

Conference Day 1 (December 2, 2013)

Tutorial1: Requirements Engineering Based on REBOK (Requirements Engineering Body Of Knowledge) and Its Practice

Presenter: *Mikio Aoyama, Takako Nakatani, Shinobu Saito, and Yukako Iimura*

Time: 09:00 – 12:00

Room: Beta1

Tutorial2: Model-Based Transition from Requirements to High-Level Software Design

Presenter: *Hermann Kaindl*

Time: 09:00 – 12:00

Room: Beta2

Tutorial3: SAT and SMT: Their Algorithm Designs and Applications

Presenter: *Mizuhito Ogawa and To Van Khanh*

Time: 13:00 – 17:00

Room: Beta1

Tutorial4: Software Reuse Based on Business Processes and Requirements

Presenter: *Hermann Kaindl*

Time: 13:00 – 17:00

Room: Beta2

Welcome Reception

Time: 18:00 – 21:00

Last Update on Nov 28, 2013

Conference Day 1 (December 2, 2013)

International Workshop on Empirical Software Engineering in Practice 2013 (IWESEP 2013)

IWESEP Opening Ceremony

Time: 9:00 – 9:10

Room: Alpha

Keynote Address: Good Hunting: Locating, Prioritizing, and Fixing Bugs Automatically

Speaker: *Dongsun Kim, The Hong Kong University of Science and Technology*

Time: 9:10 – 10:00

Room: Alpha

IWESEP: Project Management & Verification

Time: 10:30 – 12:00

Room: Alpha

Chair: *Masateru Tsunoda and Emad Shihab*

Calibrating Productivity Drivers for Software Customisation Projects	<i>Md. Mahmudul Hasan and Chris Lokan</i>
Bidirectional Translation between OCL and JML for Round-Trip Engineering	<i>Hiroaki Shimba, Kentrao Hanada, Kozo Okano, and Shinji Kusumoto</i>
0-1 Programming Model-Based Method for Planning Code Review Using Bug Fix History	<i>Hirohisa Aman</i>

IWESEP: OSS Activity

Time: 13:00 – 15:00

Room: Alpha

Chair: *Masateru Tsunoda and Emad Shihab*

Patch Reviewer Recommendation in OSS Projects	<i>John Boaz Lee, Akinori Ihara, Akito Monden, and Ken-ichi Matsumoto</i>
A Study of the Characteristics of Developers' Activities in GitHub	<i>Saya Onoue, Hideaki Hata, and Ken-ichi Matsumoto</i>
Classifying Bug Reports to Bugs and Other Requests Using Topic Modeling	<i>Natthakul Pingclasai, Hideaki Hata, and Ken-ichi Matsumoto</i>
How Much Do Code Repositories Include Peripheral Modifications?	<i>Noa Kusunoki, Keisuke Hotta, Yoshiki Higo, and Shinji Kusumoto</i>

Conference Day 1 (December 2, 2013)

IWESEP: Software Analysis

Time: 15:30 – 16:30

Room: Alpha

Chair: *Masateru Tsunoda and Emad Shihab*

Grouping Objects for Execution Trace Analysis Based on Design Patterns	<i>Tatsuya Toda, Takashi Kobayashi, Noritoshi Atsumi, and Kiyoshi Agusa</i>
Seamless Code Reuse with Source Code Corpus	<i>Tetsuo Yamamoto, Norihiro Yoshida, and Yoshiki Higo</i>

International Workshop on Quantitative Approaches to Software Quality 2013 (QuASoQ 2013)

QuASoQ Opening Ceremony

Speaker: *Toni Anwar, UTM Johor Bahru, Malaysia*

Time: 9:00 – 9:15

Room: Delta

QuASoQ 2013: Workshop Introduction

Speaker: *Horst Lichter, RWTH Aachen University, Germany*

Time: 9:15 – 9:30

Room: Delta

QuASoQ 2013: Paper Presentation

Time: 9:30 – 9:50 & 10:30 – 12:00

Room: Delta

Chair: *Horst Lichter, Toni Anwar, Chumphol Krootkaew and Wan Mohd Nasir Bin Wan Kadir*

