TABLE OF CONTENTS

REGISTRATION DATES & TIMES

June 20, 2004 (Sunday)
03:00 - 09:00pm
LOCATION: Second Floor, Conference Section

June 21, 2004 (Monday)
6:30am - 6:00pm
LOCATION: Second Floor, Conference Section

June 22, 2004 (Tuesday)
7:00am - 6:00pm
LOCATION: Second Floor, Conference Section

June 23, 2004 (Wednesday)
7:00am - 6:00pm
LOCATION: Second Floor, Conference Section

June 24, 2004 (Thursday)
7:30am - 11:00am
LOCATION: Second Floor, Conference Section

CONFERENCE DINNER

June 21, 2004 (Monday)
09:00 - 11:00pm
LOCATION: Meeting Rooms 1-5

Parallel and Distributed Heterogeneous Computing Systems

Professor H. J. Siegel

June 22, 2004 (6:00 pm - 9:30 pm)
LOCATION: Meeting Room 5

ABSTRACT

In a parallel or distributed heterogeneous computing environment, a suite of different machines is interconnected by high-speed links to provide a variety of computational capabilities to execute collections of tasks that have diverse requirements. The execution times of a task will vary from one machine to the next, and tasks will compete for machines in the suite. An important research problem for heterogeneous (and cluster and grid) computing is how to assign tasks to machines and schedule the order of their execution to maximize some performance criterion. Factors that must be considered include machine loading, how well the execution needs of a task match the computational capabilities of a machine, any inter-task communications, and the performance criterion to be optimized. An overview of the field of heterogeneous computing is given. Example resource management heuristics for assigning and scheduling tasks on a heterogeneous suite of machines are presented. Methods for evaluating and comparing heuristics are demonstrated. Different types of heterogeneous computing environments are examined. The issue of robust resource allocations is explored. Open problems in the field of parallel and distributed heterogeneous computing are discussed.

OBJECTIVES

This course will enable you to:

- Understand the potential advantages of using parallel and distributed heterogeneous computing systems
- Analyze some of the factors that must be considered when designing resource management systems for heterogeneous environments
- Be familiar with a variety of resource management techniques for assigning tasks to machines and scheduling their execution to optimize some performance criterion
- Determine how to evaluate the potential performance of a heterogeneous computing system for a particular workload environment

- Be aware of the open research problems in heterogeneous computing that are important areas for future research and development.

INTENDED AUDIENCE

This course is intended for faculty, engineers, scientists, and graduate students who want an introduction to the use of heterogeneous suites of computers (including clusters and certain types of grids) to execute applications in a way that will optimize some performance criterion.

BIOGRAPHY OF INSTRUCTOR

H. J. Siegel was appointed the George T. Abell Endowed Chair Distinguished Professor of Electrical and Computer Engineering at Colorado State University (CSU) in August 2001, where he is also a Professor of Computer Science. In December 2002, he became the Director of the CSU Information Science and Technology Center (ISTeC), a university-wide organization for promoting, facilitating, and enhancing CSU's research, education, and outreach activities pertaining to the design and innovative application of computer, communication, and information systems. From 1976 to 2001, he was a Professor in the School of Electrical and Computer Engineering at Purdue University. He received two B.S. degrees from the Massachusetts Institute of Technology (MIT), and the M.A., M.S.E., and Ph.D. degrees from Princeton University. He is a Fellow of the IEEE and a Fellow of the ACM. Prof. Siegel has co-authored over 300 published technical papers in the areas of parallel and distributed computing and communications. He was a Coeditor-in-Chief of the *Journal of Parallel and Distributed Computing*, and was on the Editorial Boards of the *IEEE Transactions on Parallel and Distributed Systems* and the *IEEE Transactions on Computers*.

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Enterprise Metadata: Theory, Methodology, and Case Study

R. Todd Stephens

June 22, 2004 (6:00 pm – 9:30 pm)
LOCATION: Meeting Room 3

ABSTRACT

Enterprise metadata has received a lot of attention and press over the past few years, as many organizations have attempted to push the data warehouse success to the enterprise level. Unfortunately the integrated tools, controlled environment, and high degree of quality assurance are much harder to find at the enterprise level. Enterprise data architects are looking for alternative methods of data integration. Perhaps, enterprise metadata holds the key. Historically, definitions of metadata have described structural aspects of mechanisms that house data such as table, column, and attribute characteristics of a relational database management system (RDBMS). Additionally, at times, metadata, as a concept, has included descriptions of the state of data and enumerating and summarizing various views of data. In this tutorial, we will review a new definition of metadata, as well as review the different perspectives on the role and value of metadata within the organization. From theory to implementation, metadata plays an integral role in developing organizational knowledge.

Today, with the advent of technologies such as hypermedia and heuristically based searching and indexing, a new, broader, more generic definition of metadata is needed. This definition should include the traditional concepts, but it should add the concepts of existence, perspective, modeling, and topicality. A new definition should recognize that much, if not most, of enterprise data is not found in traditional RDBMSs, but rather, it is found in the myriad technological assets and views of those assets that exist throughout the organization.

OBJECTIVES

This course will enable you to:
- Understand the role of metadata architecture in the formulation of data, information, knowledge, and wisdom.
- Establish a framework of understanding around the five disciplines of data: Metadata Architecture, Content Management, Knowledge Management, Information Architecture, and Data Architecture.
- Learn how to develop a repository strategy and deliver the metadata experience.
- Discover why enterprise metadata is different than data warehouse metadata.
- Understand how visual design elements can enable trust in the metadata environment.

INTENDED AUDIENCE

The tutorial is intended for academics, researchers, students, and professionals who want to understand the dynamics of implementing enterprise metadata. This may also include individuals interested in enterprise application integration, data architecture, and technical asset management.

BRIEF BIOGRAPHY OF THE SPEAKER

Todd Stephens is the Director of the Metadata Services Group for the BellSouth Corporation, an Atlanta-based telecommunications organization serving over 44 million customers in 20 countries. Todd has served as the director since 1999 and is responsible for setting the corporate strategy and architecture for the development and implementation of the Enterprise Metadata Repositories, which include metadata, data transformation, component, XML, content, documentation, UDDI, messaging, metrics, interfaces, and the Enterprise Information Portal using XML technologies. For the past 20 years, Todd has worked in the Information Technology field including leadership positions at BellSouth, Coca-Cola, Georgia-Pacific and Cingular Wireless. Todd writes a monthly online column in Data Management Review and has delivered keynotes, tutorials and educational sessions for a wide variety of technology conferences. Todd holds degrees received in 1986 in Mathematics and Computer Science from Columbus State University, and he earned an MBA degree from Georgia State University in Atlanta, GA., in 1990. Currently, Todd is pursuing his Ph.D. in Information Systems at Nova Southeastern University. The majority of his research is focused on metadata reuse, semantic zooming, enabling trust within the Internet, usability and repository frameworks. On this, he has been awarded seven U.S. pending patents in the field of Metadata. Todd is a member of IEEE, ACM, DC-Corporate, Upsilon Pi Epsilon, and DAMA International. R. Todd Stephens Director of Metadata Services BellSouth Corporation 754 Peachtree St. Atlanta, GA 30308 Office: (404) 986-4668 E-Mail: todd@rtodd.com

Digital Rights Management: The Good, The Bad and The Ugly

Mark Stamp

June 22, 2004 (6:00 pm - 9:30 pm)
LOCATION: Meeting Room 2

ABSTRACT

Digital rights management (DRM) can be viewed as an attempt to provide for "remote control" of digital content. The required level of protection goes beyond simply delivering the bits—restrictions on the use of the content must be maintained after it has been delivered. For example, consider a digital book that is sold online. Without further protection, the recipient of the book could redistribute a perfect copy to anyone on the Internet at the mere click of a button. DRM attempts to remedy this situation by providing the sender with the ability to restrict the actions of the recipient. While some people worry that DRM will ultimately give copyright holders far more power than they enjoyed in the pre-digital era, to date strong DRM has proven elusive. In this tutorial we consider some of the reasons why robust DRM is difficult to achieve in practice and we discuss a few of the many examples of failed DRM systems. We also outline the architecture of a real-world DRM system that the presenter helped to design and develop. Some research problems related to DRM will also be considered. Finally, the use of DRM within an enterprise will be discussed and we will argue that enterprise DRM is a place where current DRM technology can be applied successfully.

OBJECTIVES

This course should provide you with:

- A basic understanding of the issues—technical and non-technical—that arise when designing, developing, and deploying a DRM system
- A high-level understanding of the architecture of a real-world DRM system
- An introduction to research topics related to DRM
- An understanding of why the DRM problem is inherently more tractable in an enterprise setting than in e-commerce
- A discussion of specific issues that arise in enterprise DRM
- Enough information so that you can make fun of some of the awful DRM systems that have been deployed to date
- A glimpse of life at a Silicon Valley startup company during the dot-com meltdown

INTENDED AUDIENCE

This course is intended for anyone interested in the topic of digital rights management and the material covered should be accessible to students at all levels and even to professors. Working professionals with an interest in DRM or enterprise document protection might find the course particularly useful.

BIOGRAPHY OF INSTRUCTOR

Mark Stamp spent more than seven years at the National Security Agency working on problems in cryptanalysis, speech, algorithms and networks. He left NSA with the goal of getting rich by developing a digital rights management system for a small Silicon Valley startup company, MediaSnap, Inc. After two years, MediaSnap ceased paying salaries, leaving Mark looking for gainful employment, and definitely not rich. For the past two years Dr. Stamp has enjoyed observing the tech sector from the relative security of his position as Assistant Professor of Computer Science at San Jose State University. Professor Stamp holds a PhD from Texas Tech University and has publications in a wide range of fields, including digital rights management, e-commerce, cryptography, algorithms, computer networks, epidemiology, simulation, speech, graph theory, numerical analysis and control theory. His current research interests are security, networks and algorithms.

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Introduction to Bioinformatics

Ms Ratna Saripalli, Research Scientist, PNNL
&
Dr. Bobbie-Jo Webb-Robertson, Ph.D., Senior Research Scientist PNNL

June 22, 2004 (6:00 pm - 9:30 pm)
LOCATION: Meeting Room 4

ABSTRACT

Completion of the mapping of the human genome has produced a vast amount of data, which is growing exponentially, with increasing developments in the fields of Bioinformatics, Genomics and Computational biology. This tutorial is an introduction to the field of Bioinformatics. It starts off with a brief overview of the essential biological basics, followed by a review of the publicly available Bioinformatics databases and their importance. Sequence analysis, pair wise alignment and database searching will be discussed in brief. An introduction to phylogenetic analysis, profiles and motifs will be given. Some of the existing open source tools for genomics and proteomics and applications to visualize biological information will be discussed. Finally, some challenges offered by Biology to computer scientists will be discussed. This course will serve as a good first introduction to the growing fields of Bioinformatics and Computational Biology. It is targeted to people without a significant background in biology, who intend to get a brief overview of Bioinformatics. Basic computer skills are expected.

INTENDED AUDIENCE

This tutorial is intended for academics, researchers, students, and professionals who want to understand the basics of Bioinformatics with a background in computer science.

BRIEF BIOGRAPHY OF THE PRESENTER

Ratna Saripalli is a Research Scientist at the Pacific Northwest National Laboratory where she is involved in different software design projects. She received a B.E. degree in Engineering from Andhra University, India and a M.S. degree in Environmental Science (Landscape Ecology) from University of Florida, Gainesville, Florida. She is currently pursuing M.S. degree in Bioinformatics from Stanford University as a part-time student. Her research interests include Bioinformatics and Software Engineering.

Dr. Bobbie-Jo Webb-Robertson is a Senior Research Scientist at the Pacific Northwest National Laboratory where she leads and participates in several Bioinformatics projects. She received a B.A. in Mathematics from Eastern Oregon University, La Grande, Oregon, and a M.E. and Ph.D. in Decision Sciences & Engineering Systems from Rensselaer Polytechnic Institute, Troy, New York. Her research interests focus on Statistics and Bioinformatics.

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Developing Enterprise Web Services and Applications

Dr. Sandeep Chatterjee

June 23, 2004 (6:00 pm - 9:30 pm)
LOCATION: Meeting Room 8

ABSTRACT

Web service technologies are fundamentally changing the software industry, making the role of enterprise IT organizations more strategic, and recasting the software vendor-consumer relationship. Web services are also being hailed by CEOs, CIOs, and CTOs as the next-generation vehicle for driving top line growth and controlling bottom lines. But, simply jumping on the Web services bandwagon won't lead to corporate success. Web services are simply a platform; how companies implement a solution using this new technology will determine their success, and ultimately their return on investment (ROI).

The next stage in the evolution of enterprise applications will be based on Web services. Web services are pieces of application functionality that are exported through a set of standard application programming interfaces (APIs), and allow applications to be constructed by locating and binding to the exported functionality. More interestingly, multiple Web services can be coordinated together in unique combinations in an Internet application to implement value-added services for users. In this tutorial, we describe the design, development, deployment, and maintenance of enterprise applications based on Web services. We also describe the emerging mobile enterprise environments; the unique issues inherent to these environments, and the challenges in developing mobile applications based on loosely coupled Web services. In addition to a broad coverage of the fundamental topics, industry standards, and technologies (e.g., Java, J2EE, application servers, XML, SOAP, WSDL, UDDI) the development of Web services and applications based on Web services, the tutorial will provide practical, step-by-step instruction for the development and deployment of enterprise-class Web services and applications based on standard Java 2 Enterprise Edition (J2EE) application servers and SOAP servers. We also touch on .Net technologies in support of enterprise Web services.

SPECIFIC GOALS AND OBJECTIVES

Developing applications for the Internet and corporate intranets is fundamentally different from developing traditional applications for personal computers. There is emerging two primary camps for this important class of applications - those based on
Microsoft's .Net technologies, and those based on Java technologies. This tutorial provides a broad and complete coverage of the Java technologies involved in the development of enterprise-class applications based on Java technologies, with particular emphasis on developing applications based on Web services.
The primary objective of this tutorial is to give attendees a practical exposure to developing real-world Internet applications with state-of-the-art J2EE application servers and associated technologies.

EXPECTED BACKGROUND OF THE AUDIENCE

This tutorial assumes that attendees have a basic understanding of computer programming.

A BIOGRAPHICAL SKETCH OF THE PRESENTER

Dr. Sandeep Chatterjee is a seasoned technology expert and business professional with over a decade of contributions as a thought leader, technologist, consultant, entrepreneur, and author. Dr. Chatterjee is chief technology officer of a Web services delivery and management startup, where he is responsible for the development and strategic positioning of the company's flagship enterprise Web services runtime platform. He also serves as chief technology consultant for Fortune-100 and major not-for-profit organizations including Hewlett-Packard and ACCION International. Dr. Chatterjee is co-author of "Developing Enterprise Web Services: An Architect's Guide", a book by Prentice Hall, and has served on the Expert Group that specified the worldwide standard
for mobile Web services. He also sits on the Board of companies developing mobile and Web services technologies, including Clickmarks, LeadIron Technologies, and Foundationalnet. Previously, Dr. Chatterjee was the lead and chief architect of
Hewlett-Packard's Web Services Mediation Platform. He was also Entrepreneur-in-Residence at FidelityCAPITAL, the venture capital arm of Fidelity Investments, and was Founder & Chief Technology Officer of Satora Networks, which developed tools and technologies for developing appliances and services for the mobile and pervasive Internet. Chatterjee holds a Ph.D. in Computer Science from the Massachusetts Institute of Technology, where his research in networked client architectures and systems was selected as one of the top thirty-five inventions in the thirty-five year history of MIT's Laboratory for Computer Science, and his invention is showcased in a time capsule at the Museum of Science in Boston, Massachusetts.

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Embedded Operating Systems: Theory, Design & Practice

Professor V. L. Narasimhan

June 23, 2004 (6:00 pm - 9:30 pm)
LOCATION: Meeting Room 2

ABSTRACT

The ubiquitous nature of embedded systems is visible across a broad spectrum of applications, right from mobile phones to computer games through to heart pace-makers. Underpinning the success of these devices is their operating systems capable of performing a number of operations. This tutorial covers theory, design and practical aspects of embedded operating systems. Topics to be covered include, but not limited to: process management, (various types of) threads control, mutual exclusion & synchronisation, issues in scheduling, pre-emption & priorities, micro kernel design, deadlock detection & prevention, interrupts handling, communication and multiprocessing. The fundamental needs and requirements for reliability, fault tolerance and security for embedded applications and hence importance of raising these issues at the level of operating system design will also be covered. Some theoretical considerations for scheduling and other problems will also be considered. Illustrative examples will be drawn from various embedded systems such as POSIX 1003.1b, Embedded Linux, Windows CE, Palm OS, Pocket PC, JVM & embedded Java, DSP operating systems, guided missile systems, along with their comparisons. Real case studies will also be discussed during the course of this tutorial.

BRIEF BIOGRAPHY OF THE PRESENTER

Prof. Narasimhan obtained his Bachelor's and Master's degrees from prestigious institutions from India and Phd from the University of Queensland, Australia. He has over 20 years of R&D experience at both the University and industry (both private and defence) environment. Prior to moving to the University of Newcastle, where he is the Chair in Software Engineering, he has worked at the University of North Texas, USA, as a full professor and at the Defence Science and Technology Organisation, Australia, as a
Principal Research Scientist, leading their program on Information Management and Information Fusion. Prof. Narasimhan has published over 120 papers in the areas of computer architecture, parallel and distributed computing, software testing, E-Commerce and Software process. His articles have appeared in archival journals such as various IEEE Transactions and IEE Proceedings.

Prof. Narasimhan was the founding chair of the IEEE Computer Society, Queensland Chapter and initiated the International Conference series ICA3PP (IEEE International Conference on Algorithms And Architectures) and acted as its Inaugural Chair. His current research interests are in the areas of large-scale system engineering, embedded systems engineering and distributed object computing.

Prof. Narasimhan is a Member of IEEE, ACM, ACS and IEAust.

INTENDED AUDIENCE

The tutorial is intended for academics, operating system practitioners, systems managers, embedded system designers and all those who are interested in learning how their mobile phone, PDA or electronics in their car work!

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Statistical Approaches Used in Machine Learning

Prof. B. Apolloni and Dr. D. Malchiodi

June 23, 2004 (6:00 pm – 9:30 pm)
LOCATION: Meeting Room 3

ABSTRACT

Machine Learning represents the new deal of statistical inference once powerful computational tools have been made available to scientists. The objects we want to infer are not yet simple parameters but entire functions. The data we process are not simple independent observations of a phenomenon; rather they represent complex links between different variables characterizing it. The inference's success depends highly on the sagacity of the algorithms processing these data in relation to their inner structure we want to discover. This tutorial provides a statistical framework for perceiving, discussing and solving the key inference problems on which a large family of machine learning instances are rooted.

The paradigmatic context is a string of data (possibly of infinite length) that we partition into a prefix we assume to be known at present (and therefore call a sample) and a suffix of unknown future data (we call a population). All these data share the feature of being observations of the same phenomenon, which is exactly the object of our inference. The basic inference tool is a twisting between properties we establish on the sample and random properties we are wondering on about the population, such as the probability of matching a specific digit.

Moving from the elementary problem of estimating the parameter of a Bernoulli variable, we will revisit two basic inference tools: the computation of confidence intervals and the search for point estimators with nice properties. Then we will go on to learning problems: while the theoretical tools remain unchanged, the sample properties to be twisted on the population must be wisely devised and smartly computed. As for Boolean variables, we restate the bases of PAC learning theory facing the usual related issues, such as: i) curse of dimensionality, ii) corrupted examples, and iii) special learning devices such as Support Vector Machines. Finally we will touch a few general statistical sentences that can be stated around neural network learning algorithms.

INTENDED AUDIENCE

The tutorial is intended for people who want to deal with the management of uncertain data in a rigorous and affordable way. This is the favorite task of the machine learning community. Their specific applications find robust theoretical roots in the tutorial within an unusual compact and well-organized corpus of concepts and results. The presenters address them without sacrificing clarity and intuitiveness of results to an excessive formalism. Rather the conceptual aspects of the matter are privileged, while technical details are touched within examples. Hence the tutorial should satisfy the curiosity of many researchers involved at various levels of the vast field known today as computational intelligence. Basic knowledge of calculus and probability is helpful but not a prerequisite.

