Welcome to the Twenty-Sixth Annual International Computer Software and Application Conference (COMPSAC 2002).

COMPSAC is the major international forum for researchers, practitioners, managers, and policy makers interested in computer software and applications. The planned program will include original research papers, industrial case studies, participative workshops and discussion panels.

**FINAL PROGRAM**

**26th Annual International Computer Software and Applications Conference**

**COMPSAC 2002**


**Program Chair**
Hong Yi Yang, De Montfort University, UK

**Industry Co-Chairs**
Stephen Chen, Motorola Global Software Group, USA
Mark Harman, Brunel University, UK

**Panel Co-Chairs**
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Dennis B. Mulane, Tadokka Technologies, USA
Akira K. Onuma, Hosei University, Japan
Alexander Romanovski, University of Newcastle upon Tyne, UK
Philipp Rosse, University of Pau, France
Gerthner Ruhe, University of Calgary, Canada
Dick B. Simmons, Texas A&M University, USA
Harry Sted, Regensburg University, Germany
Stanislav Szejko, Technical University of Gdansk, Poland
Andrey A. Terekhov, St. Petersburg State University, Russia
Wei-Tak Tsai, Arizona State University, USA
K. Vairavan, University of Wisconsin-Milwaukee, USA
Giuseppe Visaggio, Bari University, Italy
Baowen Xu, Southeast University, China
Qiwen Xu, University of Macau, Macau
Baowen Xu, University of Macau, Macau
Yuan Tao Yu, City University of Hong Kong, Hong Kong
Jian Zhang, Chinese Academy of Sciences, China
Xiaoyi Zhu, University of Queensland, Australia

**CONFERENCE VENUE**

Keble College
Oxford University
Oxford

**SOCIAL FUNCTIONS**

**Conference Reception and Dinner**
Monday 26th August 2002
Reception: 18:30 University Museum
Dinner: 19:30 Keble College Dining Hall
Conference Concert and Banquet
Tuesday 27th August 2002
Concert: 18:00 Keble College Chapel
Dinner: 19:30 Keble College Dining Hall
Monday 26th August 2002

09:00-10:30 Opening Session -- Martin Wood Lecture Theatre

- Welcome and Remarks: General Chair: Ian Sommerville, Lancaster University, UK
- Additional Greetings and Remarks: Standing Committee Chair: Stephen S. Yau, Arizona State University, USA
- Programme Overview: Program Chair: H. Yang, De Montfort University, UK
- Keynote Address 1: Prolong Software Life: Terrence M. S. Heng, Senior Vice President and General Manager, Motorola Global Software Group, USA

10:30-11:00 Coffee Break

11:00-12:30 Parallel Sessions

Paper Session 1: Component Based Software Development (1) -- Martin Wood Lecture Theatre

Chair: R. Paul, Department of Defence, USA
- Optimal Resource Allocation and Reliability Analysis for Component-Based Software Applications: S. Kuo and J. Lo, National Taiwan University, Taiwan, M. R. Lyu and C. Huang, Chinese University of Hong Kong, Hong Kong
- Process-Oriented, Consistent Integration of Software Components: R. Depke, G. Engels and S. Thoene, University of Paderborn, Germany, M. Langham and B. Luettkemeier, S&N AGK Lingenderstr, Germany
- Open Reuse of Component Designs in OPM/Web: I. Reinhardt-Berger and S. Katz, Israel Institute of Technology, Israel, D. Dori, Massachusetts Institute of Technology, USA

Paper Session 2: Software Evolution (1) -- Lindemann Lecture Theatre

Chair: H. D. Ehrich, Technical University of Braunschweig, Germany
- Quantitative Aspects of Requirements Evolution: M. Felici and S. Anderson, University of Edinburgh, UK
- Supporting Evolution and Maintenance of Components Using A Remote Service Architecture: S. Thomason and P. Breteke, Keele University, UK

Paper Session 3: Software Process (1) -- Simon Room

Chair: M. Aoyama, Nanzan University, Japan
- The Software Engineering Global Model: C. Tofoloni, Littoral University, France, S. Dakhli, Paris-Dauphine University, France
- Resource Instantiation Policies for Software Process Environments: C. Reis, R. Q. Reis, H. Schlebde and D. J. Nunez, Federal University of Rio Grande do Sul, Brazil