A Study of the Effect of Data Normalization on Software and Information Quality Assessment	<i>Morgan Ericsson, Welf Löwe, Tobias Olsson, Daniel Toll, and Anna Wingkvist</i>
Modeling Code Analyzability at Method Level in J2EE Applications	<i>Panita Meananeatra, Ekekachan Rattanaleadnusorn, Songsakdi Rongviriyapanish, Titiphan Kitcharoensup, Thanapol Wisuttikul, and Boonchai Charoendouysil</i>
Identification of Inaccurate Effort Estimates in Agile Software Development	<i>Florian Raith, Ingo Richter, Robert Lindermeier, and Gudrun Klinker</i>
History and Lessons Learnt from a Metrics Program at a CMMI Level 3 Company	<i>Matthias Vianden, Horst Lichter, Simona Jeners, and Karl-Joachim Neumann</i>

Conference Day 2 (December 3, 2013)

Opening Ceremony

Chairs: *Krerk Piromsopa and Chotirat Ratanamahatana*

Time: 08:30 – 09:00

Room: Infinity

Welcome address

Professor Dr. Prabhas Chongstitvatana

Time: 08:30 – 08:40

Room: Infinity

Opening address

Professor Dr. Bundhit Eua-arporn, Dean of Faculty of Engineering

Time: 08:40 – 09:00

Room: Infinity

Keynote 1: Useful Software Engineering Research: Leading a Double-Agent Life

Speaker: *Lionel C. Briand, University of Luxembourg*

Time: 09:00 – 10:00

Room: Infinity

Session 1A: Software Requirements Engineering 1

Time: 10:30 – 12:00

Room: Infinity1

Chair: *Horst Lichter*

Packaged Software Implementation Requirements Engineering by Small Software Enterprises	<i>Issam Jebreen, Robert Wellington, and Stephen G. MacDonell</i>
Modeling Security Threat Patterns to Derive Negative Scenarios	<i>Tatsuya Abe, Shinpei Hayashi, and Motoshi Saeki</i>
QoS-Based Service Composition under Various QoS Requirements	<i>Gang Wang, Li Zhang, Jing Jiang, and Wei Jiang</i>

Session 1B: Empirical Software Engineering 1

Time: 10:30 – 12:00

Room: Infinity2

Chair: *David Card*

Samekana: A Browser Extension for Including Relevant Web Links in Issue Tracking System Discussion Forum	<i>Denzil Correa, Sangeeta Lal, Apoorv Saini, and Ashish Sureka</i>
Factors Influencing Research Contributions and Researcher Interactions in Software Engineering: An Empirical Study	<i>Subhajit Datta, A.S.M. Sajeer, Santonu Sarkar, and Nishant Kumar</i>
Can Control-Component Libraries Reduce the Costs of Developing Control Engineering-Based Self-Adaptive Systems?	<i>Tharindu Patikirikorala, Alan Colman, and Jun Han</i>

Conference Day 2 (December 3, 2013)

Session 1C: Software Quality and Testing 1

Time: 10:30 – 12:00

Room: Beta

Chair: *Doo-Hwan Bae*

On the Use of Software Quality Standard ISO/IEC9126 in Mobile Environments	<i>Ali Idri, Karima Moumane, and Alain Abran</i>
System Quality Improvement Including Software and Infrastructure Based on Software Metrics Approach	<i>Noriko Hanakawa and Masaki Obana</i>
Refining the Pointer Analysis by Exploiting Constraints on the CFL-Paths	<i>Xiaoshan Sun, Liang Cheng, Yang Zhang, Yi Deng, and Jingbiao Hou</i>

Session 1D: Industry: Software Testing and Maintenance

Time: 10:30 – 12:00

Room: Alpha

Chair: *Danny Poo*

Practitioner-Oriented Visualization in an Interactive Search-Based Software Test Creation Tool	<i>Bogdan Marculescu, Robert Feldt, and Richard Torkar</i>
An Automated Testing Tool for Java Application Using Symbolic Execution based Test Case Generation	<i>Supasit Monpratarnchai, Shoichiro Fujiwara, Asako Katayama, and Tadahiro Uehara</i>
Business-Driven Acceptance Testing Methodology and its Practice for e-Government Software Systems	<i>Norifumi Nomura, Yasuhiro Kikushima, and Mikio Aoyama</i>
Suggesting Extract Class Refactoring Opportunities by Measuring Strength of Method Interactions	<i>Giuseppe Pappalardo and Emiliano Tramontana</i>

