IEEE/ACIS SNPD 2014

Conference Program

June 30 – July 2, 2014

Las Vegas, USA
IEEE/ACIS SNPD 2014 Organizing Committee

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Conference Chair
Tokuro Matsuo, Advanced Institute of Industrial Technology, Japan

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# 15th IEEE/ACIS SNPD2014 Conference Program

## Program At A Glance

### Sunday, June 29, 2014

<table>
<thead>
<tr>
<th>Time</th>
<th>Venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:00PM – 6:00PM</td>
<td>Registration (Foyer)</td>
</tr>
</tbody>
</table>

### Monday, June 30, 2014

<table>
<thead>
<tr>
<th>Time/ Venue</th>
<th>Elko Room</th>
<th>Ely Room</th>
<th>Goldfield Room</th>
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<tbody>
<tr>
<td>8:30AM – 5:00PM</td>
<td>Registration (Foyer)</td>
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<tr>
<td>9:30AM – 10:00AM</td>
<td>Opening Ceremony (Las Vegas Room)</td>
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<tr>
<td>10:00AM – 11:00AM</td>
<td>Keynote Address I (Las Vegas Room)</td>
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<tr>
<td>11:00AM – 11:20AM</td>
<td>Coffee Break</td>
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<tr>
<td>11:20AM – 12:20PM</td>
<td>Keynote Address II (Las Vegas Room)</td>
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### Tuesday, July 1, 2014

<table>
<thead>
<tr>
<th>Time/ Venue</th>
<th>Elko Room</th>
<th>Ely Room</th>
<th>Goldfield Room</th>
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<tbody>
<tr>
<td>8:30AM – 5:00PM</td>
<td>Registration (Foyer)</td>
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<tr>
<td>9:00AM – 10:40AM</td>
<td>Session 3A (SS1)</td>
<td>Session 3B</td>
<td>Session 3C (SS3 I)</td>
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<tr>
<td>10:40AM – 11:00AM</td>
<td>Coffee Break (Foyer)</td>
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<tr>
<td>11:00AM – 12:20PM</td>
<td>Session 4A (SS2)</td>
<td>Session 4B (SS6)</td>
<td>Session 4C (SS3 II)</td>
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<tr>
<td>12:20PM – 1:30PM</td>
<td>Luncheon (Reno Room)</td>
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<tr>
<td>1:30PM – 3:10PM</td>
<td>Session 5A</td>
<td>Session 5B</td>
<td>Session 5C</td>
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<tr>
<td>3:10PM – 3:30PM</td>
<td>Coffee Break (Foyer)</td>
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<tr>
<td>3:30PM – 5:30PM</td>
<td>Session 6A</td>
<td>Session 6B (SS4)</td>
<td>Session 6C</td>
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### Wednesday, July 2, 2014

<table>
<thead>
<tr>
<th>Time/ Venue</th>
<th>Foyer</th>
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<tbody>
<tr>
<td>9:30 – 10:00</td>
<td>Forum Discussion (invitation only)</td>
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</tbody>
</table>
Sunday, June 29, 2014

4:00 – 6:00 pm  Registration  Conference floor  Foyer

Monday, June 30, 2014

8:30AM – 5:00PM  Registration  Foyer

9:30AM – 10:00AM  Opening Ceremony  Las Vegas
MC  Roger Lee, CEO of ACIS
Gongzhu Hu, President of ACIS
Tokuro Matsuo, Conference Chair
Juyeon Jo, Program Chair
Satoshi Takahashi, Program Chair

10:00AM – 11:00AM  Keynote Address I  Las Vegas
Session Chair  Teruhisa Hochin
VMKit: Improving Design and Performance of Managed Runtime Environments
Professor Bertil Folliot
University Pierre & Marie Curie, Paris 6, France

11:00AM – 11:20AM  Coffee Break  Foyer

11:20AM – 12:20PM  Keynote Address II  Las Vegas
Session Chair  Huaikou Miao
Novice and Expert, How Are They Programming Differently?
Professor Simon Xu
Algoma University, Canada

12:20PM – 1:30PM  Luncheon  Reno

1:30PM – 3:10PM  Session 1A  Software Engineering & Architecture I  Elko
Session Chair: Huaikou Miao
Using Goal Net to Model User Stories in Agile Software Development

