PROGRAM GUIDE

ARES 2009

The Fourth International Conference on
Availability, Reliability and Security

CISIS 2009

The Third International Conference on
Complex, Intelligent and Software Intensive Systems

March, 16th - 19th 2009
Fukuoka Institute of Technology (FIT)
Fukuoka, Japan

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ARES Conference
The International Dependability Conference

ARES 2009 Conference Officers

General Co-Chairs

Makoto Takizawa, *Sekei University, Japan*
A Min Tjoa, *Vienna University of Technology, Austria*

Program Committee Co-Chairs

Arjan Durresi, *Indiana University Purdue University Indianapolis, USA*
Hiroaki Kikuchi, *Tokai University, Japan*
Edgar Weippl, *Vienna University of Technology, Austria*

Workshops Co-Chairs

Leonard Barolli, *Fukuoka Institute of Technology, Japan*
Stefan Jakoubi, *Secure Business Austria, Austria*
Simon Tjoa, *Secure Business Austria, Austria*

Message from ARES General Co-Chairs

The Fourth International Conference on Availability, Reliability and Security (ARES 2009 – The International Dependability Conference) brings together researchers and practitioners in the area of dependability. ARES 2009 highlights the various aspects of dependability, with special focus on the crucial linkage between availability, reliability and security.

ARES aims at a full and detailed discussion of research issues in the field of dependability as an integrative concept that covers amongst others availability, safety, confidentiality, integrity, maintainability and security and their different areas of applications.

This conference emphasizes the interplay between foundations and practical issues of dependability in areas such as information systems, e-government, m-government, location-based services, ubiquitous computing, and autonomous computing.

This year's ARES conference is devoted to establishing collaborations between different sub-disciplines and building a strong community for further research.

We are very happy to welcome three well-known keynote speakers:

- Elisa Bertino, *Purdue University*
- Sushil Jajodia, *George Mason University Fairfax*
- Eiji Okamoto, *Tsukuba University*

From many submissions we have selected the 40 best for a presentation as full paper. The quality and quantity of submissions have improved considerably over the last years and the conference officers sometimes faced a difficult decision when selecting which papers should be accepted. This year's acceptance rate has decreased to 25% for full papers. In addition, several workshops and short papers show ongoing research projects and offer interesting starting points for discussions.

We wish all participants an enjoyable conference and interesting discussions.

General Co-Chairs

Makoto Takizawa, *Sekei University, Japan*
A Min Tjoa, *Vienna University of Technology, Austria*

Message from ARES Workshop Co-Chairs

Welcome to the Workshops of the 4th International Conference on Availability, Reliability and Security (ARES) which is held at the Fukuoka Institute of Technology, Fukuoka, Japan from March 16 -19, 2009.

The workshops are very important events for ARES as they provide an essential platform for researchers of various domains to present and discuss their current results. This year we can offer the conference attendees' 10 workshops which range from "start-ups" to well-established ones supporting ARES the fourth year.

The succeeding listing comprises the workshops of ARES 2009:

1. The Forth International Workshop on Dependability Aspects on Data Warehousing and Mining applications (DAWAM-2009)
2. The Fourth International Workshop on Frontiers in Availability, Reliability and Security (FARES 2009)
3. The Third International Workshop on Secure Software Engineering (SecSE-2009)
4. The Third Workshop on Advances in Information Security (WAIS-2009)
5. The Second International Workshop on Digital Forensics (WSDF-2009)
6. The First International Workshop on Global Information Security for an Inclusive Information Society (GloSec-2009)
7. The First International Workshop on Sensor Security (IWSS-2009)
8. The First International Workshop on Organizational Security Aspects (OSA-2009)
9. The First International Workshop on Recent Innovations and Breakthroughs in Cryptography (RIBC-2009)
10. The First International Workshop on Security and Usability (SecUSAB-2009)

These workshops are organized each on specific topics and thus offer researchers the opportunity to learn from this rich multi-disciplinary experience. The Workshop Chairs would like to thank the workshop organizers for their great efforts and hard work in proposing the workshop, selecting the papers, the interesting programs and for the arrangements of the workshops during the conference days.

We are grateful to Amin Anjomshoaa for his excellent work and support with the Confdriver system. We also would like to thank the support of the webmasters' team of ARES-2009 and CISIS-2009 conferences and the local organization team at Fukuoka Institute of Technology.

We would like to give special thanks to Mr. Yoji Unoki, Chairman of Board of Trustees of FIT for hosting CISIS-2009, providing the university facilities and his continuous support. We would like to thank Fukuoka Convention Bureau for their great support, help, advices and local arrangement. We are grateful to Fukuoka City and Human Line Corporation (HLC) for the financial support. We also thank Fukuoka Institute of Technology and Secure Business Austria as sponsors of our conference.

We hope you enjoy the workshops programs and proceedings.

ARES International Conference Workshops' Co-Chairs

Leonard Barolli, *Fukuoka Institute of Technology, Japan*
Stefan Jakoubi, *Secure Business Austria, Austria*
Simon Tjoa, *Secure Business Austria, Austria*

ARES Keynotes & Invited Talk

Keynote of Prof. Eiji Okamoto (Tsukuba University)

Pairing based cryptography - theory, implementations and applications

Pairing based cryptography is a new and important research area in security. It has a significant property, bilinearity, and using this, a lot of new protocols are proposed recently. In this talk, pairing function is introduced, and then its fast computation algorithm and implementation on hardware and software are shown. Finally its applications to cryptography are introduced.

Keynote of Prof. Sushil Jajodia (George Mason University)

Topological Analysis of Network Attack Vulnerability

This talk will discuss issues and methods for survivability of systems under malicious attacks. To protect from such attacks, it is necessary to take steps to prevent attacks from succeeding. At the same time, it is important to recognize that not all attacks can be averted at the outset; attacks that are successful to some degree must be recognized as unavoidable and comprehensive support for identifying and responding to attacks is required.

In my talk, I will describe the recent research on attack graphs that represent known attack sequences attackers can use to penetrate computer networks. I will show how attack graphs can be used to compute actual sets of hardening measures that guarantee the safety of given critical resources. Attack graphs can also be used to correlate received alerts, hypothesize missing alerts, and predict future alerts, all at the same time. Thus, they offer a promising solution for administrators to monitor and predict the progress of an intrusion, and take appropriate countermeasures in a timely manner.

Keynote of Prof. Elisa Bertino (Purdue University)

Digital Identity Protection - Concepts and Issues

Digital identity management (DIM) has emerged as a critical foundation for supporting successful interaction in today's globally interconnected society. It is crucial not only for the conduct of business and government but also for a large and growing body of electronic or online social interactions.

Digital identity management is usually coupled with the notion of federation. The goal of federations is to provide users with protected environments to federate identities by the proper management of identity attributes. Federations provide a controlled method by which federation members can provide more integrated and complete services to a qualified group of individuals within certain sets of business transactions. By controlling the scope of access to participating sites, and by enabling secure, cross-domain transmission of user's personal information, federations can make the perpetration of identity frauds more difficult, as well as reduce their frequency, and their potential impact. In this talk we will first discuss basic digital identity concepts and requirements towards DIM solutions and we will overview relevant initiatives currently undergoing in academia and industry. We will then focus on the problem of identity theft and discuss an initial solution to the problem of establishing and protecting digital identity.

Invited Talk of Prof. Solange Ghernaouti-Hélie (University of Lausanne)

Integrative security approach as a key success factor of dependability

To raise the level of dependability of information and communication infrastructures, a comprehensive and integrated approach to ICT security is necessary. At the crossroads of technological, legal, sociological, economic, and political fields, information and communication security is interdisciplinary by nature. The effectiveness of ICT security relies upon how a large range of strategic and operational requirements is addressed. Major issues related to the necessity for, and the complexity of, an integrated security approach are discussed from both global and specific local perspectives.

Message from DAWAM Workshop Co-chairs

The rapid growth of information technologies has brought tremendous opportunities for data sharing, integration, and analysis across multiple distributed, heterogeneous data sources. In the past decade, data warehousing and mining are the well-known technologies used for data analysis and knowledge discovery in vast domain of applications.

A growing attention has been paid to the study, development and application of data warehousing and mining. Nevertheless, dependability aspects in these applications such as availability, reliability, integrity, privacy and security issues are still being investigated. For example, in data warehousing applications, privacy considerations may prevent the approach of collecting data into the centralized warehouse because each data source has different privacy policy. Furthermore, the complexity of security increases as different sources of information are combined. Reliable, consistent and trustworthy of information are also significant requirements in data warehousing applications. Data mining has been shown to be beneficial in confronting various types of attacks to computer systems such as fraud detection, intrusion prevention. In some applications, e.g. clinic information system, government management, business competitive information, it is required to apply the mining algorithms without observing the confidential data values thus demands the privacy preservation. There are also many challenging issues that need further investigation in the context of data mining from both privacy and security perspectives such as mining of imbalanced data, bioinformatics data, streaming data, ubiquitous computing data, grid computing data etc.

Starting from the beginning of the ARES conference in 2006, the DAWAM workshop (workshop on "Dependability Aspects on Data Warehousing and Mining applications"), like ARES, will reach the 4th year in 2009. Previous DAWAM workshops were held at Vienna University of Technology, Austria on April 20-22, 2006 (DAWAM 2006), April 10-13, 2007 (DAWAM 2007), Polytechnic University of Catalonia, Barcelona, Spain, March 4-7, 2008 (DAWAM 2008). This year, DAWAM 2009 will be held at Fukuoka Institute of Technology, Fukuoka, Japan, March 16-19, 2009.

The goals of this workshop are to bring together users, engineers and researchers (from industry and academy) alike to present their recent work, discuss and identify problems, synergize different views of techniques and policies, and brainstorm future research directions on various dependability aspects of data warehousing and data mining applications. We strongly encourage researchers and practitioners with interest in the areas of reliability, availability, privacy and security, databases, data warehousing, data mining, and statistics to submit their experience, and/or research results. This year 2009 DAWAM workshop has accepted 10 papers out of more than 30 submissions.

We would like to express our gratitude to all of the Programme Committee members and the external reviewers who reviewed the papers very profoundly and in a timely manner. We would also like to thank to all of the authors who submitted their papers to DAWAM 2009, as their high-quality contributions formed the basis of this year's workshop's excellent technical program.

DAWAM Workshop Co-Chairs & Organizing Committee

Bhavani Thuraisingham, *University of Texas at Dallas, USA*
Nguyen Manh Tho, *Vienna University of Technology, Austria*

Message from FARES Workshop Co-chairs

The Forth Workshop on Frontiers of Availability, Reliability and Security (FARES 2009) facilitates the communication and exchange of experts of different research areas that in some way address aspects of dependability or security such as confidentiality, integrity, availability, reliability maintainability, and safety.

FARES' main aim is to provide a platform and meeting point to discuss ongoing research and, at the same time, attend the ARES conference. Both established researchers and PhD students have the opportunity to present and discuss their intermediate results and take some of the audience's feedback to further improve their work.

From many submissions we have selected the 12 good papers for a presentation at this workshop. Active participation in the workshop is the best way to get to know researchers that work on similar topics, to create lasting international networks, and ultimately, to make a difference in the ever-growing research area of security.

We wish all participants an enjoyable workshop, and challenging and interesting discussions.

FARES Workshop Co-Chairs & Organizing Committee

A Min Tjoa, *Vienna University of Technology, Austria*
Edgar Weippl, *Secure Business Austria, Austria*

Message from GloSec Workshop Chair

An information society and a knowledge economy are constrained by the development of an effective cyber security framework. The validity of such a framework requires a challenging multidimensional information security approach.

Complementary legal, technical, procedural and economic measures have to be proposed in parallel in order to develop efficient solution for individuals, organisations and States. The 2009 GloSec workshop investigates some technical, managerial and procedural information security related issues as well as experiences in national strategies, organisational structures, cyber security capacities building and international cooperation.

The output of this workshop will contribute to identify good practices in developing information security policies and operational strategies to enforce confidence in the use of information and communication technologies.

GloSec Workshop Chair & Organizing Committee

Solange Ghernaouti-Hélie, *University of Lausanne, Switzerland*

Message from IWSS Workshop Co-chairs

Wireless networks have experienced an explosive growth during the last few years. Nowadays, there is a large variety of networks spanning from the well-known cellular networks to non-infrastructure wireless networks such as mobile ad hoc networks and sensor networks. Technologies such as Near Field Communication, RFID and other wireless sensors are already part of our everyday life.

For the consumer unnoticed and simple to use, they are a popular alternative to conventional communication channels. With the integration of these technologies into everyday devices like mobile phones, new possibilities for applications and services arise. Besides their potential advantages, these new generations of networks and technologies also raise some challenging problems with respect to security and privacy.

The central aim of this workshop is to bring together users, engineers and researchers from industry and academy to discuss and identify security and privacy issues related to sensor technologies and applications on top.

IWSS Workshop Co-Chairs & Organizing Committee

Gerald Madlmayr, *Research Associate at NFC Research Lab, Hagenberg, Austria*
Josef Langer, *Near Field Communication Research Lab, Hagenberg, Austria*
Josef Scharinger, *Department of Computational Perception, Austria*

Message from OSA Workshop Chairs

In today's global economy, where conditions change often and rapidly, the efficiency and effectiveness of the execution of business processes has become a central issue. As these processes depend on the assigned resources, a considerable optimization focus lies on the minimization of the resources' costs and simultaneously on the maximization of their returns. Another critical factor, which substantially influences the ability to compete, is the continuous operation of a company's business processes. The reasons why the execution of business processes may be interrupted are manifold and are addressed by several fields of research.

Exercising for instance strong computer security is a company's crucial task in order to strengthen the resilience of IT systems against arising threats. However, the most sophisticated technical security techniques will fail, if there is no adequate organizational structure covering the appropriate planning, design and implementation of these techniques. Furthermore, processes within the companies have to be set up, lived and monitored to continuously improve the company's ability to survive while simultaneously maximizing its returns.

We therefore look forward to the discussions developing around an interesting range of topics represented by the nine papers accepted for this workshop.

OSA Workshop Co-Chairs & Organizing Committee

Gerald Quirchmayr, *University of Vienna, Austria*
Stefan Jakoubi, *Secure Business Austria, Austria*
Simon Tjoa, *Secure Business Austria, Austria*

Message from RIBC Workshop Co-chairs

It is our great pleasure to welcome you to The First International Workshop on Recent Innovations and Breakthroughs in Cryptography (RIBC-2009), to be held on March 16-19, 2009 at Fukuoka Institute of Technology in the city of Fukuoka, Japan. Cryptography is an essential aspect of securing information over any type of communications' networks and it has been a more urgent need for everyone concerned about the security of their information. The RIBC-2009 aims at stimulating technical exchange in the emerging and important field of cryptography.

The program of the workshop provides a variety of research topics which are of current interest, such as Cryptography System on Elliptic Curves, Watermarking, Authentication, Confidentiality and Nonrepudiation. I invite all of you to join us and interact with experts in cryptography and its applications and it will be a remarkable experience.

We would like to thank Professor Leonard Barolli, Fukuoka Institute of Technology, Japan and Akio Koyama, Yamagata University, Japan who gave us this a great opportunity to organize this workshop. We would like to extend our sincere thanks and appreciation to the exceptional work rendered by Advisory Chairs as well as the TPC members who made a high quality review under a tight schedule.

We wish you will enjoy this international Workshop and you will find it a valuable forum for the exchange of opinions. We also hope that you will able to spend some time to visit the host city Fukuoka with its beautiful landscapes and its cultural attractions.

RIBC Workshop Co-chairs

Tomoyuki Nagase, *Hirosaki University, Japan*
Hamid Sharif, *University of Nebraska-Lincoln, USA*
Mitsuru Matsui, *Mitsubishi Electric, Japan*

Message from SecSE Workshop Co-chairs

We the chairs of the Third International Workshop on Secure Software Engineering, in order to enable you to form more perfect software, establish correctness, insure software tranquility, provide for the common digital defense, promote the general welfare, and secure the blessings of liberty from vulnerabilities, are pleased to welcome you to the third incarnation of our workshop, in lovely Fukuoka, Japan.

Although we hold the truths of secure software engineering to be self-evident, it is obvious that this does not necessarily hold a high priority with all software developers, some of whom still see security only as an added cost. This year's workshop builds on the previous successful workshops in Vienna (SecSE 2007) and Barcelona (SecSE 2008), and ventures to present a broad spectrum of quality workshop papers, ranging from teaching software security, via checklists, to full secure software development lifecycle approaches. Due to a 33% increase in number of submitted papers, not all relevant papers could be accepted, but this gives us all the more reason to congratulate this year's authors on their achievement.

SecSE Workshop Co-chairs & Organizing Committee

Torbjørn Skramstad, *Norwegian University of Science and Technology, Norway*
Lillian Røstad, *Norwegian University of Science and Technology, N*orway
Martin Gilje Jaatun, *SINTEF Information and Communication Technology, Norway*

Message from SECUSAB Workshop Co-chairs

The central aim of this workshop is to make aware of usability and human issues in the context of availability, reliability and security, because Human-Computer Interaction (HCI) and Usability Engineering (UE) traditionally play a limited role in secure systems development, especially in safe critical areas including medicine, health care, aviation etc.

However, there is increasing insight amongst engineers that security problems can be solved only by addressing issues of usability and human factors. Increasingly, well-publicized security breaches are attributed to human errors that might have been prevented through more usable software. The study of attention, motivation, learning, reasoning, acceptance and end-user behavior addresses important issues for secure applications, but it is essential that these topics are integrated into engineering at systemic level. The aim of this workshop is to further stimulate the awareness that we need to design and develop secure systems that untrained people can actually use - therefore we need to bring together experts from Psychology, Pedagogy and Computer Science.