Conference Day 2 (December 3, 2013)

Session 2A: Software Requirements Engineering 2

Time: 13:00 – 15:00

Room: Infinity1

Chair: *William cheng chung Chu*

Analyzing Early Requirements of Cyber-Physical Systems Through Structure and Goal Modeling	<i>Chun Liu, Wei Zhang, Haiyan Zhao, and Zhi Jin</i>
Towards Requirements Change Decision Support	<i>Sanjay Ghosh, Srinu Ramaswamy, and Raoul Praful Jetley</i>
Automating Inference of OCL Business Rules from User Scenarios	<i>Duc-Hanh Dang and Jordi Cabot</i>
Problem Frames Construction from Feature Models	<i>Xiaohong Chen, Haiying Sun, Ronghua Ye, and Jing Liu</i>

Session 2B: Empirical Software Engineering 2

Time: 13:00 – 15:00

Room: Infinity2

Chair: *Ashish Sureka*

Fault-Prone Module Prediction Using a Prediction Model and Manual Inspection	<i>Norimitsu Kasai, Shuji Morisaki, and Kenichi Matsumoto</i>
Can We Trust Our Results? A Mapping Study on Data Quality	<i>Marshima Mohd Rosli, Ewan Tempero, and Andrew Luxton-Reilly</i>
Evaluating Performance of Network Metrics for Bug Prediction in Software	<i>Satya Prateek, Anjaneyulu Pasala, and Luis Moreno Aracena</i>
Effects of Organizational Changes on Product Metrics and Defects	<i>Seiji Sato, Hironori Washizaki, Yoshiaki Fukazawa, Sakae Inoue, Hiroyuki Ono, Yoshiiku Hanai, and Mikihiro Yamamoto</i>

Conference Day 2 (December 3, 2013)

Session 2C: Software Quality and Testing 2

Time: 13:00 – 15:00

Room: Beta

Chair: *Paul Strooper*

TETRA _{Box} - A Generic White-Box Testing Framework for Model Transformations	<i>J. Schönböck, G. Kappel, M. Wimmer, A. Kusel, W. Retschitzegger, and W. Schwinger</i>
Facilitating Verification in Program Loops by Identification of Static Iteration Patterns	<i>Aditya Desai, Era Jain, and Subhajit Roy</i>
Selecting Highly Efficient Sets of Subdomains for Mutation Adequacy	<i>Matthew Patrick, Rob Alexander, Manuel Oriol, and John A. Clark</i>
A Value Weighting Method for Pair-Wise Testing	<i>Satoshi Fujimoto, Hideharu Kojima, and Tatsuhiro Tsuchiya</i>

Session 2D: Industry: Software Engineering Methodologies and Process

Time: 13:00 – 14:40

Room: Alpha

Chair: *Tuomas Kekkonen*

Experiences During Extraction of Variability Models for Warehouse Management Systems	<i>Miao Fang, Georg Leyh, Christoph Elsner, and Joerg Doerr</i>
Software Engineering Education Program for Software Professionals of High Competency at DENSO	<i>Keiji Kobata, Takuji Uesugi, Hisayoshi Adachi, and Mikio Aoyama</i>
Large Scale Model-driven Engineering for a Multi-site Team -- Experience Report	<i>Asha Rajbhoj and Vinay Kulkarni</i>
A Software and Integration Process Model for Offshore Vessels	<i>David N.Card</i>
A Practical Study of Debugging using Model Checking	<i>Hideto Ogawa, Makoto Ichii, Fumihiko Kumeno, and Toshiaki Aoki</i>

Conference Day 2 (December 3, 2013)

Session 3A: Software Requirements Engineering 3

Time: 15:30 – 17:00

Room: Infinity1

Chair: *Tetsuo Tamai*

Software Quality Requirements: A Systematic Mapping Study	<i>Sofia Ouhbi, Ali Idri, Jose Luis Fernández-Alemán, and Ambrosio Toval</i>
Entity Disambiguation in Natural Language Text Requirements	<i>Janardan Misra and Subhabrata Das</i>
Reasoning about Stakeholder Groups for Requirements Negotiation Based on Power Relationships	<i>Hui Yang and Peng Liang</i>