BIOGRAPHY OF INSTRUCTORS

Bruno Apolloni received his degree in Mechanical Engineering from the Università degli Studi di Napoli, Italy, in 1969. He is a full professor in Computer Science and teaches Cybernetics and Information Theory at the Dipartimento di Scienze dell'Informazione of the University of Milano, Italy. His main research interests are in the frontier area between probability and statistics on the one hand and theoretical computer science on the other, with special regard to computational learning, pattern recognition, optimization, control theory, probabilistic analysis of algorithms, epistemological aspects of probability and fuzziness. Since 1989 he has been Head of the Neural Networks Research Laboratory (LAREN http://laren.dsi.unimi.it) of the above department. Since 2001 he has been President of the Italian Society of Neural Networks (SIREN, http://siren.dsi.unimi.it/). He is a member of Neural Nework and International Journal of Hybrid Intelligent Systems Editorial Boards and is also a member of the Advisory Board book series "Advanced Intelligence" published by Advanced Knowledge International. He has authored over a hundred papers.

Dario Malchiodi received a degree in Computer Science in 1996 and a Ph.D. in Applied Mathematics in 2000, both from the University of Milano, Italy. He is currently assistant professor at the same University, where he teaches Computer Programming and Foundations of Computer Science. His main research area ranges from probability theory and mathematical statistics to various aspects of computational learning theory, including applications of these fields to neural networks, pRAMs and support-vector machines.

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Spiral Architecture for Image Processing

Professor Tom Hintz, Dr Phil Sheridan, Dr Sean He, and Dr Qiang Wu

June 23, 2004 (6:00 pm - 9:30 pm)
LOCATION: Meeting Room 4

ABSTRACT

Spiral Architecture (SA) is a relatively new image structure. In SA, an image is represented as a collection of hexagonal pixels. SA was inspired from anatomical considerations of a primate's vision system. The geometrical arrangement of cones on the primate's retina can be described in terms of a hexagonal grid. The importance of the hexagonal grid is that it possesses powerful computational features that are pertinent to the vision process. In this tutorial, we will introduce the concepts of SA and its applications to image processing. The concepts include a one-dimensional addressing scheme and two operations defined on SA. The applications include image edge detection, object recognitions and image compression.

INTENDED AUDIENCE

This course is intended for faculty, engineers, scientists, and graduate students who want an introduction to the Spiral Architecture and its applications.

BIOGRAPHY OF INSTRUCTORS

Professor Tom Hintz is the Associate Dean (Research) at the Faculty of Information Technology, University of Technology, Sydney.

Dr Phil Sheridan is a currently Senior Lecturer at the Griffith University.

Dr Sean He is a Reader and the leader of Computer Vision and Image Processing Laboratory at the University of Technology, Sydney.

Dr Qiang Wu is an academic member at the University of Technology, Sydney.

They have been working on Image Processing Based on Spiral Architecture for many years. They have over 100 publications on Spiral Architecture in books, journals and international conferences.

Intelligent Agents and Their Applications to Collaborative Design and Manufacturing

Weiming Shen

June 23, 2004 (6:00 pm – 9:30 pm)
LOCATION: Meeting Room 5

ABSTRACT

Agent technology represents a new paradigm for developing software applications. It has been hailed as *the next significant breakthrough in software developments* and *the new revolution in software* after object technology. Recently, a growing number of researchers and practitioners have been trying to apply agent technology in the areas of collaborative design and manufacturing. Under the context of these areas, an agent can be defined as a software system that communicates and cooperates with other software systems to solve a complex problem that is beyond the capability of each individual software system. Intelligent software agents can be used to encapsulate existing software systems so as to resolve legacy problems and realize manufacturing enterprise integration; represent manufacturing resources such as operators, cells, machines, robots, as well as products and parts to implement distributed manufacturing process planning, scheduling and execution control; serve as inter-mediators to facilitate communication, cooperation and coordination among agents; provide translation services (e.g., STEP data translation) among agents so that different software systems can function together. Based on the 12-year first hand experience in the area of applications of agents to collaborative design and manufacturing, the instructor will introduce the concepts of agents and multi-agent systems; discuss the key issues in implementing agent-based collaborative design and manufacturing systems, including knowledge representation, agent architectures, system organization, learning, communication, cooperation, coordination, negotiation, conflict resolution, and ontology, etc.; and finally present some sample systems.

Reference: Shen W., Norrie, D.H. and Barthes, J.P. *Multi-Agent Systems for Concurrent Intelligent Design and Manufacturing*, Taylor and Francis, London, UK, 2001 (http://books.cscwid.org/)

OBJECTIVES

This course will enable you to:
- Understand the concepts of intelligent software agents and multi-agent systems;
- Learn what (and why) software agents can helps in collaborative engineering design and manufacturing;
- Hear the first hand experience in implementing agent-based collaborative design and manufacturing systems;
- Investigate the integration of agent technology with other related technologies including Internet/Web, CSCW, Distributed Objects, Workflow, Web Services, and Semantic Web;
- Be aware of the stat-of-the-art in the related research areas.

INTENDED AUDIENCE

This tutorial is intended for researchers, students, and practitioners who would like to learn the concepts of intelligent software agents and the techniques in implementing agent-based collaborative design and manufacturing systems, including systems for enterprise integration, enterprise collaboration (or virtual enterprise), and supply chain management.

BIOGRAPHY OF INSTRUCTOR

Dr. Weiming Shen is a Senior Research Scientist at National Research Council Canada's Integrated Manufacturing Technologies Institute (NRC-IMTI). He is an Adjunct Full Professor at the University of Waterloo and an Adjunct Research Professor at the University of Western Ontario. He received his Bachelor (1983) and Master (1986) degrees in Mechanical Engineering from Northern Jiaotong University, China and his PhD degree (1996) in Computer Engineering from the University of Technology of Compiègne, France. He has been working on intelligent agents and their applications to collaborative engineering design, intelligent manufacturing, and virtual enterprises for about 12 years. He has published one book and 170+ papers in scientific journals and international conferences/workshops, and co-edited 10 conference/workshop proceedings in the related areas. His book (co-authored with D.H. Norrie and J.P. Barthes) titled "Multi-Agent Systems for Concurrent Intelligent Design and Manufacturing," was based on his many years first-hand experience. It was the first and is still the only book in the world systematically describing the agent technology for engineering design and manufacturing. The book has already been used and cited by many researchers and students over the world. After the publication of this book, he has been invited to provide 20+ invited lectures/seminars at different academic and research institutions (in Brazil, Canada, China, France, Italy, Korea, Switzerland, and US) and keynote presentations/tutorials at various international conferences. He is an Associate Editor of

the Journal on Information Technology Research and Applications and an editorial board member of the International Journal of Networking and Virtual Organizations. He served as guest editor for five international journals. He is one of the key members on the initiation of an International Working Group on CSCW in Design (http://www.cscwid.org/). He has been Program Committee Co-Chair of the CSCWD conferences since 2001. He has served as Chair/Co-Chair or Program Committee member for 40+ international conferences/workshops during the past 6 years. He is a Senior Member of IEEE and a member of ASME, ACM, AAAI, and CSCSI. He is a registered Professional Engineer in Ontario.

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PDPTA'04 CONFERENCE SCHEDULE

**The 2004 International Conference on Parallel and
Distributed Processing Techniques and Applications**

Monte Carlo Resort, Las Vegas, Nevada, June 21-24, 2004

*Note: There are a number of other sessions (not listed here) that are of potential significant interest to PDPTA
conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint conferences.*

June 20

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03:00 - 09:00pm: REGISTRATION (Second Floor, Conference Lobby; 1-5)
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6:30am - 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

08:40 - 09:00am: **MultiConference Opening Remarks**
Hamid R. Arabnia (General Chair, 2004 IMCSCE)
University of Georgia, Georgia, USA
(LOCATION: Lance Burton Theater)

09:00 - 09:05am: **Introduction of Keynote Speaker by Prof. H. J. Siegel**
(LOCATION: Lance Burton Theater)

09:05 - 10:05am: **MultiConference Keynote Lecture:**
Computer Architecture, The Road Ahead
Professor Michael Flynn
Stanford University, USA
(LOCATION: Lance Burton Theater)

10:05 - 10:30am: **BREAK**

SESSION 1-PDPTA: **NEW TRENDS IN DISTRIBUTED DATA ACCESS**
Co-Chairs: Jesus Carretero Perez & Jose Maria Perez Menor
June 21, 2004 (Monday); 10:30am - 12:30pm
(LOCATION: Meeting Room 4)

10:30 - 10:50am: High-Performance Grid Computing via Distributed
Data Access
Phil Andrews, Bryan Banister, and Patricia Kovatch
San Diego Supercomputer Center, La Jolla, CA, USA

10:50 - 11:10am: Data Grid Federation
Arcot Rajsekar, Michael Wan, Reagan W. Moore*, and
Wayne Schroeder
San Diego Supercomputer Center, La Jolla, CA, USA

11:10 - 11:30am: Distributed Policy-Managed Storage
Derrick Robertson and Paul McKee
BTExact, Inc., Martlesham, UK

11:30 - 11:50am: On-Demand Grid Storage Using Scavenging
Sudharshan Vazhkudai
Oak Ridge National Laboratory, Oak Ridge, TN, USA

11:50 - 12:10pm: File Schemes for Fault Tolerance in Heterogeneous
Distributed Storage Systems
Alejandro Calderon*, Felix Garcia, and Javier Fernandez
Universidad Carlos III de Madrid, Madrid, Spain

12:10 - 12:30pm: Grid Data Access Architecture Based on Application
I/O Phases and I/O Communities
Jose Maria Perez, Jesus Carretero, Jose Daniel Garcia,
and Luis Miguel Sanchez
Universidad Carlos III de Madrid, Madrid, Spain

12:30 - 01:30pm: **LUNCH (On Your Own)**

SESSION 2-PDPTA: **DATA ORGANIZATION FOR STREAMING MEDIA SERVERS**
                         Chair: Dr. Roger Zimmermann, USA
                         June 21, 2004 (Monday); 1:30 - 2:30pm
                         (LOCATION: Meeting Room 4)

01:30 - 01:50pm: Efficient Disk Replacement and Data Migration Algorithms
                         for Large Disk Subsystems
                         Roger Zimmermann* and Beomjoo Seo
                         University of Southern California, Los Angeles, CA, USA

01:50 - 02:10pm: Dynamic Expansion of Scheduling Periods in Scheme Sweep
                         Sungchae Lim and Joonseon Ahn
                         Korea Wisenut Inc., Seoul, Korea

02:10 - 02:30pm: Data Filtering Systems in XML
                         Jongwook Woo
                         California State University, Los Angeles, CA, USA

SESSION 3-PDPTA: **PARALLEL & DISTRIBUTED IMAGE PROCESSING**
                         Co-Chairs: Dr. Xiangjian He, Prof. Tom Hintz, & Prof. Dan Liu
                         June 21, 2004 (Monday); 2:30 - 4:10pm
                         (LOCATION: Meeting Room 4)

02:30 - 02:50pm: Comparison of Different Spiral Architectures for Image
                         Processing/Computer Vision
                         Phil Sheridan
                         Griffith University, Brisbane, Australia

02:50 - 03:10pm: How Pseudo Model May Help to Evaluate Image Compression
                         on Spiral Architecture?
                         Huaqing Wang, Tom Hintz, and Xiangjian He
                         University of Technology, Sydney, Australia

03:10 - 03:30pm: Seamless Image Mosaic for Multi-Viewpoint Overlapping
                         Dan Liu and Xiangjian He
                         Dalian Maritime University, Dalian, Liaoning, P. R. China

03:30 - 03:50pm: Virtual Spiral Architecture
                         Qiang Wu, Xiangjian He, and Tom Hintz
                         University of Technology, Sydney, Australia

03:50 - 04:10pm: Edge Detection on Spiral Architecture: An Overview
                         Xiangjian He, Tom Hintz, and Qiang Wu
                         University of Technology, Sydney, Australia

04:10 - 05:10pm: **DISCUSSION SESSION A-PDPTA (Refreshments will be available)**
                         June 21 (Monday)
                         (LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
                         List of papers appears at the end of PDPTA's schedule.

09:00 - 11:00pm: **CONFERENCE RECEPTION DINNER - June 21 (Monday)**
                         (LOCATION: Meeting Rooms 1-5)

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 4-PDPTA: **COMMUNICATION: NETWORKS + INTERCONNECTION NETWORKS + I/O +**
FILE SHARING & TRANSFER + COMMUNICATION ALGORITHMS
Chair: Tor Skeie
June 22, 2004 (Tuesday); 8:20 - 10:00am
(LOCATION: Meeting Room 4)

08:20 - 08:40am: An Integrated Global Service for File Transfer and
Management in a Network (FTM)
Jim Almond and Peggy Lindner
High Performance Computing Center Stuttgart (HLRS), Germany

08:40 - 09:00am: Proxy-Based Index Caching for Content-Addressable
Networks
Shigeaki Tagashira, Syuhei Shirakawa and Satoshi Fujita
Hiroshima University, Higashi-Hiroshima, Japan

09:00 - 09:20am: A Framework for Sharing Voluminous Content in P2P Systems
Dimitrios Tsoumakos* and Nick Roussopoulos
University of Maryland, College Park, Maryland, USA

09:20 - 09:40am: On Reliability Concerns in Wireless Sensor Networks
Doina Bein, Bhaarath Kumar, Vasu Jolly*, and
Shahram Latifi
University of Nevada, Las Vegas, Nevada, USA

09:40 - 10:00am: A New Adaptive Distributed Routing Protocol Using
d-hop Dominating Sets for Mobile Ad Hoc Networks
Zhengnan Shi and Pradip K. Srimani*
Clemson University, South Carolina, USA

10:00 - 10:40am: **DISCUSSION SESSION B-PDPTA (Refreshments will be available)**
June 22 (Tuesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of PDPTA's schedule.

SESSION 5-PDPTA: **THE TRANSPUTER; A LOOK BACK**
Co-Chairs: G. S. Stiles and B. A. Abbott
June 22, 2004 (Tuesday); 10:40 - 11:20am
(LOCATION: Meeting Room 4)

10:40 - 11:00am: Flat is Beautiful
Lawrence J. Dickson
UK

11:00 - 11:20am: Steps in the Verification of an Occam-to-FPGA Compiler
Roger M. A. Peel, Wong Han Feng, Javier
University of Surrey, Guildford, Surrey, UK

SESSION 6-PDPTA: **TEACHING JAVA IN ADVANCED TOPICS COURSES + PARALLEL JAVA**
Co-Chairs: R. S. Tosten and G. S. Stiles
June 22, 2004 (Tuesday); 11:20am - 12:20pm
(LOCATION: Meeting Room 4)

11:20 - 11:40am: Teaching Java and Extreme Programming in the Software
Development Course
Michael Wainer
Southern Illinois University Carbondale, IL, USA

11:40 - 12:00pm: Java Software Projects for the HP iPAQ
Rodney S. Tosten
Gettysburg College, Gettysburg, PA, USA

12:00 - 12:20pm: Autonomous Embedded Java Robots in University of Utah
CE/CS Senior Projects
Bruce Boyes
University of Utah, Salt Lake City, USA

12:20 - 01:00pm: LUNCH (On Your Own)

SESSION 7-PDPTA: **(Concurrent Session) MATHEMATICAL MODELING & PROBLEM SOLVING**
Chair: Prof. Mario Nakamori
June 22, 2004 (Tuesday); 1:00 - 5:40pm
(LOCATION: Meeting Room 4)

01:00 - 01:20pm: Node-Disjoint Paths in a Transposition Graph
Yasuto Suzuki, Keiichi Kaneko, and Mario Nakamori
Tokyo A&T University, Tokyo, Japan

01:20 - 01:40pm: Variants of Assignment Problem - Worst Cost
Minimization and Vector Cost Assignment
Shizu Sakakibara*, Yuusaku Kamura, and Mario Nakamori
Tokyo A&T University, Tokyo, Japan

01:40 - 02:00pm: Combining Imperfect Components (III) Minimax Optimization
of Multidimensional Cost Error
Yuusaku Kamura* and Mario Nakamori
Tokyo A&T University, Tokyo, Japan

02:00 - 02:20pm: Dynamic Allocation of Physical Register Banks for an
SMT Processor
Norito Kato, Masanori Yamato, Mikiko Sato, Koichi Sasada,
Kaname Uchikura, Mitsuru Namiki, and Hironori Nakajo*
Tokyo A&T University, Tokyo, Japan

02:20 - 02:40pm: An Improved Heuristic for Solving TSP Based on the
Evolution of Easy Instances
Satoshi Fujita* and Sin'ichiro Umezane
Hiroshima University, Higashi-Hiroshima, Japan

02:40 - 03:00pm: City Traffic Simulation Using Cellular Automata with
Stochastic Velocity Model
Tatsuhiro Tamaki and Eisuke Kita*
Nagoya University, Nagoya, Japan

03:00 - 03:20pm: Polynomial Time PAC Learnability of a Sub-class of
                   Linear Languages
                   Yasuhiro Tajima*, Yoshiyuki Kotani, and Matsuaki Terada
                   Tokyo A&T University, Tokyo, Japan

03:20 - 03:40pm: BREAK

03:40 - 04:00pm: A Multi-Objective Genetic Algorithm for Program
                   Partitioning and Data Distribution Using TVRG
                   Masami Takata*, Chiemi Watanabe, and Kazuki Joe
                   Nara Women's University, Nara, Japan

04:00 - 04:20pm: Dynamic Load Balancing for Parallel Modified PrefixSpan
                   Makoto Takaki*, Keiichi Tamura, Toshihide Sutou, and
                   Hajime Kitakami
                   Hiroshima City University, Hiroshima, Japan

04:20 - 04:40pm: A Query Description Model and its Implementation as an
                   Interactive Query Tool for Visualization Systems
                   Ai Ishida*, Chiemi Watanabe, and Kazuki Joe
                   Nara Women's University, Nara, Japan

04:40 - 05:00pm: Visualization of Seismic Wave Data by Volume Rendering
                   and its Application to an Interactive Query Tool
                   Ai Uemura*, Chiemi Watanabe, and Kazuki Joe
                   Nara Women's University, Nara, Japan

05:00 - 05:20pm: Implementation of Cell-Projection Parallel Volume
                   Rendering with Dynamic Load Balancing
                   Motohiro Takayama, Yuki Shinomoto, Masahiro Goshima,
                   Shin'ichiro Mori*, Yasuhiko Nakashima, and Shinji Tomita
                   Kyoto University, Kyoto, Japan

05:20 - 05:40pm: Queuing Network Model for Analyzing Influence of
                   Exclusively Used Resources on Performance of
                   Computer Systems
                   Toshiyuki Kinoshita
                   Hitachi, Ltd., Kanagawa, Japan

SESSION 8-PDPTA: (Concurrent Session) ARCHITECTURE
**   Chair: Dr. Kenneth Ricks, USA**
**   June 22, 2004 (Tuesday); 1:00 - 3:20pm**
**   (LOCATION: Meeting Room 3)**

01:00 - 01:20pm: Adaptive Compiler Directed Prefetching for EPIC
                   Processors
                   Jinwoo Kim*, Rodric M. Rabbah**, Krishna V. Palem***,
                   and Weng-Fai Wong****
                   *City University of New York, New York, USA
                   **Massachusetts Institute of Technology, MA, USA
                   ***Georgia Institute of Technology, Atlanta, Georgia, USA
                   ****National University of Singapore, Singapore

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01:20 - 01:40pm:   Architectural Verification of Large Multiprocessor Computers
                   Ali Y. Duale*, Theodore J. Bohizic, and Dennis W. Wittig
                   IBM, Poughkeepsie, New York, USA


01:40 - 02:00pm:   Verification of Parity Data in Large Scale Storage
                   Systems
                   Thomas Schwarz
                   Santa Clara University, Santa Clara, California, USA


02:00 - 02:20pm:   A Novel Approach to Improve Cache Performance in
                   Ring-Based Multiprocessors
                   Cheol Hong Kim, Jong Wook Kwak, and Chu Shik Jhon
                   Seoul National University, Seoul, Korea


02:20 - 02:40pm:   The Microarchitecture of the CUE-v2 Processor: Enabling
                   the Simultaneous Processing of Dataflow and Control-Flow
                   Threads
                   Shinya Ito*, Shouhei Nomoto, Hiroshi Tomiyasu, and
                   Hiroaki Nishikawa
                   University of Tsukuba, Tsukuba Science City, Japan


02:40 - 03:00pm:   HLA Simulation is Everywhere: A Wireless and Mobile
                   Distributed Federation
                   Tainchi Lu*, Guanchi Wu, and Chinghao Hsu
                   National Chiayi University, Taiwan, R.O.C.


