643.
Minghui Hu — Beijing Inst. of Tech.
Peng Bian — North China Univ. of Tech.
Nairen Zhang — Beijing Inst. of Tech.

SaP4
Computer Application

SaP4.1
Modeling Multi-lane Traffic Flow under Different Overtaking Rules Based on Cellular Automaton, pp. 647-653.
Zhou Fang — Hubei Univ. of Tech.
Ruolan Li — Guangdong Univ. of Foreign Studies
Fuzhou Li — Wuhan Univ. of Tech.
Ziqin Zhou — Zhongnan Univ. of Economic & Law
Guanmin Liu — Hubei Univ. of Tech.
Jing Wen — Hubei Univ. of Tech.

SaP4.2
IT Applications to Mobile Services in University Library, pp. 654-658.
Tingting Zhu — Changchun Inst. of Tech.
Lili Zhang — Changchun Inst. of Tech.

SaP4.3
Study on Vehicle Scheduling Algorithm in Distribution Step, pp. 659-662.
PAN Ling — Ningbo Dahongying Univ.
SUN Ying Wei — Ningbo Dahongying Univ.

SaP4.4
Research on Hierarchical Image Restoration of Chinese Painting, pp. 663-666.
Song Wei — Zhejiang Univ.

SaP4.5
The MPS Application of Integrating Soft Data and Hard Data, pp. 667-671.
Yi Du — Shanghai Second Polytechnic Univ.
Jihong Yan — East China Normal Univ.
Ting Zhang — Shanghai Univ. of Electric Power

SaP4.6
To Discover the Traditional Chinese Medicine Techniques Applied in Diabetes Mellitus through Data Mining, pp. 672-676.
Zhaoli Cui — Beijing Tongzhou District Hospital
Dan He — Jiangxi Univ. of TCM
Miao Jiang — China Academy of Chinese Medical Sci.
Yaoxian Wang — Dongzhimen Hospital affiliated to Beijing Univ. of Traditional Chinese Medicine
Guang Zheng — Lanzhou Univ.

SaP4.7
Web Oriented Learning Strategies of Relationships among Domain Ontology Concepts, pp. 677-681.
Yongjian Liu — Wuhan Univ. of Tech.

Jing Xie — Wuhan Univ. of Tech.
Jingling Yuan — Wuhan Univ. of Tech.
Jianpeng Sun — Wuhan Univ. of Tech.

SaP4.8
Linear Regression for Automatic Image Annotation, pp. 682-686.
Ning Zhang — Shenyang Radio & Television Univ.

SaP4.9
Application of Extended Kalman Filtering Algorithm in Multi-sensor Information Fusion, pp. 687-691.
XU Yejun — Suzhou Industrial Park Inst. of Services Outsourcing

SaP4.10
Personal Healthy Living Management System, pp. 692-695.
Xiang-Dong Qu — Hangzhou Normal Univ.
Ge Yu — Hangzhou Normal Univ.

SaP4.11
Network Traffic Prediction Based on Multi-Scale Wavelet Transform and Mixed Time Series Model, pp. 696-699.
Tan Hongjian — Guilin Univ. of Tech. (Vocational College of Technology)
Yang Yahui — Guilin Univ. of Tech. (Vocational College of Technology)

SaP4.12
Connected Components Labeling Algorithm Based on Run-Length Table Searching, pp. 700-704.
Gao Yunfeng — Wuhu HIT Inst. of Robot Tech.
Wang Feiyang — Harbin Inst. of Tech.
Hu Xiaotian — Harbin Inst. of Tech.

SaP4.13
E^2: Abstracting Solid State Devices for (Database) Systems, pp. 705-709.
Sui Tao — Xiamen Univ. of Tech.
Lu Peng — National Univ. of Singapore

SaP4.14
An Online Curriculum Design Framework Based on 3P Model from the Perspective of Knowledge Transfer, pp. 710-713.
Jinju Duan — North West Univ. for Nationalities, Modern Educational Technology Beijing Normal Univ.
Yun QI — North West Univ. for Nationalities, Modern Educational Tech.

