

**PROCEEDINGS OF
THE 2012 INTERNATIONAL CONFERENCE ON
SOFTWARE ENGINEERING RESEARCH & PRACTICE**

SERP 2012

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Foreword

It gives us great pleasure to introduce this collection of papers to be presented at the 2012 International Conference on Software Engineering Research and Practice (SERP'12), July 16 through 19, 2012, at Monte Carlo Resort, Las Vegas, USA.

The Academic Co-Sponsors, Corporate Co-Sponsors, Co-Sponsors At-Large and Organizers of this year's conference include (separated by semicolons):

Bioinformatics & Computational Biology Program, George Mason University, Virginia, USA; Biomedical Cybernetics Laboratory, HST of Harvard University and MIT, USA; Minnesota Supercomputing Institute, University of Minnesota, USA; Center for Cyber Defense, NCAT, USA; Argonne's Leadership Computing Facility of Argonne National Laboratory, Illinois, USA; The Center for Advanced Studies in Identity Sciences (CASIS: NC A&T, Carnegie Mellon, Clemson, UNC Wilmington), USA; Knowledge Management & Intelligent System Center (KMIS) of University of Siegen, Germany; Intelligent Cyberspace Engineering Lab., ICEL, Texas A&M University, Commerce, Texas, USA;UMIT, Institute of Bioinformatics and Translational Research, Austria; Hawkeye Radiology Informatics, Department of Radiology, College of Medicine, University of Iowa, Iowa, USA;The International Council on Medical and Care Compunetics, Europe; US Chapter of World Academy of Science (<http://www.world-academy-of-science.org/>); Supercomputer Software Department (SSD), Institute of Computational Mathematics & Mathematical Geophysics, Russian Academy of Sciences, Russia; International Society of Intelligent Biological Medicine, USA; NDSU-CIIT Green Computing and Communications Laboratory, USA; Medical Image HPC & Informatics Lab (MiHi Lab), University of Iowa, Iowa, USA; High Performance Computing for Nanotechnology, USA; Manx Telecom, Europe; Computer Science Research, Education, and Applications Press; World Academy of Biomedical Sciences and Technologies; HoIP Telecom, Europe; Super Micro Computer, Inc., San Jose, California, USA; Intel Corporation; Hodges Health, UK; and OMG™. In addition, a number of university faculty members and their staff (names appear below and also on the cover of the proceedings), several publishers of computer science and computer engineering books and journals, chapters and/or task forces of computer science associations/organizations from 6 countries, and developers of high-performance machines and systems provided significant help in organizing the conference as well as providing some resources.

An important mission of WORLDCOMP (a federated congress to which this conference is affiliated with) includes "Providing a unique platform for a diverse community of constituents composed of scholars, researchers, developers, educators, and practitioners. The Congress makes concerted effort to reach out to participants affiliated with diverse entities (such as: universities, institutions, corporations, government agencies, and research centers/labs) from all over the world. The congress also attempts to connect participants from institutions that have **teaching** as their main mission with those who are affiliated with institutions that have **research** as their main mission. The congress uses a quota system to achieve its institution and geography diversity objectives."

The program committee would like to thank all those who submitted papers for consideration. About 60% of the submissions were from outside the United States. Each paper was peer-reviewed by two experts in the field for originality, significance, clarity, impact, and soundness. In cases of contradictory recommendations, a member of the conference program committee was charged to make the final decision; often, this involved seeking help from additional referees by using a double-blinded review process. In addition, papers whose authors included a member of the conference program committee were evaluated using the double-blinded review process. The only exception to the above evaluation process was for papers that were submitted directly to chairs/organizers of approved sessions/workshops; in these cases, the chairs/organizers were responsible for the evaluation of such submissions. The overall paper acceptance rate for regular papers was 28%; 19% of the remaining papers were accepted as poster papers (at the time of this writing, we had not yet received the acceptance rate for a few individual tracks.)