Session 3B: Empirical Software Engineering 3

Time: 15:30 – 17:00

Room: Infinity2

Chair: *Gregg Rothermel*

A Controlled Experiment to Assess the Effectiveness of Eight Use Case Templates	<i>Saurabh Tiwari and Atul Gupta</i>
Connecting Interaction Models and Application Logic for Model-Driven Generation of Web-Based Graphical User Interfaces	<i>Roman Popp, Hermann Kaindl, and David Raneburger</i>
Mining Attribute Lifecycle to Predict Faults and Incompleteness in Database Applications	<i>Kaiping Liu and Hee Beng Kuan Tan</i>

Conference Day 2 (December 3, 2013)

Session 3C: Software Quality and Testing 3

Time: 15:30 – 17:00

Room: Beta

Chair: *Wenhui Zhang*

Diagnosis-Oriented Alarm Correlations	<i>Dalin Zhang, Dahai Jin, Yunzhan Gong, and Hailong Zhang</i>
Identifying More Equivalent Mutants via Code Similarity	<i>Marinos Kintis and Nicos Malevris</i>
An Approach to Generate Safety Validation Test Cases from UML Activity Diagram	<i>Saurabh Tiwari and Atul Gupta</i>
Executable Program Documentation Based on Debugging Break Points	<i>Yung-Pin Cheng, Jih-Hao Chen, and Yu-Ying Yu</i>

Session 3D: Industry: Cloud, Embedded and Real-Time Systems

Time: 15:30 – 16:30

Room: Alpha

Chair: *Mikio Aoyama*

Cloud Service Brokers: An Emerging Trend in Cloud Adoption and Migration	<i>Bimlesh Wadhwa, Aditi Jaitly, and Bharti Suri</i>
A Case Study: Verification of Specifications of an Embedded System and Generation of Verification Items Using Pairwise Testing	<i>Toshifusa Sekizawa and Tsugu Kotorii</i>
Testing of Timing Properties in Real-Time Systems: Verifying Clock Constraints	<i>Mehrdad Saadatmand and Mikael Sjödín</i>

Conference Day 3 (December 4, 2013)

Keynote 2: Practices of Software Engineering in Thailand

Speaker: *Kanchit Malaivongs, The Royal Institute of Thailand*

Time: 09:00 – 10:00

Room: Infinity

Session 4A: Distributed and Parallel Software Systems

Time: 10:30 – 12:00

Room: Infinity1

Chair: *Songsak Rongviriyapanich*

Distributed Online Test Generation for Model-Based Testing	<i>Teemu Kanstrén and Tuomas Kekkonen</i>
On Detecting Concurrency Defects Automatically at the Design Level	<i>Frank Padberg, Luis M. Carril, Oliver Denninger, and Martin Blersch</i>
Data-Race-Freedom of Concurrent Programs	<i>Granville Barnett and Shengchao Qin</i>

Session 4B: Software Maintenance and Evolution

Time: 10:30 – 12:00

Room: Infinity2

Chair: *Shinpei Hayashi*

Semantic Document Adaptation With OCL Annotations	<i>Jakub Malý and Martin Nečaský</i>
Visualization of Defect Inflow and Resolution Cycles: Before, During and After Transfer	<i>Ronald Jabangwe, Kai Petersen, and Darja Šmite</i>
Detecting Program Changes from Edit History of Source Code	<i>Eijirou Kitsu, Takayuki Omori, and Katsuhisa Maruyama</i>

Conference Day 3 (December 4, 2013)

Session 4C: Formal Methods in Software Engineering 1

Time: 10:30 – 12:00

Room: Beta1

Chair: *Huibiao Zhu*

SMT-based Bounded Model Checking for OSEK/VDX Applications	<i>Haitao Zhang, Toshiaki Aoki, Hsin-Hung Lin, Min Zhang, Yuki Chiba, and Kenro Yatake</i>
Preserving Correctness of Requirements Evolution through Refinement in Event-B	<i>Kriangkrai Traichaiyaporn and Toshiaki Aoki</i>
A formal Coloured Petri Net Model for Hazard Detection in Large Event Flows	<i>Patrice Carle, Christine Choppy, Romain Kervarc, and Ariane Piel</i>