SaP4.15
An Integrated Social Graph(ISG) to Predict Online Learning Performance, pp. 714-717.
Jinju Duan — Beijing Normal University North West Univ. for Nationalities, Modern Educational Tech.
Xiaofeng Wang — Beijing Normal Univ.

SaP4.16
Application of Optimal Control Theory to the HEV Dynamic Process Based Control Method, pp. 718-722.
Ou Jiajie — South China Univ. of Technology Guangzhou Univ.
Li Lifu — South China Univ. of Tech.

SaP4.17
Polymorphic Worms Signature Extraction Based-on Improved Ant Colony Algorithm, pp. 723-727.
Wan Yuwen — Jiangxi Normal Univ.
You Jinxin — Jiangxi Normal Univ.
Guo Fan — Jiangxi Normal Univ.
Xu Shufang — Jiangxi Normal Univ.

SaP4.18
Computational Simulation Application in the Research of Desulfurization Mechanism, pp. 728-731.
Duan Aijun — China Univ. of Petroleum
Zheng Peng — China Univ. of Petroleum
Zhao Liang — China Univ. of Petroleum
Ji Jingjing — China Univ. of Petroleum
Zhao Zhen — China Univ. of Petroleum

SaP5
Computer Education

SaP5.1
Model and Research on Score Evaluation Model of Graduation Thesis, pp. 735-738.
Hong-ben Mao — Nanjing Forestry Univ.
Qi Jiang — Nanjing Forestry Univ.
Ai-hua Zhou — Nanjing Forestry Univ.
Shi-fa Wang — Nanjing Forestry Univ.

SaP5.2
Empirical Research on the Establishment of Housing Guarantee - System in Central Cities: A Case Study of Wuhan, pp. 739-743.
Zhang Yuanqi — Wuhu Univ. of Technolgy

SaP5.3
The Traceability Method of the Mixed-vegetable Packages, pp. 744-749.
Wenqin Lian — Fujian Entry-exit Inspection & Quarantine Bureau of the P.R.China
Yongqiu Lin — Fujian Entry-exit Inspection & Quarantine Bureau of the P.R.China
Xiaopeng Cai — Xiamen Univ.
Zhen Liu — Xiamen Univ.
Jianjun Liu — China Certification & Inspection Group Fujian Co., Ltd.

SaP5.4
The Program of Educational Technology Ability Building for Vocational Education Teachers, pp. 750-753.
Zhang Liqin — Jiangxi Sci. & Technique Normal Univ.
Wan chunhui — Jiangxi Water Resources Inst.

SaP5.5
A Review of "Perceptions of the Computer-Assisted Writing Program among EFL College Learners", pp. 754-757.
ZHANG Xiao-ping — Sichuan Normal Univ.

SaP5.6
Examining the Relationship between Epistemic Activity and Academic Achievement - Using of Scripts and Co-evaluation Strategies in a VLE, pp. 758-762.
Felipe Tirado — National Autonomous Univ. of Mexico
Guillermo Santos — National Autonomous Univ. of Mexico

SaP6
Computer Graphics

SaP6.1
Concentric Circle Detection Based on Normalized Distance Variance and the Straight Line Hough Transform, pp. 765-769.
Xing Chen — China Three Gorges Univ.
Ling Lu — China Three Gorges Univ.
Sheng Yang — China Three Gorges Univ.

SaP6.2
An Improved Exemplar-based Image Inpainting Algorithm, pp. 770-775.
Chunyang Xiang — Zhengzhou Univ.
Pengsong Duan — Zhengzhou Univ.
Yangjie Cao — Zhengzhou Univ.
Lei Shi — Zhengzhou Univ.

SaP6.3
A Novel Processing Method of the Subjective Quality Evaluation Results of Stereo Video, pp. 776-780.
Jian Yang — Tianjin Univ.

Sumei Li — Tianjin University University of Southern Queensland
Wei Xiang — Univ. of Southern Queensland

SaP6.4
A Clustering Compression Method for 3D Human Motion Capture Data, pp. 781-784.
Zhou Kai — Northeast Petroleum Univ.
Tian Feng — Northeast Petroleum Univ.
Hao Guo — China Petroleum Tech. & Development Corporation
Ren Zhong — Northeast Petroleum Univ.