We are very grateful to the many colleagues who helped in organizing the conference. In particular, we would like to thank the members of the SERP'12 Program Committee who we hope will offer their help

again in organizing the next year's conference (SERP'13). The SERP'12 Program Committee members were:

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We express our gratitude to keynote, invited, and individual conference/tracks and tutorial speakers - the list of speakers appears on the conference web site. We would also like to thank the followings: UCMSS (Universal Conference Management Systems & Support, California, USA) for managing all aspects of the conference; Dr. Tim Field of APC for managing the printing of the proceedings; and the staff of Monte Carlo Resort in Las Vegas for the professional service they provided. Last but not least, we would like to

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We present the proceedings of SERP'12.

Steering Committee, SERP 2012

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Contents

SESSION: UNIFIED MODELING LANGUAGE (UML), OBJECT ORIENTED METHODS, AND CASE STUDIES

UML Model Based Design of the Claw Car Robot	3
<i>Andre Layne, Adria Mason, Yujian Fu, Mezemir Wagaw</i>	
UML Based Design of LEGO Robot	10
<i>Lorenzo Jones, Janise Fowler, Samuel James, Yujian Fu</i>	
Model-based Generation of Workunits, Computation Sequences, Series and Service Interfaces for BOINC based Projects	17
<i>Christian Benjamin Ries, Christian Schroder, Vic Grout</i>	
Automatic Driving System Using LEGO	24
<i>Chuanxi Zhou, Yujian Fu, Mezemir Wagaw</i>	
ClipBits - A Case Study in Model-Driven Software Engineering	29
<i>Thomas Lovette, Devon Simmonds, Michelle Wilcox, Yuli Bonner</i>	
Virtual Platforms Generation Tool for Embedded Systems Design	36
<i>Sebastian Villa, Juan Camilo Villa, Juan Jaiber Yepes, Jose Edinson Aedo</i>	
An Object-Oriented Social Networking to Link People with Similar Interests and Activities	43
<i>Ching-Cheng Lee, Prachi Garg</i>	
Comparison of Software Development Productivity based on Object-oriented Programming Languages	47
<i>Cuauhtemoc Lopez-Martin, Arturo Chavoya, Maria-Elena Meda-Campana</i>	
SESSION: SOFTWARE ARCHITECTURE, DESIGN PATTERNS + PETRI NET	
Enterprise Architecture and Organizational Transformation: The Human Side of Information Technology and the Theory of Structuration	53
<i>Dominic M. Mezzanotte, Sr., Josh Dehlinger</i>	
SOAs Factors, Criteria and Metrics	60
<i>Riad Belkhatir, Mourad Oussalah, Arnaud Viguier</i>	
Scalability Architecture for Processing using Microsoft .Net Remoting	67
<i>Seth Nielsen, Yuke Wang</i>	

Rejuvenation Modeling in Safety Critical Real Time Systems using Stochastic Petri Nets	74
<i>Bharati Sinha, Santanu K. Rath</i>	
Efficient Design Pattern Selection and Teaching by PBL Technique.	81
<i>S. Sarika, T. Sasipraba</i>	
Application of Petri Network to Workflow Optimization	88
<i>Lukasz Osuszek</i>	
Modelling Rail-road Crossing Control Using OPN	93
<i>Arghya Ghosh, Ranjan Dasgupta</i>	
 SESSION: BATTLESPACE REPRESENTATION FOR AIR, SPACE, AND CYBER	
Battlespace Representation for Air, Space, and Cyber	103
<i>James McCracken, Denise Aleva</i>	
Automated Streaming Imagery Filtering and Selection	108
<i>Brian P. Jackson, A. Ardeshir Goshtasby</i>	
A Contagion Threat on a Social Network: A Graphical Approach	115
<i>F. Ciardiello, J. Binner, V. Schmidt</i>	
 SESSION: FORMAL METHODS, SPECIFICATION, MODELING, AND APPLICATIONS	
Z Formal Framework for Syntax-Based Module Level Software Metrics	125
<i>Raouf Alomainy, Wei Li</i>	
eSQUARE: A Formal-Methods-Enhanced SQUARE Tool	131
<i>Hadil Abukwaik, Cui Zhang</i>	
Formal Modeling and Analysis of Autonomous Robotics Systems Using Z	138
<i>Yujian Fu, Nithin Yama, Zhijiang Dong</i>	
Implementing a Sound Mapping from Normative Requirements to Event-B Design Blueprints Using MDA	145
<i>Iman Poernomo, Timur Umarov</i>	
 SESSION: WEB APPLICATIONS AND CASE STUDIES	
An Approach for Testing Passively Web Service Compositions in Clouds	155
<i>Sebastien Salva</i>	