We would like cordially to thank our colleagues for their ongoing support: Patricia A. Abbottfriedman, Johns Hopkins University, United States; Ray Adams, Middlesex University London and Cambridge University, United Kingdom; Henning Boje Andersen, Risoe National Laboratory, Danish Technical University, Roskilde, Denmark; Sheikh Iqbal Ahamed, Marquette University, United States; Noelle Carbonell, Université Henri Poincare Nancy, France; Lorrie Faith Cranor, Carnegie Mellon University, Pittsburgh, United States; Matjaz Debevc, University of Maribor, SI; Alan Dix, Lancaster University, United Kingdom; Pier Luigi Emiliani, National Research Council, Florence, Italy; Regina Geierhofer, Siemens Health Care, Erlangen, DE; Bin Hu, Birmingham City University, United Kingdom; Bo Hu, University of Southampton, United Kingdom; Ebba P. Hvannberg, University of Iceland, Reykjavik, Iceland; Julie Jacko, Georgia Institute of Technology, United States; Chris Johnson, University of Glasgow, United Kingdom; Homa JAVAHERY, Concordia University, Montreal, CA; Zhengjie LIU, Dalian Maritime University, CN; ZongKai LIN, Chinese Academy of Science, Peking, CN; Shogo NISHIDA, Osaka University, JP; Hiromu NISHITANI, University of Tokushima, JP; Nuno J NUNES, University of Madeira, PT; Anne-Sophie NYSSEN, Université de Liege, BE; Ant A OZOK, University of Maryland Baltimore County UMBC, Baltimore, US; Philipe PALANQUE, Université Toulouse, FR; Helen PETRIE, University of York, UK; Margit POHL, Vienna University of Technology, TU Wien, AT; Karen V. RENAUD, University of Glasgow, UK; Anthony SAVIDIS, ICS FORTH, Heraklion, GR; Albrecht SCHMIDT, University of Duisburg-Essen, DE; Ahmed SEFFAH, Concordia University, Montreal, CA; Yuanchun SHI, Tsinghua University, Beijing, CN; Klaus-Martin SIMONIC, Medical University Graz, AT; Hironomu TAKAGI, Tokyo Research Laboratory, IBM Research, JP; A Min TJOA, Vienna University of Technology, TU Wien, AT; Jeff YAN, University of Newcastle, UK.

SECUSAB Workshop Co-Chairs & Organizing Committee

Andreas Holzinger, *Medical University Graz, Austria*
Artur Lugmayr, *Tampere University of Technology, Finland*
Marilyn Sue Bogner, *International Society for Microbial Ecology Bethesda, USA*

Message from WAIS Workshop Chairs

It is our great pleasure to welcome you in Fukuoka for the Third International Workshop on Advances in Information Security (WAIS 2009). The workshop is held in conjunction with the Fourth International Conference on Availability, Reliability and Security (ARES) on March 16th -19th, 2009, at the Fukuoka Institute of Technology (FIT), Fukuoka, Japan.

As computing systems have begun to pervade every aspect of daily life, people need to be able to trust them—so much of their lives depend on them. Today, many of these systems are far too vulnerable to cyber attacks that can inhibit their operation, corrupt valuable data, or expose private information. Future systems will include sensors and computers everywhere, exacerbating the attainment of security and privacy. Current security practices largely address current and known threats, but there is a need for research to take account future threats too.

The goal of this third meeting is to bring together computer scientists, industrial engineers and researchers to discuss and exchange experimental or theoretical results, novel designs, work-in-progress, experience, case studies, and trend-setting ideas in the area of Information Security. Papers collected in this international workshop were carefully reviewed by at least two reviewers. According to the review results, the program committee members selected 18 papers to be presented in this workshop.

The WAIS workshop is held in an exciting and stimulating atmosphere, at the Fukuoka Institute of Technology, in Fukuoka, Japan. Finally, we would like to thank all the authors for submitting their research works to the workshop as well as to the authors of accepted papers for their participation and presentation of the papers in the workshop.

We look forward to meeting you all again at WAIS 2010.

WAIS Workshop Co-chairs & Organizing Committee

Leonard Barolli, *Fukuoka Institute of Technology, Japan*
Arjan Durresi, *Indiana University Purdue University Indianapolis, USA*
Hiroaki Kikuchi, *Tokai University, Japan*

Message from WSDF Workshop Chairs

As a discipline, Digital Forensics is constantly evolving to the investigative needs of a changing society. The number and power of devices has dramatically increased along with the acceptance and embedding of electronics in society. As technologies are misused, Digital Forensics must be able to secure and analyze devices to create an understanding of what has occurred.

There is a number of challenges facing the field; increasing sophistication of electronics, the range of data being held, use of anti-forensic technologies, and an ability to convey meaning from increasing volumes of data. All work must also be conducted within a legal framework to ensure that an outcome may be suitable for the legal system. Given these technical challenges and operational constraints, research is an important aspect of this field, working to both solve current practitioner issues and to proactively encounter issues faced in the future.

The six papers in this conference represent a mixture of the social, political and technical issues currently facing Digital Forensics and also are looking to proactively solve future issues. We look forward to the discussions that will develop around the range of topics represented in the accepted papers.

WSDF Workshop Co-chairs

Jill Slay, *University of South Australia, Australia*
Benjamin Turnbull, *University of South Australia, Australia*
Barry Blundell, *Auckland University of Technology, New Zealand*
Rodney McKemmish, *University of South Australia, Australia*

WSDF Workshop Organization Committee

Jill Slay, *University of South Australia, Australia*
Benjamin Turnbull, *University of South Australia, Australia*
Barry Blundell, *Auckland University of Technology, New Zealand*
Rodney McKemmish, *University of South Australia, Australia*
Michael Lavine, *Johns Hopkins University, USA*

ARES & ARES WORKSHOP PROGRAM

Monday, Mar 16, 2009

08:30 – 09:00 Single Session

Welcome and Opening Ceremony (ARES and CISIS) - UG

09:00 – 10:30 Single Session

ARES Keynote 1 - UG
Chair: A Min Tjoa, *Vienna University of Technology, Austria*

Pairing based cryptography - theory, implementations and applications
Keynote Prof. Eiji Okamoto (Tsukuba University)

10:30 – 11:00 Coffee Break

11:00 – 12:30 Parallel Sessions

ARES Full 1A: SOA Security – B38
Chair: Benjamin Turnbull, *University of South Australia, Australia*

1. The Accountability Problem of Flooding Attacks in Service-Oriented Architectures
   Meiko Jensen, Jörg Schwenk
2. Web Service Trust:Towards A Dynamic Assessment Framework
   George Spanoudakis, Stephane LoPresti
3. Security Requirements Specification in Service-oriented Business Process Management
   Michael Menzel, Ivonne Thomas, Christoph Meinel

ARES Full 1B: Distributed Systems and Grid – B32
Chair: Frank Innerhofer-Oberperfler, *University of Innsbruck, Austria*

1. A Pluggable Domain Management Approach for Building Practical Distributed Coalitions
   Yasuharu Katsuno, Yuji Watanabe, Michiharu Kudo, Eiji Okamoto
2. Retaining Data Control to the Client in Infrastructure Clouds
   Marco Descher, Philip Masser, Thomas Feilhauer, A Min Tjoa, David Huemer
3. Workflows in Dynamic and Restricted Delegation
   Mehran Ahsant, Jim Basney

ARES Short 1: Dependable Systems and Trusted Computing – B33
Chair: Antonio Muñoz, *University of Malaga, Spain*

1. A Micro-FT-UART for Safety-Critical SoC-Based Applications
   Mohammad-Hamed Razmkhah, Seyed Ghassem Miremadi, Alireza Ejlali
2. MixVM - An Approach to Service Isolation and Data Protection in Mobile Context-Sensitive Applications
   Thomas Butter, Markus Aleksy
3. On the Security of Untrusted Memory
   Jörn-Marc Schmidt, Stefan Tillich

OSA 1: Security Management and Education – B34
Chair: Gerald Quirchmayr, *University of Vienna, Austria*

1. Haste in knowledge-intensive work in organizations: A major threat to information security management in business environments
   Juhani Anttila, Jorma Kajava
2. Standards-Based Cyber Exercises
   Ronald Dodge, Brian Hay, Kara Nance
3. Patterns to support the development of privacy policies
   Luanna Lopes Lobato, Eduardo Fernandez

WAIS 1: Security Analysis – B36
Chair: Hiroaki Kikuchi, *Tokai University, Japan*

1. Rank swapping for partial orders and continuous variables
   Vicenc Torra
2. An improved Authentication Protocol based on One-Way Hash Functions and Diffie-Hellman Key Exchange
   Marko Hölbl, Tatjana Welzer
3. Security Analysis for P2P Routing Protocols
   Tatsuro Fujii, Yoshiaki Hori, Kouichi Sakurai

RIBC 1: Invited Talk – B35
Chair: Tomoyuki Nagase, *Hirosaki University, Japan*

On the Higher Order Nonlinearities of Boolean Functions and S-boxes
Invited Talk of Claude Carlet (University of Caen)

12:30 – 14:00 Lunch Break

14:00 – 15:30 Parallel Sessions

ARES Full 2A: Enterprise Security – B38
Chair: Ludwig Fuchs*, University of Regensburg, Germany*

1. Quantitative analysis of secure information flow via Probabilistic Semantics
   Chunyan Mu, David Clark
2. Deploying security policy in intra and inter Workflows Management Systems
   Samiha ayed, Nora Cuppens-Boulahia, Frederic Cuppens
3. An empirically derived loss taxonomy based on publicly known security incidents
   Frank Innerhofer-Oberperfler, Ruth Breu

ARES Full 2B: Intrusion and Fraud Detection – B32
Chair: Michael Menzel, *Hasso-Plattner-Institute, Germany*

1. Defeating Dynamic Data Kernel Rootkit Attacks via VMM-based Guest-Transparent Monitoring
   Junghwan Rhee, Ryan Riley, Xuxian Jiang, Dongyan Xu
2. Server-side Prediction of Source IP Addresses using Density Estimation
   Markus Goldstein, Matthias Reif, Armin Stahl, Thomas Breuel
3. Detecting Stepping-Stone Connection using Association Rule Mining
   Ying-Wei Kuo, Shou-Hsuan Huang

ARES Short 2: Dependable Systems and Trusted Computing – B33
Chair: Jörn-Marc Schmidt, *Graz University of Technology, Austria*

1. Detecting Image Tampering Using Feature Fusion
   Pin Zhang, Xiangwei Kong
2. SecMiLiA: An Approach in the Agent Protection
   Antonio Muñoz, Antonio Maña, Daniel Serrano
3. Traffic Controller: A Practical Approach to Block Network Covert Timing Channel
   Yi Wang, Yi Ge, Bing Mao, Li Xie

OSA 2: Risk Management – B34
Chair: Gerald Quirchmayr, *University of Vienna, Austria*

1. A New Approach for the Construction of Fault Trees from System Simulink Model
   Golamreza Latif-Shabgahi, Fahimeh Tajarrod
2. Estimating ToE Risk Level using CVSS
   Siv Hilde Houmb, Virginia N. L. Franqueira
3. Comparison of Risk Analysis Methods: Mehari, Magerit, NIST800-30 and Microsoft's Security Management Guide
   Amril Syalim, Yoshiaki Hori, Kouichi Sakurai

WAIS 2: Network Security – B36
Chair: Arjan Durresi, *IUPUI, USA*

1. Secrecy Capacity of Wireless LAN
   Ryuzou Nishi,, Yoshiaki Hori, Kouichi Sakurai
2. Privacy-Preserving Collaborative Filtering
   Hiroaki Kikuchi, Hiroyasu Kizawa, Minako Tada
3. A Framework for Understanding Botnets
   Justin Leonard, Shouhuai Xu, Ravi Sandhu

RIBC 2: Authentication, Watermarking, and Cryptosystems – B35
Chair: Tomoyuki Nagase, *Hirosaki University, Japan*

1. Real-Time Audio Watermarking with Wavetable Alternation in Digital Instrument
   Kotaro Yamamoto, Munetoshi Iwakiri
2. A Reconfigurable-Permutation Algorithm for M_S-Box
   Hiroshi Kodo, Shunn-ichiro Nakayama, Atsushi Watanabe, Tomoyuki Nagase , Yoshio Yoshioka

15:30 – 16:00 Coffee Break

16:00 – 18:00 Parallel Sessions

ARES Full 3A: Enterprise Security 2 – B38
Chair: Frank Innerhofer-Oberperfler, *University of Innsbruck, Austria*

1. Formal Analyses of Usage Control Policies
   Alexander Pretschner, Judith Rüesch, Christian Schaefer, Thomas Walter
2. A First Step Towards Characterizing Stealthy Botnets
   Justin Leonard, Shouhuai Xu, Ravi Sandhu
3. Intrusion Process Modeling for Security Quantification
   Jaafar Almasizadeh, Mohammad Abdollahi Azgomi
4. Different Approaches to in-house Identity Management - The Justification of an Assumption
   Ludwig Fuchs, Christian Broser, Günther Pernul

ARES Full 3B: Digital Forensics and Security in Communication – B32
Chair: George Spanoudakis, *City University, UK*

1. An LPN-problem-based Lightweight Authentication Protocol for Wireless Communications
   Ya-Fen Chang, Yen-Cheng Lai
2. Revealing the Calling History on SIP VoIP Systems by Timing Attacks
   Ge Zhang, Simone Fischer-Hübner, Leonardo Martucci, Sven Ehlert
3. The Anatomy of Electronic Evidence – Quantitative Analysis of Police E-Crime Data
   Benjamin Turnbull, Robert Taylor, Barry Blundell
4. A Robust Image Watermarking using Two Level DCT and Wavelet Packets Denoising
   Amir Hossein Taherinia, Mansour Jamzad

ARES Short 3: Software Security – B33
Chair: Jörn-Marc Schmidt, *Graz University of Technology, Austria*

1. Capturing Information Flow with Concatenated Dynamic Taint Analysis
   Hyung Chan Kim, Angelos D. Keromytis, Michael Covington, Ravi Sahita
2. Risk-driven architectural decomposition
   Thomas Heyman, Riccardo Scandariato, Wouter Joosen
3. Reducing the Cost of Session Key Establishment
   Bruhadeshwar Bezawada, Kishore Kothapalli, Sreedeepya Maddi

OSA 3: Security Management – B34
Chair: Gerald Quirchmayr, *University of Vienna, Austria*

1. Multidimensional Management of Information Security – A metrics based Approach merging Business and Information Security Topics
   Sebastian Sowa, Roland Gabriel
2. A Security Management Assurance Model to holistically assess the Information Security posture
   Solange Ghernaouti-Hélie, Igli Tashi
3. Methodology to Align Business and IT Policies: Use case from an IT Company
   Christophe Feltus, Christophe Incoul, Jocelyn Aubert, Benjamin Gâteau, André Adelsbach, Marc Camy

WAIS 3: Signature and Protection – B36
Chair: Hiroaki Kikuchi, *Tokai University, Japan*

1. Enterprise-oriented Digital Rightms Management Mechanism: eDRM
   Chia-Chen Lin, Shih-Chi Wu, Po-Hsuan Chiang, Chang-Chi Chen
2. Utility and Risk of JPEG-based Continuous Microdata Protection Methods
   Javier Jimenez, Vicenç Torra
3. Towards efficient ID-based signature schemes with batch verifications from bilinear pairings
   Yuh-Min Tseng, Tsu-Yang Wu, Jui-Di Wu
4. Yet Another Sanizable Signature from Bilinear Maps
   Tetsuya Izu, Noboru Kunihiro, Kazuo Ohta, Makoto Sano, Masahiko Takenaka

RIBC 3: Authentication, Watermarking, and Steganography – B35
Chair: Tomoyuki Nagase, *Hirosaki University, Japan*

1. A Certificate Revocable Anonymous Authentication Scheme with Designated Verifier
   Keita Emura, Atsuko Miyaji, Kazumasa Omote
2. A Standard MIDI File Steganography Based on Fluctuation of Duration
   Kotaro Yamamoto, Munetoshi Iwakiri
3. A Signature Scheme Associated with Universal Re-signcryption
   Kohei Tatara, Kouichi Sakurai

Tuesday, Mar 17, 2009

09:00 – 10:30 Single Session

ARES Keynote 2 - UG
Chair: Edgar Weippl, *Vienna University of Technology, Austria*

Digital Identity Protection - Concepts and Issues
Keynote Prof. Elisa Bertino (Purdue University)

10:30 – 11:00 Coffee Break

11:00 – 12:30 Parallel Sessions

ARES Full 4A: Software Security 1 – B38
Chair: Koen Buyens, *IBBT-Distrinet Katholieke Universiteit Leuven, Belgium*

1. Prioritisation and Selection of Software Security Activities
   David Byers, Nahid Shahmehri
2. BRICK: A Binary Tool for Run-time Detecting and Locating Integer-based Vulnerability
   Chen Ping, Wang Yi, Xin Zhi, Mao Bing, Xie Li
3. Enhancing Automated Detection of Vulnerabilities in Java Components
   Pierre Parrend

ARES Full 4B: Availability and Reliability 1 – B32
Chair: Raimundo Macedo*, Federal University of Bahia, Brazil*

1. On Equilibrium Distribution Properties in Software Reliability Modeling
   Xiao Xiao, Tadashi Dohi
2. An Analysis of Fault Effects and Propagations in AVR Microcontroller ATmega103(L)
   Alireza Rohani, Hamid reza Zarandi
3. Blue Gene/L log analysis and Time to Interrupt Estimation
   Narate Taerat, Nichamon Naksinehaboon, Clayton Chandler, James Elliott, Chokchai Leangsuksun, George Ostrouchov, Stephen L. Scott, Christian Engelmann

ARES Full 4C: Cryptography – B33
Chair: Gerald Quirchmayr, *University of Vienna, Austria*

1. A New Approach for Implementing the MPL Method toward Higher SPA Resistance
   Masami Izumi, Kazuo Ohta, Kazuo Sakiyama
2. On Privacy Preserving Convex Hull
   Sandeep Hans, Sarat Addepalli, Anuj Gupta, Kannan Srinathan
3. Routing Protocol Security Using Symmetric Key Based Techniques
   Bruhadeshwar Bezawada, Kishore Kothapalli, Poornima M

ARES Short 4A: Privacy and Trust – B34
Chair: Simon Tjoa, *Secure Business Austria, Austria*

1. Accuracy: The Fundamental Requirement for Voting Systems
   Tim Storer, Russel Lock
2. Reusable Security Requirements for Healthcare Applications
   Jostein Jensen, Inger Anne Tøndel, Martin Gilje Jaatun, Per Håkon Meland, Herbjørn Andresen
3. P2F: A User-Centric Privacy Protection Framework
   Maryam Jafari-Lafti, Chin-Tser Huang, Csilla Farkas