Paper Session 4: Software Architecture for Control Systems -- Andrey Wood Room

Chair: D. Simmons, Texas A&M University, USA
- Case Study: Componentization of An Industrial Control System: F. Lüders, ABB Automation Technology Product, Control & Force Measurement, Sweden, I. Crnkovic, Malardalen University, Sweden
- Requirements Specification and Architecture Design for Internet-based Control Systems: L. Tan, Central China Normal University, China, S. Yang and X. Chen, Loughborough University, UK
- Distributed Agent Architecture for Part Automation: T. Thurston and H. Hu, University of Essex, UK

12:30-14:00 Lunch Break

14:00-15:30 Parallel Sessions

Panel Session 1: Formal Methods and Testing -- Martin Wood Lecture Theatre

The panel will explore the usefulness or otherwise of formal methods in various contexts for improving software testing.

Chair: J. P. Bowen, South Bank University, London, UK
Panelists: K. Bogdanov, The University of Sheffield, UK
J. A. Clark, The University of York, UK
M. Harman, Brunel University, UK
R. M. Hierons, Brunel University, UK
P. Krause, Philips Research Laboratories and University of Surrey, UK

Paper Session 5: Internet and Gigabit Net -- Lindemann Lecture Theatre

Chair: A. Ghafoor, Purdue University, USA
- Rights Protection for Digital Contents Redistribution Over the Internet: S. Cheung and H. Currem, Hong Kong University of Science and Technology, Hong Kong
- Internet Emulation for Java Applications through Socket Factories: A. Vecchio and M. Arvenuti, University of Pisa, Italy
- Gigabit Packet Classification by Using Lookahead Caching: P. Wang, W. Tseng and C. Chan, Chunghwa Telecom Co. Ltd., Taiwan, Y. C. Chen, National Chiao Tung University, Taiwan

Paper Session 6: Quality Control (1) -- Simon Room

Chair: Gerardo Canfora, University of Sannio, Italy
- Requirements Driven Quality Control: S. Szelko, Gdansk Technical University, Poland
- A Fuzzy Logic Framework to Build Rule-Based Quality Prediction Models: H. A. Sahraoui, H. M. Chawichel, G. Mai and M. Serhani, University of Montreal, M. Boukadoum, University of Quebec, Canada
- Application of Hazard Analysis to Quality Modeling: H. Zhu, Y. Zhang, Q. Hua and S. Greenwood, Oxford Brookes University, UK

15:30-16:00 Tea Break

16:00-17:30 Parallel Sessions

Paper Session 7: Modelling with UML -- Martin Wood Lecture Theatre

Chair: S. Catrava, Guidant Corporation, USA
- A Toolset for Supporting UML Model Checking Based on Abstract State Machines: W. Shen and K. Compton, University of Michigan, J. Huggins, Kettering University, USA
- From MSC and UML to SDL: S. Bourdaud, F. Khendek, Concordia University, Canada, D. Vincent, France Telecom, France
- Do Actors Call Use Cases? -- Solving the Problems of OOSE/UML Use-Case Relationships: S. Isoda, Toyohashi University of Technology, Japan

Paper Session 8: XML and Semantic Web -- Lindemann Lecture Theatre

Chair: S. Cheung, Hong Kong University of Science and Technology, Hong Kong
- Using XML to Integrate Existing Software Systems: H. M. Sneed, University of Regensburg, Germany
- The Cooperative Web: A Complement to the Semantic Web: D. G. Aveiro and D. A. Gutiérrez, University of Oviedo, Spain

Paper Session 9: Communication and Networking -- Simon Room

Chair: Y. C. Chen, National Chiao Tung University, Taiwan
- Personalised Redirection of Communication: Y. Yang and M. H. Williams, Heriot-Watt University, UK
- Design and Implementation of A Network Application Architecture for Thin Clients: C. C. Kuo, P. Ting, National Taiwan University, M. Chen and J. Chen, Philips Research East Asia, Taiwan
- Distributed Checkpointing Using Synchronized Clocks: S. Neogy, A. Sinha and P. K. Das, Jadavpur University, India