Jun Lin, Han Yu, Zhiqi Shen and Chunyan Miao

A Requirements Description Language pLSCs for Probabilistic Branches and Three-Stage Events

Kai Jin-Yu and Huai Kou Miao

A dialogue-based framework for the User Experience reengineering of a legacy application

Roberto Paiano, Angelo Martella and Andrea Pandurino

Strategy-Guided Requirements Development and Validation for Critical Business/Mission Software

Xiaofeng Cui and Richard Paige

Developing and Building a Quality Management System Based on Stakeholder Behavior into Enterprise Architecture

Dominic M. Mezzanotte Sr. and Josh Dehlinger

Design Patterns Applied for Networked First Person Shooting Game Programming

Junfeng Qu, Yong Wei and Yinglei Son

1:30PM – 3:10PM Session 1B Parallel and Distributed Computing Ely

Session Chair: Yasong Zheng

Optimizing MapReduce with Low Memory Requirements for Shared-Memory Systems

Yasong Zheng, Yuanchao Xu, Xiaochun Ye, Lingjun Fan, Futao Miao and Dongrui Fan

High Performance and Grid Computing with Quality of Service Control

Raed Al-Shaikh and Sadiq Sait

Unbinds Data and Tasks to Improving the Hadoop Performance

Kun Lu, Dong Dai and Xuehai Zhou

Cross-domain Identity Management System for Cloud

Umme Habiba, Rahat Masood and Muhammad Awais Shibli

AES-128 ECB Encryption on GPUs and Effects of Input Plaintext Patterns on Performance

Ayaz Ul Hassan Khan, Mayez Al-Mouhamed, Anas Almousa, Allam Fatayar, Abdul Rahman Ibrahim and Abdul Jabbar Siddiqui

Padding Free Bank Conflict Resolution for CUDA-Based Matrix Transpose Algorithm

Ayaz Ul Hassan Khan, Mayez Al-Mouhamed, Allam Fatayar, Anas Almousa, Abdulrahman Baqais and Mohammed Assayon

1:30PM – 3:10PM Session 1C Special Session 5 Goldfield

Session Chair: Seiichi Serikawa

One Dimensional Ring Type Growing SOM with Asymmetric Neighborhood Function and its Application to a Hand Shape Instruction Learning System

Takashi Kuremoto, Takuhiro Otani, Masanao Obayashi, Kunikazu Kobayashi and Shingo Mabu

Development of Input Assistance Application for Mobile Devices for Physically Disabled

Naruki Shirahama, Yuki Sakuragi, Satoshi Watanabe, Naofumi Nakaya, Yukio Mori and Kazunori Miyamoto
Proposal of Eye-gaze Recognize Method for Input Interface without Infra-red Ray Equipment
*Kazuki Fukushima and Naruki Shirahama*

Development of Leaving-bed Detection System to Prevent Midnight Prowl
*Yuhki Takahashi, Yuhki Kitazono and Shota Nakashima*

Applications of Ultrasonic Sensors and Obrid-Sensor in Safty Confirmation System for Elders
*Shenglin Mu, Shota Nakashima and Kanya Tanaka*

Detection Range Fitting of Slit Type Obrid-Sensor
*Shota Nakashima, Shenglin Mu, Tatsuya Ichikawa, Shintaro Okabe, Kanya Tanaka, Yuhki Kitazono and Seiichi Serikawa*

Identify a Specified Fish Species by the Co-occurrence Matrix and AdaBoost
*Lifeng Zhang, Akira Yamawaki and Seiichi Serikawa*

3:10PM – 3:30PM  Coffee Break  Foyer

3:30PM – 5:10PM  Session 2A  Software Engineering & Architecture II  Elko

  Session Chair: Nermin Kajtazovic

*Hassan Almari and Clive Boughton*

Constraint-based Verification of Compositions in Safety-critical Component-based Systems
*Nermin Kajtazovic, Christopher Preschern, Andrea Höller and Christian Kreiner*

Test Image Generation using Symbolic Execution for Unit Testing
*Tahir Jameel, Mengxiang Lin and Li He*

A Self-tuned Bat Algorithm for Optimization in Radiation Therapy Treatment Planning
*Georgios Kalantzis and Yu Lei*