ARES Short 4B: Enterprise Security and Security Evaluation 1 – B35
Chair: Antonio Muñoz, *University of Malaga, Spain*

1. Cost-benefit trade-off analysis of an ISMS based on ISO 27001
   Wolfgang Boehmer
2. Methodology for Experimental ICT Industrial and Critical Infrastructure Security Tests
   Igor Nai Fovino, Marcelo Masera
3. Ascertaining the Financial Loss from Non-dependable Events in Business Interactions by Using the Monte Carlo Method
   Omar Hussain, Tharam Dillon

WAIS 4: Secure Systems – B36
Chair: Leonard Barolli, *Fukuoka Institute of Technology, Japan*

1. Generation of Prototypes for Masking Sequences of Events
   Aida Valls, Cristina Gómez-Alonso, Vicenç Torra
2. Enhancing Control of Service Compositions in Service-Oriented Architectures
   Christian Schneider, Frederic Stumpf, Claudia Eckert
3. Truly Anonymous Paper Submission and Review Scheme
   Chun-I Fan, Ming-Te Chen, Lung-Hsien Chen
4. An Implementation of the Binding Mechanism in the Web Browser for Preventing XSS Attacks: Introducing the Bind-Value Headers
   Genta Iha, Hiroshi Doi

12:30 – 14:00 Lunch Break

14:00 – 15:30 Single Session

ARES Keynote 3 - UG
Chair: Edgar Weippl, *Vienna University of Technology, Austria*

Topological Analysis of Network Attack Vulnerability
Keynote Prof. Sushil Jajodia (George Mason University)

15:30 – 18:00 Coffee Break

16:00 – 18:00 Parallel Sessions

ARES Full 5A: Software Security 2 – B38
Chair: Pierre Parrend, *FZI Karlsruhe, Germany*

1. Automated Support for Security Requirements Engineering in Software Product Line Domain Engineering
   Daniel Mellado, Jesus Rodriguez, Eduardo Fernandez-Medina, Mario Piattini
2. Identifying and Resolving Least Privilege Violations in Software Architectures
   Koen Buyens, Bart De Win, Wouter Joosen
3. A Test Framework for Assessing Effectiveness of the Data Privacy Policy's Implementation into Relational Databases
   Corrado Visaggio, Gerardo Canfora, Vito Paradiso

ARES Full 5B: Availability and Reliability 2 – B32
Chair: Narate Taerat, *Louisiana Tech University, USA*

1. Improving Reliability for Multi-home Inbound Traffic: MHLB/I Packet-Level Inter-domain Load-Balancing
   Hiroshi Fujinoki
2. Proactive Resource Management for Failure Resilient High Performance Computing Clusters
   Dr. Song Fu, Dr. Cheng-Zhong Xu
3. A Perceptron Neural Network for Asymmetric Comparison-Based System-Level Fault Diagnosis
   Mourad Elhadef
4. Perfect Failure Detection in the Partitioned Synchronous Distributed System Model
   Raimundo Macedo, Sergio Gorender

ARES Full 5C: Privacy and Trust – B33
Chair: Ludwig Fuchs*, University of Regensburg, Germany*

1. Specification of Anonymity as a Secrecy Property in the ADM Logic - Homomorphic-based Voting Protocols
   Mehdi Talbi, Valérie Viet Triem Tong, Adel Bouhoula
2. Measuring Voter-controlled Privacy
   Hugo Jonker, Jun Pang, Sjouke Mauw
3. Generating User-understandable Privacy Preferences
   Jan Kolter, Günther Pernul
4. An Automatic Privacy Policy Agreement Checker for E-Services
   George Yee

ARES Short 5: Enterprise Security and Security Evaluation 2 – B34
Chair: Gerald Quirchmayr, *University of Vienna, Austria*

1. Building a Responsibility Model Including Accountability, Capability and Commitment
   Christophe Feltus, Michael Petit
2. AVISPA in the Validation of Ambient Intelligence Scenarios
   Antonio Muñoz, Antonio Maña, Daniel Serrano
3. Security Evaluation of an Intrusion Tolerant System with MRSPNs
   Ryutaro Fujimoto, Hiroyuki Okamura, Tadashi Dohi
4. Algebraic Properties in Alice and Bob Notation
   Sebastian Mödersheim

FARES 1: Authentication and Authorization – B35
Chair: Frederik Orellana, *University of Copenhagen, Denmark*

1. QR-TAN: Secure Mobile Transaction Authentication
   Guenther Starnberger, Lorenz Froihofer, Karl M. Goeschka
2. An authentication watermark algorithm for JPEG images
   Xiaowei Shi, Fenlin Liu, Bin Liu, Daofu Gong
3. A New Watermarking Attack Using Long-Range Correlation Image Restoration
   Amir Hossein Taherinia, Mehran Fotouhi, Mansour Jamzad

WAIS 5: Information Security – B36
Chair: Arjan Durresi, *IUPUI, USA*

1. Polymorphic Worm Detection by Analyzing Maximum Length of Instruction Sequence in Network Packets
   Kohei Tatara, Yoshiaki Hori, Kouichi Sakurai
2. Automated Instruction-Set Randomization for Web Applications in Diversified Redundant Systems
   Frédéric Majorczyk, Jonathan-Christofer Demay
3. An improvement to a decentralized management method for uniquely accessible attribute information
   Yoshio Kakizaki, Yoshiaki Yoshida, Hidekazu Tsuji
4. Making Use of Human Visual Capability to Improve Information Security
   Masakatsu Nishigaki, Takumi Yamamoto

Wednesday, Mar 18, 2009

09:00 – 10:30 Single Session

CISIS Keynote 1 – UG
Chair: Makoto Takizawa, *Sekei University, Japan*

CSTP Coordination Program of Science and Technology Projects in Japan: Very Large Information Integration and Application Platform
Keynote Prof. Shojiro Nishio (Osaka University)

10:30 – 11:00 Coffee Break

11:00 – 12:30 Parallel Sessions

ARES Short 6: Availability and Reliability – B32
Chair: Somchart Fugkeaw, *Thai Digital ID Co., Ltd.*

1. Scrubbing in Storage Virtualization Platform for Long-Term Backup Application
   Ao Ma
2. Fault Tolerant and Low Energy Write Back Heterogeneous Set Associative Cache for DSM Technologies
   Mehrtash Manoochehri, Alireza Ejlali, Seyed Ghassem Miremadi
3. Generating AMF Configurations from Software Vendor Constraints and User Requirements
   Ali Kanso, Maria Toeroe, Abdelwahab Hamou-Lhadj, Ferhat Khendek

FARES 2: Security in Distributed Systems – B35
Chair: Guenther Starnberger, *Vienna University of Technology, Austria*

1. The case for a simpler security model in grid computing
   Frederik Orellana, Christian Ulrik Søttrup, Anders Wäänänen, Daniel Kalici, Michael Grønager
2. Secure Multi-Robotic Active Localization without Exchange of Maps
   Sarat Addepalli, Piyush Bansal, Kannan Srinathan, Madhava Krishna
3. Position Paper: Secure Infrastructure for Scientific Data Life Cycle Management
   Marco Descher, Thomas Feilhauer, Ibrahim Elsayed, Peter Brezany, David Huemer, A Min Tjoa

SecSE 1: Education and Other Vulnerabilities – B33
Chair: Lillian Røstad, *Norwegian University of Science and Technology*

1. Protecting global and static variables from buffer overflow attacks
   Yves Younan, Frank Piessens, Wouter Joosen
2. Static Code Analysis to Detect Software Security Vulnerabilities - Does Experience Matter?
   Dejan Baca, Kai Petersen , Bengt Carlsson, Lars Lundberg
3. hACMEgame: A Tool for Teaching Software Security
   Øyvind Nerbråten, Lillian Røstad

IWSS 1: Security in Ad-hoc and Mesh Networks – B34
Chair: Gerald Madlmayr, *NFC Research Lab Hagenberg, Austria*

1. Trusting User Defined Context in MANETs: Experience from the MIDAS Approach
   Vegar Westerlund, Thomas Pronstad, Inger Anne Tøndel, Leendert Wienhofen
2. Deconvolving Protected Signals
   Mohaned Kafi, Sylvain Guilley, Sandra Marcello, David Naccache

DAWAM 1: Security and Privacy Enhancement in DWHs – B36
Chair: Nguyen Manh Tho, *Vienna University of Technology, Austria*

1. Including Security Rules support in an MDA approach for Secure DWs
   Carlos Blanco, Ignacio García-Rodríguez de Guzmán, Eduardo Fernández-Medina, Juan Trujillo, Mario Piattini
2. An System of Privacy Preserving Distributed Spatial Data Warehouse Using Relation Decomposition
   Marcin Gorawski, Szymon Panfil
3. Applying an MDA-based approach to consider security rules on the development of Secure DWs
   Carlos Blanco, Ignacio García-Rodríguez de Guzmán, Eduardo Fernández-Medina, Juan Trujillo, Mario Piattini

12:30 – 14:00 Lunch Break

14:00 – 15:30 Parallel Sessions

ARES BP: Best Paper Award – B38
Chair: Edgar Weippl, *Vienna University of Technology, Austria*

SecSE 2: Secure Software-development Lifecycles and Reuse – B33
Chair: Lillian Røstad, *Norwegian University of Science and Technology*

1. Towards Evaluation of Security Assurance during the Software Development Lifecycle
   Ilkka Uusitalo, Kaarina Karppinen, Pasi Ahonen, Heimo Pentikäinen
2. An architectural foundation for security model sharing and reuse
   Per Håkon Meland, Shanai Ardi, Jostein Jensen, Erkuden Rios, Txus Sanchez, Nahid Shahmehri, Inger Anne Tøndel
3. A Knowledge Management Approach to Support a Secure Software Development
   Francisco Nunes, Adriano Albuquerque

DAWAM 2: Intrusion and Network Attack Prevention – B36
Chair: Nguyen Manh Tho, *Vienna University of Technology, Austria*

1. Identity-Based Hybrid Signcryption
   Fagen Li, Masaaki Shirase, Tsuyoshi Takagi
2. Towards Intrusion Detection for Encrypted Networks
   Vik Tor Goh, Jacob Zimmermann, Mark Looi
3. A Mobile Ambients-based Approach for Network Attack Modelling and Simulation
   Virginia Franqueira, Raul Lopes, Pascal van Eck, Roel Wieringa

15:30 – 16:00 Coffee Break

16:00 – 18:00 Parallel Sessions

ARES Short 7: Authentication and Authorization – B32
Chair: Edgar Weippl, *Vienna University of Technology, Austria*

1. Using XACML for Embedded and Fine-Grained Access Control Policy
   George Hsieh, Keith Foster, Gerald Emamali, Gregory Patrick, Lisa Marvel
2. A-COLD : Access Control of Web-OLAP over Multi-Data Warehouse
   Somchart Fugkeaw
3. Package-Role Based Authorization Control Model for Wireless Network Services
   Huy Hoang Ngo, Xianping Wu, Phu Dung Le, Campbell Wilson
4. Security Credential Mapping in Grids
   Mehran Ahsant, Esteban Tavalera, Jim Basney

FARES 3: Software Security and Digital Forensics – B35
Chair: Stefan Jakoubi, *Secure Business Austria, Austria*

1. A Robust Image Watermarking Method in Wavelet Domain Using Genetic Algorithm
   S.Hamid Amiri, Mansour Jamzad
2. An Efficient Measurement of Object Oriented Design Vulnerability
   Alka Agrawal, Shalini Chandra, Raees Ahmad Khan
3. FORVEST: A Support Tool for Formal Verification of Security Specifications with ISO/IEC 15408
   Kenichi Yajima, Shoichi Morimoto, Daisuke Horie, Noor Sheila Azreen, Yuichi Goto, Jingde Cheng

SecSE 3: Model-driven Development and Checklists – B33
Chair: Lillian Røstad, *Norwegian University of Science and Technology*

1. A Practical Framework for The Dataflow Pointcut in AspectJ
   Amine Boukhtouta, Dima Alhadidi
2. SecureMDD: A Model-Driven Development Method for Secure Smart Card Applications
   Nina Moebius, Kurt Stenzel, Holger Grandy, Wolfgang Reif
3. Linking Privacy Solutions to Developer Goals
   Kim Wuyts, Riccardo Scandariato, Bart De Decker, Wouter Joosen
4. Software Inspections Using Guided Checklists to Ensure Security Goals
   Frank Elberzhager, Alexander Klaus, Marek Jawurek

IWSS 2: Security in Contactless Systems – B34
Chair: Gerald Madlmayr, *NFC Research Lab Hagenberg, Austria*

1. Vulnerability Analysis and Attacks on NFC-enabled Mobile Phones
   Collin Mulliner
2. Post-distribution provisioning and personalization of a payment application on a UICC-based Secure Element
   Vincent Alimi, Marc Pasquet
3. A Secure and Efficient Mutual Authentication Protocol for Low-Cost RFID Systems
   George Poulopoulos, Kostas Markantonakis, Keith Mayes

DAWAM 3: Dependability, Failure Analysis and Detection – B36
Chair: Nguyen Manh Tho, *Vienna University of Technology, Austria*

1. Statistical Failure Analysis of a Web Server System
   Toshiya Fujii, Tadashi Dohi
2. A Policy Framework for Data Management in Services Marketplaces
   Jun Li, Bryan Stephenson, Sharad Singhal
3. Modeling Misuse Patterns
   Eduardo Fernandez, Nobukazu Yoshioka, Hironori Washizaki
4. Novel Algorithms for Sub-group Detection in Terrorist Networks
   Nasrullah Memon

Thursday, Mar 19, 2009

09:00 – 10:30 Single Session

ARES Invited Talk - UG
Chair: A Min Tjoa, *Vienna University of Technology, Austria*

Integrative security approach as a key success factor of dependability
Prof. Solange Ghernaouti-Hélie (University of Lausanne)

10:30 – 11:00 Coffee Break

11:00 – 12:30 Parallel Sessions

ARES Short 8: Cryptography 1 – B32
Chair: Nurdan Saran, *Cankaya University, Turkey*

1. A Dynamic Attribute-Based Group Signature Scheme and its Application in an Anonymous Survey for the Collection of Attribute Statistics
   Keita Emura, Atsuko Miyaji, Kazumasa Omote
2. Security in Quantum Networks as an Optimization Problem
   Stefan Rass, Peter Schartner
3. Finding Preimages of Multiple Passwords Secured with VSH
   Kimmo Halunen, Pauli Rikula, Juha Röning

WSDF 1: Digital Forensics 1 – B36
Chair: Jill Slay, *University of South Australia, Austalia*

1. Enhancement of Forensic Computing Investigations through Memory Forensic Techniques
   Matthew Simon, Jill Slay
2. Improving Performance in Digital Forensics: A case using pattern matching board
   Jooyoung Lee
3. Computer Forensics in Japan: A Preliminary Study
   Jigang Liu, Tetsutaro Uehara

GloSec 1 – B33
Chair: Solange Ghernaouti-Hélie, *University of Lausanne, Swiss*

1. Advanced flooding attack on a SIP server
   Xianglin Deng, Malcolm Shore
2. The State of Cybersecurity and the Roadmap to Secure Cyber Community in Cambodia
   Sopheak Cheang, Sinawong Sang
3. An inclusive information society needs a global approach of information security
   S. Ghernaouti-Hélie

SECUSAB 1 - B34
Chair: Andreas Holzinger, *Medical University Graz, Austria*

1. Managing Rights and Value of Digital Media
   Filippo Chiariglione, Giacomo Cosenza, Sergio Matone
2. A criteria-based evaluation framework for authentication schemes in IMS
   Charlott Eliasson, Markus Fiedler, Ivar Jørstad
3. The user-centric vision matches credentials exchanges
   Mikael Ates, Jacques Fayolle, Christophe Gravier, Jeremy Lardon

FARES 4: Dependability Aspects – B35
Chair: Alka Agrawal, *Babasaheb Bhimrao Ambedkar University, India*

1. Using Hybrid Trust Model for Handling Inaccurate Resource
   Bagher Rahimpour Cami, Mohammad Reza Matash Borujerdi
2. A High Speed and Low Cost Error Correction Technique for the Carry Select Adder
   Alireza Namazi, Seyed Ghassem Miremadi, Alireza Ejlali
3. An Improvement of REM: a Replication Oriented Event-based Middleware
   Youcheng Chen, Mohammad Rez Selim, Yuichi Goto , Jingde Cheng

12:30 – 14:00 Lunch Break

14:00 – 15:30 Parallel Sessions

ARES Short 9: Cryptography 2 – B32
Chair: Kimmo Halunen, *University of Oulu, Finnland*

1. Choosing Parameters to Achieve A Higher Success Rate for Hellman Time Memory Trade Off Attack
   Nurdan Saran, Ali Doganaksoy
2. Generalized Robust Combiners for Oblivious Transfer
   Ganugula Umadevi, Sarat Addepalli, Kannan Srinathan

WSDF 2: Digital Forensics 2 – B36
Chair: Jill Slay, *University of South Australia, Austalia*

1. Enhancing Computer Forensics Investigation through Visualisation and Data Exploitation
   Grant Osborne, Benjamin Turnbull
2. A Post-Mortem Incident Modeling Method
   Shanai Ardi, Nahid Shahmehri
3. Investigating the Implications of Virtual Machine Introspection for Digital Forensics
   Kara Nance, Matt Bishop, Brian Hay

GloSec 2 – B33
Chair: Solange Ghernaouti-Hélie, *University of Lausanne, Swiss*

1. Measuring Peer-to-Peer Botnets Using Control Flow Stability
   Binbin Wang, Zhitang Li, Hao Tu, Jie Ma
2. Regulatory Compliance and Information Security Assurance
   Igli Tashi
3. Information security optimization: from theory to practices
   David Sims

SECUSAB 2 – B34
Chair: Andreas Holzinger, *Medical University Graz, Austria*

1. Patient-Administered Access Control: a Usability Study
   Lillian Røstad, Ole Andreas Alsos
2. An Experimental System for Studying the Tradeoff between Usability and Security
   Noam Ben-Asher, Joachim Meyer, Sebastian Möller, Roman Englert

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Santi Caballe, *Open University of Catalonia, Spain*
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Takuo Nakashima, *Tokai University, Japan*

10. Wireless and Mobile Networking
Vamsi Paruchuri, *University of Central Arkansas, USA*

11. Pervasive Computing and Ad Hoc Networking
Mieso Denko, *University of Guelph, Ca*nada
Jong Hyuk Park, *Kyungnam University, Korea*

12. Networking-based Systems and Applications
Takuo Suganuma, *Tohoku University, Japan*

13. P2P & Grid Data Management
Tevfik Kosar, *Louisiana State University, USA*
Ian Taylor, *Cardiff University, UK and LSU, USA*

14. Ontologies, Semantic Web and Web Services
Wen-Chen Hu, *University of North Dakota, USA*
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Message from CISIS General Co-Chairs

Welcome to the 3d International Conference on Complex, Intelligent and Software Intensive Systems (CISIS-2009). The conference will be held at the Fukuoka Institute of Technology, Fukuoka, Japan in conjunction with ARES-2009 International Conference. The aim of the conference is to deliver a platform of scientific interaction between the three interwoven challenging areas of research and development of future ICT-enabled applications: Software Intensive Systems, Complex systems and Intelligent Systems.