03:00 - 03:20pm:   A Performance Evaluation of High-Availability Webserver
                   Cluster System Employing Multiple Front-Ends for Small
                   and Middle-Sized Web Sites
                   Jongbae Moon* and Myungho Kim
                   Soongsil University, Seoul, Korea
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03:20 - 03:40pm: BREAK

SESSION 9-PDPTA: **(Concurrent Session) PARALLEL & DISTRIBUTED PROCESSING**
APPLICATIONS
Co-Chairs: Dr. Xubin (Ben) He, USA & Dr. David Williams, USA
June 22, 2004 (Tuesday); 3:40 - 5:00pm
(LOCATION: Meeting Room 3)

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03:40 - 04:00pm:   DSP Controls Hydraulic Axis
                   Petr Jan Horn
                   Horsch Elektronik AG, Switzerland


04:00 - 04:20pm:   SAGE: Next Generation Multi-Agent System
                   Abdul Ghafoor*, Mujahid ur Rehman*, Zaheer Abbas Khan*,
                   H. Farooq Ahmad**, and Arshad Ali*
                   *NUST Institute of Information Technology, Pakistan
                   **Communication Technologies, Sendai, Japan


04:20 - 04:40pm:   Binary Relational Processing on Wavefront Array Processors
                   S. G. Fountoukis** and M. P. Bekakos*
                   *Democritus University of Thrace, Hellas, Greece
                   **University of Athens, Hellas, Greece
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04:40 - 05:00pm:   Parallel Finite Element Approximate Inverse Preconditioning
                   on Symmetric Multiprocessor Systems
                   G. A. Gravvanis*/***, K. M. Giannoutakis**, and M. P.
                   Bekakos***
                   *Hellenic Open University, Greece
                   **University of Athens, Greece
                   ***Democritus University of Thrace, Greece
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SESSION 10-PDPTA: (Concurrent Session) APPLICATIONS
Co-Chairs: Dr. Xubin (Ben) He, USA & Dr. David Williams, USA
June 22, 2004 (Tuesday); 5:00 - 6:00pm
(LOCATION: Meeting Room 3)

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05:00 - 05:20pm:   VSTM: Virtual Stress Testing Machine
                   Harris R., A. M. Ausin, J. S. Angulo, F. Valafar,
                   and T. Impelluso
                   San Diego State University, USA


05:20 - 05:40pm:   Scalability of VSTM: A Memory Model and Inter-Processor
                   Communication Perspective
                   Valafar F., R. Harris, A. M. Ausin, J. S. Angulo,
                   and T.  Impelluso
                   San Diego State University, USA


05:40 - 06:00pm:   Efficiency Analysis of the Parallel Computation for
                   Invariant Measures and Application
                   Zizhong Wang, Huiqing Yang, and Jiu Ding
                   Virginia Wesleyan College, VA, USA
                   Virginia State University, VA, USA
                   University of Southern Mississippi, MS, USA
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7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 11-PDPTA: PARALLEL & DISTRIBUTED ALGORITHMS - I
Chair: Dr. Gilbert Young
June 23, 2004 (Wednesday); 8:20 - 10:00am
(LOCATION: Meeting Room 4)

08:20 - 08:40am: Minimizing Mean Flow Time on Master-Slave Machines
Joseph Y-T. Leung* and Hairong Zhao
New Jersey Institute of Technology, Newark, NJ, USA

08:40 - 09:00am: Routing in Reconfigurable Free Space Optics Network
T. Lee and G. Young*
California State Polytechnic University, Pomona, CA, USA

09:00 - 09:20am: Two-Dimensional Electrophoresis Image Filtering
Algorithm Based on Vector Quantization Technique
Kevin I-J Ho*, Tung-Chou Chen, Chun-Wei Tsai,
Mingli Hsieh, and Hui-Fang Tsai
Chun Shan Medical University, Taichung City, Taiwan

09:20 - 09:40am: A Study of the Connectedness of Gnutella
John Sum, Mingshu Li, Chung Ng*, Tony Wong, and G. Young
Morehouse College, Atlanta, Georgia, USA

09:40 - 10:00am: A Novel Connection Algorithm for P2P
John Sum
Hong Kong Polytechnic University, Hong Kong

10:00 - 10:40am: DISCUSSION SESSION C-PDPTA (Refreshments will be available)
June 23 (Wednesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of PDPTA's schedule.

SESSION 12-PDPTA: PARALLEL & DISTRIBUTED ALGORITHMS - II
Chair: Dr. Gilbert Young
June 23, 2004 (Wednesday); 10:40 am - 12:00 pm
(LOCATION: Meeting Room 4)

10:40 - 11:00am: An Empirical Study of Bounded Delay Constrained
Bandwidth Routing
H. K. Dai*, Z. Li, and H. C. Su
Oklahoma State University, Stillwater, Oklahoma, USA

11:00 - 11:20am: Location Management Algorithm with Agents in a Wireless
Personal Communication Service Network
Sang-Eon Park
California State Polytechnic University, Pomona, CA, USA

11:20 - 11:40am: Routing in Mobile Ad Hoc Networks Based on Block
                   Decomposition
                   H. K. Dai*, A. Raju, and V. Sarangan
                   Oklahoma State University, Stillwater, Oklahoma, USA

11:40 - 12:00pm: Mapping an Adaptive Algorithm for E.M. Interference
                   Nulling on FPGA-Based Device
                   L. Lescarini, S. Stefanini, and L. Timmoneri
                   AMS, Rome, Italy

12:00 - 01:00pm: LUNCH (On Your Own)

SESSION 13-PDPTA: (Concurrent Session) PARALLEL PROGRAMMING/SOFTWARE/TOOLS/OS
                   Co-Chairs: Dr. Kenneth Ricks, USA &
                   **   Dr. Chaoyang Joe Zhang, USA**
                   June 23, 2004 (Wednesday); 1:00 - 2:00pm
                   (LOCATION: Meeting Room 4)

01:00 - 01:20pm: Generic Distributed Problem Solving Using JMX Technology
                   Pramod Gurunath and Richard A. Volz*
                   Texas A&M University, College Station, Texas, USA

01:20 - 01:40pm: Coupling Scientific Applications within an Object-Oriented
                   Programming Framework: Improving Development Time and
                   Software Quality
                   Brian J. Henz* and Dale R. Shires
                   U.S. Army Research Laboratory, Maryland, USA

01:40 - 02:00pm: LinuxNOW: A Peer-to-Peer Metacomputer for the Linux
                   Operating System
                   John P. Morrison, Padraig J. O'Dowd, and Philip D. Healy*
                   University College Cork, Ireland

SESSION 14-PDPTA: (Concurrent Session) COMMUNICATION: NETWORKS +
                   INTERCONNECTION NETWORKS + I/O + FILE SHARING & TRANSFER
                   + COMMUNICATION ALGORITHMS
                   Co-Chairs: Dale Shires, USA & Paul E. Silvey, USA
                   June 23, 2004 (Wednesday); 2:00 - 3:20pm
                   (LOCATION: Meeting Room 4)

02:00 - 02:20pm: Distributed Snapshot for Ad-hoc Network Systems
                   Chi Hung Law* and Man Hon Wong
                   The Chinese University of Hong Kong, Hong Kong

02:20 - 02:40pm: The Existence of a Network of Fixed-Sized Switches
                   that Satisfies any Communication Needs
                   Geir Horn, Olav Lysne, and Tor Skeie*
                   SIMULA Research Laboratory, Norway

02:40 - 03:00pm: On the Design and Performance of Remote Disk Drivers
                   for Clusters of PCs
                   Vlad Olaru* and Walter F. Tichy
                   Karlsruhe University, Germany

03:00 – 03:20pm: Towards an Adaptive Economic Society of Peers
                    Paul E. Silvey
                    The MITRE Corporation, Bedford, MA, USA

03:20 – 03:40pm: BREAK

11:30a – 12:20pm: FORMAL DISCUSSION
                    The Impact of Java 1.5 on a Java-Based Computer
                    Science Curriculum
                    Moderator: Dr. Rodney S. Tosten
                    June 23, 2004 (Wednesday); 11:30am - 12:20pm
                    (LOCATION: Meeting Room 3)

SESSION 15-PDPTA: (Concurrent Session) LOAD BALANCING, SCHEDULING & MAPPING
                    Co-Chairs: Dr. Dan Andresen, USA & Dr. Michael Voss, Canada
                    June 23, 2004 (Wednesday); 1:00 - 3:20pm
                    (LOCATION: Meeting Room 3)

01:00 – 01:20pm: Hierarchical Scheduling for Stae-Based Services
                    Jens Bruhn, Sven Kafille, and Guido Wirtz*
                    Otto Friedrich University Bamberg, Germany

01:20 – 01:40pm: An Evaluation of Distributed Scheduling Algorithms
                    Within The DESPOT Architecture
                    Daniel Andresen*, Jeffrey Lebak, and Ethan Bowker
                    Kansas State University, Manhattan, Kansas, USA

01:40 – 02:00pm: Class-Partitioning Job Scheduling for Large-Scale
                    Parallel Systems
                    Su-Hui Chiang* and Mary K. Vernon**
                    *Portland State University, Portland, OR, USA
                    **University of Wisconsin-Madison, WI, USA

02:00 – 02:20pm: Load Balanced Exhaustive Network Data Processing With a
                    Parallel Cluster
                    Afzal Mawji* and Ajit Singh
                    University of Waterloo, Ontario, Canada

02:20 – 02:40pm: A New Non-Blocking Counter-Based Coordinated Checkpointing
                    Algorithm as a Migration Tool in a High Performance Dynamic
                    Grid Scheduler
                    Gamal A. El-Sayed* and Ian Greenshields
                    University of Connecticut, Storrs, Connecticut, USA

02:40 – 03:00pm: Adaptive Utility Based Scheduling
                    Raj Kumar Munaga* and Mitchell D. Theys
                    University of Illinois at Chicago, Illinois, USA

03:00 – 03:20pm: Design of a Real-Time Scheduler for Kahn Process
                    Networks on Multiprocessor Systems
                    Javed Dulloo and Philippe Marquet*
                    Universite des Sciences et Technologies de Lille, France

03:20 – 03:40pm: BREAK

SESSION 16-PDPTA: PARALLEL & DISTRIBUTED PROCESSING APPLICATIONS
               Chair: Dr. Chaoyang Joe Zhang, USA
               June 23, 2004 (Wednesday); 3:40 - 5:40pm
               (LOCATION: Meeting Room 4)

03:40 - 04:00pm: A Multi-Agent System Environment for Modelling Cell
                   and Tissue Biology
                   Eunice E. Santos*, Donghang Guo*, Eugene Santos Jr.**,
                   and William Onesty*
                   *Virginia Polytechnic Institute & State Universiy, VA, USA
                   **University of Connecticut, Storrs, Connecticut, USA

04:00 - 04:20pm: An Install-Time System for the Automatic Generation of
                   Optimized Parallel Sorting Algorithms
                   Marek Olszewski and Michael Voss*
                   University of Toronto, Ontario, Canada

04:20 - 04:40pm: Kalman Filter Based Multi-GigaFLOP Streaming Video
                   Depth Estimator
                   Walter A. Koziarz* and Zenon J. Pryk
                   Air Force Research Laboratory, Rome, New York, USA

04:40 - 05:00pm: Parallel Algorithm in Microarray Data Acquisition
                   Xujing Wang*, Shuang Jia, Guohui Zhou, and
                   Martin J. Hessner
                   Medical College of Wisconsin, Milwaukee, Wisconsin, USA

05:00 - 05:20pm: Parallelism and Fault Tolerance in the Design of
                   Distributed Intelligent Agents for Robotic Control
                   Kevin Stansell, Maurice Eggen, and Gerald Pitts
                   Trinity University, San Antonio, Texas, USA

05:20 - 05:40pm: FREE SLOT

7:30am - 11:00am: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 17-PDPTA: (Concurrent Session) GRID COMPUTING & TECHNOLOGY - I
Co-Chairs: D. McCourt, M. Romberg, W. Dubitzky,
G. Diercksen, & V. Stankovski
June 24, 2004 (Thursday); 8:20 - 10:00am
(LOCATION: Meeting Room 4)

08:20 - 08:40am: The Grid Block Device
                   Bardur Arantsson* and Brian Vinter
                   University of Southern Denmark, Denmark

08:40 - 09:00am: On Hierarchical Extensions of Large-Scale 4-Regular
                   Grid Network Structures
                   Jens Myrup Pedersen*, Ahmed Patel**, Thomas Phillip Knudsen*,
                   and Ole Brun Madsen*
                   *Aalborg University, Denmark
                   **University College Dublin, Ireland

09:00 - 09:20am: A Case for Queue-to-Queue, Back-Pressure-Based
                   Congestion Control for Grid Networks
                   Marc Herbert* and Pascale Vicat-Blanc/Primet
                   ENS-Lyon, Lyon, France

09:20 - 09:40am: OpenMolGRID: Molecular Science and Engineering in a
                   Grid Context
                   P. Mazzatorta*, E. Benfenati*, B. Schuller**, M. Romberg**,
                   D. McCourt***, W. Dubitzky***, S. Sild****, M. Karelson***,
                   A. Papp*****, I. Begyi*****, and F. Darvas*****
                   *Instituto di Ricerche Farmacologiche "Mario Negri"
                   Milano, Italy
                   **ZAM, Forschungszentrum Julich, Germany
                   ***University of Ulster, Northern Ireland
                   ****University of Tartu, Tartu, Estonia
                   *****ComGenex, Inc., Budapest, Hungary

09:40 - 10:00am: A Service-Centric Perspective for Data Mining in
                   Complex Problem Solving Environments
                   Vlado Stankovski*, Michael May**, Jurgen Franke***,
                   Assaf Schuster****, Damian McCourt*****, and
                   Werner Dubitzky*****
                   *University of Ljubljana, Slovenia
                   **Fraunhofer Institute for Autonomous Intelligent Systems,
                   Germany
                   ***DaimlerChrysler AG, Ulm, Germany
                   ****Technion - Israel Institute of Technology, Haifa, Israel
                   *****University of Ulster, Northern Ireland

10:00 - 10:40am: DISCUSSION SESSION D-PDPTA (Refreshments will be available)
                   June 24 (Thursday)
                   (LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
                   List of papers appears at the end of PDPTA's schedule.

SESSION 18-PDPTA: **(Concurrent Session) GRID COMPUTING & TECHNOLOGY - II**
Co-Chairs: D. McCourt, M. Romberg, W. Dubitzky,
G. Diercksen, & V. Stankovski
June 24, 2004 (Thursday); 10:40 - 11:20am
(LOCATION: Meeting Room 4)

10:40 - 11:00am: High Performance Composition of Services with Data
Dependencies on a Computational Grid
Thierry Gautier and Hamid-reza Hamidi*
Laboratoire ID-IMAG, France

11:00 - 11:20am: Evaluation of Java Web Services Toolkit for
Grid Computing
Mauro Migliardi* and Roberto Podesta'
DIST-University of Genoa, Genoa, Italy

SESSION 19-PDPTA: **(Concurrent Session) WORKSHOP: GRID COMPUTING TECHNIQUES &**
APPLICATIONS
Chair: Dr. Jun Ni
June 24, 2004 (Thursday); 11:20am - 2:40pm
(LOCATION: Meeting Room 4)

11:20 - 11:40am: WebTP: A Case Study of Web Transaction Processing
Zhengwei Qi, Ruonan Rao, Yao Shen, and Jinyuan You
Shanghai Jiao Tong University, Shanghai, P. R. China

11:40 - 12:00pm: Information Management for Grid-Based Remote Sensing
Problem Solving Environment
Giovanni Aloisio, Massimo Cafaro, Italo Epicoco,
and Gianvito Quarta
University of Lecce via per Monteroni, Lecce, Italy

12:00 - 12:20pm: Multi-Dimensional QoS Guided DBC Optimization Algorithm
in Resource Broker
Jun Tang, Zhijie Yin, and Weiqin Tong
Shanghai University, P. R. China

12:20 - 01:00pm: LUNCH (On Your Own)

01:00 - 01:20pm: Building Efficient and Secure Communication for Grid
Fangyong Hou, Zhiying Wang, Zhen Liu, Yuhua Tang,
and Yun Liu
National University of Defense Technology, P. R. China

01:20 - 01:40pm: A Model That Coordinates Short-lived and Long-lived
Transactions for Web Services
Tang Feilong, Minglu Li, and Jian Cao
Shanghai Jiao Tong University, Shanghai, P. R. China

01:40 - 02:00pm: SIG: A Service-Oriented Application Grid for
Spatial Information Sharing and Integrating
Yu Tang*, Luo Chen*, Kai-Tao He**, and Ning Jing*
*National University of Defense Technology, P. R. China
**China Geological Survey, Beijing, China

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02:00 - 02:20pm:   Analysis of Interchange Agent(IA) in MCVoD System
                   Seokhoon Kang, Susun Kim and Kyoung Gu Jun
                   University of Incheon, Incheon, Korea


02:20 - 02:40pm:   Protect Data Stored on Remote Server
                   Fangyong Hou*, Zhiying Wang, Yuhua Tang*, Zhen Liu**,
                   and Jin Zhou*
                   *National University of Defense Technology, P. R. China
                   **Beijing Union University, Beijing, P. R. China
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SESSION 20-PDPTA: (Concurrent Session) ALGORITHMS + MODELS + RELATED ISSUES
Co-Chairs: Dr. Roger Eggen, USA & Dr. Maurice Eggen, USA
June 24, 2004 (Thursday); 8:20 - 10:00am
(LOCATION: Meeting Room 3)

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08:20 - 08:40am:   A Toolbox of Scalable Algorithms and Software for
                   On-line and Off-line Management of Advanced
                   Scientific Simulations
                   Chuang Li* and Paul E. Plassmann
                   The Pennsylvania State University, University Park, USA


08:40 - 09:00am:   Designing Matrix Multiplication Algorithms on a
                   Multi-tier Cluster
                   Eunice E. Santos* and John Korah
                   Virginia Polytechnic Institute & State Universiy, VA, USA


09:00 - 09:20am:   A Probabilistic Algorithm for Estimating the Average
                   Load of Scalable Computing Clusters and Grids
                   Amnon Barak** and Zvi Drezner*
                   *California State University-Fullerton, California, USA
                   **The Hebrew University of Jerusalem, Israel


09:20 - 09:40am:   The Step-by-Step Virtual Topology Reconfiguration
                   Algorithm Using MDP in the WDM Network
                   Seung-Yeon You* and Sung-Chun Kim
                   Sogang University, Seoul, Korea


09:40 - 10:00am:   Parallelization Using The Standard Simplex Algorithm
                   Gavriel Yarmish* and Richard Van Slyke**
                   *Brooklyn College, New York, USA
                   **Polytechnic University, New York, USA
```

SESSION 21-PDPTA: (Concurrent Session) COMMUNICATION ISSUES
Chair: Dr. Margaret McMahon, USA
June 24, 2004 (Thursday); 10:40 - 11:40am
(LOCATION: Meeting Room 3)

```
10:40 - 11:00am:   Design of a Context-aware Message Exchange System in
                   an Ad-hoc Network
                   Koya Imanishi */**, Kenji Hisazumi*, Tsuneo Nakanishi*,
                   Teruaki Kitasuka*, and Akira Fukuda*
                   *Kyushu University, Kasuga Fukuoka, Japan
                   **Kochi Prefectural Industrial Technology Center, Kochi,
                   Japan
```

```
11:00 - 11:20am:   Wireless Cluster Computing
                   Christine Meyer and Robert Chun
                   San Jose State University, San Jose, CA, USA

11:20 - 11:40am:   Agent-Based Embedded Monitoring System for Ubiquitous
                   Networks Environments
                   Hyo-Sung Kang*, Jong-Mu Choi, Jai-Hoon Kim, and
                   Young-Bae Ko
                   Ajou University, Korea