3:30PM – 5:10PM  Session 2B  Image, Speech, Signal and Natural Language Processing  Ely

  Session Chair: Hongbo Lu

Using Word N-Grams as Features in Arabic Text Classification
*Abdulmohsen Al-Thubaity, Itisam Hazzaa and Muneera Alhoshan*

Post processing for dense stereo matching by iterative local plane fitting
*Hongbo Lu, Yuan Sun and Zhimin Zhang*

NEW APPROACH ON PCA-BASED 3D FACE RECOGNITION AND AUTHENTICATION
*Taheer Khadhraoui, Fouazi Benzarti and Hamid Amiri*

Classification of incorrect reason in mathematics
*Taku Jiromaru, Tetsuo Kosaka and Tokuro Matsuo*

3:30PM – 5:10PM  Session 2C  Mobile/Wireless/Ad-Hoc Networks  Goldfield

  Session Chair: Soumya Saha
Jade: An Efficient Energy-aware Computation Offloading System with Heterogeneous Network Interface Bonding for Ad-hoc Networked Mobile Devices

Hao Qian and Daniel Andresen

An Energy Balanced Topology Construction Protocol for Wireless Sensor Networks

Soumya Saha and Lifford McLauchlan

Insuring the Integrity and Non-Repudiation of Remitting E-Invoices in Conventional Channels with Commercially Available NFC Devices

Shi-Cho Cha, Yuh-Jzer Joung, Yen-Chung Tseng, Shih-Chieh Huang, Guan-Heng Chen and Chih-Teng Tseng

A Framework for Mobile eLearning (mLearning) with Analytical Decision Model

Jahangir Dewan and Morshed Chowdhury

An Approach to Construct Weighted Minimal Spanning Tree in Wireless Sensor Networks

Soumya Saha and Lifford McLauchlan

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**Tuesday, July 1, 2014**

**9:00AM – 10:40AM Session 3A  Special Session 1  Elko**

Session Chair: Teruhisa Hochin

Consideration of Cross-validation in Estimating Objective Scores of Answer Statements Posted at Q&A Sites

Yuya Yokoyama, Teruhisa Hochin and Hiroki Nomiya

An Unsupervised Ensemble Approach for Emotional Scene Detection from Lifelog Videos

Hiroki Nomiya, Atsushi Morikuni, and Teruhisa Hochin

Considerations on Pauses and Fundamental Movements for Transmitting Traditional Skills

Teruhisa Hochin and Hiroki Nomiya

An Efficient Structure for LKH Key Tree on Secure Multicast Communications

Naoshi Sakamoto

The analysis Method Focusing on Peaks of Darkness for the Impression Evaluation Method by Space

Shunsuke Akai, Teruhisa Hochin and Hiroki Nomiya

**9:00AM – 10:40AM Session 3B  Artificial Intelligence, Neural Networks & Algorithms  Ely**

Session Chair: Mohammad Hadi Valipour

Dynamic Artificial Immune System and its application to File Transfer Scheduling Optimization

Milad Dastanzand, Mohammad Kalantari and Shahram Golzari

NEW DATA WAREHOUSE DESIGNING APPROACH BASED ON PRINCIPAL COMPONENT ANALYSIS

Wafa Tebourski, Wahiba Karâa and Henda Ben Ghezela
Hierarchical speech recognition system using MFCC feature extraction and Dynamic Spiking RSOM

*Tarek Behi Behi, Noureddine Ellouze and Najet Arous*

Optimization of Emotional Learning Approach to Control Systems with Unstable Equilibrium

*Mohammad Hadi Valipour, Khashayar Niki Maleki and Saeed Shiry*

On Simplification of Chaotic Neural Network on Incremental Learning

*Toshinori Deguchi, Toshiki Takahashi and Naohiro Ishii*

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**9:00AM – 10:40AM Session 3C Special Session 3I Goldfield**

**Session Chair: Masahide Nakamura**

Brain Activity Measurement during Program Comprehension with NIRS

*Yoshiharu Ikutani and Hidetake Uwano*

An Obfuscation Method to Build a Fake Call Flow Graph by Hooking Method Calls

*Kazumasa Fukuda and Haruaki Tamada*


*Nachai Limsettho, Hideaki Hata and Ken-Ichi Matsumoto*

Pitfalls of Analyzing a Cross-company Dataset of Software Maintenance and Support