Software Intensive Systems are systems which heavily deal with other systems, sensors, actuators, devices, other software systems and users. More and more domains are involved with software intensive systems, e.g. automotive, telecommunication systems, embedded systems in general, industrial automation systems and business applications. Moreover, the outcome of web services delivers a new platform for enabling software intensive systems. The conference is thus focused on tools, practically relevant and theoretical foundations for engineering software intensive systems.

Complex Systems Research is focused on the overall understanding of systems rather than its components. Complex Systems are very much characterized by the changing environments in which they act and by their multiple internal and external interactions. They evolve and adapt through internal and external dynamic interactions.

The development of Intelligent Systems and agents which is each time more characterized by the use of ontologies and their logical foundations build a fruitful impulse for both Software Intensive Systems and Complex Systems. Recent research in the field of intelligent systems, robotics, neuroscience, artificial intelligence, and cognitive sciences are very important factor for the future development and innovation of software intensive and complex systems.

CISIS-2009 is aiming at delivering a forum for in-depth scientific discussions amongst the three communities. The papers included in the proceedings cover all aspects of theory, design and application of complex systems, intelligent systems and software intensive systems. The program of the conference consisted of 51 papers (40% acceptance rate), selected after a careful review process of 3 to 5 independent reviews per submission.

The organization of an International Conference requires the support and help of many people. A lot of people have helped and worked hard to produce a successful CISIS-2009 technical program and conference proceedings. First, we would like to thank all the authors for submitting their papers, the Program Committee Members, and the reviewers who carried out the most difficult work by carefully evaluating the submitted papers. We would like to thank Dr. Hui-Huang Hsu (Tamkang University, Taiwan) and Stefan Biffl (Vienna University of Technology, Austria), CISIS-2009 PC Chairs for their work for a successful CISIS-2009 event.

This year in conjunction with CISIS-2009 we have 13 Workshops that complemented CISIS 2009 program with contributions for specific topics. We would like to thank the Workshop Chairs Dr. Fatos Xhafa (UPC, Spain) and Akio Koyama (Yagamata University, Japan) and all the workshop organizers for organizing these workshops.

We thank Amin Anjomshoa, Vienna University of Technology, for his excellent work and support with the Web Submission and Management System of conference. We are grateful to Web Administrators Simon Tjoa and Stefan Jakoubi, Secure Business Austria for their timely and efficient work.

We would like to give special thanks to Mr. Yoji Unoki, Chairman of Board of Trustees of FIT for hosting CISIS-2009, providing the university facilities and his continuous support.

We would like to thank Fukuoka Convention Bureau for their great support, help, advices and local arrangement. We are grateful to Fukuoka City and Human Line Corporation (HLC) for the financial support.

We also thank Fukuoka Institute of Technology and Secure Business Austria as sponsor of our conference.

Finally, we would like to thank the Local Arrangement and the Administration Staff of Fukuoka Institute of Technology for their support and for making excellent local arrangement for the conference.

We hope you will enjoy the conference and have a great time in Fukuoka.

General Co-Chairs

Leonard Barolli, *Fukuoka Institute of Technology (FIT), Japan*

A Min Tjoa, *Vienna University of Technology, Austria*

Message from CISIS Workshop Co-Chairs

Welcome to the Workshops of the Third International Conference on Complex, Intelligent and Software Intensive Systems (CISIS-2009) held at the Fukuoka Institute of Technology, Fukuoka, Japan, in conjunction with ARES-2009 International Conference.

This is the third edition, which has consolidating CISIS workshops as important international workshops in the field as regards both the number of submissions received and the number of workshops held within CISIS conference. We are pleased to notice that in response to our Call for Workshop Proposals about 20 workshop proposals were received. The objective was to complement as much as possible the main themes of CISIS-2009 with specific topics of different workshops in order to cover topics from the three challenging areas of ICT-enabled applications: Software Intensive Systems, Complex Systems and Intelligent Systems.

As a result, 13 workshops were organized in conjunction with CISIS-2009 Conference covering research on Grid and P2P Computing, Distributed and Multi-core Systems, Web services and Ontologies, Human Computer Interaction, Wireless Networks and Informatics in Biology and Medicine, among others. Some of these workshops are in second or third edition. The workshops are the following:

1. Third International Workshop on P2P, Parallel, Grid and Internet Computing (3PGIC-2009)
2. Third Workshop on Engineering Complex Distributed Systems (ECDS-2009)
3. Third International Workshop on Intelligent, Mobile and Internet Services in Ubiquitous Computing (IMIS-2009)
4. Second International Workshop on Multi-Core Computing Systems (MuCoCoS-2009)
5. Second International Workshop on Ontology Alignment and Visualization (OnAV-2009)
6. Second International Workshop on Intelligent Interfaces for Human-Computer Interaction (IIHCI-2009)
7. Second International Workshop on Intelligent Informatics in Biology and Medicine (IIBM-2009)
8. Second International Workshop on Adaptive Systems in Heterogeneous Environments (ASHEs-2009)
9. Second International Workshop on Biometrics, Technology and Personalized Medicine (BT-2009)
10. First International Workshop on Virtual Environment and Network-Oriented Applications (VENOA-2009)
11. First International Workshop on Data Management for Information Explosion in Wireless Networks (DMIEW-2009)
12. First International Workshop on Intelligent Systems for Environmental (Knowledge) Engineering and EcoInformatics (i-SEEK-2009)
13. Second International Workshop on Frontiers in Complex, Intelligent and Software Intensive Systems (FCISIS-2009) Workshop.

These workshops bring to the researchers conducting research in specific themes the opportunity to learn from this rich multi-disciplinary experience.

The Workshop Chairs would like to thank the workshop organizers for their great efforts and hard work in proposing the workshop, selecting the papers, the interesting programs and for the arrangements of the workshop during the conference days. We are grateful to Amin Anjomshoa for his excellent work and support with the Confdriver system. The support of the webmasters' team of ARES and CISIS conferences is much appreciated.

We hope you enjoy the workshops programs and proceedings!

Workshop Co-Chairs of CISIS-2009 International Conference

Fatos Xhafa, *Technical University of Catalonia, Spain*

Akio Koyama, *Yagamata University, Japan*

CISIS Keynote

Keynote of Prof. Shojiro Nishio (Osaka University)

CSTP Coordination Program of Science and Technology Projects in Japan:
Very Large Information Integration and Application Platform

The amount of information on the Internet is increasing rapidly and continuously, mainly due to the "growth of the Web", the emergence of "rich information," and the growing importance of "emerging sensor technologies." This phenomenon is often referred to as the "information explosion." In this era of information explosion, information retrieval engines are indispensable to the Internet users. However, in current search services, there are some practical problems. That is, search engines do not analyze information from the user's viewpoint. Consequently, there is the danger of having undesired information, often called garbage information and harmful information, show up at a higher rank in the search results. Under this premise, our program "Very Large Information Integration and Application Platform" plans to construct a safe and intelligent platform for information retrieval. This program, which started in the fiscal year 2007, is one of the strategic programs established by the Council for Science and Technology Policy (CSTP) in Japan. Through the collaboration of four government ministries' sponsored projects in Japan, such a platform would contribute toward the development of an information-rich society.

Message from 3PGIC Workshop Co-Chairs

It is our great pleasure to welcome you in Fukuoka for the Third International Workshop on P2P, Parallel, Grid and Internet Computing (3PGIC-2009). The workshop is held in conjunction with the Third International Conference on Complex, Intelligent and Software Intensive Systems (CICIS) on March 16th -19th, 2009, at the Fukuoka Institute of Technology, Fukuoka, Japan.

P2P, Grid and Internet computing technologies have emerged as new paradigms for solving complex problems by enabling large-scale aggregation and sharing of computational, data and other geographically distributed resources. Rapid advances are being reported by many researchers and forums as regards understanding numerous issues in such paradigms, from theoretic to application aspects. Moreover, the continuous development of Internet and the construction of new P2P and Grid infrastructures are making possible the development of large scale applications from many fields of science and engineering. Despite these advances, Computational Grids and P2P systems remain difficult for many users to bring such systems to real word applications. Indeed, the research topics related to the Grid, Peer-to-Peer and Internet computing are recent and require the investigation of many issues such as effective harnessing of Internet connected resources, development of new methods and techniques, which offer users a transparent, efficient and secured access to resources, efficient allocation of resources, decentralization and self-organization.

In this context, the 3PGIC workshop offers the opportunity for researchers and industry professionals to meet and discuss last advances and present innovative researches, methods and techniques related to P2P, Grid and Internet computing. We are happy to notice that this third edition of the workshop high quality submissions were received, which after a strict review by at least 3 independent reviewers, 13 papers were accepted (52% acceptance rate). The accepted papers addressed interesting and promising approaches for important issues from P2P, Parallel, Grid and Internet Computing domain.

Finally, we would like to thank all the authors for submitting their research works to the workshop as well as to the authors of accepted papers for their participation and presentation of the papers in the workshop.

We look forward to meet you all again in the 2010 edition of the workshop!

3PGIC Workshop Co-chairs & Organizing Committee

Fatos Xhafa, *Technical University of Catalonia, Spain*
Leonard Barolli, *Fukuoka Institute of Technology (FIT), Japan*

Message from ECDS Workshop Co-Chairs

It is our great pleasure to welcome you to the third workshop on Engineering Complex Distributed Systems (ECDS 2009), which will be held in conjunction with the 3rd International Conference on Complex, Intelligent and Software Intensive Systems (CISIS 2009) in Fukuoka, Japan, from March 16 to March 19, 2009.

In the past, this field included technology concerns related to middleware solutions, dealing with the heterogeneity of the miscellaneous hardware and software environments and computing infrastructure. These technologies have been used to address the integration of existing legacy applications and improve the interoperability between applications across enterprises. The advances in wireless communication and pervasive computing extend this traditional wired area of distributed systems and make new advanced applications possible. The complexity of today's applications requires additional approaches to be able to realize an enterprise application time- and costsaving.
This includes the ability to model business processes, business policies, and event-oriented aspects of large systems and express these models through design solutions to address the complexity of enterprise applications and ease software design efforts. In addition, the engineering of complex distributed systems also requires a good understanding of the problem areas of concern for information systems and business administration, such as process management, supply chain management, security issues, electronic business, etc. These topics need to be addressed in order to deal with the complexity of today's increasingly dynamic, mobile, cross-organizational, and cross-jurisdictional systems.

In this workshop various aspects of the design and implementation of distributed systems will be discussed. The scope of the presented papers ranges from process improvements, engineering approaches and techniques to applications.

This workshop would not have been possible without the help of many people. First of all, we would like to thank all the authors for submitting their papers to our workshop. We also like to thank the program committee members and additional reviewers, who carefully evaluated the submitted papers.

We hope that you find the ECDS 2009 final program inspiring and that the workshop provides you with the opportunity to interact, share ideas with, and learn from other distributed systems researchers from around the world. We also encourage you to continue to participate in future ECDS workshops, to increase its visibility, and to interest others in contributing to this growing community.

ECDS Workshop Co-chairs & Organizing Committee

Markus Aleksy, *ABB AG Corporate Research Center, Germany*
Leonard Barolli, *Fukuoka Institute of Technology, Japan*
MakotoTakizawa, *Sekei University, Japan*

Message from IMIS Workshop Co-Chairs

Welcome to the 3rd International Workshop on Intelligent, Mobile and Internet Services in Ubiquitous Computing, which is held in Fukuoka, Japan on March 16-19, 2009.

With the proliferation of wireless technologies and electronic devices, there is a fast growing interest in Ubiquitous and Pervasive Computing (UPC). UPC enables to create a human-oriented computing environment where computer chips are embedded in everyday objects and interact with physical world. Through UPC, people can get online even while moving around, thus having almost permanent access to their preferred services. With a great potential to revolutionize our lives, UPC also poses new research challenges. IMIS 2009 focuses on the challenges and solutions for UPC with an emphasis on intelligent, mobile and internet services, providing an opportunity for academic and industry professionals to discuss the latest issues and progress in the area of UPC.

IMIS 2009 workshop provides a forum for engineers and scientists in academia, industry, and government to address all resulting profound challenges including technical, safety, social, legal, political, and economic issues, and to present and discuss their ideas, results, work in progress and experience on all aspects of intelligent, mobile and internet services in ubiquitous and pervasive computing. The accepted papers cover a wide range of exciting topics in all aspects on above issues.

IMIS 2009 had received high quality submissions from all over the world. All papers went through a rigorous peer-review process and each was reviewed by at least three TPC members or external reviewers. After several rounds of online discussions among the program chairs, we finally accepted 19 papers to be presented in the workshop. We believe that all of these accepted papers are of high quality and can also stimulate future research innovations in the area of intelligent, mobile and internet services in ubiquitous and pervasive computing.

The excellent program required a lot of efforts from many people. First, we would like to thank all the authors for their hard work in preparing submissions to the workshop. We deeply appreciate the efforts and contributions of the program committee members who worked very hard to select the very best submissions and to put together an exciting program.

Last but not least, we would like to greatly thank the CISIS 2009 local organizing team for their hard work, nice services, and wonderful local arrangements. We hope that attendees enjoy this conference, find the technical program to be exciting, and have a wonderful time in Fukuoka, Japan, together with the social activities of the conference.

IMIS Workshop Co-chairs & Organizing Committee

IMIS 2009 General Co-Chairs
Kouichi Sakurai *and* Ilsun You
IMIS 2009 Program Co-Chairs
Bonam Kim *and* Feilong Tan

Message from MuCoCoS Workshop Co-Chairs

Fukuoka, Japan, March 16-19, 2009, in conjunction with CISIS 2009
http://www.par.univie.ac.at/~pllana/mucocos09

Welcome to the 2009 International Workshop on Multi-Core Computing Systems (MuCoCoS 2009), Fukuoka, Japan. This is the second time that MuCoCoS is organized, and therefore it was a pleasure and a privilege to serve as workshop co-chairs.

The improvement of single-processor performance by increasing clock rate and instructions-perclock number has reached its technological limits. Increasing instead the number of processor cores per chip is one alternative that can yield better overall system performance and alleviate problems related to energy consumption, heat dissipation and design complexity. As a result we are now witnessing the emergence of multi-core processors in all markets from laptops and game consoles to servers and supercomputers. However, exploiting the full potential of multi-core computing systems for application programs is a highly complex task posing many open research questions.

The increasing interest in multi-core technology is reflected in the significant number of highquality paper submissions. Each paper was thoroughly evaluated by members of the program committee based on originality, significance to workshop topics, technical soundness, and presentation quality. The selection of papers has been based on at least three reviews (for some of the papers were provided four reviews). The acceptance rate has been about 50 percent. The selected papers address a representative set of issues related to the recent developments in multicore computing systems. The program committee has developed an exciting workshop program, which comprises high-quality presentations of the state-of-the-art research work.

We are grateful to all the authors for submitting their papers to MuCoCoS 2009, and to program committee members for their efforts to evaluate papers within a short period.

Enjoy MuCoCoS 2009 in Fukuoka.

MuCoCoS Workshop Co-chairs & Organizing Committee

Leonard Barolli, *Sabri Pllana, and Fatos Xhafa*

Message from OnAV Workshop Co-Chairs

On behalf of the organizing committee, it is our pleasure to welcome you to OnAV 2009 - the 2nd International Workshop on Ontology Alignment and Visualization. The OnAV Workshop aims to provide a forum for researchers to discuss state of the art approaches to ontology management, and in particular, to investigate how information visualization techniques can be applied to support ontology alignment decision making tasks.

This year the OnAV workshop has two main sessions:

- Principles in Ontology Matching and Visualization
- Applications in Ontology Matching and Visualization

We received a number of high-quality submissions related to ontology matching and visualization and we are grateful to the reviewers for providing their expertise to help us select the best papers for presentation at OnAV. The topics of the papers for OnAV'09 include: creating visualizations through ontology mapping, understanding ontology visualization user requirements, state of the art ontology mapping systems, ontology visualization techniques and examples of ontology alignment applications. The use of information visualization techniques to help improve the quality of automatic matching approaches remains an important topic of interest in the Semantic Web research. The OnAV workshop will provide a discussion forum for how promising techniques from the information visualization community can help support decision-making tasks in ontology alignment. As with the previous successful OnAV workshop, we assume that challenging topics presented will trigger fruitful discussions amongst the participants.

The OnAV 2009 workshop is held in conjunction with the International Conference on Complex, Intelligent and Software Intensive Systems at the Fukuoka Institute of Technology in Japan. We want to thank the Conference Co-Chairs Leonard Barolli, Fukuoka Institute of Technology, Japan, and A Min Tjoa, Vienna University of Technology, Austria. We give special thanks to the workshops chair Fatos Xhafa, from the Polytechnic University of Catalonia, for his great support in the preparation of this event.

In addition to OnAV several related workshops take place at the Conference on Complex, Intelligent and Software Intensive Systems and together they cover a substantial part of computer science research. Overall our workshop covers a range of interesting and challenging topics related to ontology alignment and visualization. We would like to wish all the participants a very enjoyable and professionally fruitful experience at OnAV 2009 in Japan!