SaP6.5
3D Model Autotagging Based on Semi-supervised Weighted Metric Learning, pp. 785-788.
Zhou Kai — Northeast Petroleum Univ.
Tian Feng — Northeast Petroleum Univ.
Ren Zhong — Northeast Petroleum Univ.
Hao Guo — China Petroleum Tech. & Development Corporation

SaP6.6
A Real-time Rendering Method Based on Precomputed Hierarchical Levels of Detail in Huge Dataset, pp. 789-792.
Kai Zhou — Northeast Petroleum Univ.
Feng Tian — Northeast Petroleum Univ.
Zhong Ren — Northeast Petroleum Univ.
Hao Guo — China Petroleum Tech. & Development Corporation

SaP7
Curricula and Courseware Design

SaP7.1
Teaching System Design of Mobile Learning under the Guidance of Blending Theory, pp. 795-798.
Yuan Jiugen — Jiangxi Sci. & Tech. Normal Univ.
Xing Ruonan — Jiangxi Normal Univ.
Zhang Wenting — Jiangxi Normal Univ.

SaP7.2
Exploration and Practice in Teaching of Digital Logic Course, pp. 799-802.
Zhong Bocheng — Shanghai Univ. of Engineering Sci.
Zizhuo Yang — Shanghai Univ. of Engineering Sci.
Yihan Wang — Shanghai Univ. of Engineering Sci.
Runcai Huang — Shanghai Univ. of Engineering Sci.

SaP7.3
Application of Software Visualization in Programming Teaching, pp. 803-806.
Yi Ding — Wuhan Vocational College of Software & Engineering
Yongmin Hang — Wuhan Vocational College of Software & Engineering
Gang Wan — Wuhan Vocational College of Software & Engineering
Shuiyan He — Wuhan Vocational College of Software & Engineering

SaP7.4
An Effective Mode of Information Dissemination and Learning - Communication Strategy of Digital Museum, pp. 807-811.
Chang Ying — Shijiazhuang Tiedao Univ.
Chen Shan — Shijiazhuang Tiedao Univ.

SaP7.5
YOJ: An Online Judge System Designed for Programming Courses, pp. 812-816.
Hui Sun — Renmin Univ. of China
Bofang Li — Renmin Univ. of China
Min Jiao — Renmin Univ. of China

SaP7.6
Teaching Method Based on Computational Thinking - A Case Research, pp. 817-820.
Shuiyan He — Wuhan Vocational College of Software & Engineering
Yongmin Hang — Wuhan Vocational College of Software & Engineering
Yi Ding — Wuhan Vocational College of Software & Engineering

SaP7.7
Study on the Suggestibility of Visual Element in Educational Game Design - Intellective Theme Game of Ceramic Culture Taking as an Example, pp. 821-825.
Chang Ying — Shijiazhuang Tiedao Univ.

SaP7.8
Educational Reform of Computer Application Foundation Course, pp. 826-829.
Yueping Wu — Shanghai Second Polytechnic Univ.
Shiming Zhang — Shanghai Second Polytechnic Univ.

SaP7.9
Blended Inquiry through Blended Learning for Computer Network Course, pp. 830-835.
Guan Chen Zhi — Nanchang Normal Univ.
Liu Zhen Ya — Nanchang Normal Univ.

SaP8
Education Reform and Innovation

SaP8.1
The Research of the Employment-oriented Education System of Network Engineering Professional in Provincial Universities, pp. 839-842.
Shuying Zhang — Beihua Univ.
Yue Gao — Beihua Univ.
Zhuo Li — Beihua Univ.
Jianmei Ge — Beihua Univ.
Shuangli Wang — Beihua Univ.