Tuesday 27th August 2002

09:00-10:30 Parallel Sessions

Panel 2: Entrepreneurship in Software Industry -- Martin Wood Lecture Theatre

Chair: S. S. Yau, Arizona State University, USA
Panelists: Maarten Boasson, University of Amsterdam and Quaerendo Inventien b. v., The Netherlands
William Chu, Tunghai University, Zen Technologies Co. Ltd. and Flowing Ring Technologies Co. Ltd., Taiwan
Dick B. Simmons, Texas A & M University and The Software Commercialization and Innovation Center, Inc., USA

Paper Session 10: UML Application and Requirement Engineering -- Lindemann Lecture Theatre

Chair: G. Visaggio, Bari University, Italy
- Case Study: Implementing A Web Based Application System Using UML and Component-Based Programming: F. T. Sheldon and K. Jerath, Washington State University, USA
Y. Kwon, Y. Baik, Taegu University, Korea
- An UML Profile to Support the Formal Presentation of Software Architecture: A. Hudzik and C. Montargero, University of Pisa, Italy
- Transformation and Integration Method of Scenarios: A. Ohnishi, Ritsumeikan University, Japan

Paper Session 11: Service Based Software -- Simon Room

Chair: G. A. Di Lucca, Naples University, Italy
- Software As A Service: A Negotiation Perspective: A. Elifatary and P. Layzell, UMIST, UK
Paper Session 12: Software Engineering Profession and Methodology -- Andrey Wood Room
Chair: P. Roose, University of Pais, France
- Closing the Circle on Software Engineering Professionalism and Free Movement of Labour: J. B. Thompson, University of Sunderland, UK
- Towards an MDA-Oriented Methodology: M. Gervais, University of Paris, France
- Reducing Risks of Widespread Faults and Attacks for Commercial Software Applications: M. Casassa Mont, A. Baldwin, Y. Beres, K. Harrison, M. Sadler and S. Shiu, Hewlett-Packard Laboratories, UK

10:30-11:00 Coffee Break
11:00-12:30 Parallel Sessions

Industry Session 1: Software Process and Quality -- Martin Wood Lecture Theatre
Chair: S. Chen, Motorola Global Software Group, USA
- Requirement Capture and SCR Approach: S. Baranov, V. Kotlyarov, Motorola, Russia
- Constructing An EJB Application in A WFM: J. Wang, T. Lin, F. Wang, National Chiao Tung University, Taiwan and H. Hsu, Flowring Technology Corp., Taiwan
- Suitability of Evolutionary Algorithms for Evolutionary Testing: J. Wegener, A. Baresel and H. Stähler, Damenchrlyers AG Research and Technology, Germany
- Program C Editor through Voice Input: M. Yamamoto, Hosei University, Japan
- Preliminary Case Study on Software Reuse -- Generative Approach toward Object Persistence: H. Saganuma, Hitachi Software Engineering Co., Ltd., Japan

Paper Session 13: Measurement and Metrics -- Lindemann Lecture Theatre
Chair: K. Vairavan, University of Wisconsin-Milwaukee, USA
- Measuring Distance between Program Features: W. E. Wong, S. Gokhale and J. R. Horgan, Telcordia Technologies, USA
- The Quest for Software Components Quality: M. Goulão and F. Brito e Abreu, Information Systems Group (INESC) FCT/UNL, Portugal

Paper Session 14: Testing (1) -- Simon Room
Chair: P. Henderson, Southampton University, UK
- Adaptive Scenario-Based Object-Oriented Text Frameworks for Testing Embedded Systems: W. T. Tsai, Arizona State University, USA
- Metamorphic Testing of Programs on Partial Differential Equations: A Case Study: T. Y. Chen, Swinburne University of Technology, Australia, J. Feng and T. H. Tse, the University of Hong Kong, Hong Kong
- Expanding An Extended Finite State Machine to Aid Testability: R. Hierons, T. H. Kim and H. Ural, Brunel University, UK

12:30-14:00 Lunch Break
14:00-15:30 Parallel Sessions

Panel Session 3: Are We at Last Seeing Global Movements towards Software Engineering Professionalism? -- Martin Wood Lecture Theatre
The panelists will be invited to consider developments that have taken place over the last two years such publication of a code of ethics and body of knowledge documents for Software Engineering, and proposals for the Harmonization of Professional Standards worldwide.
Chair: J. B. Thompson, University of Sunderland, UK
Panelists: C. K. Chang, Iowa State University, USA
S. Rogerson, De Montfort University, UK
M. Ryan, Dublin City University, Ireland
D. B. Simmons, Texas A&M University, USA
T. H. Tse, The University of Hong Kong, Hong Kong