OnAV Workshop Co-chairs & Organizing Committee

Monika Lanzenberger *and* Jennifer Sampson

Message from IIHCI Workshop Co-Chairs

After a first successful edition, welcome to the Second International Workshop on Intelligent Interfaces for Human-Computer Interaction (IIHCI 2009) held in conjunction with International Conference on Complex, Intelligent and Software Intensive Systems at the Fukuoka Institute of Technology, in Fukuoka, Japan on 16-19 March 2009.

Human-Computer Interaction (HCI) is a multidisciplinary research area that includes understanding, designing, building and evaluating complex interactive systems involving many people (both researchers and users) and many technologies. On the other hand, developments in software and hardware technologies are continuously driving applications in supporting our collaborative and communicative needs as social beings, both at work and at play. This workshop addresses a central issue of HCI focusing on Intelligent Interfaces for Human Computer Interaction, which is the study and development of devices that allow users to interact with computer and automatic systems. Also, new topics were added to include human-robot interaction and ambient intelligence, among others.

The goal of this workshop is to bring together researchers from the different fields whose work is related to intelligent interface design for HCI. This year, the program committee has selected 11 quality contributions among the many received for oral presentation. We believe all of these papers and topics will not only provide novel ideas, new results, work in progress, and state-of-the-art techniques in this field, but also stimulate future research activities in the area of human-computer interaction.

The program for this workshop is the result of hard and excellent work of many people, including authors, external reviewers, and program committee members. We would like to express our sincere appreciation to all of them for their cooperation in completing the workshop program under a very tight schedule. We also gratefully acknowledge the IEEE Computer Society for sponsoring the workshop. Last but not least, we are grateful to the organizers of the International Conference on Complex, Intelligent and Software Intensive Systems at the Fukuoka Institute of Technology (CISIS 2009) for hosting the workshop, and, in particular CISIS 2009 Workshop Co-Chairs, Fatos Xhafa and Akio Koyama, CISIS 2009 Program Committee Co-Chairs, Hui-Huang Hsu and Stefan Biffi, and CISIS General Co-Chairs, Leonard Barolli, and A Min Tjoa, for bringing together this important event. We hope you will enjoy your participation to IIHCI and your stay in Fukuoka!

IIHCI Workshop Co-chairs & Organizing Committee

Antonio Gentile, Salvatore Vitabile
University of Palermo, Italy

Message from IIBM Workshop Co-Chairs

Advances of information technologies have facilitated and accelerated the research on molecular biology and medicine in the past few decades. Great success has been achieved. However, to move further more sophisticated technologies are needed. The applications of artificial intelligence, machine learning, and data mining in this area can help the researcher to discover new knowledge. This is a very important direction.

The Second International Workshop on Intelligent Informatics in Biology and Medicine (IIBM 2009) aims at attracting papers with pioneer ideas and emerging technologies in this field. It will provide a platform for researchers to meet and exchange their thoughts. IIBM 2009 will be held in conjunction with the Third International Conference on Complex, Intelligent and Software Intensive Systems (CISIS 2009) in Fukuoka, Japan from March 16th to 19th, 2009. It accepted 11 papers from 21 submissions. All the papers were reviewed and recommended by at least two reviewers. We are glad that the paper number has grown from the previous IIBM.

Many people contributed to the CFP and paper review of IIBM 2009. We wish to thank the program committee members for their great effort. We also would like to express our gratitude to the main organizers of CISIS 2009, Prof. Leonard Barolli, Prof. Fatos Xhafa, Prof. A Min Tjoa, and Prof. Makoto Takizawa, for their excellent work in organizing the conference. Last but not least, we would like to thank and congratulate all the contributing authors for their support to the workshop. We look forward to meeting all of you in Fukuoka.

IIBM Workshop Co-chairs & Organizing Committee

Hui-Huang Hsu, Lusheng Wang *and* Hiroshi Matsuno

Message from ASHEs Workshop Co-Chairs

In its second occurrence the ASHEs workshop has generated a wide range of interest and attracted quality contributions from researchers from different parts of the world. The scope of the topics covered in the selected papers has confirmed the importance of adaptivity as an overarching concept in the design of distributed systems. Its role in guiding and shaping the structure and behaviour of heterogeneous systems is becoming more evident. The different perspectives that emerge from the research are lending greater currency to the role of the ASHEs workshop as a forum for the presentation and discussion of innovative solutions in heterogeneous environments.

The topics covered in the various contributions span a range of research interests where adaptivity is called upon to resolve conflicting requirements, enhance behavior or optimise service and resource management. From the P2P requirements for the storage and retrieval of dynamic data to the use of redundancy to enhance robustness in autonomic systems, a common thread of adaptivity manifests itself at different levels. Issues related to context awareness and optimal behaviour have been brought to the fore and addressed convincingly. While context information has been investigated as a means of assisting the adaptive collaboration between groups of users, another research strand has identified the optimisation of job scheduling and data analysis as its main focus.

It is most appropriate that the CISIS conference and the ASHEs workshop are being hosted by the Fukuoka Institute of Technology, which has been described as ‘a unique, cyberelectronic oriented academic institution’. We are confident that the favourable environment and the issues raised by the workshop contributions will foster greater interaction amongst researchers and facilitate a genuine cross-fertilisation of ideas. We wish to acknowledge the invaluable contribution of the authors, the session chairs and the members of the program and organising committee. We would like also to pay tribute to the organisers of the CISIS conference for the dedicated support they have provided.

ASHEs Workshop Co-chairs & Organizing Committee

Rachid Anane

Muhammad Younas

Message from BT Workshop Co-Chairs

Welcome to the International Workshop on Biometrics, Technology and Personalized Medicine (BT 2009) to be held, in conjunction with The International Conference on Complex, Intelligent and Software Intensive Systems (CISIS 2009), at Fukuoka Institute of Technology (FIT). This workshop provides an international forum that brings together those actively involved in areas of statistics, image processing and technology in the biosciences. Its objectives are to promote and extend the use of mathematical and engineering methods in the principal disciplines of biosciences by reporting on the development and application of these methods.

The Program Committee has accepted 8 papers for publication in the proceedings of CISIS 2009. We are grateful to the authors who submitted papers. We would like to thank all program committee members as well as the reviewers for their support.

Finally, we would like to thank the CISIS organizers for their continuous support and cooperation. We would like to express special thanks to Prof. Leonard Barolli and Prof. Fatos Xhafa for their timely support and organization.

We wish all of you entertaining and rewarding experience in BT 2009 and CISIS conference.

BT Workshop Co-chairs & Organizing Committee

Prof. Jacques Demongeot, *TIMC, Grenoble, France*
Dr. Andrei Doncescu, *LAAS-CNRS, Toulouse, France*
Dr. M-Nabil Kabbaj, *LAAS-CNRS, Toulouse, France*

Message from VENOA Workshop Co-Chairs

Welcome to the First International Workshop on Virtual Environment and Network-Oriented Applications (VENOA2009) held in conjunction with the International Conference on Complex, Intelligent and Software Intensive Systems (CISIS-2009) to be held at Fukuoka, Japan, March 16-19, 2009.

This is the first trial to include the field of virtual environment and network application technologies in the prestigious CISIS conference and workshops. In spite of the situation, we received many unique and high-quality paper submissions. We strictly follow the CISIS review procedures and finally selected fifteen excellent papers for publication and presentation. The program shows a variety of research activities with high relevance to the scope of the workshop. The papers to be presented at the workshop cover a wide range of topics such as graphics and VR systems, multimedia applications, Web applications, and 3D vision and image processing.

This workshop cannot be organized without hard and excellent work of program committee members and reviewers. We would like to express our sincere appreciation to all program committee members and reviewers for their cooperation in completing the workshop program under a very tight schedule. We also give our special thanks to all authors for their valuable contributions. We hope that these papers will have significant impacts and stimulate future research activities.

VENOA Workshop Co-chairs & Organizing Committee

VENOA2009 Workshop General Chair
Kouichi Utsumiya, *Oita University, Japan*

VENOA2009 Workshop Co-Chairs
Yong-Moo Kwon, *Korea Institute of Science and Technology, Korea*
Hiroaki Nishino, *Oita University, Japan*

Message from DMIEW Workshop Co-Chairs

Welcome to the 1st International Workshop on Data Management for Information Explosion in Wireless Networks (DMIEW 2009). In recent few years, wireless networks have become incredibly popular. Various types of wireless networks such as cellular networks, wireless LANs, ad-hoc networks, sensor networks, and mesh networks have been deployed in many places. In addition, the number of wireless terminals and information generated by such terminals has increased rapidly. Thus, we are in a time which we could call the “Information-Explosion Era.” DMIEW 2009 focuses on current challenges and solutions as well as future research directions on data management techniques applied to wireless networks in the information-explosion era.

Of the submissions, we have accepted 12 research papers. These high quality papers selected have been assigned to a program of 3 sessions. We highly appreciate the effort of all authors in preparing and submitting papers to DMIEW 2009.

The contributed research papers were selected by the Program Committee through a strict review process. The committee had 20 members with very diverse, international backgrounds representing universities, research institutions, and industry in different countries. We are very grateful to all Program Committee members and the external reviewers for their time-consuming and meticulous work in judging the papers.

We also thank the CISIS 2009 organizers for their support and kind advice. Last, but not least, we thank all of the attendees for contributing to the success of the workshop. We hope you will find the scientific program rewarding. To you, as well as to all our colleagues who are not able to join us at the workshop, we are pleased to offer these proceedings. The papers capture a snapshot of the current state of research and development in the field of data management in wireless networks. We hope that it will serve as an invaluable reference and a source of new ideas.

DMIEW Workshop Co-chairs & Organizing Committee

Takahiro Hara
Workshop Chair

Mieso Denko, Akimitsu Kanzaki
Program Chairs

Message from i-SEEK Workshop Co-Chairs

On behalf of the organizing committee, we would like to welcome you to the 1st International Workshop on Intelligent Systems for Engineering Environmental Knowledge (i-SEEK2009). The workshop aims at providing a place of discussion for researchers interested to debate on how AI and more specifically Knowledge Engineering can be applied in the field of Environmental Engineering and EcoInformatics to solve (mainly) the information integration problem and also to provide best practices for its management and retrieval. We believe that Environmental Engineering is a good choice for applied research specifically on Knowledge Engineering since, among other reasons, it provides an evaluation framework for testing techniques in terms of managing and integrating highly heterogeneous, distributed and large information sources. Issues concerning interoperability, performance and scalability of environmental knowledge (-based) engineering systems should be identified and discussed in this workshop series, towards enabling better support for life and environment-preservation decisions.

This first year of organization, we have accepted papers from a broad list of topics, ranging from metadata integration and engineering to decision-support and retrieval systems. With the assistance of the Steering Committee (SC) and the expertise of the Program Committee (PC) members, we have selected 8 high-quality papers, both full and position ones. All people involved in this first workshop (authors, PC and SC members) are researchers with high expertise, working on related research areas and projects. We are really grateful for their support and we thank them for contributing their knowledge towards a successful event.

We would like to thank CISIS organizers for giving us the opportunity to organize the first event of the I-SEEK Workshop series in Japan. We hope that the results of this event will advance the related research in multifold ways.

Enjoy it!

i-SEEK Workshop Co-chairs & Organizing Committee

http://semanticweb.org/wiki/I-SEEK

Message from FCISIS Workshop Co-Chairs

It is our great pleasure to welcome you in Fukuoka for the Second International Workshop on Frontiers on Complex, Intelligent and Software Intensive Systems (FCISIS-2009). The workshop is held in conjunction with the Third International Conference on Complex, Intelligent and Software Intensive Systems (CICIS) on March 16th -19th, 2009, at the Fukuoka Institute of Technology, Fukuoka, Japan.

The objective of FCISIS Workshop is to foster the discussion in a rich inter-disciplinary context of the three challenging areas of ICT-enabled applications: Software Intensive Systems, Complex Systems and Intelligent Systems. FCISIS-2009 is conceived in terms of special sessions, which were also carefully selected, from the organizers.

The following special sessions were organized within FCISIS 2009:

- Wireless and Sensor Networks
- Web & Grid Services and Ontologies
- Formal models and Scientific Computing
- Multicore Networks-on-Chip Systems

The FCISIS workshop is held in an exiting and stimulating atmosphere, at the Fukuoka Institute of Technology, in Fukuoka (Japan). We would like to thank Beniamino Di Martino, Salvatore Vinticinque (Italy) and Sabri Pllana (Austria) for their support in organizing the workshop.

Finally, we would like to thank all the participants of the workshop for submitting their research works and for their participation and look forward to meet you again in the forthcoming editions of the workshop.

FCISIS Workshop Co-chairs & Organizing Committee

Fatos Xhafa, *Technical University of Catalonia, Spain*
Leonard Barolli, *Fukuoka Institute of Technology (FIT), Japan*

CISIS & CISIS WORKSHOP PROGRAM

Monday, Mar 16, 2009

08:30 – 09:00 Single Session

Welcome and Opening Ceremony (ARES and CISIS) - UG

09:00 – 10:30 Single Session

ARES Keynote 1 – UG
Chair: A Min Tjoa, *Vienna University of Technology, Austria*

Pairing based cryptography - theory, implementations and applications
Keynote Prof. Eiji Okamoto (Tsukuba University)

10:30 – 11:00 Coffee Break

11:00 – 12:30 Parallel Sessions

CISIS Session 1: Software Engineering for Distributed Systems – D36
Chair: Markus Aleksy, *ABB Corporate Research, Germany*

1. Shared Memory Synchronization in Presence of Failures: an Exercise-based Introduction for the Sophomore
   Michel Raynal
2. PyThinSearch: A Simple Web Search Engine
   Andri Mirzal
3. Job scheduler parameter analysis to find an optimal parameter configuration
   Rika Ito
4. Evaluation of A Purpose-based Marking (PM) Protocol for Secure Distributed Systems
   Tomoya Enokido, Makoto Takizawa

CISIS Session 2: Artificial Intelligence and Applications I – D35
Chair: Takuo Suganuma, *Tohoku University, Japan*

1. Human Sensibility Evaluation using Photoplethysmogram (PPG)
   Hyun-Min Lee, Dong-Jun Kim, Heui-Kyung Yang, Kyeong-Seop Kim, Jeong-Whan Lee, Eun-Jong Cha, Kyung-Ah Kim
2. Proposal of Statefull Relilability Counter Small-World Cellular Nueral Networks
   Katsuyoshi Matsumoto, Minoru Uehara, Motoi Yamagiwa, Makomoto Mukarami, Hideki Mori
3. Reconstruction for artificial degraded image using Constructive Solid Geometry and Strongly Typed Genetic Programming
   Motoi Yamagiwa, Eiji Kikuchi, Minoru Uehara, Makoto Murakami, Masahide Yoneyama
4. A Multi-Dip Interface with Water
   Michihiro Ikeda, Norimasa Nagira, Masahito Masahito

MuCoCos 1 – D32
Chair: Sabri Pllana, *University of Vienna, Austria*

1. Evaluating the run-time performance of Kahn process network implementation techniques on shared-memory multiprocessors
   Zeljko Vrba, Paal Halvorsen, Carsten Griwodz
2. Experimental Study of Multithreading to Improve Memory Hierarchy Performance of Multi-core Processors for Scientific Applications
   Enes Bajrovic, Eduard Mehofer

OnAV 1: Principles in Ontology Matching and Visualization – D31

Chair: Jennifer Sampson, *EPSIS, Norway*

1. A Comparative Study: Syntactic Versus Semantic Matching Systems
   Leila Ghomari, Abdessamed Reda Ghomari
2. User Requirements Analysis on Ontology Visualization
   Simone Kriglstein
3. Creating visualizations through ontology mapping
   Sean Falconer, R. Ian Bull, Lars Grammel, Margaret-Anne Storey
4. Visualization in Ontology Tools
   Monika Lanzenberger, Jennifer Sampson, Markus Rester

IIHCI 1: Intelligent Interface Design – D34

Chair: Rosario Sorbello, *University of Palermo, Italy*

1. An User-Friendly Interface for Fingerprint Recognition Systems based on Natural Language Processing
   Conti Vincenzo, Militello Carmelo, Vitabile Salvatore, Sorbello Filippo
2. An RFID framework for multimodal service provision
   Salvatore Sorce, Agnese Augello, Antonella Santangelo, Alessandro Genco, Antonio Gentile, Salvatore Galgio, Giovanni Pilato
3. Exploiting the Human Factor in a WSN-based System for Ambient Intelligence
   Alessandra De Paola, Alfonso Farrugia, Salvatore Gaglio, Giuseppe Lo Re, Marco Ortolani
4. Modeling Explicit and Implicit Service Request for Intelligent Interface Design
   Chiung-Hon Leon Lee, alan Liu

DMIEW 1: Sensor Network – D33

Chair: Hideyuki Kawashima, *University of Tsukuba, Japan*

1. Overhearing-based Data Transmission Reduction for Periodical Data Gathering in Wireless Sensor Networks
   Yuuki Iima, Akimitsu Kanzaki, Takahiro Hara, Shojiro Nishio
2. A Mobile Sensor Control Method Considering Node Failures in Sparse Sensor Network
   Tatsuya Shinjo, Shinya Kitajima, Takefumi Ogawa, Takahiro Hara, Shojiro Nishio
3. Spatial Interpolation of Weather Sensor Data on P2P network
   Seiichi Kato, Hirokazu Tanaka, Yuuichi Teranishi, Shinji Shimojo
4. An Efficient Node Deployment Strategy in Sparse Sensor Networks
   Kriengsak Treeprapin, Akimitsu Kanzaki, Takahiro Hara, Shojiro Nishio

12:30 – 14:00 Lunch Break

14:00 – 15:30 Parallel Sessions

CISIS Session 3: Artificial Intelligence and Applications II – D36
Chair: Leonard Barolli, *Fukuoka Institute of Technology*

1. An Ontology-Based Distributed Case-Based Reasoning for Virtual Enterprises
   Yuh-Jen Chen, Yuh-Min Chen, Yung-Sheng Su
2. Development of a Distributed Product Knowledge Service System
   Yuh-Jen Chen, Yuh-Min Chen, Meng-Sheng Wu
3. Decision Model For a Robot to Start Communicating with a Human
   Satoshi Ushiyama, Kazunori Matsui, Motoi Yamagiwa, Makoto Murakami, Minoru Uehara, Katsuhiko Shirai