Design of Safety Critical Survivable Systems Using Autonomic and Semantic Web Methodologies	162
<i>Michael Lindsey, David Coe, Jeffrey Kulick, Letha Etzkorn, Wei Li, Yujian Fu</i>	
Everyday Cloud Computing with SaaS	169
<i>Robert Roggio, Tetiana Bilyeyeva, James Comer</i>	
Beyond Traditional Disaster Recovery Goals - Augmenting the Recovery Consistency Characteristics	176
<i>Octavian Paul Rotaru</i>	
A Smart Approach to Conference Registration and Payment Processing	181
<i>Jon Vandersall, Kyle Schwarting, Roger Lee</i>	
Extensible Web-based Learning Architecture	188
<i>Takao Shimomura, Kenji Ikeda</i>	
Goal-Based Reengineering of Web Business Applications	195
<i>Hicham H. Hallal, May Haidar</i>	
Web Application Vulnerabilities and Detection	201
<i>Kangan Ahuja, Monika Saini</i>	
Verifying the Behavioral Contracts among Components by means of Semantic Web Techniques	206
<i>Francisco-Edgar Castillo-Barrera, Hector A. Duran-Limon, Carolina Medina-Ramiez, Jose-Emilio Labra-Gayo, S. Masoud Sadjadi</i>	
SESSION: EMBEDDED SYSTEMS, APPS, ANDROID, AND APPLICATIONS	
Software Engineering a Family of Complex Systems Simulation Model Apps on Android Tablets	215
<i>Victor Du Preez, Bradley Pearce, Ken A. Hawick, Timothy H. McMullen</i>	
A model-driven Development Approach to Design Software for Embedded Systems using the Android Platform	222
<i>Luz Viviana Cobaleda, Juan Camilo Villa, Juan Jaiber Yepes, John Freddy Duitama, Jose Edinson Aedo</i>	
Recognizing Recurrent Development Behaviors Corresponding to Android OS Release Life-cycle	228
<i>Pavel Senin</i>	

GiftScroll - An Online Gift Registry for the Android Mobile Phone 235
Devon Simmonds, Michael Nipper

Extending Java for Android Programming 241
Yoonsik Cheon

SESSION: COST ESTIMATION METHODS

A Lightweight Test-Driven Approach to Test Indie Software Products 245
Hassan Reza, Yong Lai

Establishing the Optimal Software Cost Equation Using Cost Affecting factors and Elitist Gene Expression Programming 252
Divya Kashyap, A.K. Misra

Using Metadata for Automated Testing of Complex Object Structure 259
Jaroslav Zacek, Frantisek Hunka

Empirical Estimation of COCOMO I and COCOMO II Using a Case Study 265
Muhammad M. Albakri, M. Rizwan Jameel Qureshi

Comparative Analysis of Software Reliability Estimation Models - State and Path Based 271
Arashdeep Kaur, Monika Saini

What is the Cost of One IFPUG Method Function Point? Case Study 278
Beata Czarnaacka-Chrobot