*Masateru Tsunoda and Kenichi Ono*

A Rule-Based Framework for Managing Context-Aware Services Based on Heterogeneous and Distributed Web Services

*Hiroki Takatsuka, Sachio Saiki, Shinsuke Matsumoto and Masahide Nakamura*

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**10:40AM – 11:00AM Coffee Break Foyer**

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**11:00AM – 12:20PM Session 4A Special Session 2 Elko**

**Session Chair: Motoi Iwashita**

Risk Assessment Quantification in Life Log Service

*Shigeaki Tanimoto, Ken Takahashi, Taro Yabuki, Kazuhiko Kato, Motoi Iwashita, Hiroyuki Sato and Atsushi Kanai*

Big Data in Memory: Benchmarking In Memory Database Using the Distributed Key-Value Store for Constructing a Large Scale Information Infrastructure

*Michiaki Iwazume, Hirotaka Iwase, Kouji Tanaka, Hideaki Fujii, Makoto Hijiya and Hiroshi Haraguchi*

An improvement of Micro Area Selection Technique for the Diffusion of ICT Infrastructure

*Motoi Iwashita*

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**11:00AM – 12:20PM Session 4B Special Session 6 Ely**

**Session Chair: Hongwei Zeng**

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An Efficient Reduction Approach to Test Suite
Pan Liu

VM scheduling strategies based on artificial intelligence in Cloud testing
Yang Zheng, Lizhi Cai, Shidong Huang and Zhihong Wang

Dynamic Test Case Prioritization based on Multi-objective
Xiaolin Wang and Hongwei Zeng

Modeling Web Application for Cross-browser Compatibility Testing
Xinxin Li and Hongwei Zeng

11:00AM – 12:20PM  Session 4C  Special Session 3 II  Goldfield

Session Chair: Masahide Nakamura

A Proposal of Cloud-based Home Network System for Multi-Vendor Services
Satoshi Takatori, Shinsuke Matsumoto, Sachio Saiki and Masahide Nakamura

Designing and Implementing Service Framework for Virtual Agents in Home Network System
Hiroyasu Horiuchi, Saiki Sachio, Shinsuke Matsumoto and Masahide Nakamura

Toward A Dynamic Analysis Technique to Locate Framework Misuses That Cause Unexpected Side Effects
Izuru Kume, Masahide Nakamura, Naaya Nitta and Etsuya Shibayama

12:20PM – 1:30PM  Luncheon  Reno

1:30PM – 3:10PM  Session 5A  Data Mining and Machine Learning I  Elko

Session Chair: Naohiro Ishii

An evaluation of the MiDCoP method for imputing allele frequency in genome wide association studies
Yadu Gautam, Carl Lee, Chin-I Cheng and Carl Langefeld

Converting PCAPs into Weka Mineable Data
Charles Fowler and Robert Hammell II

Generation of Reducts Based on Nearest Neighbor Relation
Naohiro Ishii, Ippei Torii, Kazunori Iwata and Toyoshiro Nakashima

A Discovery Method of Anteroposterior Correlation for Big Data Era
Takafumi Nakanishi

Scalable Bootstrap Clustering for Massive Data
Haoccheng Wang, Fuzhen Zhuang, Xiang Ao, Qing He and Zhongzhi Shi

1:30PM – 3:10PM  Session 5B  Software Management  Ely
Refinement/Verification of Early Stage Probabilistic Software Project Schedules in the Planning Stage

Donghwoon Kwon and Robert Hammell

Non-functional Properties Aware Configuration Selection in Component-based Systems

Mohammad Charaf Eddin and Zoubir Mammeri

Software Development Concerns in the Building of Service-Oriented Based Enterprise Systems

Chia-Chu Chiang

1:30PM – 3:10PM Session 5C Internet & Communication Systems & network Goldfield

Session Chair: Sidney Smith

A Data Mining based Publish/Subscribe System over Structured Peer-to-Peer Networks

Junping Song, Haibo Wang, Pin Lv, Shangzhou Li and Menglu Xu

Microcredit Risk Assessment using Crowdsourcing and Social Networks

Tofig Hasanov, Motoyuki Ozeki and Natsuki Oka

A Theoretical Exploration of the Impact of Packet Loss on Network Intrusion Detection