CISIS Session 4: Agent and Autonomic Systems – D35
Chair: Minoru Uehara, *Tokyo University, Japan*

1. Autonomously Deciding Countermeasures against Threats in Electronic Warfare Settings
   Shinbong Kang, Hunwoo Park, Sanguk Noh, So Ryoung Park, Kyoungsoo Kim, Sichan Lyu, Soogkyoung Kim
2. A Distributed Agent-based Approach to Stabilization of Global Resource Utilization
   Evangelos Pournaras, Martijn Warnier, Frances Brazier
3. Adaptive Inter-platform Communication Mechanism for Ubiquitous Multiagent System
   Taishi Ito, Hideyuki Takahashi, Takuo Suganuma, Norio Shiratori

MuCoCos 2 – D32
Chair: Fatos Xhafa, *Technical University of Catalonia, Spain*

1. PaSTeL : Parallel Runtime and Algorithms for Small Datasets
   Brice Videau, Erik Saule, Jean-François Méhaut
2. Introducing hardware TLP support in the Cell processor
   Roberto Giorgi, Zdravko Popovic, Nikola Puzovic
3. A Multipurpose Clustering Algorithm for Task Partitioning in Multicore Embedded Reconfigurable Systems
   S. Arash Ostadzadeh, Roel J. Meeuws, Kamana Sidgel, Koen Bertels

OnAV 2: Applications in Ontology Matching and Visualization – D31
Chair: Monika Lanzenberger, *Vienna University of Technology, Austria*

1. Ontology Alignment in RFID Privacy Protection
   Masakazu Kanabe, Shuichiro Yamamoto
2. SAMOA - A Semi-automated Ontology Alignment Method for Systems Integration in Safety-critical Environments
   Thomas Moser, Kathrin Schimper, Richard Mordinyi, Amin Anjomshoaa
3. Ontology-based generation of Bayesian networks
   Stefan Fenz, A Min Tjoa, Marcus Hudec

IIHCI 2: Chatbots and Learning Techniques – D34
Chair: Salvatore Gaglio, *University of Palermo, Italy*

1. Improving Assessment Of Students Through Semantic Space Construction
   Roberto Pirrone, Giuseppe Russo, Vincenzo Cannella
2. User Preference Learning System for Tangible User Interfaces
   Kazumi Matsui, Tsutomu Terada, Shojiro Nishio
3. A Semantic Layer on Semi-structured Data Sources for Intuitive Chatbots
   Agnese Augello, Giovanni Pilato, Giorgio Vassallo, Salvatore Gaglio

DMIEW 2: Data Management – D33
Chair: Takahiro Hara, *Osaka University, Japan*

1. A Query Processing Method Considering the Characteristic of Energy Consumption for Broadcast Database Systems
   Shinya Kitajima, Takahiro Hara, Tsutomu Terada, Tomoki Yoshihisa, Shojiro Nishio
2. A Parallelized Data Stream Processing System using Dynamic Time Warping Distance
   Norihiro Takahashi, Tomoki Yoshihisa, Yasushi Sakurai, Masanori Kanazawa
3. A Consideration of the Precision Improvement in WiFi Positioning System
   Toyokazu Akiyama, Yuuichi Teranishi, Shingo Okamura, Shinji Shimojo
4. Evaluation of a Framework for Dynamic Source Selection in Stream Processing
   Kosuke Ohki, Yousuke Watanabe, Hiroyuki Kitagawa

15:30 – 16:00 Coffee Break

16:00 – 18:00 Parallel Sessions

CISIS Session 5: Database and Data Mining Applications I - D36
Chair: Takuo Nakashima, *Tokai University, Japan*

1. Discovery of Association Rules from Data including Missing Values
   Shigeaki Sakurai, Kouichirou Mori, Ryohei Orihara
2. StreamAPAS: Query Language and Data Model
   Marcin Gorawski, Aleksander Chroszcz
3. Applying Decision Tree in Fault Pattern Analysis for HGA Manufacturing
   Unchalisa Taetragool , Tiranee Achalakul
4. Making Expert Knowledge Explicit to Facilitate Tool Support for Integrating Complex Information Systems in the ATM Domain
   Thomas Moser, Richard Mordinyi, Alexander Mikula, Stefan Biffl

CISIS Session 6: Software Engineering for Distributed Systems II – D35
Chair: Tomoya Enokido, *Rissho University, Japan*

1. A Semantic-based Transcoding Mashup Server for Web 2.0 Sites
   I-Ching Hsu
2. Multiple-paths Search with Concurrent Thread Scheduling for Fast AND/OR Tree Search
   Fumiyo Takano, Yoshitaka Maekawa, Hironori Kasahara
3. Models for P2P Multi-Source Streaming
   Alireza Goudarzi Nemati, Tomoya Enokido, Makoto Takizawa
4. Efficiently Making Agreement among Peer Processes by using Recoverable Cuts
   Ailixier Aikebaier, Tomoya Enokido, Makoto Takizawa

MuCoCos 3 – D32
Chair: Eduard Mehofer, *University of Vienna, Austria*

1. Optimistic Parallel Discrete Event Simulation Based on Multi-core Platform and its Performance Analysis
   Nianle Su, Hongtao Hou, Feng Yang, Qun Li, Weiping Wang
2. Efficient use of processing cores on heterogeneous multicore architecture
   Fabien Calcado, Stephane Louise, Vincent David, Alain Mérigot
3. Designing Regular Network-on-Chip Topologies under Technology, Architecture and Software Constraints
   Francisco Gilabert, Daniele Ludovici, Simone Medardoni, Davide Bertozzi, Luca Benini, Georgi Gaydadjiev

IIHCI 3: Tools and Applications – D34
Chair: Roberto Pirrone, *University of Palermo, Italy*

1. GUI Usability in Medical Imaging
   Vincenzo Cannella, Orazio Gambino, Roberto Pirrone, Salvatore Vitabile
2. A BCI Teleoperated Museum Robotic guide
   Antonio Chella, Enrico Pagello, Emanuele Menegatti , Rosario Sorbello , Salvatore Maria Anzalone, Francesco Cinquegrani, Luca Tonin, F. Piccione, K. Priftis, Claudia Blanda, Evelina Buttita, Emanuela Tranchina
3. Embedding the remote display: visual API for PDA programming
   Salvatore Sorce, Paolo Raccuglia, Alessandro Genco
4. Design and Prototyping of a Community Response Grid (CRG) for a University Campus
   Yan Qu, Philip Fei Wu, Samantha Mahindrakar

DMIEW 3: Application and Platform – D33
Chair: Tomoki Yoshihisa, *Osaka University, Japan*

1. Multi-channel MAC Protocol to Achieve Multi-hop Transmissions of High Throughput
   Nishiyama Kazuyuki, Sano Mutsuo, Ikeda Katsuo
2. Preview Functions for Web Browsing Using Cellular Phones
   Kenji Ohnishi, Yuki Arase, Takahiro Hara, Toshiaki Uemukai, Shojiro Nishio
3. Sharing Gesture Contents among Heterogeneous Robots
   Kenshiro Hirose, Hideyuki Kawashima, Satoru Satake, Michita Imai
4. X-Sensor: A Sensor Network Testbed Integrating Multi-Networks
   Akimitsu Kanzaki, Takahiro Hara, Yoshimasa Ishi, Naoki Wakamiya, Shinji Shimojo

Tuesday, Mar 17, 2009

09:00 – 10:30 Single Session

ARES Keynote 2 - UG
Chair: Edgar Weippl, *Vienna University of Technology, Austria*

Digital Identity Protection - Concepts and Issues
Keynote Prof. Elisa Bertino (Purdue University)

10:30 – 11:00 Coffee Break

11:00 – 12:30 Parallel Sessions

CISIS Session 7: Database and Data Mining Applications II – D36
Chair: Salvatore Vitabile, *University of Palermo, Italy*

1. Link Structure Ranking Algorithm for Trading Networks
   Andri Mirzal
2. XML-based Knowledge Discovery for the Linguistic Atlas of Sicily (LAS) Project
   Giuseppe Russo, Antonio Gentile, Roberto Pirrone, Vincenzo Cannella
3. MCFPTree: A FP-Tree-Based Algorithm for Multi-Constrained Patterns Discovery
   Wen-Yang Lin , Ko-Wei Huang
4. SQL-based Object-Oriented Development with DBPowder
   Tadashi Murakami

CISIS Session 8: Network Control and Performance Analysis I – D35
Chair: Arjan Durresi, *IUPUI, USA*

1. MAILComp - New Compression Method Designed for Electric Mail Transfer Protocols over TLS
   Shigetomo Kimura, Yusuke Kumagai, Daigo Manabe, Yoshihiko Ebihara
2. On Estimation Algorithm for Radio Communication along Rough Surface
   Hironori Fujii, Kazunori Uchida, Mayumi Nakagawa, Junichi Honda, Kwang-Yeol Yoon
3. A Visualization of Internet AS Topology with Valley-free Rules
   Shingo Nomoto, Kensuke Fukuda, Minoru Uehara, Hideki Mori
4. Extraction of Characteristics of Anomaly Accessed IP Packets using Chi-square Method
   Shunsuke Oshima, Takuo Nakashima, Yusuke Nishikido

ECDS 1: Systems and Requirements Engineering – D34
Chair: Markus Aleksy, *ABB Corporate Research, Germany*

1. Semi-automatic Annotation System for OWL-based Semantic Search
   C.-H. Liu, H.-J. Chen, J.-L. Jain, J.-Y. Chen
2. Strengths and Weaknesses of Maturity Driven Process Improvement Effort
   Asadullah Shaikh, Ashfaq Ahmed, Nasrullah Memon, Muniba Memon
3. End-user Configuration for Pervasive Computing Environments
   Verena Tuttlies, Gregor Schiele, Christian Becker
4. Using Semantic Technologies to Enhance a Requirements Engineering Approach for Alignment of IT with Business Strategy
   Csaba Veres, Jennifer Sampson, Steven Bleistein, Cox Karl, Verner June

ASHEs 1: Adaptive Behaviour in Heterogeneous Systems – D33
Chair: Jason J. Jung, *Yeunnam University, Korea*

1. Mobility Status as Dynamic Context for Behaviour Optimisation in Self-organised Networks
   Richard Anthony, Mona Ghassemian
2. Adaptive Community Identification Based on Contextual Synchronization: An Empirical Sudy
   Jason J. Jung
3. Integration of Shareable Containers with Distributed Hash Tables for Storage of Structured and Dynamic Data
   Eva Kühn, Richard Mordinyi, Tomas Moser, Hannu-Daniel Goiss, Sandford Bessler, Slobodanka Tomic
4. Dynamic Adaptation of Parallelism Level in Data Transfer Scheduling
   Mehmet Balman, Tevfik Kosar

BT 1: Developing Automated Biometric Control – D32
Chair: M. Nabil Kabbaj, *LAAS CNRS, France*

1. New Physiological Biometrics Based on Human Cognitive Factors
   Omar Hamdy, Issa Traore
2. Sparce non Negative Matrix Factorization for Time Series of Medical Images Analysis
   Cosmin Lazar, Daniel Nuzillard, Andrei Doncescu
3. Non Negative Matrix Factorization Clustering Capabilities; Application on Multivariate Image Segmentation
   Cosmin Lazar, andrei doncescu
4. Self Tuning Vision System for Monitoring Bioreactor Cell Population
   Andrei Doncescu, Nabil Kabbaj

12:30 – 14:00 Lunch Break

14:00 – 15:30 Single Session

ARES Keynote 3 - UG
Chair: Edgar Weippl, Vienna University of Technology, Austria

Topological Analysis of Network Attack Vulnerability
Keynote Prof. Sushil Jajodia (George Mason University)

15:30 – 18:00 Coffee Break

16:00 – 18:00 Parallel Sessions

CISIS Session 9: Complex Intelligent Techniques for eLearning – D36
Chair: Fatos Xhafa, *Technical University of Catalonia, Spain*

1. Stimulation Effects of SmartBox for E-learning Using JXTA-Overlay P2P System
   Keita Matsuo, Leonard Barolli, Vladi Kolici, Fatos Xhafa, Akio Koyama, Arjan Durresi
2. Creation and Delivery of Complex Learning Experiences: the ELeGI Approach
   Nicola Capuano, Angelo Gaeta, Agostino Marengo, Sergio Miranda, Francesco Orciuoli
3. Intelligent Context' for Personalised m-learning
   Philip Moore, Bin Hu, Jizheng Wan
4. Computer-mediated Group Interaction Processes
   Daphna Shwarts-Asher, Niv Ahituv, Dalia Etzion

CISIS Session 10: Systems for Biological and Medical Applications – D35
Chair: Andrei Doncescu, *LAAS CNRS, France*

1. Modeling of the main metabolism in Escherichia coli and ruled-based dynamic simulation of the batch culture
   Tuty Asmawaty Abdul Kadir, Kazuyuki Shimizu
2. The Role of Service Oriented Architecture in Telemedicine Healthcare System
   Asadullah Shaikh, Muniba Memon, Nasrullah Memon, Muhammad Misbahuddin
3. Semi-quantitative modeling for the effect of oxygen level on the metabolism in Escherichia coli
   Yu Matsuoka, Kazuyuki Shimizu
4. An Embedded Module for Iris Micro-Characteristics Extraction
   Carmelo Militello, Vincenzo Conti, Salvatore Vitabile, Filippo Sorbello

ECDS 2: Techniques & Applications – D34
Chair: Markus Aleksy, *ABB Corporate Research, Germany*

1. Online Web Storage using Virtual Large-Scale Disks
   Erianto Chai, Minoru Uehara, Makoto Murakami, Motoi Yamagiwa
2. Data Classification Based on the Class-rooted FP-tree
   Ye-In Chang, Chen-Chang Wu, Jun-Hong Shen, Chien-Hung Chen
3. Distributed parallel Groebner base computation
   Heinz Kredel
4. EPCIS-based Supply Chain Event Management – A Quantitative Comparison of Candidate System Architectures
   Christoph Tribowski, Christoph Goebel, Oliver Günther
5. Bloom Filters Based on the B-Tree
   Fumiaki Sato, Shigetoshi Wakabayashi

ASHEs 2: Adaptive Service and Resource Management – D33
Chair: Christian Glasner, *Johannes Kepler University Linz, Austria*

1. Application of a Critical Chain Project Management based Framework on Max-Plus Linear Systems
   Hirotaka Takahashi, Hiroyuki Goto, Munenori Kasahara
2. A DNA-Based Clustering Method Based on Statistics Adapted to Heterogeneous Coordinate Data
   Ikno Kim, Junzo Watada
3. A Three-Phase Adaptive Prediction System of the Run-Time of Jobs based on User Behaviour
   Christian Glasner , Jens Volkert
4. Fuzzy Similarity Clustering for Consumer-Centric QoS-aware Selection of Web Services
   Wei-Li Lin, Chi-Chun Lo, Kuo-Ming Chao, Nick Godwin

BT 2: Biomedical Science and Public Health – D32
Chair: Jacques Demongeot, *TIMC Grenoble, France*

1. Pervasive informatics and persistent actimetric information in health smart homes : From Language Model to Location Model
   Yannick Fouquet, Jacques Demongeot, Nicolas Vuillerme
2. FI-CGA Score of Old People by Community Based Information System
   Fariba Teymoori, M. T. Mousavi, M. Shirazikhah, B. Abharilaleh , R. Biglarian, Alain Franco, Jacques Demongeot
3. Modeling the Rearrangements of Genes encoding Immune Receptors. Toward a Prediction Tool of Immune Specificity
   Simonet Maria-Ana, Hansen Olivier, Thuderoz Florence, Jouvin-Marche Evelyne, Marche Patrice N., Demongeot Jacques
4. Modelling medical time and expertise. Example of the hospital stay duration in Diagnosis Related Groups Data Bases
   Cecile Delhumeau, Jacques Demongeot, Carole Langlois, Carla Taramasco

Wednesday, Mar 18, 2009

09:00 – 10:30 Single Session

CISIS Keynote 1 – UG
Chair: Makoto Takizawa, *Sekei University, Japan*

CSTP Coordination Program of Science and Technology Projects in Japan: Very Large Information Integration and Application Platform
Keynote Prof. Shojiro Nishio (Osaka University)

10:30 – 11:00 Coffee Break

11:00 – 12:30 Parallel Sessions

CISIS Session 11: Network Control and Performance Analysis II – D36
Chair: Hui-Huang Hsu, *Tamkang University, Taiwan*

1. Lifetime in Wireless Sensor Networks
   Julien Champ, Clément Saad, Anne-Elisabeth Baert
2. A Disaster Information System by Ballooned Wireless Adhoc Network
   Yoshitaka Shibata, Yosuke Sato, Naoki Ogasawara, Go Chiba
3. AWide Area Surveillance Video System by Combination of Omni-directional and Network Controlled Cameras
   Yosuke Sato, Koji Hashimoto, Yoshitaka Shibata

CISIS Session 12: Networking-based Systems and Applications I – D35
Chair: Takahiro Hara, *Osaka University, Japan*

1. Admission Control and Multipath Routing Algorithm for Differentiated Services Based Networks
   Muhammad Omer Farooq, Sadia Aziz
2. Escrow Approaches for Global Consistency in Mobile Ad Hoc Networks
   Takahiro Hara
3. Design and Implementation of An Adaptive Control Scheme for Context Information Delivery
   Yoshihisa Sato, Hideyuki Takahashi, Takuo Suganuma, Norio Shiratori

3PGIC 1: Grid and P2P Computing – D34
Chair: Fatos Xhafa, *Technical University of Catalonia, Spain*

1. Predicting Parameter Sweep Jobs: From Simulation to Grid Implementation
   Peter Hellinckx, Sam Verboven, Frans Arickx, Jan Broeckhove
2. Design of a Configurable Auction Server for Resource Allocation in Grid
   Xavier Vilajosana, Ruby Krishnaswamy, Joan Manuel Marquès
3. A Peer-to-Peer Recommender System with Privacy Constraints
   Konstantin Pussep, Sebastian Kaune, Jonas Flick, Ralf Steinmetz
4. Dynamic Meta-Scheduling Architecture based on Monitoring in Distributed Systems
   Florin Pop, Ciprian Dobre, Corina Stratan, Alexandru Costan, Valentin Cristea

IMIS 1: Intelligent Services – D32
Chair: Ilsun You, *Korean Bible University, Korea*