11:40 - 12:00pm:   FREE SLOT
```

SESSION 22-PDPTA: PARALLEL PROGRAMMING + SOFTWARE + TOOLS + OS
Chair: Silke Schuch, Germany
June 24, 2004 (Thursday); 2:40 - 5:00pm
(LOCATION: Meeting Room 4)

```
02:40 - 03:00pm:   Designing Caching Strategies for Common NFS Workloads
                   Abhishek Rai* and Arobinda Gupta**
                   *Stony Brook University, Stony Brook, New York, USA
                   **Indian Institute of Technology, Kharagpur, India

03:00 - 03:20pm:   Efficiency Considerations of PERL and Python in
                   Distributed Processing
                   Roger Eggen* and Maurice Eggen**
                   *University of North Florida, Jacksonville, Florida, USA
                   **Trinity University, San Antonio, Texas, USA
```

03:20 - 03:40pm: BREAK

```
03:40 - 04:00pm:   Comparing Shared Memory and Message Passing Middleware
                   Sanjay P. Ahuja* and Anjani K. Jha
                   University of North Florida, Jacksonville, Florida, USA

04:00 - 04:20pm:   Composable Skeletons for Parallel Programming
                   Zunce Wei*, Hon F. Li, and Dhrubajyoti Goswami
                   Concordia University, Quebec, Canada

04:20 - 04:40pm:   MP-Cluma - A CORBA Based Cluster Management Tool
                   Silke Schuch* and Martin Poeppe
                   RWTH Aachen University,  Aachen, Germany

04:40 - 05:00pm:   Ownership-Lacking Line First Policy of Remote Access
                   Cache in NUMA System
                   Soong Hyun Shin*, Jong Wook Kwak, and Chu Shik Jhon
                   Seoul National University, Seoul, Korea
```

SESSION 23-PDPTA: PARALLEL & DISTRIBUTED PROCESSING APPLICATIONS
              Chair: Dr. Gilbert Young, USA
              June 24, 2004 (Thursday); 5:00 - 6:00pm
              (LOCATION: Meeting Room 4)

05:00 - 05:20pm: Scalable Parallel Reconstruction Algorithm for
                   Magnetic Resonance Images
                   Hyo Jong Lee
                   Chonbuk National University, Jeonju, Korea

05:20 - 05:40pm: A Hub-and-Spoke Network for Global Network-Centric
                   Applications
                   Margaret M. McMahon
                   US Naval Academy, Annapolis, MD, USA

05:40 - 06:00pm: Nondeterminism in Parallel Programs: Experiences with
                   Real-World Applications
                   Axel Rimnac** and Dieter Kranzlmueller*/**
                   *Dresden University of Technology, Dresden, Germany
                   **GUP, Joh. Kepler University Linz, Linz, Austria

LIST OF PAPERS IN DISCUSSION SESSION A-PDPTA:

O. Performance Evaluation of a Parallel Lattice Boltzmann
    Method for Cavity Flows Using Cluster Computing
    Jun Ni, Ching-long Lin, Yongxiang Zhang, Tao He,
    Shaowen Wang, and Boyd M. Knosp
    University of Iowa, Iowa City, IA, USA
O. Parallel Implementation of Scientific On-Line Database
    for Efficient Function Approximation
    Ivana Veljkovic*, Paul E. Plassmann, and Daniel C. Haworth
    Pennsylvania State University, University Park, PA, USA
O. XPP - A High Performance Parallel Signal Processing
    Platform for Space Applications
    M. Syed*, T. Helfers*, and E. Schueler**
    *EADS Astrium GmbH, Munich, Germany
    **PACT XPP Technologies AG, Germany
O. Effectiveness of a Parallel Branch-and-bound Algorithm
    for Analyzing Management Configurations
    Yijun Song and Michael Bauer*
    University of Western Ontario, Canada
O. Fault-Tolerance of Parallel Volume Rendering on Cluster of PCs
    Sergio Guedes*, Cristiana Bentes**, and Ricardo Farias*
    *Federal University of Rio de Janeiro, Brazil
    **State University of Rio de Janeiro, Brazil
O. Performance Analysis of Parallel Algorithms for One
    Dimension FFT on Symmetric Multiprocessors
    Rami A. Al-Na'mneh* and W. David Pan
    University of Alabama, Huntsville, Alabama, USA
O. Efficient Parallel Processing Methods for Transposing
    Matrices on Symmetric Multiprocessors
    Rami A. Al-Na'mneh* and W. David Pan
    University of Alabama, Huntsville, Alabama, USA
O. An Effective Perfomance Testing Approach for Java
    Enterprise Applications
    Tarek Alameldin* and Amitesh Sinha
    California State University, Fresno, USA
O. Signal Propagation Delay as a Barrier to Control
    Applications in WAN
    Thomas Phillip Knudsen*, Ahmed Patel,
    Jens Myrup Pedersen, and Ole Brun Madsen
    Aalborg University, Denmark
O. Simulation-Based Evaluation of Design Options for
    High Performance Parallel Architectures for Space-Borne Applications
    Adrian Leonardi, Bernd Schottdorf, and Timo Bretschneider*
    Nanyang Technological University, Singapore
O. Distributed Processing of a Neural Network Application
    Miguel A. Sagarnaga, David H. Williams*, and Patricia Nava
    The University of Texas at El Paso, Texas, USA
O. GeoPlanner: A Graph-Based Approach to Optimize
    Service-Oriented Distributed Geospatial Data Processing

Shuo Liu* and Hassan A. Karimi
University of Pittsburgh, Pittsburgh, USA

O. Data-Driven Real-Time Biometric Authentication for
Secure Networking System
Yasuhiro Wabiko*, Kazuhiro Aoki*, and Hiroaki Nishikawa**
*Information Infrastructure Laboratory, Inc., Ibaraki, Japan
**University of Tsukuba, Ibaraki, Japan

O. Guaranteeing the Continuous and High Available Stream
Service in Clustered Media Servers
Sung-In Jung*, Il-Hyun Cho*, and Cheol-Hoon Lee**
*Electronics & Telecommunication Research Institute, Korea
**Chungnam National University, Korea

O. On The Use of NSGrid For Accurate Grid Schedule Evaluation
Bruno Volckaert, Pieter Thysebaert, Marc De Leenheer,
Filip De Turck*, Bart Dhoedt, and Piet Demeester
Ghent University - IMEC, Gent, Belgium

O. A Scalable Concurrent Computation and Scheduling Model in Java
Guichuan Tang; Cisco Systems, Inc., San Jose, California, USA

O. Periodic Task Allocation Method Adapting to Unstable
Resource Status on The MPI Enabled Distributed System
Min-Ji Lee* and Jai-Hoon Kim; Ajou University, Suwon, Korea

O. A Distributed QoS Network Scheduler
Sriram Ramanujam* and Mitchell D. Theys
University of Illinois, Chicago, Illinois, USA

O. Task Scheduling Algorithm in GRID, Considering Heterogeneous Environment
Hue-Yin Kim*, Do-Hyun Hwang, Seung-Yeon You, and Sung-Chun Kim
Sogang University, Seoul, Korea

O. Mapping Application-Level Components into Hierarchical
Systems Resources
Albano Alves*, Antonio Pina**, Jose Exposto*, and
Jose Rufino*
*ESTiG, Instituto Politecnico de Braganca, Portugal
**Universidade do Minho, Portugal

O. Content-Aware Load Balancing Using Direct Routing for
VOD Streaming Service
Young-Hwan Woo, Jin-wook Chung, and Seok-Soo Kim
Geochang Provincial College, Korea
Sung-Kyun-Kwan University, Korea

O. An Empirical Study of Dynamic Load Balancing Strategies
for SPMD Application on Cluster of Workstations
Haroon Rashid** and Kalim Qureshi*
*King Fahd University of Petroleum & Minerals, Saudi Arabia
**COMSATS Institute of Information Technology, Pakistan

O. Proposal of a Distributed Load Balancing Application
for Managing Power in Grids
Mario Donato Marino
Polytechnic School of University of Sao Paulo, Brazil

O. Empirical Study of Variable Granularity and Global
Centralized Load Balancing Algorithms
Najib A. Kofahi* and Quazi Abidur Rahman
King Fahd University of Petroleum and Minerals, Saudi Arabia

O. A Grid Service Discovery Approach Based on Compatibility Description
Zhu Ye and Luo Junzhou; Southeast University, P. R. China

LIST OF PAPERS IN DISCUSSION SESSION B-PDPTA:

O.   Performance of Three Distributed Mutual Exclusion Algorithms
     Lei You and D. Manivanann*
     University of Kentucky, Lexington, Kentucky, USA
O.   Performance Analysis of On-Chip Cache and Main Memory
     Compression Systems for High-End Parallel Computers
     Keun Soo Yim, Jihong Kim, and Kern Koh
     Seoul National University, Seoul, Korea
O.   Performance Evaluation of MPI-HMMER on the OBIGrid
     Yasuyo Kofune*, Takahiro Koita*, and Akira Fukuda**
     *Osaka Sangyo University, Osaka, Japan
     **Kyushu University, Fukuoka, Japan
O.   On Design and Implementation of a Performance Monitoring
     Tool for Cluster Environments
     Kuan Ching Li*, Hsiao-Hsi Wang, Li-Jen Chang, Hsiang-Yao Cheng,
     and Hsun-Chang Chang
     Providence University, Taichung, Taiwan
O.   Generic-MC: A Methodology for The Rapid Development of
     Cost-Effective SMP-Based Workstation Accelerators
     P. T. Tetnowski*, S. Chapman, and R. M. Lea
     Brunel University, Uxbridge, Middlesex, UK
O.   Evaluation of a Job Admission Algorithm for Bandwidth
     Constrained Grids
     Marc De Leenheer, Pieter Thysebaert, Bruno Volckaert,
     Filip De Turck*, Bart Dhoedt, and Piet Demeester
     Ghent University - IMEC, Gent, Belgium
O.   A Flexible Algorithm for Task Ordering
     Kenneth G. Ricks*, Weinong Huang, David J. Jackson,
     and William Stapleton
     University of Alabama, Tuscaloosa, Alabama, USA
O.   A Dynamic Priority Based Algorithm for Distributed
     Deadlock Detection and Resolution
     Xinli Wang* and Jean Mayo
     Michigan Technological University, Houghton, Michigan, USA
O.   Parallel Solution of the Point Location Problem
     Using Pipelined Optical Bus Systems
     David Seme
     Universite de Picardie, France
O.   Parallel Solutions of the Longest Increasing Subsequence
     Problem Using Pipelined Optical Bus Systems
     David Seme* and Sidney Youlou
     Universite de Picardie, France
O.   Multithreading for Degree Controllable Parallel String
     Pattern Matching with k-Mismatches
     Jin H. Park
     State University of New York at New Paltz, New York, USA
O.   A Three-Node Ring Lock Manager
     Lance Johnson* and Amy Apon
     University of Arkansas, Fayetteville, Arkansas, USA

O. A Definition of Data Consistency Using Event Lattices
   Christian Rehn
   Technische Universitaet Muenchen, Garching, Germany
O. Synchronization in Distributed Systems
   Seyed H. Roosta
   University of South Carolina Spartanburg, USA
O. PMF - A Comfortable, Modular Framework for Parallel Meshing
   Algorithms
   Stephan Blazy, Odej Kao, and Oliver Marquard
   University of Paderborn, Paderborn, Germany
O. An Efficient Stochastic Anti-Collision Algorithm
   Using Bit-Slot Mechanism
   Chang-Soon Kim*, Kyung-Lang Park*, Hie-Cheol Kim**,
   and Shin-Dug Kim*
   *Yonsei University, Seoul, Korea
   **Daegu University, Daegu, Korea
O. An Enhancement in Modified Global Parallel Genetic
   Algorithm Model
   Haroon Rashid** and Kalim Qureshi*
   *King Fahd University of Petroleum & Minerals, Saudi Arabia
   **COMSATS Institute of Information Technology, Pakistan
O. A Study of Adaptive Rate Algorithm in ATM Network
   Flow Control
   Surasee Prahmkaew and Chanintorn Jittawiriyanukoon
   Assumption University, Bangkok, Thailand
O. A Fast Numerical Approximation
   Zhao Chen
   City University of New York, Brooklyn, New York, USA
O. Leader Election in Asynchronous Distributed Systems with
   Unreliable Failure Detectors
   Sung-Hoon Park
   NamSeoul University, Chung-Nam, Korea
O. Level 1 & Victim Cache Management with Processor
   Reuse Information
   Jong Wook Kwak*, Hyunbae Lee**, Cheol Hong Kim*,
   Sung-Hoon Shin*, and Chu Shik Jhon*
   *Seoul National University, Seoul, Korea
   **LG Electronics Institute of Technology, Korea
O. The Strong Distance Problems
   Justie Su-tzu Juan* and Chun-Ming Huang
   National Chin Nan University, Nantou, Taiwan
O. Web Service Robust GridFTP
   Sang Lim, Geoffrey Fox, Shrideep Pallickara*, and
   Marlon Pierce
   Indiana University, Bloomington, Indiana, USA
O. Service Oriented Web Based Meta Resource Sharing
   Platform - The CBWeB Portal
   Avinash Shankar*, Daniel Saffioti, Ian Piper, and Ashwin Shankar
   University of Wollongong, Australia
O. Process Traces with the Option Operation
   Sheng Yu* and Qing Zhao
   University of Western Ontario, Ontario, Canada
O. Improving the Measurement of the Load Signal Through
   More Appropriate Sampling Rate
   Sena Seneviratne* and David Levy
   Sydney University, Australia
O. Feasibility of Exploiting Virtual Machine for Grid Computing

O.   Lifu Wang* and Kyung Dong Ryu
Arizona State University, Tempe, Arizona, USA

O.   Semantic Extensions for the Virtual Enterprise's Grid
Infrastructure
Ziga Turk*, Vlado Stankovski, Matevz Dolenc and
Tomo Cerovsek
University of Ljubljana, Ljubljana, Slovenia

O.   Replication Decision Making for Dynamic Data Replica
Management in Data Grid
Mi-Ok Kim* and R. S. Ramakrishna
Kwangju Institute of Science & Technology, Gwangju, Korea

O.   Data Management with the CCLRC Data Portal
Glen Drinkwater, Shoaib Sufi, Ananta Manandhar,
Lisa Blanshard, and Kerstin Kleese
CCLRC Daresbury Laboratory, Warrington, Cheshire, UK

O.   P2P-Enhanced Distributed Computing in Medical Image
Reconstruction
Xiang Li, Tao He, Ge Wang, and Jun Ni
University of Iowa, Iowa City, IA, USA

O.   A Distributed Shared Memory Experiment Using a
10Gb Wide Area Network
Hans Henrik Happe and Brian Vinter
University of Southern Denmark, Denmark

O.   A SOAP-Based Electronic Commerce Security Mechanism
Gongxuan Zhang and Guowei Zuo
Nanjing University of Science and Technology, P. R. China

O.   Fast Optimal Task Graph Scheduling by Means of an
Optimized Parallel A-Algorithm
Udo Hoenig and Wolfram Schiffmann
FernUniversitat Hagen, Hagen, Germany

O.   SAP2P: A Security Architecture for Object-Oriented
P2P System
Dehua Zhang*/**, Yuqing Zhang*, and Yiyu Zhou
*National Computer Network Intrusion Protection Center, P. R. China
**National University of Defense Technology, P. R. China

O.   PAGE: A Problem Solving Environment Integrating Grid
Portal and Agent System
Giovanni Aloisio and Qing Ding
University of Lecce, Lecce, Italy

LIST OF PAPERS IN DISCUSSION SESSION C-PDPTA:

O. High Performance System Modeling and Performance
    Evaluation for Grid Computing
    Jong Sik Lee
    Inha University, Incheon, Korea
O. Towards Resource-Aware Parallel Java Components
    Yves Maheo*, Frederic Guidec, and Luc Courtrai
    Universite de Bretagne-Sud, Valoria, France
O. A Distributed Computing Course with Java Based
    Middleware Projects
    Sanjay P. Ahuja
    University of North Florida, Jacksonville, Florida, USA
O. RMI, JINI, and JavaSpaces: An Efficiency Comparison
    Roger Eggen*, Sanjay Ahuja, and Cullen Waters
    University of North Florida, Jacksonville, Florida, USA
O. The Expression of Common Concurrency Patterns in Join Java
    G. Stewart Itzstein* and David Kearney
    University of South Australia, Mawson Lakes, Australia
O. Design and Evaluation of an Intelligence Peer-to-Peer
    Distributed File System
    Joseph D. Gradecki* and Ilkyeun Ra
    University of Colorado, Denver, Colorado, USA
O. Strongly Hyper-Hamiltonian-Laceability of Hypercubes
    Sun-Yuan Hsieh* and Zhe-Nan Guo
    National Cheng Kung University, Taiwan
O. Achieving Flow Level QoS in Cut-Through Networks
    Through Admission Control and DiffServ
    Frank Olaf Sem-Jacobsen, Sven-Arne Reinemo,
    Tor Skeie*, and Olav Lysne
    SIMULA Research Laboratory, Norway
O. Fixed Nodes in AODV Routing Protocol: A Simulation Study
    Haeryong Lee*, Jaewook Shin, Jeehyeon Na, and Sangha Kim
    Electronics & Telecommunications Research Institute, Korea
O. An Exact Scheduling Algorithm for Two Linear-Nonlinear
    Clusters with a Common Communication Delay
    Wing Ning Li*, Zhichun Xiao*, and John JingFu Jenq**
    *University of Arkansas, Fayetteville, AR, USA
    **Montclair State University, New Jersey, USA
O. WonGoo: A Peer-to-Peer Protocol for Anonymous
    Communication
    Tianbo Lu, Binxing Fang, Yuzhong Sun*, and Xueqi Cheng
    Chinese Academy of Sciences, Beijing, P. R. China
O. On BPC Permutation Admissibility to R-path Omega
    Networks
    Gennady Veselovsky* and Phanthip Thaiyoo
    Assumption University, Bangkok, Thailand
O. Distributed Network Infrastructure for a Search Engine
    Emmett Davis*, Matt Kalal, Steve Tousignant, and
    Bill Wren

Saint Paul, MN, USA
O. Model Based Recovery Protocol in ParJava Environment
    Victor Ivannikov, Serguei Gaissaryan, Arutyun Avetisyan,
    and Vartan Padaryan*
    Russian Academy of Sciences, Moscow, Russia
O. Transparent Remote File Access through a Shared
    Library Client
    Brice Goglin and Loic Prylli
    CNRS-ENS, Lyon-INRIA-UCB, Lyon, France
O. Handling Updates for Real-Time Transaction Processing
    in Broadcast Disks Environment
    Sungjun Lim and Haengrae Cho*
    Yeungnam University, Kyungbuk, Korea
O. ONSP: Parallel Overlay Network Simulation Platform
    Yinghui Wu*, Ming Li, and Weimin Zheng
    Tsinghua University, Beijing, P. R. China
O. An Improved Patching Scheme For Video-On-Demand Servers
    Chun Ja Kwon, Chi Kyu Choi, and Hwang Kyu Choi*
    Kangwon National University, Chunchon, Korea
O. Spores: A Push and Pull Peer-to-Peer File Sharing
    Approach
    Thomas E. Portegys
    Illinois State University, Illinois, USA
O. Distributed Digitized Delay Queueing (DDQ) for Large
    Scale QoS Router
    Kicheon Kim
    Ajou University, Korea
O. An Interactive Profiler and Parallelizer Toolkit
    Robert Chun and Kamlesh Rao
    San Jose State University, San Jose, CA, USA
O. Pattern Matching of Collective MPI Operations
    Dieter Kranzlmueller*/**, Andreas Knuepfer*, and
    Wolfgang E. Nagel*
    *Dresden University of Technology, Dresden, Germany
    **GUP, Joh. Kepler University Linz, Linz, Austria
O. Controlling Real Time Program Remotely
    Rahul Athale and Mircea Dragan*
    Software Competence Center Hagenberg GmbH, Hagenberg, Austria
O. Implementation of the Software Distributed Shared
    Memory System on the InfiniBand
    Inho Park and Seon Wook Kim*
    Korea University, Seoul, Korea
O. Reducing Complexity of System Software Design
    Paniti Netinant
    Bangkok University, Bangkok, Thailand

LIST OF PAPERS IN DISCUSSION SESSION D-PDPTA:

O. DAMon: A Distributed Monitoring System for User
    Defined Application Parameters
    Mohammad Mursalin Akon*, Ramgopal Rajagopalan,
    Dhrubajyoti Goswami, and H. F. Li
    Concordia University, Montreal, Quebec, Canada
O. The ArmCluster Project: Brief Introduction
    H. Astsatryan
    National Academy of Sciences, Republic of Armenia
O. Framework for Executing VHDL Code on FPGA
    Patrick Robinson*, Tai-Chi Lee*, and Erik Henne**
    *Saginaw Valley State University, USA
    **Wayne State University, University Center, MI, USA
O. A New Implementation for Parallel Processing Based on CORBA Standard
    Ricardo Ribeiro dos Santos*, Danielle P. de Ruchkys,
    Milton E. R. Romero, Luciano Gonda, and
    Amaury A. C. Junior
    Universidade Catolica Dom Bosco, Brazil
O. On Design of a Prefetching Strategy for DSM System
    Kuo-Jen Wang, Hsiao-Hsi Wang, and Kuan Ching Li*
    Providence University, Taichung, Taiwan
O. Incremental Monitoring on Programmable Network Interface Cards
    L. Lefevren*, D. Kranzlmuller**, and M. Maurer**
    *INRIA-LIP, Lyon, France
    **GUP, Joh. Kepler University Linz, Austria
O. A Protocol Checker for Nautilus Language
    Claudio Fuzitaki*, P. Blauth Menezes, and Julio Machado
    Universidade Federal do Rio Grande do Sul, Brazil
O. Task Partitioning and Mapping Strategies for Parallel
    Optical Image Reconstruction Systems
    Chaoyang Zhang, Yang Ye, and Adel Lofty Ali
    University of Southern Mississippi, MS, USA
O. An Algorithm for a Free Boundary Problem
    H. Mustapha*/** and P. Saramito***
    *IRISA-INRIA, France
    **University of Rennes 1, France
    ***LMC-Grenoble, CNRS, France
O. Notes on Grid and its Attributes
    Liutong Xu and Bo Ai
O. On-the-Fly Agent-Based Distributed Shared State Monitoring
    Anirban Majumdar, Tran Trong Khiem, Eslam AL Maghayreh,
    H. F. Li, and Dhrubyajyoti Goswami
O. Modeling Work Flow in Hierarchically Cluster Distributed
    Systems Modeling Work Flow in Hierarchically Cluster Distributed Systems
    Austin Gilbert, Johnson Thomas, and Istvan Jonyer
O. Distributed Core Migration in Multicast Peer-to-Peer Streaming
    Roger Zimmermann, Rahul Hampole, and Beomjoo Seo
O. An Improved Algorithm for Mutual Exclusion in Concurrent and
    Parellel Systems

O. Parallel Edge Detection Using Uni-Directional
    MultiRing on Spiral Architecture
    Xiangjian He* and Hamid R. Arabnia**
    *University of Technology, Sydney, Australia
    **University of Georgia, Georgia, USA
O. On Simulating Hierarchical Clusters for Performance
    of Ising Spin Systems
    Gayathri Muthukrishan and Eunice E. Santos*
    Virginia Polytechnic Institute & State Universiy, VA, USA
O. Static Performance Evaluation for Memory-Bound
    Computing: the MBRAM Model
    Gene Cooperman*, Xiaoqin Ma, and Viet Ha Nguyen
    Northeastern University, Boston, MA, USA
O. Performance Trade-offs of DCT with Variable Length Carry Chains in FPGAs
    Radhika S. Grover*, Shobha Krishnan and Weijia Shang
    Santa Clara University, Santa Clara, CA, USA
O. Performance of a GALS Single-Chip Multiprocessor
    Scott F. Smith
    Boise State University, Boise, Idaho, USA
O. Performance Evaluation of Real-Time Transaction
    Processing Algorithms in Shared Disks Clusters
    Sangho Lee, Kyungoh Ohn, and Haengrae Cho*
    Yeungnam University, Kyungbuk, Korea
O. A Redirection Mechanism for a Dynamic Load Balancing
    on Heterogeneous Distributed Replica Servers
    Seon-Ho Kim*, Sulyun Sung**, Jinhong Park**, and Yongtae Shin**
    *Dongduk Women's University, Seoul, Korea
    **Soongsil University, Seoul, Korea
O. Replica Placement Mechanism Through Determining
    Upper Bound Access Cost
    Miyoun Yoon*, Jinhong Park, Seonho Kim, and Yongtae Shin
    Soongsil University, Seoul, Korea

IC-AI'04 CONFERENCE SCHEDULE

**The 2004 International Conference on
Artificial Intelligence**

Monte Carlo Resort, Las Vegas, Nevada, June 21-24, 2004

*Note   There are a number of other sessions (not listed here) that are of potential significant   interest   to   IC-AI
conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint conferences.*

June 20

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03:00 - 09:00pm: REGISTRATION (Second Floor, Conference Lobby; 1-5)
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6:30am - 6:00pm:   Registration (Second Floor, Conference Lobby: 1-5)



08:40 - 09:00am:   MultiConference Opening Remarks
                   Hamid R. Arabnia (General Chair, 2004 IMCSCE)
                   University of Georgia, Georgia, USA
                   (LOCATION: Lance Burton Theater)


09:00 - 09:05am:   Introduction of Keynote Speaker (by Prog. H. J. Siegel)
                   (LOCATION: Lance Burton Theater)


09:05 - 10:05am:   MultiConference Keynote Lecture:
                   Computer Architecture, The Road Ahead
                   Professor Michael Flynn
                   Stanford University, USA
                   (LOCATION: Lance Burton Theater)


10:05 - 10:30am:   BREAK



SESSION 1-ICAI:    MULTIAGENT SYSTEMS (MAS)
                   Chair: Dr. Eric Matson (Co-Chair: Dr. Linli He)
                   June 21, 2004 (Monday); 10:30am - 12:30pm
                   (LOCATION: Meeting Room 2)


10:30 - 10:50am:   Evaluation of An Agent-Mediated Social Network
                   Taneem Ibrahim*, Aaron Arthurs, and Henry Hexmoor
                   University of Arkansas, Fayetteville, AR, USA


10:50 - 11:10am:   Task-Oriented Computational Economic-Based Distributed
                   Resource Allocation Mechanisms for Computational Grids
                   Linli He* and Thomas R. Ioerger
                   Texas A&M University, College Station, Texas, USA


11:10 - 11:30am:   Social Norms Accentuate Agent Trust and Attenuate
                   Agent Autonomy
                   Prapulla Poli* and Henry Hexmoor
                   University of Arkansas, Fayetteville, AR, USA


11:30 - 11:50am:   Negotiation for Role Adoption Based on Efficient
                   Resource Utilization
                   Asad Rahman* and Henry Hexmoor
                   University of Arkansas, Fayetteville, Arkansas, USA


11:50 - 12:10pm:   Integrating Robotic Sensor and Effector Capabilities
                   with Multi-Agent Organizations
                   Eric Matson* and Scott DeLoach
                   Kansas State University, Manhattan, KS, USA


12:10 - 12:30pm:   Role of Autonomy in a Distributed Sensor Network
                   for Surveillance
                   K. Madhava Krishna*, Henry Hexmoor, and P. Subbarao
                   University of Arkansas, Fayetteville, AR, USA
```