Session 4D: Postgraduate Symposium

Time: 10:30 – 12:00

Room: Beta2

Chair: *Sofia Ouhbi*

A Hybrid Approach for Control Flow Graph Construction from Binary Code	<i>Minh Hai Nguyen, Thien Binh Nguyen, Thanh Tho Quan, and Mizuhito Ogawa</i>
Mining GitHub: Why Commit Stops - Exploring the Relationship between Developer's Commit Pattern and File Version Evolution	<i>Yang Weicheng, Shen Beijun, and Xu Ben</i>
SamikshaUmbra: Contribution and Performance Assessment of Software Maintenance Professionals by Mining Software Repositories	<i>Ayushi Rastogi and Ashish Sureka</i>

Culture Appreciation

Time: 13:00 – 18:30

Conference Banquet

Time: 18:30 – 21:30

Conference Day 4 (December 5, 2013)

Closing Ceremony

Chair: *Krerik Piromsopa and Chotirat Ratanamahatana*

Time: 08:30 – 09:00

Room: Infinity

Keynote 3: Achieving Success in Open Software Ecosystems: The Role of Architectural Styles

Speaker: *Richard N. Taylor, University of California, Irvine*

Time: 09:00 – 10:00

Room: Infinity

Session 5A: Product-Line Software Engineering

Time: 10:30 – 12:00

Room: Infinity1

Chair: *Masateru Tsunoda*

Handling Database Schema Variability in Software Product Lines	<i>Niloofer Khedri and Ramtin Khosravi</i>
An Extended Orthogonal Variability Model for Metadata-Driven Multitenant Cloud Services	<i>Mikio Aoyama and Nozomi Kurono</i>
Constraint Checking in Distributed Product Configuration of Multi Product Lines	<i>Gerald Holl, Paul Grünbacher, Christoph Elsner, Thomas Klambauer, and Michael Vierhauser</i>

Session 5B: Formal Methods in Software Engineering 2

Time: 10:30 – 12:00

Room: Beta

Chair: *Toshiaki Aoki*

Harnessing SMT-Based Bounded Model Checking through Stateless Explicit-State Exploration	<i>Weiqliang Kong, Leyuan Liu, Takahiro Ando, Hirokazu Yatsu, Kenji Hisazumi, and Akira Fukuda</i>
Towards a Hybrid Framework for Detecting Input Manipulation Vulnerabilities	<i>Sun Ding, Hee Beng Kuan Tan, Lwin Khin Shar, and Bindu Madhavi Padmanabhuni</i>
A SystemC Semantics in Guarded Assignment Systems and Its Applications with VERDS	<i>Naiju Zeng and Wenhui Zhang</i>

Conference Day 4 (December 5, 2013)

Session 5C: Short Papers: Formal Methods, Maintenance, and Web-Based Software Engineering

Time: 10:30 – 12:00

Room: Infinity2

Chair: *Benchaphon Limthanmaphon*

Model Checking Liveness Properties under Fairness & Anti-fairness Assumptions	<i>Kazuhiro Ogata</i>
JeB: Safe Simulation of Event-B Models in JavaScript	<i>Faqing Yang, Jean-Pierre Jacquot, and Jeanine Souquières</i>
Lehman's Laws and the Productivity of Increments Implications for Productivity	<i>Ramin Moazeni, Daniel Link, and Barry Boehm</i>
On Security Issues in Web Applications through Cross Site Scripting (XSS)	<i>Vikas K. Malviya, Saket Saurav, and Atul Gupta</i>
Sky-MCSP-R: An Efficient Graph-Based Web Service Composition Approach	<i>Pengjiao Sun, Pengcheng Zhang, Wenrui Li, Xuejun Guo, and Jun Feng</i>

Session 6A: Software Architecture and Design

Time: 13:00 – 15:00

Room: Infinity1

Chair: *Karl Ping Hung Leung*

Integrating Software Process Reuse and Automation	<i>Emmanuelle Rouillé, Benoît Combemale, Olivier Barais, David Touzet, and Jean-Marc Jézéquel</i>
Safe Substitution of Components in Self-adaptive Web Applications	<i>Shin Nakajima</i>
Run-Time Monitoring and Real-Time Visualization of Software Architectures	<i>Ana Dragomir and Horst Lichter</i>
Handling Multiple Mode Switch Scenarios in Component-Based Multi-Mode Systems	<i>Yin Hang and Hans Hansson</i>