SaP8.2
English Language Teaching for Engineering Students in Chinese Higher Education in a Cross Road, Where to Go?, pp. 843-848.
Ji LI — Zhengzhou Normal Universiity
Yu LI — Henan Univ. of Economics & Law

SaP8.3
Research on Educational Data Mining of Digital Learning Process for Elementary School, pp. 849-854.
Fang Hai-guang — Capital Normal Univ.
Hou Wei-feng — Capital Normal Univ.
Wang Xiao-chun — Capital Normal Univ.
Chu Yun-hai — Capital Normal Univ.

SaP8.4
Research on Teaching Gamification of Software Engineering, pp. 855-860.
QU Wei-Qing — Ningbo Dahongying Univ.
WANG Ming — Ningbo Dahongying Univ.
ZHAO Yan-Fei — Ningbo Dahongying Univ.
LIU Bang-Quan — Ningbo Dahongying Univ.

SaP8.5
The Realization of Small Cluster Parallel Computing Environment for College Education, pp. 861-863.
Mingliang Xu — Shanghai Univ. of Engineering Sci.
Qianmin Su — Shanghai Univ. of Engineering Sci.

SaP8.6
Innovation and Practice, Teaching and Learning, pp. 864-867.
WANG Lu — Donghua Univ.

WANG Fujun — Donghua Univ.
GUAN Guoping — Donghua Univ.
LIN Jing — Donghua Univ.
GAO Jing — Donghua Univ.
FU Yijun — Donghua Univ.

SaP8.7
Curriculum System Optimization under Outstanding Engineers Training Mode of Mechanical and Electronic Engineering, pp. 868-871.
Yu-jing Qiao — Harbin Univ. of Sci. & Tech.
Jun-peng Shao — Harbin Univ. of Sci. & Tech.
Xiu-lin Sui — Harbin Univ. of Sci. & Tech.

SaP8.8
Status and Measures for Promoting Web-Based Teaching in IT Courses in Higher Education, pp. 872-876.
Ganlin Wang — Shanghai Ocean Univ.
Hongchun Yuan — Shanghai Ocean Univ.
Chen Su — Shanghai Ocean Univ.

SaP8.9
Constructing the Practical Teaching System of Innovation and Entrepreneurship Education for Engineering College Students, pp. 877-882.
Zhanguo Zhang — Beihua Univ.

SaP8.10
Try to Make an Objective Evaluation on Interactive Whiteboard Classroom Record in Primary and Secondary Schools, pp. 883-888.
SHEN Li — Sichuan Normal Univ.
Fang Dan — Sichuan Normal Univ.

SaP8.11
Research on Teaching Reform of Computer Courses for Mathematics Major in the Local Universities, pp. 889-893.
Shufen Zhang — Hebei United Univ.
Xuebin Chen — Hebei United Univ.

SaP8.12
The Construction of Teachers' Professional Growth E-portfolio on the Basis of Moodle Platform, pp. 894-897.
Zhang Liqin — Jiangxi Sci. & Technique Normal Univ.
Wan Chunhui — Jiangxi Water Resources Inst.

SaP8.13
The Research of Video Resource Personalized Recommendation System Based on Education Website, pp. 898-902.
Ying Liang — Southwest Univ.
Hanrong Chen — Southwest Univ.

SaP8.14
Reform of Practical Teaching for Cultivating Application-Oriented Talents, pp. 903-906.
Liangtao Yang — Shanghai Second Polytechnic Univ.

SaP8.15
Construction the Talent Cultivation Mode and Optimizing the Knowledge Structure for Environmental Protection Equipment Specialty, pp. 907-910.
Xiuli LI — Shanghai Second Polytechnic Univ.
Mingyuan ZHOU — Shanghai Second Polytechnic Univ.
Li FAN — Shanghai Second Polytechnic Univ.
Changwen MA — Shanghai Second Polytechnic Univ.

SaP8.16
Reform and Practice of University Computer Basic Course Teaching Based on Autonomous Learning, pp. 911-914.
He Junmei — Southwest Univ.
Liu Boqin — Southwest Univ.