12:30 - 01:30pm: LUNCH (On Your Own)

SESSION 2-ICAI: **APPLICATION & IMPLEMENTATION OF ARTIFICIAL NEURAL NETWORKS**
Chair: Dr. Christian W. Dawson
June 21, 2004 (Monday); 1:30 - 3:30pm
(LOCATION: Meeting Room 2)

01:30 - 01:50pm: Adaptive-Neuron Artificial Neural Network Features
Ming Zhang*, Jeffrey C. Bailey*, Shuxiang Xu** and John Fulcher***
*Christopher Newport University, VA, USA
**University of Tasmania, Australia
***University of Wollongong, Australia

01:50 - 02:10pm: An Approach to Clustering Web Browsing Patterns by ART2 Neural Networks with General Learning Rules
Anatoli Nachev* and Ivan Ganchev**
*National University of Ireland, Galway, Ireland
**University of Limerick, Ireland

02:10 - 02:30pm: Mining the Customer Credit Using Artificial Neural Networks and Multivariate Adaptive Regression Splines
Tian-Shyug Lee* and I-Fei Chen
Fu-Jen Catholic University, Taipei, Taiwan

02:30 - 02:50pm: Prediction and Analysis of Raveling in Porous Asphalt Top Layers Using Artificial Neural Network
Maryam Miradi
Delft University of Technology, Delft, The Netherlands

02:50 - 03:10pm: Coding and Computations with Spiking Neural Network
Georgi Georgiev**, Natacha Gueorguieva***, Iren Valova*, and Kiril Tchimev****
*University of Massachusetts Dartmouth, MA, USA
**University of Wisconsin Oshkosh, WI, USA
***City University of New York, Staten Island, NY, USA
****South West University, Bulgaria

03:10 - 03:30pm: A Neural Network Based Helicopter Flight Controller
Xiao-Hua Yu
California Polytechnic State University, CA, USA

SESSION 3-ICAI: **FUZZY LOGIC**
Chair: Dr. Rose Joshua, Canada
June 21, 2004 (Monday); 3:30 - 4:10pm
(LOCATION: Meeting Room 2)

03:30 - 03:50pm: Stocks Classification Using Fuzzy Clustering
Renato A. Aguiar*, Roberto M. Sales*, Lucy A. De Sousa**, and Joshua O. Imoniana**
*University of Sao Paulo, Brazil
**Methodist University of Sao Paulo, Brazil

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03:50 - 04:10pm:   An Analysis of Complex Radar Data Sets Using Fuzzy
                   Adaptive Resonance Theory
                   Michael J. Thompson* and John C. Sciortino Jr.
                   Naval Research Laboratory, Washington, DC, USA
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04:10 - 05:10pm: DISCUSSION SESSION A-ICAI (Refreshments will be available)
                   June 21 (Monday)
                   (LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
                   List of papers appears at the end of IC-AI's schedule.

09:00 - 11:00pm: CONFERENCE RECEPTION DINNER - June 21 (Monday)
                   (LOCATION: Meeting Rooms 1-5)

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 4-ICAI: **HYBRID INTELLIGENT SYSTEMS USING FUZZY LOGIC,**
                       NEURAL NETWORKS & GENETIC ALGORITHMS
                       Co-Chairs: Prof. Oscar Castillo & Prof. Patricia Melin
                       June 22, 2004 (Tuesday); 8:20 - 10:00am
                       (LOCATION: Meeting Room 2)

08:20 – 08:40am: Autonomous Mobile Robot Path Planning Optimization
                    Using Multiple Objective Genetic Algorithms
                    Oscar Castillo* and Leonardo Trujillo
                    Tijuana Institute of Technology, Mexico

08:40 – 09:00am: Pattern Recognition Using Modular Neural Networks and
                    Hierarchical Genetic Algorithms
                    Patricia Melin, Felma Gonzalez, and Gabriela Martinez*
                    Tijuana Institute of Technology, Mexico

09:00 – 09:20am: Evolutionary Non-Linear System Identification
                    Oscar Montiel*, Oscar Castillo, Antonio Rodriguez,
                    Roberto Sepulveda, and Patricia Melin
                    CITEDI-IPN, Tijuana, Mexico

09:20 – 09:40am: Modular Neural Networks with Fuzzy Sugeno Integral
                    Response Integration for Face and Fingerprint Recognition
                    Patricia Melin*, Alejandra Mancilla, Claudia Gonzalez,
                    and Diana Bravo
                    Tijuana Institute of Technology, Mexico

09:40 – 10:00am: Evolutionary Computing for Fuzzy System Optimization
                    in Intelligent Control
                    Oscar Castillo, Gabriel Huesca, and Fevrier Valdez*
                    Tijuana Institute of Technology, Mexico

10:00 - 10:40am: **DISCUSSION SESSION B-ICAI (Refreshments will be available)**
                       June 22 (Tuesday)
                       (LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
                       List of papers appears at the end of IC-AI's schedule.

SESSION 5-ICAI: **DECISION SYSTEMS**
                       Co-Chairs: Dr. Matthew Aitkenhead, UK & Eric Matson, USA
                       June 22, 2004 (Tuesday); 10:40 - 11:20am
                       (LOCATION: Meeting Room 2)

10:40 – 11:00am: Experiments with Decision Forests for Large Sets of Keys
                    A. Fatholahzadeh
                    Supelec, Metz, France

11:00 – 11:20am: Functional Arguments Detection Using Decision Trees
                    Vasile Rus
                    Indiana University, South Bend, Indiana, USA

SESSION 6-ICAI: **ARTIFICIAL INTELLIGENCE THEORY**
                Co-Chairs: Dr. Ying-Lie O, Netherlands & Dr. Eric Matson, USA
                June 22, 2004 (Tuesday); 11:20am - 12:00pm
                (LOCATION: Meeting Room 2)

11:20 - 11:40am: Disconnectedness in Forward and Reverse Path Graphs for
                Pattern Matching
                Louis D'Alotto* and Lewis Lasser
                York College (CUNY), Jamaica, New York, USA

11:40 - 12:00pm: Knowledge and Understanding
                Peeter Lorents
                Estonian Business School, Estonia

12:00 - 01:00pm: **LUNCH (On Your Own)**

SESSION 7-ICAI: **APPLICATIONS OF ADVANCED AI TECHNIQUES TO INFORMATION**
                MANAGEMENT FOR SOLVING COMPANY-RELATED PROBLEMS
                Co-Chairs: Dr. David de la Fuente & Dr. Jose A. Olivas
                June 22, 2004 (Tuesday); 1:00 - 4:20pm
                (LOCATION: Meeting Room 2)

01:00 - 01:20pm: A Comparative Study of Simulated Annealing and Genetic
                Algorithms
                Alberto Gomez*, David de la Fuente, Joaquin Bautista,
                Jordi Pereira, and Laia Ferrer
                University of Oviedo, Spain

01:20 - 01:40pm: The Application of Genetic Algorithms to Stock
                Market Speculation
                Alejandro Garrido*, David de la Fuente, Javier Puente,
                and Raul Pino
                Telefonica de Espana, Madrid, Spain

01:40 - 02:00pm: Coverage Model in Wireless Networks Based on
                Progressive Refinement Radiosity
                by Progressive Refinement
                Nestor Garcia Fernandez, Juan Ramon Garcia Vigo,
                Juan Manuel Cueva Lovelle*
                University of Oviedo, Spain

02:00 - 02:20pm: Effect of Regulation and Market Structure on The
                Allocation of Resources in the Pharmaceutical
                Generics Business
                Fernando Gascon*, David de la Fuente, Jesus Lozano,
                Isabel Fernandez, and Manuel A. M. Artime
                University of Oviedo, Spain

02:20 - 02:40pm: Neural-Fuzzy Statistical Process Control (NF-SPC)
                Application for Manufacturing Quality Management
                Jose Parreno*, Paolo Priore, Nazario Garcia,
                Jose Luis Herrero, and Maria Mitre
                University of Oviedo, Spain

02:40 – 03:00pm: Architectonic Patterns Oriented Design: Improving Software
                  Construction Process
                  Daniel Fernandez Lanvin, Aquilino A. Juan Fuente,
                  Raul Izquierdo Castanedo, and Juan Manuel Cueva Lovelle*
                  University of Oviedo, Spain

03:00 – 03:20pm: A Suppliers Searcher Agent Based on FIS-CRM Used
                  in E-Commerce Websites
                  Pablo J. Garces*, Jose J. Castro, Ramon Manjavacas, and
                  Jose A. Olivas
                  University of Alicante, Alicante, Spain

03:20 – 03:40pm: BREAK

03:40 – 04:00pm: A Soft-Computing Based Tool For Intelligent e-mail
                  Management
                  Francisco P. Romero*, Jose A. Olivas, Pablo J. Garces
                  Soluziona Software Factory, Spain

04:00 – 04:20pm: Overview of an Agent Based Search Engine Architecture
                  Javier de la Mata*, Jesus Serrano-Guerrero, Jose A. Olivas
                  Paseo de la Universidad, Spain

**SESSION 8-ICAI: GENETIC ALGORITHMS
                  Co-Chairs: Dr. Naim M. Ajlouni, Jordan &
                           Dr. J. C. Rosete Fonseca, Mexico
                  June 22, 2004 (Tuesday); 4:20 - 5:40pm
                  (LOCATION: Meeting Room 2)**

04:20 – 04:40pm: Genetic Design of Evolutionary Non-Linear Robust
                  PID Controllers with H-inf Optimal Solutions
                  Naim M. Ajlouni
                  Applied Science University, Jordan

04:40 – 05:00pm: Genetically Inspired Blackjack Strategies Disturbed by
                  Additive Spectral Noise
                  Ron Coleman* and Matthew A. Johnson
                  Marist College, Poughkeepsie, New York, USA

05:00 – 05:20pm: A Simple Genetic Approach to Adaptive Processing of
                  Tree-Structure Patterns
                  Siu-Yeung Cho
                  Nanyang Technological University, Singapore

05:20 – 05:40pm: Reducing False Alarms Using Genetic Programming in
                  Object Detection
                  Andrew Innes*, Vic Ciesielski*, John Mamutil**, and
                  Sabu John*
                  *RMIT University, Melbourne, Australia
                  **Braces Pty Ltd., NSW, Australia

7:00am - 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

SESSION 9-ICAI: **ARTIFICIAL NEURAL NETWORKS IN BUSINESS INTELLIGENCE**
                       Chair: Sven F. Crone
                       June 23, 2004 (Wednesday); 8:20 - 10:00am
                       (LOCATION: Meeting Room 2)

08:20 - 08:40am: Solving Imbalanced Classification Problems with Support
                    Vector Machines
                    Stefan Lessmann
                    University of Hamburg, Hamburg, Germany

08:40 - 09:00am: An Evaluation Framework for Publications on Artificial
                    Neural Networks in Sales Forecasting
                    Sven F. Crone and Patrick C. Graffeille*
                    Hamburg, Germany

09:00 - 09:20am: An Evolutionary Neural Classification Approach to
                    Evaluate Retail Stores and Support Decisions on Their
                    Location, In-Store-Design and Assortment
                    Robert Stahlbock
                    University of Hamburg, Hamburg, Germany

09:20 - 09:40am: Visualisation Techniques and Automation of
                    Clusteranalysis with Self Organising Maps for Decision
                    Support in Customer Segmentation
                    Jan Richartz
                    Hamburg, Germany

09:40 - 10:00am: A Business Forecasting Competition Approach to Modelling
                    Artificial Neural Networks for Time Series Prediction
                    Sven F. Crone
                    Lancaster University, UK

10:00 - 10:40am: **DISCUSSION SESSION C-ICAI (Refreshments will be available)**
                    June 23 (Wednesday)
                    (LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
                    List of papers appears at the end of IC-AI's schedule.