Paper Session 15: Program Slicing and Analysis -- Lindemann Lecture Theatre
Chair: R. Hierons, Brunel University, UK
- Slice-Based Dynamic Memory Modelling: A Case Study: Y. Sivagarunathan, KW International, UK
- Program Slicing via Ferma? Transformations: M. P. Ward, DeMontfort University, UK
- A Graphically Based Language for Constructing, Executing and Analysing Models of Software Systems: R. J. Walters, University of Southampton, UK

Paper Session 16: Software Process (2) -- Simon Room
Chair: M. Casassa Mont, HP, UK
- Early Experiences on Promoting Explicit Separation of Details to Improve Software Process Reusability: R. Q. Reis, Federal University of Rio Grande do Sul, Brazil
- A Typed Generic Process Model for Product Focused Process Improvement: M. Sapathry and R. Harrison, University of Reading, UK
- A Method to Combine Any Process Algebra with An Algebraic Specification Language: the Pi-Calculus Ex: G. Salam, M. Allemand and C. Attigote, University of Nantes, France

15:30-16:00 Tea Break
16:00-17:30 Parallel Sessions

Paper Session 17: Web Based Systems (1) -- Martin Wood Lecture Theatre
Chair: R. McCrindle, University of Reading, UK
- The Application of Case-Based Reasoning to Early Web Project Cost Estimation: E. Mendes, University of Auckland, N. Mosley, Auckland University of Technology, New Zealand
- Tolerating Changes in A Design Psycholgohased Web Page Wrapper: Y. Li, British Telecom, H. Yang, De Montfort University, UK, C. H. Jiau, National Cheng Kung University, Taiwan
- Reliability Assessment of WEB Applications: V. S. Alagar and O. Ormandjieva, Concordia University, Canada

Paper Session 18: Software Evolution (2) -- Lindemann Lecture Theatre
Chair: Harry Snoed, Regensburg University, Germany
- From System Comprehension to Program Comprehension: C. Tjortjis, N. Gold and P. Layzell, UMIST, K. Bennett, University of Durham, UK

Paper Session 19: Architecture for Development -- Simon Room
Chair: D. Caivano, Bari University, Italy
- Software Application Platforms: From Product Architecture to Integrated Application Strategy: M. Saaksjarvi, Helsinki School of Economics and Business Administration, Finland
- A Distributed Architecture for Cooperative and Adaptable Multimedia Applications: M. Dalimau, P. Roose and F. Lathon, LIUPPA, IUT Bayonne, France
- An Architecture-Based Approach for Component-Oriented Development: F. Chen, Q. Wang, H. Mei and F. Yang, Peking University, China

Wednesday 28th August 2002
09:00-10:30 Plenary Session -- Martin Wood Lecture Theatre
Chair: H. Yang, De Montfort University, UK
Keynote Address 2: Assertions in Modern Software Engineering Practice: Sir Antony Hoare, Microsoft Research, Cambridge, UK
10:30-11:00 Coffee Break
11:00-12:30 Parallel Sessions

Industry Session 2: Software Tools -- Martin Wood Lecture Theatre
Chair: J. Cain, Quantum Limited, UK
- TRIZ for Software Process Improvement: T. Stanbrook, Motorola Ltd., UK
- A Reusable Software Architecture Model: H. Guo, F. Chen, Y. Wang and Y. Sun, Dalian University of Technology, China
- Managing Software Quality with Defects: D. Card, Software Productivity Consortium, USA
- ToolManager: A Tool for Management of CASE Tools: S. Ronaldo, B. Oliveira, A. Marcos, L. de Vasconcelos, A. Cristina Rouiller, Universidade Federal de Pernambuco, Ronaldo and B. Oliveira, Universidade da Amazônia, Brazil

Paper Session 20: Web Based Systems (2) -- Lindemann Lecture Theatre
Chair: B. Xu, Southeast University, China
- An Approach to Identify Duplicated Web Pages: G. Di Lucca and A. R. Fasolino, University of Naples, M. Di Penta, University of Sannio, Italy
- Web Document Classification Based on Fuzzy Association: M. Shyu, C. Harnechayiasak, University of Miami, S. Chen, Florida International University, USA
**Paper Session 21: Ubiquitous Computing, Middleware and Embedded Systems -- Simon Room**