SaP8.17
Application of Knowledge-Based Stuy in C Language, pp. 915-918.
Yang Guoxing — Univ. of Sci. & Tech. Beijing
Yan Ting — Univ. of Sci. & Tech. Beijing

SaP8.18
Considerations and Practice of Objectives and Ideologies of Data Structure Teaching, pp. 919-922.
Yue Chen — Zhengzhou Information Sci. & Tech. Inst.
Zhifang Ding — Zhengzhou Information Sci. & Tech. Inst.
Qing Dai — Zhengzhou Information Sci. & Tech. Inst.

SaP8.19
Research on Media Cognition Practical Projects Curriculum, pp. 923-927.
Yang Yi — Tsinghua Univ.
Ma Xiaohong — Tsinghua Univ.
Sun Jiasong — Tsinghua Univ.
Deng Beixing — Tsinghua Univ.

SaP8.20
Cognitive Psychology Oriented Education with Virtual Learning and Continuous Evaluation, pp. 928-933.
S.A.R.Thilanka — Sri Lanka Inst. of Information Tech.
M.Pranavan — Sri Lanka Inst. of Information Tech.
H.M.T.N.Dayarathna — Sri Lanka Inst. of Information Tech.
P.R.Wijewantha — Sri Lanka Inst. of Information Tech.

SaP9
Education Reform and Innovation

SaP9.1
Study and Training on Virtual Reality Technology of Mine Fire Prevention, pp. 937-940.
Bo TAN — China Univ. of Mining & Tech.
Hongqing ZHU — China Univ. of Mining & Tech.
Wendong SHI — China Univ. of Mining & Tech.
Xiaofeng QIN — China Univ. of Mining & Tech.

SaP9.2
Research on the Extreme Values and Optimization of the Development of the Traffic Transport Industry, pp. 941-947.
Yang Xiuying — Wuhan Univ. of Tech.

SaP9.3
Exploration and Practice of Training Mode of Outstanding Software Engineers, pp. 948-952.
LIN Lian-nan — South China Univ. of Tech.
DING Peng — South China Univ. of Tech.
Chen Shi-yun — South China Univ. of Tech.

SaP9.4
Design and Realization of Network Instruction Platform Based on Role-playing, pp. 953-956.
Min Huang — Southwest Univ.
Zhi-gang Cai — Southwest Univ.

SaP9.5
Practice of Entrepreneurship Education in Developing Professional Competences for Computing Students, pp. 957-960.
JIN YE-ying — China Jiliang Univ.
HUANG Jun — China Jiliang Univ.

SaP9.6
Education and Cultivation Research of Engineering Undergraduate's Innovative Ability Based on TRIZ-CDIO Theory, pp. 961-966.
Jiang Jin-gang — Harbin Univ. of Sci. & Tech.
Zhang Yong-de — Harbin Univ. of Sci. & Tech.
Shao Jun-peng — Harbin Univ. of Sci. & Tech.
Sui Xiu-lin — Harbin Univ. of Sci. & Tech.
Zhang Jian-yi — Harbin Univ. of Sci. & Tech.

SaP10
Internet of Things

SaP10.1

An Improved PSO-based Method in Hybrid WSNs Using Nodes Density, pp. 969-972.

Qi Zhang — Ninbo Dahongying Univ.
Weiqin Qu — Ninbo Dahongying Univ.

SaP10.2

An Energy-efficent Routing Protocol for WSN-based Intelligent Mining System, pp. 973-976.

Yanyan Mao — Shandong Inst. of Business & Tech.
Dapeng Cheng — Shandong Univ. of Sci. & Tech.

SaP10.3

A Localization Algorithm by Dynamic Path-loss Fading Index for Intelligent Mining System, pp. 977-980.

Yanyan Mao — Shandong Inst. of Business & Tech.
Dapeng Cheng — Shandong Univ. of Sci. & Tech.

SaP10.5

Research on the Monitoring System of Wheat Diseases, Pests and Weeds Based on IOT, pp. 981-985.

Shufen Zhang — Hebei United Univ.
Xuebin Chen — Hebei United Univ.
Shi Wang — Hebei United Univ.

SaP10.6

Application of Weighted Cetroid Location Algorithm in Forest Fire Monitring, pp. 986-988.