SESSION 10-ICAI: **ALGORITHMS, METHODS, & APPLICATIONS**
                       Chair: Dr. Charles Lee
                       June 23, 2004 (Wednesday); 10:40am - 2:20pm
                       (LOCATION: Meeting Room 2)

10:40 - 11:00am: Agent-Based Serviced-Oriented Approach for Collaborative
                    Manufacturing
                    Weiming Shen

11:00 - 11:20am: Inductive System Health Monitoring
                    David L. Iverson
                    NASA Ames Research Center, Moffett Field, CA, USA

11:20 – 11:40am: Transient Region Coverage in the Propulsion IVHM
                    Technology Experiment
                    Edward Balaban*, Bill Maul, Adam Sweet,
                    Chris Fulton, Anupa Bajwa, and Amy Chicatelli
                    NASA Ames Research Center, Moffett Field, CA, USA

11:40 – 12:00pm: Using Fuzzy Clusters for Real-time Space Flight Safety
                    Charles Lee*, Richard E. Haskell, Darrin M. Hanna,
                    and Rick Alenda
                    NASA Ames Research Center, Moffett Field, CA, USA

12:00 – 12:40pm: LUNCH (On Your Own)

12:40 – 01:00pm: Heuristic Strategies for the Knight Tour Problem
                    Luis Paris
                    University of Mississippi, Mississippi, USA

01:00 – 01:20pm: Semantic Conflict Resolution in Heterogeneous Databases:
                    Interaction Protocols for Domain Ontologies Evolution
                    Magali Seguran*, Danielle Boulanger, and Guilaine Talens
                    Universite Jean Moulin, Lyon, France

01:20 – 01:40pm: Computational Adaptive Autonomy: A Generalization of the
                    Copycat Architecture
                    Joseph A. Lewis* and Jamie R. Lawson**
                    *San Diego State University, San Diego, CA, USA
                    **Lockheed-Martin Orincon Defense, San Diego, CA, USA

01:40 – 02:00pm: Evaluation of Geometric and Probabilistic Distance Measures
                    to Retrieve Electron Density Patterns for Protein
                    Structure Determination
                    Kreshna Gopal*, Tod D. Romo, James C. Sacchettini, and
                    Thomas R. Ioerger
                    Texas A&M University, College Station, Texas, USA

02:00 – 02:20pm: Smart Home Energy Management
                    Nik Martin**, Shahruhk Siddiqui*, Naim Ahmed*,
                    and Gene Simmons*
                    *University of South Alabama, Mobile, Alabama, USA
                    **Radiance Technologies, Mobile, Alabama, USA

SESSION 11-ICAI: TREES AND NETWORKS
**   Chair: Dr. Eugene Santos Jr., USA**
**   June 23, 2004 (Wednesday); 2:20 - 3:20pm**
**   (LOCATION: Meeting Room 2)**

02:20 – 02:40pm: Comparing Case-Based Bayesian Network and Recursive
                    Bayesian Multi-Net Classifiers
                    Eugene Santos and Ahmed Hussein*
                    University of Connecticut, Storrs, Connecticut, USA

02:40 – 03:00pm: Pruning of a Network of Simple Classifiers
                    Parvin Hashemian
                    University of Louisiana, Lafayette, Louisiana, USA

03:00 – 03:20pm: The AntSynNet Algorithm: Network Synthesis Using Ant
                  Colony Optimization
                  Tony White
                  Carleton University, Ottawa, Ontario, Canada

03:20 – 03:40pm: BREAK

**SESSION 12-ICAI: LEARNING, REASONING & PLANNING
                  Chair: Dr. A. Fatholahzadeh, Supelec, France
                  June 23, 2004 (Wednesday); 3:40 - 6:00pm
                  (LOCATION: Meeting Room 2)**

03:40 – 04:00pm: Mixed-Initiative Ontology Learning
                  Cristina Boicu* and Gheorghe Tecuci
                  George Mason University, Fairfax, Virginia, USA

04:00 – 04:20pm: Reinforcement Learning in Episodic Non-stationary
                  Markovian Environments
                  Samuel Ping-Man Choi*, Nevin L. Zhang,
                  and Dit-Yan Yeung
                  Hong Kong University of Science and Technology, Hong Kong

04:20 – 04:40pm: Learning General Graphplan Memos
                  M. Afzal Upal
                  University of Toledo, Ohio, USA

04:40 – 05:00pm: An Implementation of Web-Based Interactive Integrative
                  Learning Supporting System
                  Masaaki Tanaka*, Tokuro Matsuo, Noriharu Tashiro,
                  Kentaro Nishi, Takayuki Ito, and Toramatsu Shintani
                  Nagoya Institute of Technology, Japan

05:00 – 05:20pm: A Learning Based and Vision Guided Robotic Agent
                  Replanning Framework and a Case Study
                  Sule Yildirim
                  Norwegian University of Science and Technology, Norway

05:20 – 05:40pm: Automated Negotiation in Multiple e-Marketplaces
                  by Using Learning Personalized Mobile Shopping Agents
                  Fu-Ming Lee and Yao-Chang Liu*
                  Chaoyang University of Technology, Wufeng, Taiwan

05:40 – 06:00pm: Using Relevant Domains Resource for Word Sense
                  Disambiguation
                  Sonia Vazquez, Andres Montoyo, and German Rigau
                  University of Alicante, Spain
                  Euskal Herriko Unibertsitatea, Spain

7:30am - 11:00am: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 13-ICAI: LEARNING, REASONING & PLANNING
**   Chair: Dr. Howard E. Michel, USA**
**   June 24, 2004 (Thursday); 8:20 - 9:20am**
**   (LOCATION: Meeting Room 2)**

08:20 – 08:40am: FREE SLOT

08:40 – 09:00am: A MetaData Architecture for Case-Based Reasoning
                  Sara Stoecklin, Daniel Schwartz*, Erbil Yilmaz, and
                  Mahesh Patel
                  Florida State University, Tallahassee, Florida, USA

09:00 – 09:20am: Coordinating Autonomous Planners
                  Adriaan ter Mors*, Jeroen Valk, and Cees Witteveen
                  Delft University of Technology, Delft, The Netherlands

SESSION 14-ICAI: BIOMETRIC IDENTIFICATION & AUTHENTICATION
**   Chair: Dr. Rose Joshua**
**   June 24, 2004 (Thursday); 9:20 - 10:00am**
**   (LOCATION: Meeting Room 2)**

09:20 – 09:40am: A Survey of Synthetic Biometrics: Capabilities and Benefits
                  Doug Buettner*, Nicholas M. Orlans**, and Joe Marques**
                  *The Aerospace Corporation, USA
                  **MITRE Corporation, USA

09:40 – 10:00am: Multi-Resolution Approach to Singular Point Detection in
                  Fingerprint Images
                  Marina Gavrilova and Chenfeng Wang*
                  University of Calgary, Canada

10:00 - 10:40am: DISCUSSION SESSION D-ICAI (Refreshments will be available)
                  June 24 (Thursday)
                  (LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
                  List of papers appears at the end of IC-AI's schedule.

SESSION 15-ICAI: INTELLIGENT AGENTS
**   Co-Chairs: Dr. Prithviraj Dasgupta, USA &**
**   Dr. Martin Maskarinec, USA**
**   June 24, 2004 (Thursday); 10:40am - 12:20pm**
**   (LOCATION: Meeting Room 2)**

10:40 – 11:00am: Intelligent Agent Enabled Peer-to-Peer Search Using
                  Ant-based Heuristics
                  Prithviraj Dasgupta
                  University of Nebraska, Omaha, Nebraska, USA

11:00 - 11:20am: Stochastic Automata Network Models of Rational Agents
                   Scott A. Burgess
                   Humboldt State University, Arcata, California, USA

11:20 - 11:40am: Multiagent Coalition Formation For Distributed, Adaptive
                   Resource Allocation
                   Leen-Kiat Soh and Xin Li*
                   University of Nebraska-Lincoln, Lincoln, NE, USA

11:40 - 12:00pm: Plan Understanding: Inferring Implicit Dependencies
                   from Explicit Elements in Multi-Agent Plan Representations
                   James P. Allen* and Phil DiBona
                   Lockheed Martin Advanced Technology Laboratories, NJ, USA

12:00 - 12:20pm: Protecting Socially Responsible Agents
                   Susanne Kalenka
                   University of Dortmund, Dortmund, Germany

12:20 - 01:00pm: LUNCH (On Your Own)

01:00 - 01:20pm: FREE SLOT

01:20 - 01:40pm: FREE SLOT

LIST OF PAPERS IN DISCUSSION SESSION A-ICAI:

O. Odin and Hodur: Using Bluetooth Communication for
    Coordinated Robotic Search
    D. H. Barnhard, J. T. McClain*, B. J. Wimpey, and W. D. Potter
    University of Georgia, Georgia, USA
O. Measuring Organisational Learning: Proposal of a
    Multidimensional Scale
    Susana Perez Lopez, Jose Manuel Montes Peon, and
    Camilo Jose Vazquez Ordas; University of Oviedo, Spain
O. Adaptive Learning Objects
    Mario Garcia*, Antonio Rodriguez, Manuel Castanon, and Alfredo Cristobal
    Tijuana Institute of Technology, Mexico
O. Intelligent Agents in Distributed Fault Tolerant
    Systems for Industrial Control
    Arnulfo Alanis*, Juan Serrano, Rafael Ors, and Oscar Castillo
    Tijuana Institute of Technology, Mexico
O. Corporate Bond Rating using Neural Networks
    David Brennan** and Anthony Brabazon*
    *University College Dublin, Ireland / **PwC, Dublin, Ireland
O. Data Clustering Via Spiking Neural Networks Through
    Spike Timing-Dependent Plasticity
    Xiaoli Tao and Howard E. Michel*
    University of Massachusetts, Dartmouth, Massachusetts, USA
O. FPGA-Based Implementation of a 59-Neuron Feedforward
    Neural Network with a 17.1 Gbps Interlayer Throughput
    Antti Hamalainen*, Matti Tommiska, and Jorma Skytta
    Helsinki University of Technology, Espoo, Finland
O. Environmental Pattern Recognition and Prediction Using
    Evolved Neural Networks
    Matthew Aitkenhead; The Macaulay Institute, Aberdeen, Scotland, UK
O. Data Scaling Problems of Artificial Neural Networks
    in Rainfall-Runoff Modelling
    Christian W. Dawson
    Loughborough University, UK
O. Mathematical Investigation and Gentic Neural
    Implementation of Feed Forward PID Controller
    Naim Ajlouni* and Ghazi Raho
    Applied Science University, Jordan
O. Neuro Fuzzy System for Channel Noise Equalization
    Rahib Abiyev*, Fakhreddin Mamedov, and Tayser Alshanableh
    Near East University, Turkey
O. Feature Selection Using Weighted Neuro-Fuzzy Membership Functions
    Joon S. Lim and Sudhir Gupta
    Kyungwon University, Korea
    University of California, Irvine, CA, USA
O. On the Power of Heuristics in Solving Large AI Problems
    Anas Nayfeh and Mohammed Almulla; Kuwait University, Kuwait

LIST OF PAPERS IN DISCUSSION SESSION B-ICAI:

O. Decision Making with Aid of the Polarization of Affinity
    Christian Kuhn
    Technical University of Illmenau, Germany
O. Determining a Good Decision Attribute for Knowledge
    Discovery in Databases
    Hyontai Sug
    Dongseo University, Busan, Korea
O. Modularity of Knowledge
    Enn Tyugu
    Estonian Business School, Tallinn, Estonia
O. Equivalent Transformation Rules for a Class of Constraint
    Satisfaction Problems
    Hidemi Ogasawara*, kiyoshi Akama**, and Yoshinori Shigeta***
    *Chukyo University, Aichi, Japan
    **Hokkaido University, Japan
    ***Stanford University, Stanford, CA, USA
O. User Knowledge Extraction
    Guido Tascini*, L. Lella, and A. Montesanto
    University of Ancona, Ancona, Italy
O. A Spiking Neuron Model of Olfactory Bulb Dynamics
    Natacha Gueorguieva***, Iren Valova*, and Georgi Georgiev**
    *University of Massachusetts Dartmouth, MA, USA
    **University of Wisconsin Oshkosh, WI, USA
    ***City University of New York, Staten Island, NY, USA
O. Intelligent Information Systems for Decision Support
    Ying-Lie O
    The Netherlands
O. Evaluation the Difference of Knowledge and Concepts
    Using The Metrics of Lorents
    Maren Jents
    Estonian Business School, Estonia
O. A Theory on the Abstraction and Cognition Based on
    Musical Note Patterns
    Sudharsan Iyengar
    Winona State University, Winona, MN, USA
O. Adaptive Learning to Optimize Resource Management in
    a Multiagent Framework
    Chao Chen* and Leen-Kiat Soh
    University of Nebraska-Lincoln, Lincoln, NE, USA
O. Eliciting Buyer Preferences Using Intelligent Agents
    for Multi-Attribute Dynamic Pricing
    Prithviraj Dasgupta* and Yoshitsugu Hashimoto
    University of Nebraska, Omaha, Nebraska, USA
O. Intra-day Financial Asset Trading Using Grammatical Evolution
    Katrina Meagher*, Edward Carty*, Anthony Brabazon*,
    Michael O'Neill** and Peter Keenan*
    *University College Dublin, Ireland
    **University of Limerick, Ireland
O. Demonstrative Prototype to Teach Statistical Methods

Maria da Graca Pereira
GEIASC, Brazil
O. A Fast and Robust Method Applied in Telecommunication Systems
    Hua Ye* and Wanlei Zhou
    Deakin University, VIC., Australia
O. An Intelligent Architecture for Control of Machining
    Operation Process in CNC Machine Tool
    Zohreh Kasirolvalad* and M. R. Jahed Motlagh
    University of Science and Technology
O. Automatic Generation of English-Language Steps in
    Puzzle Solving
    Hemantha Ponnuru, Raphael Finkel*, Victor Marek, and
    Miroslaw Truszczynski
    University of Kentucky, Lexington, Kentucky, USA
O. Hybrid Systems Analysis of an Intelligent Control System
    for Control of Patient-Ventilator Synchrony
    Dalton S. Nelson
    University of Alabama at Birmingham, Alabama, USA
O. Visual Semiotics, Human Emotions and Neurotransmitters
    Maringanti Hima Bindu
    Indian Institute of Information Technology, India
O. Principles on Integerating General Rule Structure (GRS) Based
    System and Neural Networks
    Nabil M. Hewahi; Islamic University of Gaza, Palestine

LIST OF PAPERS IN DISCUSSION SESSION C-ICAI:

O. Micro Processor Based Smell/Taste Biosensors for Determination
    of Toxins and Pathogens in Restricted Areas of Human
    Intervention
    Madhusudhana Rao Ganji, Ushaa Eswaran, Surya Narayana,
    Murthy Devulapalli, India
O. A Genetic Algorithm Based Generation of Maximal
    Frequent Itemsets
    Jen-Peng Huang*, Che-Tsung Yang*, and Chih-Hsiung Fu**
    *Southern Taiwan University of Technology, Taiwan
    **Computer & Network Center Bureau of Education, Taiwan
O. Training Robots in Virtual Environments Using Genetic Algorithms
    Juan Carlos Rosete Fonseca* and Alejandro Vega Salinas**
    *Instituto Tecnologico de Queretaro, Mexico
    **Instituto Tecnologico de Monterrey, Mexico
O. Towards Developing Behavior Based Control Architectures
    for Mobile Robots Using Simulated Behaviors
    Julian N. Bishop* and W. D. Potter
    University of Georgia, Georgia, USA
O. An Evolutionary Race: A Comparison of Genetic Algorithms
    and Particle Swarm Optimization Used for Training Neural Networks
    Tony White; Carleton University, Ottawa, Ontario, Canada
O. A PID Controller Tuned by Genetic Algorithms Applied
    to a Three-Phase Induction Motor
    Judinor G. Aguirres Jr., Aldayr D. Araujo*,
    David S. Barbalho, and Luiz A. Carlos
    Federal University of Rio Grande do Norte, Brazil
O. A Hybrid Genetic Algorithm Application
    David L. Hibler; Christopher Newport University, Newport News, VA, USA
O. An Objective Function Based on Bayesian Likelihoods of
    Necessity and Sufficiency for Concept Learning in the
    Absence of Labeled Counter-Examples
    Andrew Skabar; Deakin University, Burwood, Victoria, Australia
O. Testing Price Prediction Models in Dynamically
    Configurable Artificial Stock Market
    Sadia Malik*, Uzair Ahmad*, Arshad Ali*, Fawad Rauf**, Fatima Abbasi*
    *NUST Institute of Information Technology, Pakistan
    **Streaming Networks, Ltd., Islamabad, Pakistan
O. A Domain Independent Algorithm for Adapting Temporal Plans
    U. Senthil* and Deepak Khemani
    Indian Institute of Technology, Madras, Chennai, India
O. An Ant-Clustering Model for Solvency Prediction
    Yue Xi**, Qiang Han* and Anthony Brabazon*
    *University College Dublin, Ireland
    **Crowleys DFK, Dublin, Ireland
O. Shoulder Detection Using GRELD Threshold Method
    Ming Zhang* and Jeffrey C. Bailey
    *Christopher Newport University, VA, USA
O. Rainfall Estimation Using SPHONN Model
    Ming Zhang*, Jessica Crane and Jeffrey C. Bailey

    *Christopher Newport University, VA, USA

O. A Novel Genetic ARIMA (G-ARIMA) Model Applied to the
Forecasting Problem
Karthik Vasudevan

O. Potential-Based Processing for Action-Game Experimentation
and A Challenge to a Competition
Russ Abbott

O. Mitigating the Loss of Significance Arithmetic in
Financial Predictive Applications
S. Edward Richfield and Steven E. Richfield

O. Power System Load Frequency Control Using NANN Based
on Robust Control Technique
H. Shayeghi* and H. A. Shayanfar**
*Azad University, Ardabil
**University of Science and Technology

O. An Approximate Solution for Steiner Trees in Multicast Routing
Gary Grewal*, M. Xu, T. Wilson, and C. Obimbo
University of Guelph, Ontario, Canada

O. Genetic Design of Neural PID Plus Feedforward Controllers
Naim Ajlouni* and Sadeq Al-Hamouz
Applied Science University, Jordan

O. Intelligent Model for Rating Physical Capability for Computer Access
Thomas A. Pushchak and Sreela Sasi
Community Resources for Independence, Inc., Erie, PA, USA
Gannon University, Erie, PA, USA

LIST OF PAPERS IN DISCUSSION SESSION D-ICAI:

O. A Multi-Layered Approach for Modeling Activities in Smart Spaces
   Fahd Al-Bin-Ali; University of Arizona, Arizona, USA
O. Caching Method Results in Object Databases
   Juanal Flores Lopez and Martin Maskarinec*
   Western Illinois University, Macomb, Illinois, USA
O. Achieving Self-Stabilization Using a Meta-GA
   Dwight Deugo* and Darrell Ferguson; Carleton University, Ontario, Canada
O. An Efficient Heuristic Bundle Search Algorithm for
   Buyers in Electronic Markets
   Linli He* and Thomas R. Ioerger; Texas A&M University,Texas, USA
O. Knowledge and Wisdom from Internet Traffic
   Syed V. Ahamed* and Nazli Mollah; City University of New York, New York,USA
O. An Approach of Temporal Reasoning Combining the Metric
   and Symbolic Aspects of Time
   Abdelwahid Bouhouche* and Abdenacer Nafir; Universite Skikda, Algeria
O. A Cooperative Negotiation Model in a Hostile Dynmic World
   Madhu Goyal; University of Technology, Sydney, Australia
O. Aspects of an Expert System for Higher Education
   Marcos S. Pinto; City University of New York, New York, USA
O. Genetic Algorithms for Manufacturing Cell Formation:
   An Examination of the Critical Issue - Representation
   Xiaodan Wu*, Yunfeng Wang*, Dianmin Yue*, and Chao-Hsien Chu**
   *Hebei Univ. of Technology, China / **Pennsylvania State Univ., PA, USA
O. A User Centered Evolutionary Scheduling Framework
   Horst F. Wedde, Muddassar Farooq*, and Mario Lischka
   Universitaet Dortmund, Germany
O. Reinforcement Learning of Player Agents in RoboCup Soccer Simulation
   Abhinav Sarje, Amit Chawre, and Shivashankar B. Nair
   Indian Institute of Technology, Guwahati, India
O. System Approach and Modelling Teaching
   Miguel Angel Garay Garcell; Havana Institute of Technology
O. Agent Negotiation Power
   M. Abu Hassan
O. Reinforcement Learning in Simulation RoboCup Soccer
   Cheng Xian-Yi, Yuan Xiao-Hua, Pan Ling-Han, and Xia De-Shen
O. Decision Making with Aid of the Polarization of Affinity
   Christian Kuhn
O. Enhanced Genetic Scheduling for Multiprocessor
   Systems Using Task Duplication
   Xiao Xie, Wensheng Yao, and Jinyuan You
O. A Novel Dimensionality Reduction Technique Based on Independent Component
   Analysis for Modeling Microarray Gene Experssion Data
   Han Liu and Rafal Kustra
O. Generalized Semi-Infinite Optimization and its Application in
   Robotics's Path Planning Problem
   Han Liu, Xiaolin Yang, and Yongji Wang
O. Attribute-Value Selection Based on the Minimum Description Length
   Istvan Jonyer, Lawrence B. Holder, and Diane J. Cook

CISST'04 CONFERENCE SCHEDULE

**The 2004 International Conference on
Imaging Science, Systems, and Technology**

Monte Carlo Resort, Las Vegas, Nevada, June 21-24, 2004

Note: There are a number of other sessions (not listed here) that are of potential significant interest to CISST conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences.