**Chair:** F. Wang, National ChiaoTung University, Taiwan

- **Development of Situation-Aware Application Software for Ubiquitous Computing Environments:** S. S. Yau, Y. Wang and F. Karin, Arizona State University, USA
- **On Bootstrapping Replicated CORBA Applications:** W. Zhao, L. E. Moser and P. M. Melliar-Smith, University of California at Santa Barbara, USA
- **Strategies for Integration of A Non-OO EIS and The JEEF Framework:** S. Tu, University of New Orleans, G. Li, OTIS, Inc., P. Augustin, NOLA Computer Service, USA

**12:30-14:00 Lunch Break**

**14:00-15:30 Parallel Sessions**

**Panel Session 4: Knowledge Transfer from University to Industry -- Martin Wood Lecture Theatre**

The aim will be to focus on the challenges of knowledge transfer from university to industrial applications.

**Chair:** S. Rogerson, De Montfort University, UK

**Panel Members:**
- A. Adam, University of Salford, UK
- N. Corp, Consignia, UK
- J. Leighthead CBE, former Chairman of ISTEL, UK
- S. Szejko, Technical University of Gdańsk, Poland

**Paper Session 22: Quality Control (2) -- Lindemann Lecture Theatre**

**Chair:** R. Harrison, University of Reading, UK

- **Component Based System Framework for Dynamic B2B Interaction:** J. Hu, University of Twente, The Netherlands
- **Mining Legacy Systems for Business Components: An Architecture for An Integrated Toolkit:** P. Johnson, De Montfort University, UK
- **Controlling Coordination Based Assembling of Components:** A. Chimaris and G. A. Papadopoulous, University of Cyprus, Cyprus

**15:30-16:00 Tea Break**

**16:00-17:30 Parallel Sessions**

**Paper Session 24: Agent Based and Intelligent Systems -- Martin Wood Lecture Theatre**

**Chair:** S. Szejko, Technical University of Gdańsk, Poland

- **MADSS: A Multi-Agent Based Distributed Scripting System:** J. Lin, Taichung Healthcare and Management University, Z. Hong, and G. Fang, Fench Chia University, Taiwan
- **Extending Applications Using Reflective Assistant Agents:** A. Di Stefano, G. Puppadoro, C. Santoro and E. Tramontana, University of Catania, Italy
- **Supporting Event Based Traceability through High-Level Recognition of Change Events:** J. Cleland-Huang and C. K. Chang, University of Illinois at Chicago, USA

**Paper Session 25: Web Application and Pattern Language -- Lindemann Lecture Theatre**

**Chair:** X. Liu, Napier University, UK

- **WWWM: A Practical Methodology for Web Application Modeling:** C. Kaewkasi and W. Rivepiboon, Software Engineering Laboratory, Chulalongkorn University, Thailand
- **Developing Web-based Applications through E-Prototyping:** W. Bleek, M. Jenneke and R. Kischewski, Hamburg University, Germany
- **A Process for Framework Construction Based on A Pattern Language:** R. T. Braga and P. Cesar Masiero, University of S’ao Paulo, Brazil

**Paper Session 26: Application Framework and Concurrency -- Simon Room**

**Chair:** M. Boasson, University of Amsterdam, The Netherlands

- **Defining the Problems of Framework Reuse:** D. Kirk, M. Roper and M. Wood, University of Strathclyde, UK
- **An Application Framework for TCP/IP Applications:** A. Kumazaki, M. Noro and H. Chang, Nanhan University, Japan
- **Design and Implementations of the Concurrency Control in the Main-Memory DBMS Tachyon:** S. Kim and B. Kim, Kangwon National University, W. Choi, Electronic and Telecommunication Research Institute, Korea

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**Thursday 29th August 2002**