Qi Zhang — Ninbo Dahongying Univ.
Zhengtong Chen — Ninbo Dahongying Univ.
Chunliang Zhou — Ninbo Dahongying Univ.
Qian Hu — Ninbo Dahongying Univ.
Xiaomeng Qi — Ninbo Dahongying Univ.

SaP10.7

The Design and Implementation of a Collaborative Monitoring System Based on JXTA, pp. 989-992.

Kai Zhou — Northeast Petroleum Univ.
Feng Tian — Northeast Petroleum Univ.
Tiechen Kong — Daqing Oil Field General Hospital

SaP10.8

A Study of WSN Synchronization Based on OFDM Anti-Interference Model, pp. 993-997.

Chunliang Zhou — Ningbo Dahongying Univ.
Weiqing Qu — Ningbo Dahongying Univ.
Ming Wang — Ningbo Dahongying Univ.
Zhengqiu Lu — Ningbo Dahongying Univ.

SaP10.9

An Internet of Things QoS Estimate Approach Based on Multi-Dimension QoS, pp. 998-1002.

Lu Li — Suzhou Vocational Univ.
Mei Rong — Jinan Univ.
Guangquan Zhang — Soochow University Chinese Academy of Sci.

SaP11
Robotics & Control

SaP11.1

Remote Base Station Controller Design for Common Frequency Broadcasting Network based on KG510, pp. 1005-1009.

Tiejun Li — Chongqing University Jimei Univ.
Lingjie Lin — Xiamen Univ.
Qijun Chi — Xiamen Univ.
Yong Luo — Xiamen Univ.
Guifang Shao — Xiamen Univ.

SaP11.2

Design of Pharmaceutical Drugs Security Based on RFID Sensor Networks, pp. 1010-1013.

Zhang Jianbo — Kunming Univ. of Sci. & Tech.
YinQun — Kunming Univ. of Sci. & Tech.

SaP11.3

Competitive Decision Algorithm for Constructing Maximum Lifetime Spanning Tree in Wireless Sensor Networks, pp. 1014-1019.

Xiaohua Xiong — Shanghai Second Polytechnic Univ.
Aibing Ning — Univ. of Shanghai for Sci. & Tech.

SaP11.4

Research and Implemention of Solar Photovoltaic Power Generation Monitoring System Based on TinyOS, pp. 1020-1023.

Ye Jihua — Jiangxi Normal Univ.
WANG Wen — Jiangxi Normal Univ.

SaP11.5

The Ratio Control Structure with Two Adaptive Blend Stations, pp. 1024-1027.

Liuqing Jin — Xiamen Univ.
Xiafu Peng — Xiamen Univ.

SaP11.6

Implementation of a Laboratory Video Monitoring System, pp. 1028-1031.

Ye Jihua — Jiangxi Normal Univ.
Nie Xiaoshi — Jiangxi Normal Univ.

SaP11.7

Design of Fin Stabilizer Control System Based on Quantitative Feedback Theory, pp. 1032-1037.

Kuang Liu — Xiamen Univ.
Zhiyang Zhang — Xiamen Univ.

SaP11.8

A New Service Composition Method for Service Robot Based on Data-driven Mechanism, pp. 1038-1043.

Lu Fei — Shandong Univ.
Lu Na — Shandong Univ.
Li Jian — Shandong Univ.

SaP11.9

Iterative Learning Control of Three-phase Pulse Width Modulation Voltage Source Rectifier, pp. 1044-1049.

Baobin Liu — Jiangsu Institue of Commerce
Wei Zhou — Zhejiang Univ.

SaP11.10

Implementation of a Three-level SVPWM Algorithm in gh Coordination Based on DSP, pp. 1050-1055.

Peng Yanqing — Xiamen Univ. of Tech.
Zhang Ji — Xiamen Univ. of Tech.
Tao Qingsong — Xiamen Univ. of Tech.
Chen Liqing — Sinopharm Xingsha Pharmaceutical (Xiamen) Co., Ltd.
Wu Jianling — Xiamen Univ. of Tech.

SaP11.11

Study on Image Mosaics System Based on Fuzzy System, pp. 1056-1059.