1. A Highly Scalable Key-value Storage System for Latency Sensitive Applications
   Qiang Wang, Feilong Tang
2. Dynamic Algorithms for Self-Deployment and Self-Configuration of Pervasive Service Components
   Shumao Ou, Dunsheng Liu, Kun Yang
3. A Parameter-based Scheme for Service Composition in Pervasive Computing Environment
   Zhenghui Wang, Tianyin Xu, Zhuzhong Qian, Sanglu Lu
4. An Innovative Internet Service for Backing up Data on Personal Computer and Mobile Devices
   Shuchih Ernest Chang

i-SEEK 1: Information Integration & Metadata Engineering – D33
Chair: Konstantinos Kotis, *University of the Aegean, Greece*

1. A Formal Modeling Method applied to Environmental-Knowledge Engineering
   Alfredo Simón-Cuevas, Luigi Ceccaroni, Alejandro Rosete-Suárez, Amhed Suárez-Rodríguez
2. Knowledge Structuring Tool for Sustainability Science Based on Ontology Engineering
   Terukazu Kumazawa, Osamu Saito, Kouji Kozaki, Takanori Matsui, Riichiro Mizoguchi
3. "Green" Supply Chains: Using Information Integration for Sustainable Development (Position Paper)
   Alexander Schatten
4. The Health-e-Waterways Project - Data Integration for Smarter, Collaborative, Whole-of-Water Cycle Management
   Jane Hunter, Catharine van Ingen, Eva Abal
5. Aligning Environment Web data to the ISO 15926 Ontology (Position Paper)
   Jennifer Sampson, Henrik Forrssell, Egil Dragsund, Frederic Verhelst

12:30 – 14:00 Lunch Break

14:00 – 15:30 Parallel Sessions

CISIS Session 13: Wireless and Mobile Networking – D36
Chair: Makoto Takizawa, *Sekei University, Japan*

1. Performance Evaluation of Link Quality Extension in Multihop Wireless Mobile Ad-hoc Networks
   Makoto Ikeda, Leonard Barolli, Masahiro Hiyama, Giuseppe De Marco, Tao Yang, Arjan Durresi
2. Filtering Order Adaptation Based on Attractor Selection for Data Broadcasting System
   Shinya Kitajima, Takahiro Hara, Tsutomu Terada, Shojiro nishio
3. Management for Mobility-Aware Networks Based on Standardized Protocols
   Kazuhide Koide, Takafumi Maruyama, Glenn Mansfield Keeni, Norio Shiratori
4. MixMobiGen - A realistic mixed traffic mobility generator for adhoc network simulations
   Arta Doci, Leonard Barolli, Fatos Xhafa

CISIS Session 14: Networking-based Systems and Applications II – D35
Chair: Akio Koyama, *Yamagata University, Japan*

1. Implementation and Evaluation of an Ubiquitous Health Monitoring System
   Akira Yamazaki, Akio Koyama, Junpei Arai, Leonard Barolli
2. A Flexible and Secure Access Control Schemeusing Social Behavior in the Real World
   Debasish Chakraborty, Satoshi Ogawa, Gen Kitagata, Azno Hashimoto, Atushi Takeda, Norio Shiratori
3. Heterogeneous Multi Domain Network Architecture for Military Communications
   Arjan Durresi, Mimoza Durresi, Leonard Barolli

3PGIC 2: Performance and Grid-enabled Applications – D34
Chair: Valentin Cristea, *Polytechnical University of Bucharest, Romania*

1. Office Grid based on Windows PCs
   Kenichi Tanaka, Minoru Uehara, Makoto Murakami, Motoi Yamagiwa
2. Realtime network backup to existing servers based on stackable filesystem
   Satoshi Nishimura, Mutsuo Sano, Katsuo Ikeda
3. Guaranteed Download time in a distributed Video on Demand System
   Anne-Elisabeth BAERT, Vincent BOUDET, Alain JEAN-MARI
4. A Replication-based Approach for the Improvement of the Online Learning Experience in Distributed Environments
   Santi Caballé, Fatos Xhafa, Ajith Abraham

IMIS 2: Security – D32
Chair: Kenichi Takahashi, *ISIT, Japan*

1. A New Authentication Scheme For Session Initiation Protocol
   Eun-Jun Yoon, Kee-Young Yoo
2. The Study on Software Tamper Resistance for Securing a Game Service
   Hangbae Chang, Hyuk-Jun Kwon, Ilsun You
3. Developing a Multi-Protocol Mobility Manager for SIP/SS7 Networks
   Hyung-Soo Park, Hyung-Woo Lee, Seong-Jin Park, Dong Hoon Lee
4. A Secure RFID Authentication Protocol with Low Communication Cost
   Mohammad Rahman, Masakazu Soshi, Atsuko Miyaji

i-SEEK 2: Data Discovery, Decision-support and Educational Systems – D33
Chair: Franz Wotawa, *Graz University of Technology, Austria*

1. Improving Data Discovery for Metadata Repositories through Semantic Search
   Chad Berkley, Shawn Bowers, Matthew Jones, Joshua Madin, Mark Schildhauer
2. On the use of abduction as an alternative to decision trees in environmental decision support systems
   Franz Wotawa
3. An ontology-based authoring tool for sustainable energy education
   Sotiris Karetsos, Dias Haralambopoulos

15:30 – 16:00 Coffee Break

16:00 – 18:00 Parallel Sessions

3PGIC 3: Services, Workflows and Data Grids – D34
Chair: Fatos Xhafa, *Technical University of Catalonia, Spain*

1. A security layer for JXTA core protocols
   Joan Arnedo-Moreno, Jordi Herrera-Joancomartí
2. Improving the quality of mapping solutions in the system supporting SLA-based workflows with parallel processing technology
   Minh Quan Dang, Laurence T. Yang
3. A Best-effort Mechanism for Service Deployment in Contributory Computer Systems
   Daniel Lázaro, Joan Manuel Marquès, Josep Jorba
4. Early Error Detection and Classification in Data Transfer Scheduling
   Mehmet Balman, Tevfik Kosar
5. Federation and abstraction of heterogeneous global computing platforms with the YML framework
   Laurent Choy, Olivier Delannoy, Nahid Emad, Serge G. Petiton

VENOA 1: Graphics and VR Systems I – D31
Chair: Hiroaki Nishino, *Oita University, Japan*

1. Delay Compensation Scheme for Transparency over Haptic-based Networked Virtual Environments
   Seokhee Lee, JongWon Kim
2. Shared Object Interaction in Virtual World
   Muhammad Rusdi Syamsuddin, Yong-Moo Kwon
3. COLLADA-based File Format Supporting Various Attributes of Realistic Objects for VR Applications
   Katsunori Miyahara, Yoshihiro Okada
4. P2P-Based Avatar Interaction in Massive Multiuser Virtual Environments
   Markus Esch, Jean Botev, Hermann Schloss, Ingo Scholtes

FCISIS 1: Networking, Wireless and Sensor Networks – D33
Chair: Leonard Barolli*, Fukuoka Institute of Technology, Japan*

1. A unitary-optimized operation for wireless live streaming
   Juan Zhao, Guo-ping Wu, Chen Zhao
2. Performance Evaluation of aWireless Sensor and Actor Network Considering Mobile Event
   Tao Yang, Leonard Barolli, Makoto Ikeda , Giuseppe De Marco, Fatos Xhafa, Roseta Miho
3. An Adaptive User Interface for Universal Multimedia Access
   Yusaku Maeda, Eriko Tsujimura, Kaoru Sugita, Tetsushi Oka, Masao Yokota
4. A Game Community Support System
   Toshihiko Wakahara, Yuusuke Chikushi

IMIS KN: Invited Talk and Best Paper Award – D32
Chair: Ilsun You, *Korean Bible University, Korea*

Biometric Crypto
Invited Talk of Kwok-Yan Lam

Thursday, Mar 19, 2009

09:00 – 10:30 Single Session

ARES Invited Talk - UG
Chair: A Min Tjoa, *Vienna University of Technology, Austria*

Integrative security approach as a key success factor of dependability
Prof. Solange Ghernaouti-Hélie (University of Lausanne)

10:30 – 11:00 Coffee Break

11:00 – 12:30 Parallel Sessions

IMIS 3: Mobile Internet and Wireless Network – D32
Chair: Hangbae Chang, *Daejin University, Korea*

1. Smews: Smart and Mobile Embedded Web Server
   Simon Duquennoy, Gilles Grimaud, Jean-Jacques Vandewalle
2. A Novel High-reliable Platform for Wireless Sensor Networks with Serpentine-Antenna Design
   Wen-Tzeng Huang, Hae-Duck Joshua Jeong
3. Energy Efficient Cluster header Selection Algorithm in WSN
   Inbo Sim, KoungJin Choi, KoungJin Kwon, Jaiyong Lee
4. Context Reflector for Proxy Mobile IPv6
   Sawako Kiriyama, Ryuji Wakikawa, Jinwei Xia, Fumio Teraoka

IIBM 1 – D33
Chair: Hui-Huang Hsu, *Tamkang University, Taiwan*

1. Genome-wide search for splicing defects associated to amyotrophic lateral sclerosis (ALS).
   Silvia Lenzken, Silvia Vivarelli, Francesca Zolezzi, Francesca Cordero, Cristina Della Beffa, Raffaele Calogero, Silvia Barabino
2. Computational Predictions for Functional Proteins Working After Cleaved in Apoptotic Pathway
   Chigusa Miyakawa, Manabu Sugii, Hiroshi Matsuno, Satoru Miyano
3. Collection of Disease Networks by Hybrid Curation Method and the Application for Pathway Analysis
   Tatsuya Kushida, Takao Asanuma, Yoshihiro Okuda, Yo Shidahara, Toshihisa Takagi
4. Mathematical modeling for spatiotemporal development of leaf primordium
   Koji Ishii, Hiroyuki Hamada, Masahiro Okamoto

VENOA 2: Multimedia and Web – D34
Chair: Yong-Moo Kwon, *Korea Institute of Science and Technology, Korea*

1. A Proposal of Structured Learning Assistance Function in Lecture-Scene Playback System Using Digital Picture-Card Show
   Nobuo Funabiki, Aki Mouri, Kanako Uemura, Toru Nakanishi
2. The Ubiquitous Environment House for Observational Learning in Science Education
   Kenzi Watanabe, Shigenori Yamada, Makoto Otani, Yasuhisa Okazaki
3. Proceeding with Keyword-based Web-Image Annotation Conceptually in Folksonomy
   Makoto Nakashima, Takahiro Hiyama, Keizo Sato, Tetsuro Ito
4. Medical Application of Internet Based Multipoint Tele-conference Technology
   Sunglim Lee, Koji Okamura, Junghun Lee

FCISIS 2: Web & Grid Services and Ontologies – D31
Chair: Fatos Xhafa, *Technical University of Catalonia, Spain*

1. A Web Services Orchestration Solution for Semantic Multimedia Indexing and Retrieval
   Mihaela Brut, Florence Sedes , Ana-Maria Manzat
2. Semantic Management of Multimedia Documents for E-Government Activity
   Flora Amato, Antonino Mazzeo, Vincenzo Moscato, Antonio Picariello
3. Towards Workflow Framework for Sub-ontology Extraction in Semantic Grid
   Toshihiro Uchibayashi, Bernady Apduhan , Wenny Rahayu, David Taniar , Norio Shiratori
4. Towards an Architectural Pattern for Automatic Web Service Discovery and Selection in Business Marketplace
   Matteo Gaeta, Vincenzo Loia, Stefano Paolozzi, Pierluigi Ritrovato, Mario Veniero

12:30 – 14:00 Lunch Break

14:00 – 15:30 Parallel Sessions

IMIS 4: Theoretical foundations and algorithms – D32
Chair: Hae-Duck Joshua Jeong, *Korean Bible University, Korea*

1. Data replication preserving semantic relationship on a single wireless channel
   Song-Yi Yi, Heonshik Shin
2. Efficient Task Allocation Method to Improve Network Processor Throughput
   Yong Yu, Zhihang Yu, Minyi Guo, Feilong Tang
3. A Register Framework for Network Processors with Banked Register File
   Zhihang Yu, Yo Yu, Minyi Guo, Feilong Tang

IIBM 2 – D33
Chair: Hiroshi Matsuno, *Yamaguchi University, Japan*

1. Predicting Protein Subcellular Localizations for Gram-Negative Bacteria using DP-PSSM and Support Vector Machines
   Eric Y.T. Juan, J.H. Jhang, C.H. Chiu
2. Measuring Structural Robustness of Metabolic Networks Under a Boolean Model Using Integer Programming and Feedback Vertex Sets
   Takeyuki Tamura, Kazuhiro Takemoto, Tatsuya Akutsu
3. A nonmonotonic logical approach for modelling and revising metabolic networks
   Oliver Ray, Ken Whelan, Ross King
4. B-Cell Conformational Epitope Prediction based on Structural Relationship and Antigenic Characteristics
   Wei-Kuo Wu, Wei Chun Chung, Hao Teng Chang, Ron-Shan Cheng, Tun-Wen Pai

VENOA 3: 3D Vision and Image Processing – D34
Chair: Nobuo Funabiki, *Okayama University, Japan*

1. Vision-Based 3D Fingertip Interface for Spatial Interaction in 3D Integral Imaging System
   Nam-Woo Kim, Dong-Hak Shin, Dong-Jin Kim, Byung-Gook Lee, Eun-Soo Kim
2. Simultaneous Background/Foreground Segmentation and Contour Smoothing with Level Set based Partial Differential Equation for Intelligent Surveillance Systems over Network
   Suk-Ho Lee, Nam-seok Choi, Byung-Gook Lee, Moon Gi Kang
3. Sport Data Animating - An Automatic Animation Generator from Real Soccer Data -
   Hidehiro Ohki, Moriyuki Shirazawa, Keiji Gyohten , Naomichi Sueda , Seiki Inoue

FCISIS 3: Formal Models and Scientific Computing – D31
Chair: Leonard Barolli, *Fukuoka Institute of Technology, Japan*

1. The Sampling-based Sensitivity Analysis Model for Yield Improvement in HDD Manufacturing
   Worraluk Yamwong, Jhaggapong Kaotien, Tiranee Achalakul
2. Application of Cylindrical Elastic Elements for Stiffness Control of Tendon-Driven Manipulator and Inverse Kinematics Evaluation
   Dai Nakiri, Hitoshi Kino
3. Simulation of Soliton Propagation in Slab Waveguide by Frequency Dependent FDTD Method
   Hiroshi Maeda
4. Electromagnetic Fields Diffracted by Two Horizontal Edges with Arbitrary Angle Considering Different Heights
   Jiro Iwashige, Leonard Barolli, Daiki Uchida

15:30 – 16:00 Coffee Break

16:00 – 18:00 Parallel Sessions

IMIS 5: Security & Multimedia – D32
Chair: Bonam Kim, *Chungbuk National University, Korea*

1. Bandwidth Scalable Wideband Codec using Hybrid Matching Pursuit Harmonic/CELP Scheme
   Gyu-Hyeok Jeong, Il-Dong Kim, Bo-Nam Kim, In-Sung Lee
2. RFID Forward Secure Authentication Protocol: Flaw and Solution
   Kin Ying Yu, S.M. Yiu, Lucas C.K. Hui
3. Design a Virtual Object Representing Human-Machine Interaction for Music Playback Control in Smart Home
   Jenq-Muh Hsu, I-Ray Chang
4. A lightweight implementation of trusted domain enforcement for secure embedded web server
   Ruo Ando

IIBM 3 – D33
Chair: Tun-Wen Pai, *National Taiwan Ocean University, Taiwan*

1. Outlier Filtering for Identification of Gene Regulations in Microarray Time-Series Data
   Andy C. Yang, Hui-Huang Hsu, Ming-Da Lu
2. Classifying biomedical figures using combination of bag of keypoints and bag of words
   Asako Koike, Toshihisa Takagi
3. An Ant Colony Optimization Algorithm for DNA Copy Number Analysis in Array CGH data
   Yun Lee, Shyi-Chyi Cheng, Chin-Chun Chang, Chin Han Chuang

VENOA 4: Graphics and VR Systems II – D34
Chair: Makoto Nakashima, *Oita University, Japan*

1. A Method of Image Edition with Haptic Devices
   Tsuneo Kagawa, Tatsuya Shimamura, Hiroaki Nishino, Kouichi Utsumiya
2. A Handwritten Character Training System with Haptization of Instructor's Brush-Strokes
   Kazuya Shuto, Hiroaki Nishino, Tsuneo Kagawa, Kouichi Utsumiya
3. A CG Generation Method of Wash Drawing
   Shinichiro Tomohiro
4. Evaluating Websites Services with a Political-Economic Approach
   Dahlan Nariman

FCISIS 4: Networking & Multicore Systems – D31
Chair: Sabri Pllana, *University of Vienna, Austria*

1. Estimating the Optimal Configuration of a Multi-Core Cluster: A Preliminary Study
   Shuichi Ichikawa, Shoichiro Takagi
2. Improving Multi-Core System Dependability with Heterogeneous Reliability Cores
   Peter Ungsunan, Chuang Lin, Yi Gai, Xiangzhen Kong
3. Robustness during network evolution
   Chunquan He, Qingsheng Ren
4. Anonymous Authentication System using Group Signature
   Yun-kyung Lee, Seung-wan Han, Sok-joon Lee, Byung-ho Chung, Deok Gyu Lee

Additional Information

Travel to Conference Venue

Access to Fukuoka Institute of Technology

FIT is located very close to "Fukkodai-Mae" station (the Station in the front of FIT) of JR (Japan Railways) Kagoshima Line. It takes about 3 minutes on foot from the train station to the main building of the university.

From JR Hakata Station

Take JR train (Kagoshima Line, Trains Leaving Hakata Station) to "Fukkodai-Mae" station. Both the local (stop at each station) and the rapid (skip some stations) trains stop at "Fukkodai-Mae" station. The local trains operate every 20 minutes and it takes about 20 minutes from Hakata station to "Fukkodai-Mae" station. The rapid trains operate every 25 minutes and it takes about 15 minutes from Hakata station to "Fukkodai-Mae" station. The ticket price is 270 yen and there is no difference in the ticket price between the local and rapid trains.