Conference Day 4 (December 5, 2013)

Session 6B: Formal Methods in Software Engineering 3

Time: 13:00 – 15:00

Room: Beta

Chair: *Mizuhito Ogawa*

Schedulability analysis with CCSL specifications	<i>Ling Yin, Jing Liu, Zuohua Ding, Frédéric Mallet, and Robert de Simone</i>
Linking the Semantics of BPEL using Maude	<i>Peng Liu, Huibiao Zhu, Shengchao Qin, Phillip J. Brooke, and Xi Wu</i>
A Systematic Review of Model-Driven Security	<i>Phu H. Nguyen, Jacques Klein, Yves Le Traon, and Max E. Kramer</i>
Quality Driven Design of Program Frameworks for Intelligent Sensor Applications	<i>Tingxun Shi, Ruizhi Wang, Daolan Zhang, Wenpin Jiao, and Bing Xie</i>

Session 6C: Short Papers: Software Project Management, Design, Testing, and Verification

Time: 13:00 – 15:00

Room: Infinity2

Chair: *Apinporn Methawachananont*

A New Scheduling Strategy for Risk Mitigation	<i>Peng Zhou and Hareton K.N. Leung</i>
Designing User Experience for Mobile Apps: Long-Term Product Owner Perspective	<i>Kati Kuusinen and Tommi Mikkonen</i>
Improving Analogy-Based Software Cost Estimation through Probabilistic-Based Similarity Measures	<i>Passakorn Phannachitta, Jacky Keung, Akito Monden, and Ken-ichi Matsumoto</i>
Multi-Core Model Checking Algorithms for LTL Verification with Fairness Assumptions	<i>Xuan-Linh Ha, Thanh-Tho Quan, Yang Liu, and Jun Sun</i>
Null Dereference Detection via a Backward Analysis	<i>Qian Wang, DaHai Jin, and Yunzhan Gong</i>
Results for Compositional Timed Testing	<i>Boutheina Bannour, Christophe Gaston, Marc Aiguier, and Arnault Lapitre</i>

Conference Day 4 (December 5, 2013)

Session 7A: Component-Based Software Engineering and Mobile and Cloud Systems

Time: 15:30 – 17:00

Room: Infinity1

Chair: *Peerapon Vateekul*

Automated Management of Dynamic Component Dependency for Runtime System Reconfiguration	<i>Ping Su, Chun Cao, Xiaoxing Ma, and Jian Lü</i>
Service Brick Composition Framework for Smartphones	<i>Shang-Pin Ma, Jheng-Shiun Jiang, and Wen-Tin Lee</i>
An Action-Oriented Programming Model for Pervasive Computing in a Device Cloud	<i>Timo Aaltonen, Varvana Myllärniemi, Mikko Raatikainen, Niko Mäkitalo, and Jari Pääkkö</i>

Session 7B: Software Engineering Environments and Tools

Time: 15:30 – 17:30

Room: Beta

Chair: *Gregg Rothermel*

Extracting and Visualizing Implementation Structure of Features	<i>Hiroshi Kazato, Shinpei Hayashi, Tsuyoshi Oshima, Shunsuke Miyata, Takashi Hoshino, and Motoshi Saeki</i>
Tool Integration Models	<i>Weiqing Zhang and Birger Møller-Pedersen</i>
Visualizations as a Basis for Agile Software Process Improvement	<i>Timo Lehtonen, Veli-Pekka Eloranta, Marko Leppänen, and Essi Isohanni</i>
Scrum Anti-patterns – An Empirical Study	<i>Veli-Pekka Eloranta, Kai Koskimies, Tommi Mikkonen, and Jyri Vuorinen</i>

Session 7C: Short Papers: Software Architecture

Time: 15:00 – 16:30

Room: Infinity2

Chair: *Ponrudee Netisopakul*

Strategies for Aligning Variability Model and Architecture	<i>Iris Groher and Rainer Weinreich</i>
A Method for Early Detection of Mismatches between Framework Architecture and Execution Scenarios	<i>Naoya Nitta, Izuru Kume, and Yasuhiro Takemura</i>
Architecture Security Evaluation Method based on Security of the Components	<i>Changxiao Du, Xiaohong Li, Hong Shi, Jing Hu, Ruitao Feng, and Zhiyong Feng</i>