Software Reuse Cost Factors 284
Hisham Haddad, Nancy Ross, Woranuch Kaensaksiri

SESSION: MODELING, SOFTWARE DEVELOPMENT, USER INTERFACE METHODS + VISUAL PROGRAMMING

A Two-Dimensional Overall Software Customization Classification and Visualization 293
Michaela Weiss, Norbert Heidenbluth

A Graphical Approach to the Development of Deployment Agnostic Systems 300
Mark Dixon

Non-Simultaneous Round-Trip Engineering for 3D Applications 305
Matthias Lenk, Arnd Vitzthum, Bernhard Jung

Domain-specific Transformation of the REA Enterprise Ontology 312
Zdenek Melis, Jaroslav Zacek, Frantisek Hunka

An Image Comparing-based GUI Software Testing Automation System 318
Hyunjun Jung, Sukhoon Lee, Doo-Kwon Baik

A Usability Evaluation Process for Plastic User Interface Generated With an MDE Approach 323
Lassaad Ben Ammar, Adel Mahfoudhi, Mohamed Abid

SES-based Structure Modeling Method Using the Block Diagram 330
Suk-hoon Shin, Chan-ho Jung, Eun-bog Lee, Sung-do Chi, Seung-jin Han

SESSION: AGILE SOFTWARE METHODS

Low Fidelity User Interface Prototypes as Agile Refactoring Tools 337
Michael Wainer

Adopting Agile Methodologies to a One-Man Software Engineering Team 344
Steve Biccum, Nasseh Tabrizi

Estimating Agile Iterations by Extending Function Point Analysis 351
Udayan Banerjee, Kanakalata Narayanan, C. Mahadevan P

Domain Specific Priority Based Implementation of Mobile Services - An Agile Way 360
Daya Gupta, Rinky Dwivedi, Sinjan Kumar

SESSION: NOVEL APPLICATIONS AND CASE STUDIES + EDUCATION

Using Visualization Software to Understand Complex Healthcare Interactions in Heterogeneous System Communities 369
H. Keith Edwards, Duane Bender, Paul Brown, Justin Fyfe

Training Effective Developers 375
Milica Barjaktarovic

Infrastructure Needed for Distance Learning in Developing Countries Through Multimedia Technology Using Mobile devices 381
Sagarmay Deb Deb

A Multi-attribute Decision Making Approach for Resource Allocation in Software Projects 389
Abdel Ejnoui, Carlos E. Otero, Luis D. Otero

Measuring the Impact of Security and Reliable Messaging on the Transport Layer for Medical Messaging Applications 395
H. Keith Edwards, Justin Fyfe, Duane Bender, Suseelan Vigneswaran

Developing Nim Game for iPhone 401
Palani Dharanidharan, Kevin Daimi, Michael Canjar

Relational Database Schema Evolution Using Fragile Watermarking Approach 410
Ravichandra Sadam, Somayajulu Dvln

A Text Messaging Pay for Parking Service (iParked.ca) 416
Dwight Deugo, Nesa Matic

**SESSION: SOFTWARE QUALITY ASSESSMENT + OPTIMIZATION
METHODS + REDUNDANCY REMOVAL + RELIABILITY ISSUES**

**Fuzzy Measure Extraction for Software Quality Assessment as a Multi-Criteria
Decision-Making Problem** 425
Xiaojing Wang, Martine Ceberio, Shamsnaz Virani, Christian Del Hoyo, Luis Gutierrez

An Extension of The Unit Production Elimination Algorithm 433
Xin Chen, David Pager

Reliable Task Allocation in Distributed System 440
Vinod Kumar Yadav, Swagat Ranjan Sahoo, Dharmendra Kumar Yadav

On Overcoming Market-Driven Software Development Challenges: requirements refactoring 446
Bassey Isong, Obeten Ekabua

Workflow Map Optimization By Using Multiobjective Algorithms 452
Lukasz Osuszek

**SESSION: SOFTWARE MAINTENANCE, REUSE, DEVELOPMENT CONCEPTS
+ COMPILER TECHNOLOGIES**

Documenting Java Database Access with Type Annotations 459
Paul Bergstein

Mining RCS Data 466
Catherine Stringfellow, Swetha Myneni, Raaji Vedala-Tirumala, Sreya Reddy