From Fukuoka International Airport

Take the subway to "Hakata" station. Then transfer to "JR Kagoshima Line" and take the train for "Fukkodai-Mae" station. "Fukuokakuko (Airport)" subway station is located immediately below the domestic terminal. The subway fare to Hakata is 250 yen and it takes about 6 minutes. All trains from Fukuoka Airport go to Hakata. From the international terminal, there is a local bus service to Hakata Station (look for "Hakata" on the front of buses), which costs 190 yen. The other alternatives are the free shuttle buses to the domestic terminal where you can transfer to the subway, or you can take a taxi directly from the international terminal building.

From Hakata Harbour (Sea-Port) International Terminal

It takes about 10 to 15 minutes to go from Hakata Harbour International Passenger Terminal to "Hakata" station or Tenjin station. The bus numbers 11 and 19 go to Hakata and bus numbers 55, 151, 152 and 209 go to Tenjin. The nearest subway station is "Gofukumachi" and it takes about 15 minutes on foot from the terminal. The other alternative is to take a taxi.

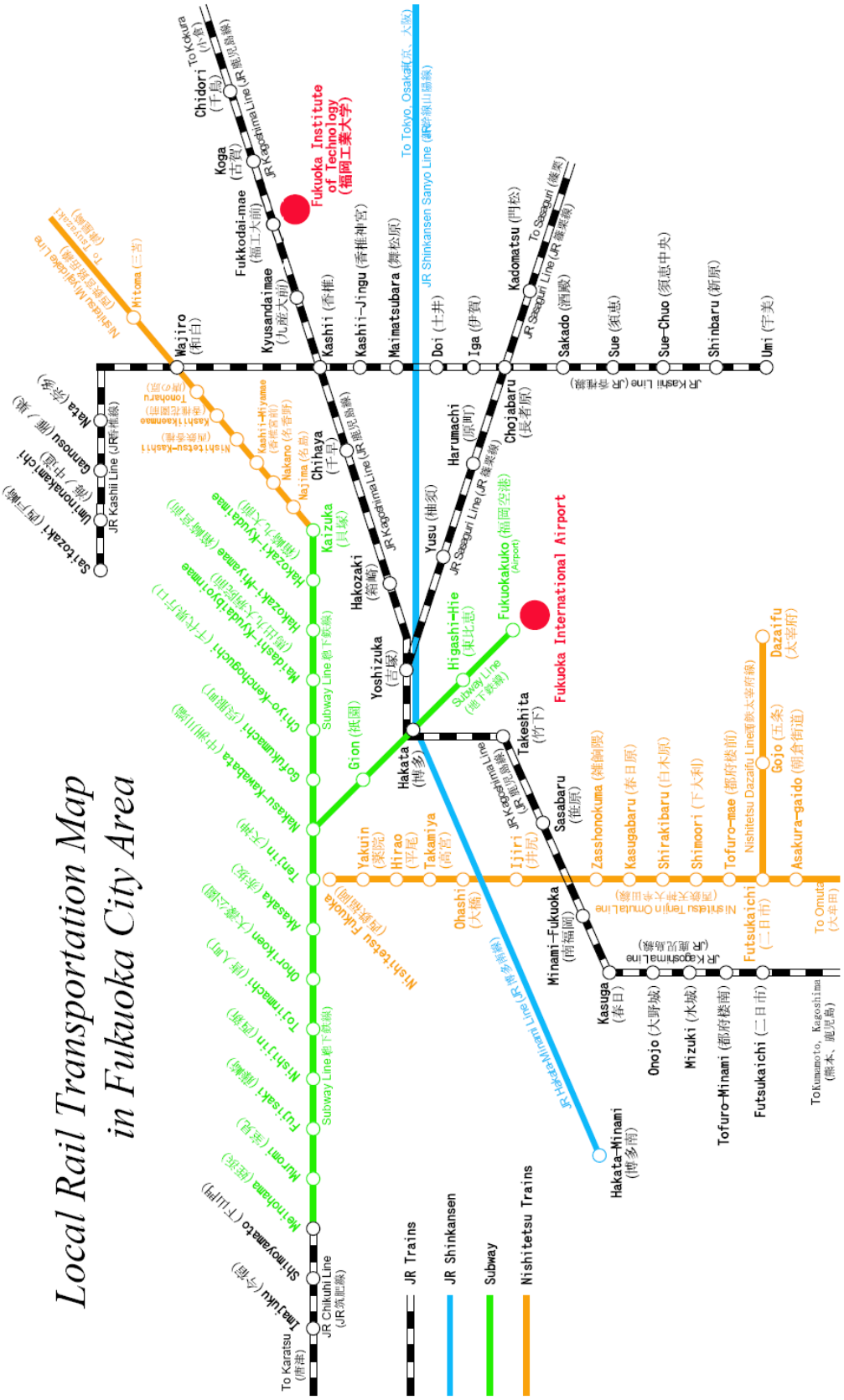
From Tenjin or Nakasu-Kawabata (Downtown) Area

Take the subway to "Hakata" station. Then transfer to "JR Kagoshima Line" and take the train for "Fukkodai-Mae" station.

Taxi Information

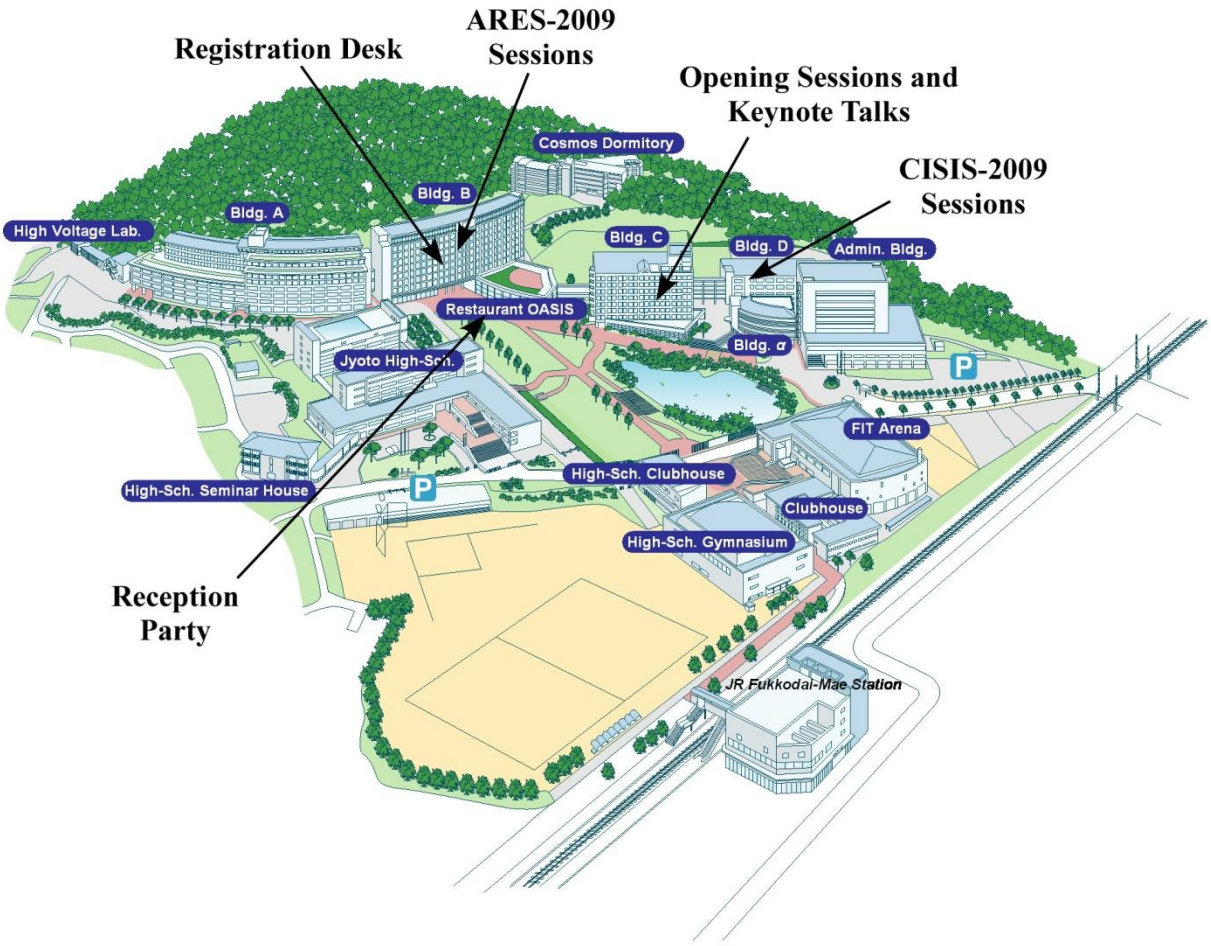
A large number of taxis operate 24 hours and can be found in many streets in the city. Outside stations and in other places with heavy pedestrian traffic, there are also taxi stands. An empty taxi can be spotted by a red sign behind the windscreen and to the driver's left side, or at night when the rooftop sign is illuminated. Most of the taxis are "ko-gata" (small), but there are also "chu-gata" (medium size) and "o-gata" (large) size taxis, which are more expensive. The fare for a ko-gata taxi is 550 yean up to 1.2 km and for each additional 200 meters is increased 50 yen. Between 11:00 p.m. and 5:00 a.m., the fares are increased by 20%. It is not customary to tip the driver at the end of your journey. The followings are the expected fare of "ko-gata" taxi: from Fukuoka International Airport to FIT 5,000 yen; from Fukuoka International Airport to Hakata Station 1,350 yen; and from Hakata Harbour to FIT 4,500 yen.

Local Rail Transportation Map (Fukouka City Area)

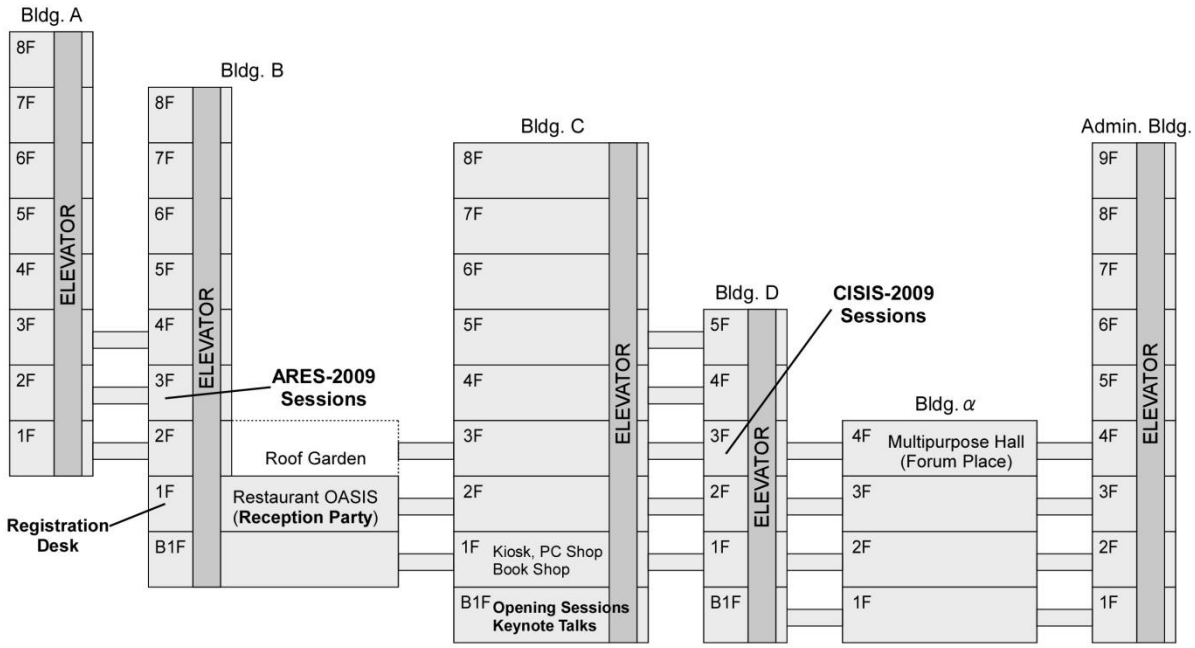


Maps of the Conference Venue

Fukuoka Institute of Technology (FIT) Campus Map

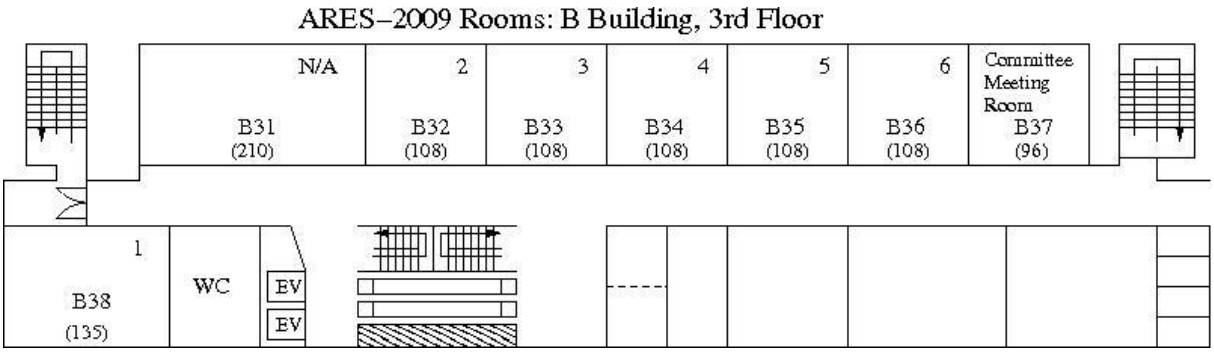


Floor Connection of FIT Buildings

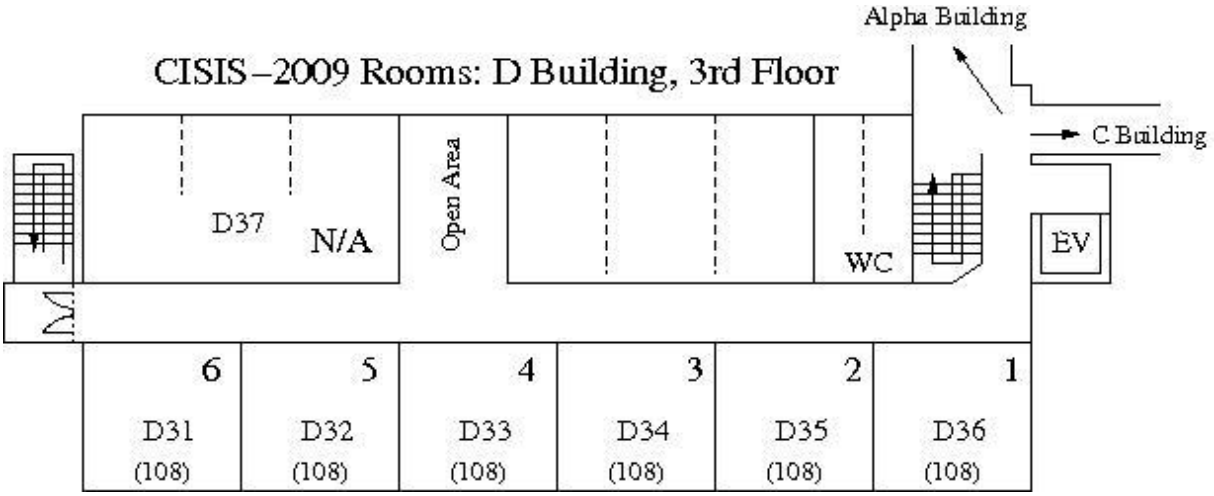


Floor Connection of FIT Buildings

ARES Floor Map



CISIS Floor Map



Social Events

Reception Party

March 17th, 2009
18:30 - 21:00

OASIS Restaurant
Fukuoka Institute of Technology (FIT)

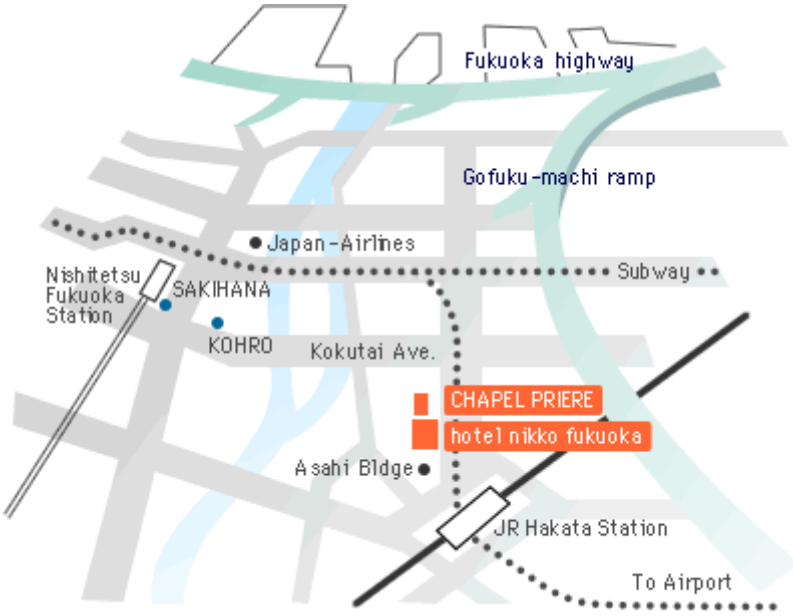
3-30-1 Wajiro-Higashi, Higashi-Ku,
Fukuoka 811-0295
Tel.: 092-606-2204

Banquet Party

March 18th, 2009
Time: 19:00 - 21:00

Hotel Nikko Fukuoka
http://www.hotelnikko-fukuoka.com/english/location/index.html

2-18-25 Hakata Eki-mae, Hakata-ku,
Fukuoka 812-0011
Tel: 092-482-1111
Fax: 092-482-1127



Internet Access

During the Conference days wired and wireless Internet access will be provided:

1. For wired access please take with yourself the network cable.

2. For wireless access:
   SSID: ARESCISIS
   Key: ARESCISIS2009

Registration Office

If yout have any questions or need assistant do not hesitate to contact:

ARES/CISIS 2009 Registration Office (c/o ILCC Co., Ltd.)
Email: ares_cisis[at]ilcc.com
Tel: +81-3-5562-3677
Fax: +81-3-5562-3666

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