**09:00-10:30 Parallel Sessions**

**Paper Session 27: Formal Methods (1) -- Martin Wood Lecture Theatre**

**Chair:** J. P. Bowen, Southbank University, London, UK

- **A Formal Method for Analyzing Software Architecture Models in SAM:** H. Yu, X. He, Y. Deng and L. Mo, Florida International University, USA
- **The Semantics of The Extended SOFL:** S. Liu, Hosei University, Japan, J. Dong, National University of Singapore, Singapore
- **Formalizing Incremental Design in Real-Time area:** J. P. Bowen, De Montfort University, London, UK

**Paper Session 28: Mobile Computing -- Lindemann Lecture Theatre**

**Chair:** M. Harman, Brunel University, UK

- **MoCha, A Middleware Based on Mobile Channels:** F. Aribab, F. de Boer and G. Scholten, Leiden University, The Netherlands
- **Towards A Software Architecture for Distributed and Mobile Collaborative Systems:** S. Dandar and H. Gall, Vienna University of Technology, Austria
- **A QoS Sensitive Context Adaptation System for Mobile Computing:** F. Lau and W. Y. Lam, The University of Hong Kong, Hong Kong

**Paper Session 29: Software Maintenance -- Simon Room**

**Chair:** M. Ward, De Montfort University, UK

- **Object Identification in Legacy Code as A Grouping Problem:** H. A. Sabraoui, P. Valkewie, I. Konkobo and S. Shen, University of Montreal, Canada
- **Software Maintainability Improvement: Integrating Standards and Models:** W. C. Chu, Tunghai University, Taiwan, C. W. Lu, C. H. Chang and Y. C. Chung, Feng Chia University, Taiwan, B Xu, Southeast University, China
- **Understanding SQL through Iconic Interfaces:** L. Aversano, G. Canfora, A. De Lucia and S. Stefanacci, University of Sannio, Italy

**Paper Session 30: Formal Methods (2) -- Andrey Wood Room**

**Chair:** J. Zhang, Chinese Academy of Science, China

- **Specification and Verification of Spatial Data Types with B-Toolkit:** Y. Kim and D. Hung, The United Nations University International Institute for Software Technology, Macau
- **Constraining Efficient Algorithms for Generating Compact Petri Nets from Modelled Transition Systems:** U. Buy and G. Singal, University of Illinois at Chicago, USA
- **A Tableau-based Procedure for Model Checking Programs:** A. Santone, University of Sannio, G. Vaglini, University of Pisa, Italy

**10:30-11:00 Coffee Break**

**11:00-12:30 Parallel Sessions**

**Industry Session 3: Software Reuse and Evolution -- Martin Wood Lecture Theatre**

**Chair:** Dennis B. Mulcare, Telcordia Technologies, USA

- **An Investigation: Reengineering A Sequential Procedure-Driven Software into An Object-Oriented Event:** R. T. Braga and J. Savolainen and J. Kuusela, Nokia
- **A Data Collection Case Study Supporting Requirements Oriented Prediction and Management in Software:** K. Boness, Simulus Ltd., R. Harrison, University of Reading, UK

**Paper Session 31: Frameworks -- Lindemann Lecture Theatre**

**Chair:** W. C. Chu, Tunghai University, Taiwan

- **Framework for Goal Driven System Design:** J. Savolainen and J. Kauanen, Nokia Research Center, Finland
- **A Nested Invocation Suppression Framework for Active Replication Fault-Tolerant CORBA:** D. Liang, J. Tsai, Institute of Information Science, C. Fang and C. Chen, National Taiwan University of Science and Technology, Taiwan
CALL FOR CONTRIBUTIONS

Hong Kong, September 30 – October 3, 2003

CALL FOR CONTRIBUTIONS

Submission Categories: regular papers, industrial abstracts, panels and workshops.

Topics

Methodology topics include, but not limited to, the following:

- Software Architecture, Framework, and Design Patterns
- Requirements Engineering
- Object-Oriented Technology
- Component-Based Software Development
- Software Reengineering
- Process Management
- Quality Management
- Software Reuse
- Safety and Security
- Software Reliability
- Software Testing, Metrics and Measurement

Application topics include, but not limited to, the following:

- Electronic Commerce
- Ubiquitous/Pervasive Computing

System topics include, but not limited to, the following:

- Collaborative Systems
- Distributed Systems
- Embedded Systems
- Enterprise Systems
- Internet and Web-Based Systems
- Middleware Systems
- Mobile Systems
- Multimedia Systems

Submission

Submit to:

Doo-Hwa Bae, Program Co-Chair
Computer Science Division
Electrical Engineering and Computer Science Department
Korea Advanced Institute of Science and Technology
3731, Kusong-dong, Yuseong-gu, Taejon, 305-701, Korea
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Email: bae@kast.ac.kr
URL: http://se.kaist.ac.kr/compsac2003

Tentative date for notification of acceptance: May 12, 2003.