Yu Jing — ZunYi Medical Univ.
Zou Li Ping — ZunYi Medical Univ.

SaP12
Software Engineering

SaP12.1

The Research of Data-Driven Testing Based on QTP, pp. 1063-1066.

Xinbian Wang — Ningbo Dahongying Univ.
Guangjun He — Ningbo Dahongying Univ.

SaP12.2

The Research on Test Case Generation Technology of UML Sequence Diagram, pp. 1067-1069.

Yan Li — Ningbo Dahongying Univ.
Li Jiang — Ningbo Dahongying Univ.

SaP12.3
W2ME: A Workflow Meta Model for OTO-oriented E-commerce, pp. 1070-1073.
Yanyan Mao — Shandong Inst. of Business & Tech.
Dapeng Cheng — Shandong Univ. of Sci. & Tech.

SaP12.4
Automatic Updating Method Based on Maven, pp. 1074-1077.
Xiong Zhen-hai — Nanjing Inst. of Politics
Yang Yong-zhi — South China Sea Fleet Air Arm Ninth Division

SaP12.5
Design and Implementation of Intellective Class Scheduling System Based on Negotiation, pp. 1078-1082.
Yingyue Chen — Xiamen Univ. of Tech.

SaP12.6
Modeling and Analysis BPEL-Based Web Services Composition Using XYZ, pp. 1083-1088.
Mei Rong — Jinan University Chinese Academy of Sciences

SaP12.7
A Novel Method of Automatic Image Annotation, pp. 1089-1093.
Ning Zhang — Shenyang Radio & Television Univ.

SaP12.8
Design and Implementation of Government-affair-transparent System, pp. 1094-1097.
Liyan Chen — Xiamen Univ.
Jia Lin — Xiamen Univ.
Fei Duan — Xiamen Univ.
Hui Hu — ABB High Voltage Switchgear (Xiamen) Company Limited

SaP12.9
The Description Logics Model of Artifact-centric Business Process System and Verification of Artifact, pp. 1098-1102.
Xiaomei Wan — Donghua Univ.
Wei Zhao — State Grid Corporation of China Heilongjiang Electric Power Company Ltd
Guohua Liu — Donghua Univ.
Xiaoli Yue — Donghua Univ.

SaP13

Web Application

SaP13.1
A Vertical News Recommendation System: CCNS---An Example from Chinese Campus News Reading System, pp. 1105-1114.
Shan Jiang — Xiamen Univ.
Wenxing Hong — Xiamen Univ.

SaP13.2
Improved CSRFGuard for CSRF Attacks Defense on Java EE Platform, pp. 1115-1120.
Jinxin You — Jiangxi Normal Univ.
Fan Guo — Jiangxi Normal Univ.

SaP13.3
Research on Web Application Consistency Testing Based on Model Simulation, pp. 1121-1127.
Liping Li — Shanghai Second Polytechnic Univ.
Xingsen Li — Zhejiang Univ.
Shan Tang — Shanghai Second Polytechnic Univ.

SaP13.4
Research on Pricing Mechanism of Web-Based Group-Buying of Restaurant Business, pp. 1128-1131.
Guoping Nong — Jinan Univ.
Sulin Pang — Jinan Univ.

SaP13.5
The Design and Development of the Display Platform for Industrial Design Works, pp. 1132-1135.
MAO Zicheng — Zhejiang Univ. of Sci. & Tech.
CEN Gang — Zhejiang Univ. of Sci. & Tech.
FAN Yufeng — Zhejiang Univ. of Sci. & Tech.

SaP13.6
Design of an Industrial Product Platform Based on the Witkey Mode, pp. 1136-1139.
HAN Jiaping — Zhejiang Univ. of Sci. & Tech.
CEN Gang — Zhejiang Univ. of Sci. & Tech.

SaP13.7
Human-Machine Interface: Design Principles of Pagination Navigation in Web Applications, pp. 1140-1143.
Minghui Hu — Beijing Inst. of Tech.
Yuxiang Kuang — Jiangxi Univ. of Finance & Economics