On The Construction of a LaTeX To gDPS Compiler 472
Xin Chen

Software Cloning Detection Techniques : Comparison Criteria 479
Abdulrahman Baqais, Moataz Ahmed

A Multiplicity Approach for Equilibrium-Driven Complexity Control	486
<i>K. O. Chow</i>	

**SESSION: WORKSHOP ON NONLINEAR SOFTWARE ENGINEERING
REVOLUTION BASED ON COMPLEXITY SCIENCE**

NSE Extracts Software Models from Source Code - Software Modeling Revolution Based on Complexity Science	493
---	------------

Liana Ye, Jay Xiong

NSE Dynamic Software Documentation - Software Documentation Revolution Based on Complexity Science	500
---	------------

Liana Ye, Lin Li

**SESSION: SOFTWARE ENGINEERING RESEARCH AND PRACTICE: NOVEL
SYSTEMS AND METHODS**

Early Usability Evaluation in Model-Driven Video Game Development	509
--	------------

Adrian Fernandez, Emanuel Montero, Emilio Insfran, Silvia Abrahao, Jose Angel Carsi

Tool Support for Quality Aware Product Configuration in Software Product Lines	517
---	------------

Guoheng Zhang, Huilin Ye, Yuqing Lin

A New Architecture for Logging and Auditing in Distributed Systems	524
---	------------

Elnaz B. Noeparast, Reza Ravani

Requirements Metrics for Requirements Statements Stored in Database	531
--	------------

Chao Din, Rine David

Proposal and Development of Markers-type Mouse System with Considering Practical and Entertainment	538
---	------------

Kazuya Murata, Takayuki Fujimoto

Eradicating Complexity in Software Interface for Increased Productivity - Increasing Effectiveness of Enterprise Systems	543
---	------------

Felix Bollou, Edmung Balogun, Inah Usang

Software Development Methodology Revolution Based on Complexity Science - An Introduction to NSE Software Development Method	556
---	------------

Chi-Hung Kao, Jay Xiong

Software Engineering Process Revolution	565
--	------------

Chi-Hung Kao, Jay Xiong

Software Testing Revolution Based on Complexity Science - An Introduction to NSE Software Testing Paradigm	571
<i>Wan Yuan Huang, Jay Xiong</i>	
Software Testing Revolution Based on Complexity Science - An Introduction to NSE NSE-SQA	578
<i>Wan Yuan Huang, Linda Li</i>	
Software Traceability Establishment Revolution Based on Complexity Science	586
<i>Po-kang Chen, Jay Xiong</i>	
Software Visualization Revolution Based on Complexity Science - An Introduction to NSE Software Visualization Paradigm	592
<i>Po-Kang Chen, Jay Xiong</i>	
Software Maintenance Engineering Revolution	600
<i>Po-kang Chen, Jay Xiong</i>	
Should Linear, Partial, Local, and Qualitative Software Engineering Paradigm be Replaced by Nonlinear, Holistic, Global, and Quantitative Software Engineering Paradigm?	605
<i>Jay Xiong</i>	
General Comparison between the Old-Established Software Engineering Paradigm and NSE (Nonlinear Software Engineering Paradigm)	612
<i>Jay Xiong</i>	
Silver Bullet: Slaying Software Werewolves Efficiently	619
<i>Jay Xiong</i>	
A Software Engineering Tool for Pedagogy: Reporting Performance Test Results	628
<i>J Crunk, M. M. North, S. M. North</i>	
Using Neural Network for Security Analysis in Software Design	633
<i>Adetunji Adebisi, Johnnes Arreymbi , Chris Imafidon</i>	
A Proposal of New Scheduling System on Smartphone with Interactive	639
<i>Eigo Ito, Takayuki Fujimoto</i>	