General Chair: Paul Y. S. Cheung
Innovation and Technology Commission, Hong Kong

Standing Committee Chair: Stephen S. Yau
Arizona State University, U. S. A.

Planning Meeting

17:30 Monday 26th August 2002

All conference participants are invited

Meeting Room: Andrey Wood Room
COMPSAC 2002 Workshops

Monday 26th August 2002

14:00-15:30, Break, 16:00-17:30

Workshop 1: Web Security and the Semantic Web -- Andrey Wood Room
Organiser and Chair: B. Thuraisingham, National Science Foundation, USA
• Workshop Chair’s Introduction: B. Thuraisingham, National Science Foundation, USA, E. Ferrari, University of Comol, Italy
• An Application of Directory Service Markup Language (DSML) for Role-base Access Control (RBAC): D. Shin and G. Ahn, University of North Carolina, USA, J. Park, Syracuse University, USA
• A Chinese Wall Approach to Privacy Policies for The Web: F. A. Lategan and M. S. Olivier, Rand Afrikaan University, South Africa
• MACX: An Access Control System for Digital Libraries and The Web: E. Bertino, University of Milano, E. Ferrari, University of Comol, Italy
• Hybrid Role Hierarchy for Generalized Temporal Role Based Access Control Model: J. Joshi, A. Ghafoor, Purdue University, USA, E. Bertino, University of Milan, Italy
• On the Response of Software Decoys: Conducting Software-Based Deception in The Cyber Battlespace: B. Michael, Naval Postgraduate School USA
• Data and Applications Security: Developments and Directions: B. Thuraisingham, The National Science Foundation, USA
• Placing the Chinese Walls on The Boundary of Conflicts Analysis of Symmetric Binary Relations: T. Y. Lin, San Jose State University, USA

Tuesday 27th August 2002

11:00-12:30, Lunch Break, 14:00-15:30, Break, 16:00-17:30

Workshop 2: Dependable On-line Upgrading of Distributed Systems -- Andrey Wood Room
Organiser and Chair: A. Romanovsky, University of Newcastle upon Tyne, UK
• Workshop Chair’s Introduction: A. Romanovsky, University of Newcastle upon Tyne, I. Smith, Dependable Systems Ltd, UK
• Online Software Upgrading: New Research Directions and Practical Considerations: M. E. Segal, Telcordia Technologies, USA
• Online Upgrades Become Standard: L. Moser, Eternal Systems Inc., USA
• Improving Service Availability via Low-Outage Upgrades: C. Dislis, Motorola Ireland Ltd., Ireland
• Dynamic On-line Object Update in The Grumps System: H. Evans, Glasgow University, UK
• A Structured Approach to Handling On-Line Interface Upgrades: C. Jones, A. Romanovksy and I. Welch, University of Newcastle upon Tyne, UK
• Using RAIC for Dependable On-line Upgrading of Distributed Systems: C. Liu and D. J. Richardson, University of California, Irvine, USA
• The Architecture of A Dynamically Updatable, Component-based System: R. P. Bialek, University of Copenhagen, Denmark
• Metadata Support for Safe Component Upgrades: P. Brada, University of West Bohemia in Plzen, Czech Republic
• Dynamically Evolvable Distributed Systems: R. Pandey, S. Malabarba, T. Stapko and B. Hoshi, University of California, USA
• A Case Study of Dependable Software Upgrade with Distributed Components: X. Shan, and J. Li, Avaya Labs, USA
• An Upgrade Mechanism Based on Publish/Subscribe Interaction: M. R. Chaudron, Eindhoven University of Technology, The Netherlands, F. van de laar, Philips Research Laboratories, The Netherlands
• Towards Upgrading Actively Replicated Servers On-the-fly: M. Solarzki, Fraunhofer Gesellschaft, Germany, H. Meling, Norwegian University of Science and Technology, Norway