Sidney Smith, Robert Hammell, Parker Travis and Lisa Marvel

OntoSSN: Scientific Social Network ONTOlogy

Eya Ben Ahmed and Faiez Gargouri

3:10PM – 3:30PM Coffee Break Foyer

3:30PM – 5:30PM Session 6A Data Mining and Machine Learning II Elko

Session Chair: Carl Lee

Increasing the Accuracy of Software Fault Prediction using Majority Rank Fuzzy Clustering

Golnoush Abaei and Ali Selamat

Can Text Mining Technique be used as an Alternative Tool for Qualitative Research in Education?

Carl Lee, Chin-I Cheng and Aklilu Zeleke

Collaborative filtering recommendation algorithm based on item attributes

Mengxing Huang and Longfei Sun

Feature Selection Method Based on Across Centroid for Text Categorization

Jieming Yang, Zhiying Liu and Zhaoyang Qu

A machine learning technique for predicting the productivity of practitioners from individually developed software projects

Cuauhtemoc Lopez-Martin

Using Client-Side Access Partitioning for Data Clustering in Big Data Applications

Dapeng Liu, Shaochun Xu and Zengdi Cui
A Polynomial-Time Algorithm for Checking the Equivalence for Deterministic Restricted One-Counter Transducers Which Accept by Final State
Mitsuo Wakatsuki, Etsuji Tomita and Tetsuro Nishino

A Source Code Plagiarism Detecting Method Using Alignment with Abstract Syntax Tree Elements
Hiroshi Kikuchi, Takaaki Goto, Mitsuo Wakatsuki and Tetsuro Nishino

An Application of 3D Spiral Visualization to the Uchida-Kraepelin Psychodiagnostic Test
Zhuang Heliang, Chieko Kato, Futoshi Sugimoto and Kensei Tsuchida

Multisensory images evoked by olfactory stimuli -Crossmodal correspondences in human information processing-
Kazuyoshi Ichihashi and Hideki Ichihashi

A Data Structure of Triangular Dissections for Multi-resolution Raster Images
Taiyou Kikuchi, Koichi Anada, Shinji Koka, Youzou Miyadera and Takeo Yaku

Software Ontology Design to Support Organized Open-source Software Development
Md. Mahfuzus Salam Khan, Md. Anwarus Salam Khan, Takaaki Goto, Tetsuro Nishino and Narayan Debnath

Error Value Driven Fault Analysis Attack
Masaya Yoshikawa

Analysis and Acceleration of NTRU Lattice-Based Cryptographic System
Tianyu Bai, Jiang Hai, Spencer Davis and Juanjuan Li

Training of Intelligent Intrusion Detection System Using Neuro Fuzzy
Biswajit Panja

Survey of Attribute Based Encryption
Zhi Qiao, Shuwen Liang, Spencer Davis and Hai Jiang

Security and Privacy Protocol for Emerging Smart RFID Applications
Mohammad Fal Sadikin and Marcel Kyas

Analysis of an ID-based Proxy Signature Scheme Without Trusted PKG and a Proxy Blind Multi-signature Scheme
Sha Limin
Future Conferences

IEEE/ACIS SNPD 2015
16th IEEE/ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing
June 1 – June 3, 2015, Takamatsu, Japan

IEEE/ACIS ICIS 2015
14th IEEE/ACIS International Conference on Computer and Information Science
June 29 – July 1, 2015, Las Vegas, USA

ACIS SERA 2015
13th ACIS International Conference on Software Engineering Research, Management and Applications
TBA, 2015, Hammamet, Tunisia

ACIS CSI 2015 & ACIT 2015
3rd International Symposium on Applied Computing and Information Technology
2nd International Symposium on Computational Science and Intelligence
July 12 – 16, 2015, Okayama, Japan

ACIS Journals Information

International Journal of Networked and Distributed Computing (IJNDC)
IJNDC is a world-class international journal and will be indexed in SCI shortly.

International Journal of Software Innovation (IJSI)
IJSI is a world-class international journal and will be indexed in EI shortly.

International Journal of Computer & Information Science (IJCIS)
IJCIS is an official publication of ACIS and is indexed in Inspec.