Wednesday 28th August 2002

11:00-12:30, Lunch Break, 14:00-15:30, Break, 16:00-17:30

Workshop 3: Cooperative Supports for Distributed Software Engineering Processes -- Andrey Wood Room
Organisers and Co-Chairs: G. Canfora and A. De Lucia, University of Sannio, Italy
• Workshop Chair’s Introduction: G. Canfora and A. De Lucia, University of Sannio, Italy
• Generalized Environment for Process Management in Co-operative Software Engineering: M. Gaeta and P. Rionvato, CRMPA, Italy
• FlowManager: A Workflow Management System Based on Petri Nets: L. Aversano, S. Cimitile, P. Gallucci and M. Viliani, University of Sannio, Italy
• Applying Workflow Management to Support Massive Maintenance: L. Aversano and S. Stefanucci, University of Sannio, Italy, S. Berti and E. Pompedia, EDS, Italy
• A Unified Process Support Framework for Global Software Development: J. Sa and E. Maslova, University of the West of England, UK
• Tool Support for Distributed Inspection: F. Lamib globe and T.M. Mallardo, University of Bari, Italy
• Maintenance in Joint Software Development: P. F. Tiako, Oklahoma State University, USA
• Active Artefact Management for Distributed Software Engineering: C. Boldyreff, D. Nutter and S. Rank, University of Durham, UK
• Using Peer-to-Peer Technology to Support Global Software Development - Some Initial Thoughts: S. Bowen and F. Maurer, University of Calgary, Canada
• Palantir: Coordinating Distributed Workspaces: A.arma and A. Van der Hoe, University of California, USA
• A Decision Model Supporting Co-operative Work as an Experience: P. M. Baldassarre, D. Caivano and G. Visaggio, University of Sannio, Italy, Politecnico of Bari, Italy
• A Model for Selecting CSCW Technologies for Distributed Software Maintenance Teams in Virtual Organisations: C. Tjoerji, G. Dafaoulas, P. Layzell and L. Macaulay, UMIST, UK
• An Actor-Oriented Approach to Distributed Product Management Systems: P. Jiang and Q. Mair, Glasgow Caledonian University, UK
• Tool Demo 1: H. Gall, Technical University of Vienna, Austria
• Tool Demo 2: S. Bowen and F. Maurer, University of Calgary, Canada

Thursday 29th August 2002

14:00-15:30, Break, 16:00-17:30

Workshop 4: Foundation of Data Mining via Granular and Rough Computing -- Andrey Wood Room
Organisers and Co-Chairs: S. Tsumoto, Shimane Medical University, Japan, T. Y. Lin, San Jose State University, USA, and J.F. Peters, University of Manitoba, Canada
• Workshop Chair’s Introduction: S. Tsumoto, Shimane Medical University, Japan, T. Y. Lin, San Jose State University, USA, J.F. Peters, University of Manitoba, Canada
• Theorize with Data Using Rough Sets: A. Bargiela, W. Pedrycz, K. Hirota and A. Bargiela, A. Pedrycz, K. Hirota and A. Bargiela, A. Pedrycz, K. Hirota and A. Bargiela, Japan
• Mining Decision-rule Preference Model from Rough Approximation of Preference Relation: R. Slowinski, Poznan University of Technology, S. Greco and B. Matarazzo, University of Catania, Spain
• A Rough Set Approach to Measuring Information Granules: J. F. Peters, University of Manitoba, Canada
• Software Quality Knowledge Discovery: A Rough Set Approach: S. Ramanna, University of Winnipeg, Canada
• Postprocessing of Rule Sets Induced from A Melanoma Data Set: I. G. Grzymala-Busse, University of Kansas, Z. S. Hippe, University of Information Technology and Management, USA
• Fundamental Issues and Modeling in Database Mining: T. Y. Lin, San Jose State University, USA
• Association Rules and Non-Classical Logics: T. Murai and T. Sato, Kokkaido University, Japan
• Logic-based Granular Prototyping: A. Bargiela, W. Pedrycz, K. Hirota and A. Bargiela, Nottingham Trent University, UK
• On Similarity Measures for Cluster Analysis in Clinical Laboratory Examination Databases: S. Hirano and X. Sun, Shimane Medical University, Japan
• Rule and Matroid Theory: S. Tsumoto, Shimane Medical University, Japan