June 20

03:00 - 09:00pm: REGISTRATION (Second Floor, Conference Lobby; 1-5)

6:30am – 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

08:40 – 09:00am: MultiConference Opening Remarks
                     Hamid R. Arabnia (General Chair, 2004 IMCSCE)
                     University of Georgia, Georgia, USA
                     (LOCATION: Lance Burton Theater)

09:00 – 09:05am: Introduction of Keynote Speaker by Prof. H. J. Siegel
                     (LOCATION: Lance Burton Theater)

09:05 – 10:05am: MultiConference Keynote Lecture:
                     Computer Architecture, The Road Ahead
                     Professor Michael Flynn
                     Stanford University, USA
                     (LOCATION: Lance Burton Theater)

10:05 – 10:30am: BREAK

SESSION 1-CISST: MOTION TRACKING & OBJECT RECOGNITION
                     Co-Chairs: Dr. Xiangjian He & Prof. Tom Hintz
                     June 21, 2004 (Monday); 10:30am - 12:30pm
                     (LOCATION: Meeting Room 1)

10:30 – 10:50pm: Study on Prioritization of Network Traffic for Wireless
                   Traffic Monitoring Systems
                   Hongjun Xu* and Xiangjian He
                   University of Technology, Sydney, Australia

10:50 – 11:10pm: A Method of Computing Fractal Dimension
                   Wei Ren and Dan Liu*
                   Institute of Nautical Science and Technology +
                   Dalian Maritime University, Dalian, Liaoning, P. R. China

11:10 – 11:30pm: Automatic Number Plate Recognition: An Overview
                   Wenjing Jia*, Xiangjian He, and Massimo Piccardi
                   University of Technology, Sydney, Australia

11:30 – 11:50pm: Specification of Cortical Anatomy Within the Spiral
                   Harmonic Mosaic Algebra
                   D. M. Alexander, P. Sheridan*, and J. J. Wright
                   Griffith University, Brisbane, Australia

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11:50 - 12:10pm:   Further Approaches to Image Compression on Spiral
                   Architecture
                   Tom Hintz*, Huaqing Wang, and Xiangjian He
                   University of Technology, Sydney, Australia

12:10 - 12:30pm:   FREE SLOT
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12:30 - 01:30pm: LUNCH (On Your Own)

```
01:30 - 03:10pm:   Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to CISST
                   conference participants (sessions belonging to other
                   joint conferences in this event.)  Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences (in particular, schedules for METMBS, IKE,
                   and PDPTA.)
```

SESSION 2-CISST: MOTION: TRACKING, ALGORITHMS, & NOVEL APPLICATIONS
Co-Chairs: Dr. Xiangjian He & Prof. Tom Hintz
June 21, 2004 (Monday); 3:10 - 4:10pm
(LOCATION: Meeting Room 1)

```
03:10 - 03:30pm:   Feature Data Tracking on Golf Swing-Motion
                   Hong-Ro Lee*, Chae-Gon Yoo**, and Chi-Jung Hwang*
                   *Chung Nam National University, Taejeon, Korea
                   **Daeduk College, Taejeon, Korea

03:30 - 03:50pm:   Video Motion as a Video Fingerprint
                   Martin Bateman
                   University of St Andrews, Scotland, UK

03:50 - 04:10pm:   FREE SLOT
```

04:10 - 05:10pm: DISCUSSION SESSION A-CISST (Refreshments will be available)
June 21 (Monday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of CISST's schedule.

09:00 - 11:00pm: CONFERENCE RECEPTION DINNER - June 21 (Monday)
(LOCATION: Meeting Rooms 1-5)

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

10:00 - 10:40am: DISCUSSION SESSION B-CISST (Refreshments will be available)
June 22 (Tuesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of CISST's schedule.

10:40 - 12:00pm: Note: There are a number of other sessions (not listed here)
that are of potential significant interest to CISST
conference participants (sessions belonging to other
joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint
conferences (in particular, schedules for METMBS, IKE,
and PDPTA.)

12:00 - 01:00pm: LUNCH (On Your Own)

SESSION 3-CISST: IMAGE RETRIEVAL & DATABASES
Co-Chairs: Dr. Serhan Dagtas, USA & Dr. Nick H. Younan, USA
June 22, 2004 (Tuesday); 1:00 - 2:20pm
(LOCATION: Meeting Room 1)

01:00 - 01:20pm: Probabilistic Region Relevance Learning for Content-Based
Image Retrieval
Iker Gondra* and Douglas R. Heisterkamp
Oklahoma State University, Stillwater, Oklahoma, USA

01:20 - 01:40pm: The Color Retrieval System Using Statistics and
the PCA
Young Kwan Choi*, Chul Choi, and Chang-Chun Park
Konkuk University, Seoul, Korea

01:40 - 02:00pm: Colour and Shape Based Image Retrieval for CVPIC Coded
Images
Gerald Schaefer* and Simon Lieutaud
The Nottingham Trent University, Nottingham, UK

02:00 - 02:20pm: A Graphical Model for Multimedia Data Indexing and
Retrieval
Serhan Dagtas
University of Arkansas - Little Rock, AR, USA

SESSION 4-CISST: **ALGORITHMS & APPLICATIONS; INCLUDING MATCHING & RENDERING**
Chair: Dr. Andrei Smirnov, USA
June 22, 2004 (Tuesday); 2:20 - 3:20pm
(LOCATION: Meeting Room 1)

02:20 - 02:40pm: An Image Alignment Technique for Planar Image Mosaicing
by Hierarchical Edge-Color Matching and Chamfer Matching
Methods
Nongluk Covavisaruch* and Piyachat Dhanaraks
Chulalongkorn University, Bangkok, Thailand

02:40 - 03:00pm: Stereo Images and Genetic Algorithms: Making Computers
See Depth
Matthias Wiemann* and Hamid R. Arabnia**
*University of Potsdam, Germany
**University of Georgia, USA

03:00 - 03:20pm: Algebraic Formulation and Program Generation of
Three-Dimensional Hilbert Space-Filling Curves
Chih-Sheng Chen, Shen-Yi Lin, and Chua-Huang Huang
Feng Chia University, Taichung, Taiwan

03:20 - 03:40pm: BREAK

03:40 - 05:40pm: Note: There are a number of other sessions (not listed here)
that are of potential significant interest to CISST
conference participants (sessions belonging to other
joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint
conferences (in particular, schedules for METMBS, IKE,
and PDPTA.)

7:00am - 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

10:00 - 10:40am: **DISCUSSION SESSION C-CISST (Refreshments will be available)**
                      June 23 (Wednesday)
                      (LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
                      List of papers appears at the end of CISST's schedule.

10:40 - 12:00pm: Note: There are a number of other sessions (not listed here) that are of potential significant interest to CISST conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences (in particular, schedules for METMBS, IKE, and PDPTA.)

12:00 - 01:00pm: **LUNCH (On Your Own)**

SESSION 5-CISST: **IMAGE SENSOR, CAMERA CALIBRATION, DISPLAY, I/O TECHNOLOGIES + RELATED ISSUES**
                      Co-Chairs: Dr. Jalal R. Karam, Lebanon &
                      **   Dr. Elisa H. Barney Smith, USA**
                      June 23, 2004 (Wednesday); 1:00 - 1:40pm
                      (LOCATION: Meeting Room 1)

01:00 - 01:20pm: Intrinsic Camera Calibration Based on Radical Center Estimation
                  Dong Hoon Lee, Kyung Ho Jang, and Soon Ki Jung
                  Kyungpook National University, Daegu, Korea

01:20 - 01:40pm: Printer Modeling for Document Imaging
                  Margaret Norris and Elisa H. Barney Smith*
                  Boise State University, Boise, ID, USA

SESSION 6-CISST: **IMAGING ALGORITHMS & APPLICATIONS + VISION**
         Co-Chairs: Dr. Jalal R. Karam, Lebanon & Dr. Elisa H. Barney Smith, USA
                      June 23, 2004 (Wednesday); 1:40 - 3:20pm
                      (LOCATION: Meeting Room 1)

01:40 - 02:00pm: On the Application of Kolmogorov Complexity to the Characterization and Evaluation of Computational Models and Complex Systems
                  Carlos A. P. Campani and Paulo Blauth Menezes*
                  Universidade Federal do Rio Grande do Sul, Brazil

02:00 - 02:20pm: Form Type Identification Using Hierarchical Trees
                  Kai Luo, Shahram Latifi, Emma Regentova*, and Kazem Taghva
                  University of Nevada, Las Vegas, NV, USA

02:20 - 02:40pm: Constraint Based Planning of Interiour Furnishings
                  Gerhard Kurka*, Jens Volkert, Edith Spiegl, and
                  Christian Glasner
                  Johannes Kepler University, Linz, Austria

02:40 - 03:00pm: An Alternative Approach to Travel Time Studies Using
                  GPS Technology
                  Khue Ngo-Quoc*, Bing W. Kwan, and Leonard J. Tung
                  Florida State University, Tallahassee, Florida, USA

03:00 - 03:20pm: Normalized Region Extraction of Facial Features by Using
                  Hue-Based Attention Operator Robust to Illumination
Variations
                  Eui-Jung Jung, Jong-Hwa Kim, Joon-Hyung Jeon,
                  Eun-Jin Park, and Heung-Moon Choi*
                  Kyungpook National University, Daegu, Korea

03:20 - 03:40pm: BREAK

03:40 - 06:00pm: Note: There are a number of other sessions (not listed here)
                  that are of potential significant interest to CISST
                  conference participants (sessions belonging to other
                  joint conferences in this event.) Therefore, you are
                  encouraged to also check the schedules for other joint
                  conferences (in particular, schedules for METMBS, IKE,
                  and PDPTA.)

7:30am - 11:00am: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 7-CISST: **IMAGE COMPRESSION + IMAGE DATA STRUCTURES**
Chair: Dr. Rahman Tashakkori, USA
June 24, 2004 (Thursday); 8:00 - 9:00am
(LOCATION: Meeting Room 1)

08:00 - 08:20am: Accuracy, Rate and Complexity Tradeoffs of Transformation
Estimation Using Lie Operators
Mahesh Nalasani and W. David Pan
University of Alabama in Huntsville, USA

08:20 - 08:40am: A New Deeper Quadtree Searchless IFS Fractal Image
Encoding Method
Xianwei Wu, David Jeff Jackson*, Hui-Chuan Chen,
William A. Stapleton and Kenneth G. Ricks
University of Alabama, Tuscaloosa, Alabama, USA

08:40 - 09:00am: Decorrelating Medical Image Sets with Lifting: A New
Approach
Rahman Tashakkori*, John M. Tyler**, Oleg S. Pianykh**,
and Xiaojun Qi***
*Appalachian State University, Boone, NC, USA
**Louisiana State University, Baton Rouge, LA, USA
***Utah State University, Logan, Utah, USA

SESSION 8-CISST: **WAVELET-BASED + WATERMARK ALGORITHMS & APPLICATIONS**
Co-Chairs: Dr. Sung-Hyuk Cha, USA & Dr. Sreela Sasi, USA
June 24, 2004 (Thursday); 9:00 - 10:00am
(LOCATION: Meeting Room 1)

09:00 - 09:20am: Refinement to a Wavelet-Based Algorithm for the
Estimation of Velocity Vector Fields
Guillermo Tonsmann*, John M. Tyler**, Nan D. Walker***,
Lawrence J. Rouse, Jr.***, and William J. Wiseman, Jr.
*Loyola University New Orleans, LA, USA
**Louisiana State University, Baton Rouge, LA, USA
***Coastal Studies Institute, Baton Rouge, LA, USA
****National Science Foundation, Virginia, USA

09:20 - 09:40am: A Wavelet-Based Automated Object Recognition System
for Remotely Sensed Images
Xudong Zhang and N. H. Younan*
Mississippi State University, Mississippi, USA

09:40 - 10:00am: VQ Attack Resilient and Tamper Proofing Digital
Watermark for Image Authentication and Recovery
Po-Whei Huang*, An-Wei Peng*, and Phen-Lan Lin**
*National Chung Hsing University, Taichung, Taiwan
**Providence University, Taichung, Taiwan

10:00 - 10:40am: **DISCUSSION SESSION D-CISST (Refreshments will be available)**
June 24 (Thursday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of CISST's schedule.

SESSION 9-CISST: **IMAGING ALGORITHMS + APPLICATIONS + TOOLS**
Co-Chairs: Dr. Sung-Hyuk Cha, USA & Dr. Sreela Sasi, USA
June 24, 2004 (Thursday); 10:40am - 12:00pm
(LOCATION: Meeting Room 1)

10:40 - 11:00am: A Volumetric Imaging Tool for Industrial Inspection
and Scientific Analysis
A. J. Abraham*, P. T. Tetnowski, M. Sadki, and R. M. Lea
Brunel University, Uxbridge, Middlesex, UK

11:00 - 11:20am: Virtual Navigation
Guido Tascini
Universita Politecnica delle Marche, Italy

11:20 - 11:40am: Cost-Performance Trade-Offs for Volumetric Imaging
Relevant to Industrial Inspection
A. J. Abraham, M. Sadki, P. T. Tetnowski, and R. M. Lea
Brunel University, UK

11:40 - 12:00pm: FREE SLOT

12:00 - 01:00pm: **LUNCH (On Your Own)**

01:00 - 05:40pm: Note: There are a number of other sessions (not listed here)
that are of potential significant interest to CISST
conference participants (sessions belonging to other
joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint
conferences (in particular, schedules for METMBS, IKE,
and PDPTA.)

LIST OF PAPERS IN DISCUSSION SESSION A-CISST:

O. Precise Navigation in Virtual Environments Without
    Compromising Interaction
    Leonidas Deligiannidis
    University of Georgia, Georgia, USA
O. Utilizing Virtual Reality for Autism Treatment
    Leonidas Deligiannidis*, Gamal Weheba**, and Trisha Self**
    *University of Georgia, Georgia, USA
    **Wichita State University, USA
O. Development of a Virtual Reality Application for
    Validating Maintenance Procedures
    Leonidas Deligiannidis* and Alex Chaparro**
    *University of Georgia, Georgia, USA
    **Wichita State University, USA
O. Quantitation of Gamma-correction Segments for CMOS
    Image Sensor
    Tae-Young Jung*, Se-Jin Pyo, Eun-Su Kim, and Kyu-Ik Sohng
    Kyungpook National University, Korea
O. A Camera Characterization Using the Estimated
    Phosphor Primaries
    Eun-Su Kim*, Soo-Wook Jang*, Jong-Sun Park**,
    Dong-Ha Lee**, Chan-Ho Han*, and Kyu-Ik Sohng*
    *Kyungpook National University, Korea
    **Digital Display & Media Company, LG Electronics Inc., Korea
O. Background-Adjusted Weber-Fechner Fraction
    Dong-Ha Lee*, Jong-O Kim**, Eun-Su Kim***,
    Soo-Wook Jang***, Chan-Ho Han***, and Kyu-Ik Sohng***
    *Digital Display & Media Company, LG Electronics Inc., Korea
    **A&D Technology Inc., Korea
    ***Kyungpook National University, Korea
O. A Comprehensive Study of Stereo Correlation Performance
    Ananda S. Chowdhury and Hamid R. Arabnia
    University of Georgia, Georgia, USA
O. Generation of High Quality Stream for Static Picture
    Quality Test in DTV System
    Soo-Wook Jang*, Eun-Su Kim*, Gwang-Soon Lee**,
    Chan-Ho Han*, Man-Sik Park***, and Kyu-Ik Sohng*
    *Kyungpook National University, Korea
    **Electronics & Telecommunications Research Institute, Korea
    ***Daegu & Gyongbuk Small & Medium Business Admin., Korea
O. B-Spline Contour Fitting in Image Sequences Using
    Genetic Algorithm
    Hoon Heo* and Ok-Sam Chae
    Kyunghee University, Kyunggi-do, Korea
O. Bone Loss Detection in Dental Radiography by Structure Analysis
    Yonghak Ahn and Oksam Chae
    Kyunghee University, Korea
O. Mesh Watermarking Using Projection onto Convex Sets
    Tae-Su Kim*, Suk-Hawn Lee*, Seung-Jin Kim*,
    Ki-Ryong Kwon**, and Kuhn-Il Lee*

LIST OF PAPERS IN DISCUSSION SESSION B-CISST:

O. Low-Bitrate Video Coding Using Adaptive Wavelet Quantization
    of Difference Image
    Kyeong-Hwan Lee* and Won-Kyo Jeong**
    *Uiduk University, Kyungbuk, Korea / **Daegu University, Korea
O. The Effect of Brightness and Contrast Adjustment on
    Image Saturation
    Kok-Swee Sim*, Nidal S. Kamel & H. T. Chuah; Multimedia Univ., Malaysia
O. A New Broadcasting Strategy with Supporting VCR
    Functions for Near Video-on-Demand Systems
    Yu-Wei Chen* and Li-Ren Han
    Aletheia University, Taipei, Taiwan
O. Time Stamp Detection and Recognition in Video Frames
    Chetsada Saengpanit* and Nongluk Covavisaruch
    Chulalongkorn University, Bangkok, Thailand
O. LDA-Based Face Recognition Using Different Training Data Sets
    Zhifeng Li* and Xiaoou Tang
    The Chinese University of Hong Kong, Hong Kong
O. Plant and Plant Disease Recognition
    Leonardo Traversoni* and Aida Juarez Cruz
    Universidad Autonoma Metropolitana, Mexico
O. A Compact and Flexible Online Chinese Handwriting
    Recognizer Based on Hidden Markov Models
    Yong Ge*, Feng-Jun Guo, and Li-Xin Zhen
    Motorola China Research Center, ShangHai, P. R. China
O. Using EMG Signals to Anticipate Head Motion via
    Recurrent Neural Networks
    Erion Hasanbelliu*, Yair Barniv**, and Mario Aguilar*
    *Jacksonville State University, Alabama, USA
    **NASA / Ames Research Center, Moffett Field, California, USA
O. A Slope-Based Search Technique for Block Motion Estimation
    Myoung-Seo Kim*, Cheong-Ghil Kim, and Shin-Dug Kim
    Yonsei University, Seoul, Korea
O. The Object Extraction Through the Relationship of
    Independence or Dependence Among Segmented Regions
    Seung Soo Lee*, Jung A. Lee, and Chang Choon Park
    Konkuk University, Seoul, Korea
O. Padviz - A Prototype for Visualization of Three Dimensional
    Fluid Flow on Unstructured Grids
    Stephan Blazy, Odej Kao*, and Oliver Marquard
    University of Paderborn, Paderborn, Germany
O. Remote Interface for Geometric Design and Simulation Control
    A. Smirnov*, H. Zhang, B. Sowers, A. Burt, and I. Celik
    West Virginia University, Morgantown WV, USA
O. Real Time Rendering of Expensive Small Environments
    Colin Branch and Hala ElAarag
    Stetson University, DeLand, Florida, USA
O. Lossless Image Compression with IDP and Adaptive RLC
    R. Kountchev, M. Milanova, C. Ford, S. Rubin, and R. Kountcheva

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LIST OF PAPERS IN DISCUSSION SESSION C-CISST:


O.  An Approach to Hole Repairing for FEA Mesh
    Wenliang Chen*, Ru Yi, and Sheng Zhang
    Nanjing University of Aeronautics & Astronautics, P. R. China
O.  Simulation of a 2D Glass Painting Using Multi-Pass
    Non-Photorealistic Rendering Technique
    Priti Sehgal* and P. S. Grover University of Delhi, India
O.  Watermarking System for Contents Adaptation in
    Ubiquitous Environment
    Tae Meon Bae*, Seok Jun Kang, and Yong Man Ro
    Information & Communications University (ICU), Korea
O.  3D Mesh Robust Watermarking Based on Patch CEGI
    Suk-Hwan Lee*, Tae-Su Kim*, Seung-Jin Kim*,
    Ki-Ryong Kwon**, Kuhn-Il Lee*
    *Kyungpook National University, Daegu, Korea
    **Pusan University of Foreign Studies, Pusan, Korea
O.  Hybrid Fractal/JPEG Image Compression: A Case Study
    William A. Stapleton*, Krirkkrit Sripaipan,
    David Jeff Jackson, and Kenny G. Ricks
    University of Alabama, Tuscaloosa, Alabama, USA
O.  A Fast Partial Distance Search Algorithm for VQ Codebook
    Shinfeng D. Lin, Shih-Chieh Shie*, and Chi-Yang Hung
    National Dong Hwa University, Hualien, Taiwan, ROC
O.  An Optimal Construction Algorithm For Linear Octrees
    Wang Chengbo, Wang Hongbin & Zhou Dongru; Wuhan Univ, Hubei, China
O.  A Novel Image Compression Algorithm Hybridizing a Searchless,
    Quadtree Recomposition Fractal Method With JPEG
    William A. Stapleton*, David Jeff Jackson, Kenny G. Ricks,
    Xanwei Wu, and Krirkkrit Sripaipan
    University of Alabama, Tuscaloosa, Alabama, USA
O.  An Application of the Kakeya-Enestrom Theorem
    Jalal R. Karam
    Arab Open University, Beirut, Lebanon
O.  A Simple Watermark Using a Wavelet Transform
    Jung-Sub Shin*, Chae-Gon Yoo**, and Chi-Jung Hwang*
    *Chung Nam National University, Taejeon, Korea
    **Daeduk College, Taejeon, Korea
O.  Wavelet-based Solution to Some Time-Dependent Non-Linear
    Two-Point Initial Boundary Value Problems with
    Non-Periodic Boundary Conditions
    Hira N. Narang and Rajiv K. Nekkanti*
    Tuskegee University, Alabama, USA
O.  Vision Based Interface for Computer Games
    Hye-Sun Park*, Sang-Su Jang, Min-Ho Park and Hang-Joon Kim
    Kyungpook National University, Daegu, Korea
O.  An Efficient Detection of Vanishing Points Using
    Inverted Coordinate Image Space
    Kyung-Seok Seo, Jung-Hwa Lee, and Heung-Moon Choi
    Kyungpook National University, Daegu, Korea
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LIST OF PAPERS IN DISCUSSION SESSION D-CISST:

O. A Biorthogonal Wavelet for the Continuous Wavelet
    Transform Scale of Speech Recognition
    Jalal R. Karam
    Arab Open University, Beirut, Lebanon
O. Multimodal Gait Recognition Based on Stereo Vision and 3D
    Template Matching
    Arun Narayan Mandayam Gomatam and Sreela Sasi
    Gannon University, Erie, PA, USA
O. VP-EMD Tree: An Efficient Indexing Strategy for Image
    Retrieval
    Li Wu* and T. Bretschneider
    Nanyang Technological University, Singapore
O. Region of Interest Video Coding for Result Presentation
    in Distributed Video Databases
    S. Geisler** and O. Kao*
    *University of Paderborn, Paderborn, Germany
    **Technical University of Clausthal, Germany
O. Interactive Flag Identification using Image Retrieval
    Techniques
    Eduardo Hart, Sung-Hyuk Cha*, and Charles Tappert
    Pace University, Pleasantville, New York, USA
O. Multi-Class Discriminant Learning for Image Retrieval
    Dacheng Tao* and Xiaoou Tang
    The Chinese University of Hong Kong, Hong Kong
O. Learning User's Perception Using Region-Based SVM
    Boundary for Content-Based Image Retrieval
    Dacheng Tao*, Jianzhuang Liu, and Xiaoou Tang
    The Chinese University of Hong Kong, Hong Kong
O. Design and Implementation of the ACA (Adaptive
    Component Analysis) System
    Chul Choi*, Young Kwan Choi, and Chang-Chun Park
    Konkuk University, Seoul, Korea
O. Fingerprint Image Enhancement Algorithms: An Overview
    Anant Veeravalli, Reza Adhami*, Peter Meenen,
    Michael Ray, and Nitin Velkur
    The University of Alabama in Huntsville, Alabama, USA
O. Scene Change Detection Using Shape Information
    in MPEG-4 Compressed Domain
    In-Su Park, Dong-Hyuk Shin*, and Rae-Hong Park
    Sogang University, Seoul, Korea
O. Image Enhacement of 3-D Ultrasound Image in Frame
    Interpolation Using a BMA
    Tae-Jin Nam* and Rae-Hong Park
    Sogang University, Seoul, Korea
O. An Advanced Technique for Image Retrieval from
    Distributed Databases
    Gurbir Singh Gill* and Karanjit Singh Kahlon
    Guru Nanak Dev University, Punjab, India
O. Extended Histograms for Color Image and Its Application

MSV'04 CONFERENCE SCHEDULE

**The 2004 International Conference on Modeling,
Simulation and Visualization Methods**

Monte Carlo Resort, Las Vegas, Nevada, June 21-24, 2004

*Note   There are a number of other sessions (not listed here) that are of potential significant   interest   to   MSV
conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint conferences.*

June 20

03:00 - 09:00pm: REGISTRATION (Second Floor, Conference Lobby; 1-5)

6:30am – 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

08:40 – 09:00am: **MultiConference Opening Remarks**
Hamid R. Arabnia (General Chair, 2004 IMCSCE)
University of Georgia, Georgia, USA
(LOCATION: Lance Burton Theater)

09:00 – 09:05am: **Introduction of Keynote Speaker by Prof. H. J. Siegel**
(LOCATION: Lance Burton Theater)

09:05 – 10:05am: **MultiConference Keynote Lecture:**
Computer Architecture, The Road Ahead
Professor Michael Flynn
Stanford University, USA
(LOCATION: Lance Burton Theater)

10:05 – 10:30am: **BREAK**

10:30a – 05:10p: Note: There are a number of other sessions (not listed here)
that are of potential significant interest to MSV
conference participants (sessions belonging to other
joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint
conferences (in particular, schedules for CISST and PDPTA.)

09:00 – 11:00pm: **CONFERENCE RECEPTION DINNER - June 21 (Monday)**
(LOCATION: Meeting Rooms 1-5)

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

10:00 - 10:40am: DISCUSSION SESSION A-MSV (Refreshments will be available)
June 22 (Tuesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of MSV's schedule.

SESSION 1-MSV: VIRTUAL ENVIRONMENTS
Co-Chairs: Dr. Mehdi Setareh, USA & Dr. Massoud Bazargan, USA
June 22, 2004 (Tuesday); 10:40am - 12:00pm
(LOCATION: Conference Room G)

10:40 - 11:00am: Development of an Immersive Virtual Environment as
a Tool for Teaching Building Sciences
Mehdi Setareh* and Doug Bowman
Virginia Tech, Blacksburg, Virginia, USA

11:00 - 11:20am: Steering Autonomous Driving Agents Through Intersections
in Urban Virtual Environments
Hongling Wang
University of Iowa, Iowa City, Iowa, USA

11:20 - 11:40am: Co-Simulation Virtual Platform for Reconfigurable
Multiprocessor Hybrid Cores Development
Armando Astarloa*, Jesus Lazaro, Jagoba Arias,
Unai Bidarte, and Aitzol Zuloaga
University of the Basque Country, Spain

11:40 - 12:00pm: A Study on Measurement of the Amount of Incoming Light
in Virtual Green House
Jaehyub Lee*, Beomjin Kim**, and David Erbach**
*Korea University of Technology and Education, Korea
**Indiana University-Purdue University, Indiana, USA

12:00 - 01:00pm: LUNCH (On Your Own)

SESSION 2-MSV: ALGORITHMS + VISUALIZATION
Chair: Dr. Xusheng Wang, USA
June 22, 2004 (Tuesday); 1:00 - 2:40pm
(LOCATION: Conference Room G)

01:00 - 01:20pm: An Extended Variational Calculus Approach to Optimal
Checkpoint Placement
Yibei Ling**, Jie Mi***, and Xiaola Lin*
*City University of Hong Kong, Hong Kong
**Telcordia Technologies, Morristown, New Jersey, USA
***Florida International University, Miami, Florida, USA

01:20 – 01:40pm: Timed Petri Nets, Linear Logic, and Performance
                    Modeling
                    Vijay Gehlot
                    Villanova University, Villanova, PA, USA

01:40 – 02:00pm: The Domino Effect and Linear Recursion
                    Feng-Jen Yang
                    Prairie View A&M University, Texas, USA

02:00 – 02:20pm: Numerical Stability and Convergence Analysis of
                    Geometric Constraint Enforcement in Dynamic
                    Simulation Systems
                    Hongjun Jeon*, Min-Hyung Choi**, and Min Hong***
                    *University of Colorado, Boulder, Colorado, USA
                    **University of Colorado, Denver, Colorado, USA
                    ***University of Colorado Health Sciences Center, USA

02:20 – 02:40pm: A Database Schema for Constructing Visual Queries
                    Clifton G. M. Presser
                    Gettysburg College, Gettysburg, PA, USA

SESSION 3-MSV: **MECHANICAL SIMULATION**
                    Chair: Dr. Xusheng Wang, USA
                    June 22, 2004 (Tuesday); 2:40 - 3:20pm
                    (LOCATION: Conference Room G)

02:40 – 03:00pm: Preparing the Soldier for a Technological Battlefield
                    Sriprakash Sarathy, Sarah North*, Roy George and
                    Max North
                    Clark Atlanta University, Atlanta, Georgia, USA

03:00 – 03:20pm: Simulation of Raindrop Behaviors on Vehicle Windshield
                    Yonggao Yang**, Xusheng Wang*, and Yukong Zhang**
                    *University of Texas - Pan American, Edinburg, Texas, USA
                    **Prairie View A&M University, Texas, USA

03:20 – 03:40pm: BREAK

03:40 – 05:40pm: Note: There are a number of other sessions (not listed here)
                    that are of potential significant interest to MSV
                    conference participants (sessions belonging to other
                    joint conferences in this event.) Therefore, you are
                    encouraged to also check the schedules for other joint
                    conferences (in particular, schedules for CISST and PDPTA.)

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 4-MSV: **APPLICATIONS**
                      Co-Chairs: Dr. Ying Zhu, USA & Chaoyang Zhang, USA
                      June 23, 2004 (Wednesday); 8:20 - 10:00am
                      (LOCATION: Conference Room G)

08:20 - 08:40am: Modeling of Warehouse and Its Analyses
                      Fan Wu
                      Nationa Chung-Cheng University, Taiwan

08:40 - 09:00am: Design and Implementation of a Workflow Rendering Engine
                      Jason A. Pamplin and Ying Zhu*
                      Georgia State University, Atlanta, Georgia, USA

09:00 - 09:20am: Modelling the Mathematical Behaviour of a
                      Computerized Hierarchical Questionnaire
                      Martin Paradis and Sylvain Delisle*
                      Universite du Quebec a Trois-Rivieres, Canada

09:20 - 09:40am: Scripting and Monitoring in TPN Designer Simulations:
                      A Case Study Using the Production Cell
                      F. Cicirelli, A. Furfaro, L. Nigro, and F. Pupo
                      Universita della Calabria, Italy

09:40 - 10:00am: Multi-Dimensional Analysis of Multi-Tube Pulse
                      Detonation
                      Houshang B. Ebrahimi
                      Aerospace Testing Alliance, Arnold Air Force Base, TN, USA

10:00 - 10:40am: **DISCUSSION SESSION B-MSV (Refreshments will be available)**
                      June 23 (Wednesday)
                      (LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
                      List of papers appears at the end of MSV's schedule.

10:40a - 05:40p: Note: There are a number of other sessions (not listed here)
                      that are of potential significant interest to MSV
                      conference participants (sessions belonging to other
                      joint conferences in this event.) Therefore, you are
                      encouraged to also check the schedules for other joint
                      conferences (in particular, schedules for CISST and PDPTA.)

7:30am - 11:00am: Registration (Second Floor, Conference Lobby: 1-5)

10:00 - 10:40am: DISCUSSION SESSION C-MSV (Refreshments will be available)
June 24 (Thursday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of MSV's schedule.

SESSION 5-MSV: COMPLEX STRUCTURES
Co-Chairs: Dr Ashraf Ghaly, USA, Dr. Ahmed E. Barbour, UAE &
**   Dr. Georgios A. Demetriou, USA**
June 24, 2004 (Thursday); 10:40am - 12:00pm
(LOCATION: Conference Room G)

10:40 - 11:00am: A Power and Performance Simulator for a Single-Chip
Message-Passing Parallel Architecture
Priyadarshini Ramachandran, Charles W. Lewis*, Jr.,
and James M. Baker, Jr.
Virginia Tech, Blacksburg, Virginia, USA

11:00 - 11:20am: Framework for Risk Analysis in Multimedia Environmental
Systems: Modeling Individual Steps of a Risk Assessment
Process
Anuj R. Shah*, Karl J. Castleton, and Bonnie L. Hoopes
Pacific Northwest National Laboratory, Richland, WA, USA

11:20 - 11:40am: An Architecture for the Integration of Multimedia
Heterogeneous Data Sources
A. Chianese, V. Moscato, A. Picariello, and A. M. Rinaldi*
University of Napoli "Federico II", Napoli, Italy

11:40 - 12:00pm: Deployment of Modeling and Simulation Techniques
to Facilitate Visualization of Complex Structures
Ashraf M. Ghaly* and Michael Losure
Union College, Schenectady, New York, USA

12:00 - 12:40pm: LUNCH (On Your Own)

SESSION 6-MSV: 3D & MULTIDIMENSIONAL ENVIRONMENTS
Co-Chairs: Dr. Ahmed E. Barbour, UAE &
**   Georgios A. Demetriou, USA**
June 24, 2004 (Thursday); 12:40 - 1:20pm
(LOCATION: Conference Room G)

12:40 - 01:00pm: Geolocating Marine Buoys in a Fully Immersive
Three Dimensional Environment
Christopher A. Brown, Georgios A. Demetriou*, and
Louise Perkins
University of Southern Mississippi, Mississippi, USA

01:00 - 01:20pm: Integrated 3-D Animation System for Decentralized
                   Controlled Space Telescope Test-bed
                   Helen Boussalis, Charles Liu, Jane Dong*, Khosrow Rad,
                   Catherine Alpas, Yulu Chen, Yeva Komandyan, Xiaoqiang Ren,
                   and Wei Sun
                   California State University, Los Angeles, CA, USA

SESSION 7-MSV: **MEDICAL APPLICATIONS**
                       Chair: Dr. Oktay Alkin, USA
                       June 24, 2004 (Thursday); 1:20 - 2:40pm
                       (LOCATION: Conference Room G)

01:20 - 01:40pm: Establishment and Validation of a Finite Element
                   Model of Human Fingertip
                   Lihua Zhou*, Wan-Chen Wu and Mandayam A. Srinivasan
                   Massachusetts Institute of Technology, USA

01:40 - 02:00pm: Accurate Modeling and Simulation of Heart Tissue
                   Using GDEVS/CELL-DEVS
                   Gabriel A. Wainer* and Norbert Giambiasi**
                   *Carleton University, Ottawa, ON, Canada
                   **Universite d'Aix-Marseille III, France

02:00 - 02:20pm: A Finite Difference Solution to the Forward Problem
                   of Electrocardiography
                   Robert D. Adams*, Nagendra Singh**, and Reza Adhami**
                   *Western Carolina University, Cullowhee, NC, USA
                   **University of Alabama, Huntsville, Alabama, USA

02:20 - 02:40pm: Speed and Efficiency Considerations in the Calculation of
                   Planning Target Volumes (PTV) in Radiation Therapy Planning
                   Oktay Alkin
                   Southern Illinois University Edwardsville, IL, USA

02:40 - 03:00pm: BREAK

03:00 - 05:40pm: Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to MSV
                   conference participants (sessions belonging to other
                   joint conferences in this event.) Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences (in particular, schedules for CISST and PDPTA.)

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LIST OF PAPERS IN DISCUSSION SESSION A-MSV:


O.  Mathematical Model of Flow of Fluid in 3D Porous Media
    Hong Li and Ali Setoodehnia
    New York City College of Technology, Brooklyn, NY, USA
O.  Transaction Level Modeling of Network Protocols Using Java
    Sherif Gamal Aly
    General Dynamics, Cairo, Egypt
O.  Integration of Small Aircraft Transportation System
    (SATS) with General Aviation (GA)- An Operational
    Feasibility Study
    Massoud Bazargan
    Embry-Riddle Aeronautical University, Daytona Beach, FL, USA
O.  A Ground-Based Urban 3D Data Acquisition and
    Processing System
    Aiwu Zhang*, Weidong Sun*, Shaoxing Hu**, and Cheng Qian*
    *Tsinghua University, Beijing, China
    **Peking University, Beijing, P. R. China
O.  Simulator Design for Security Systems
    Kaninda Musumbu
    Universite Bordeaux I, France
O.  Computer Based DC Motor Speed Control By Using
    LabVIEW Software
    Mohammed A. K. Alia* and Mohammad K. Abu Zalata
    Al-Balqa' Applied University, Jordan
O.  Efficient Asynchronous Terrain Paging for Interactive
    Visual Simulation
    Ying Zhu
    Georgia State University, Atlanta, Georgia, USA
O.  Interactive Device Modelling Using Virtual Reality Modelling Language
    A. Damoni and D. Mukherjee
    London South Bank University, UK
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DISCUSSION SESSION B-MSV
June 23 (Wednesday), 2004
MSV RRR/SRP/PST Papers
10:00 - 10:40am
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)

LIST OF PAPERS IN DISCUSSION SESSION B-MSV:

O. Three-Dimensional Biomedical Optical Image Reconstruction
    with Referenced Sensitivity Analysis
    Chaoyang Zhang* and Yang Ye
    University of Southern Mississippi, Mississippi, USA
O. Computational Performance Analysis for Nonlinear,
    Nonautonomous Differential Equations with Periodic
    Coefficients
    Mark Tillman* and John Stensby
    University of Alabama, Huntsville, Alabama, USA
O. Combined Modeling and Control Using a GTDOF Scheme
    L. Keviczky* and Cs. Banyasz
    Hungarian Academy of Sciences, Hungary
O. Finite Element Model Compression
    Jianjiang Zeng*, Wenliang Chen, and Jianjun Zhai
    Nanjing University of Aeronautics & Astronautics, P. R. China
O. E-Business Technology Adaptation Through Workflow
    Mining
    Leo Pudhota* and Elizabeth Chang
    Curtin University of Technology, Perth, Australia
O. Distributed Interactive Simulation Using Multimodal
    Interfaces - An Experience
    G. Manju, Mary Idicula Sumam, and Peter S. David*
    Cochin University of Science and Technology, Kerala, India

LIST OF PAPERS IN DISCUSSION SESSION C-MSV:

O. The Implementation of Dynamic Engineering Document
    Based on XML Technology
    Jianjun Zhai, Wenliang Chen*, and Xiaoping Yan
    Nanjing University of Aeronautics & Astronautics, P. R. China
O. An Efficient Distributed Deadlock Modelling Tool Using
    High-Level Net
    Saswati Mukherjee
    Anna University, Chennai, India
O. Voice Quality of Service in Cable IP Network
    Ali Setoodehnia, Mojtaba Shariat, and Kamal Shahrabi
O. Applying Knowledge Elicitation Techniques to Construct
    Membrane Flight Simulation
    Charita Brent and John Trimble
O. Correctness Criteria for Models' Validation - A Philosophical
    Perspective
    Irobi Ijeoma Sandra
O. Implementing Dynamic Component-Based Ad Hoc Network
    Simulator
    Samir Omar, M. Lin, and W. Pan
O. Advanced Relation Model for Program Visualization
    (ARM 4 PV)
    Brian d'Auriol
    University of Texas at El Paso, Texas, USA
O. Modeling and Performance Analysis of a Healthcare Admission and
    Utilization Processes Using Visual SLAM and AweSim Simulation
    Package
    Ahmed E. Barbour
    United Arab Emirates University, Al Ain, UAE

SERP'04 CONFERENCE SCHEDULE

**The 2004 International Conference on
Software Engineering Research and Practice**

Monte Carlo Resort, Las Vegas, Nevada, June 21-24, 2004

Note: There are a number of other sessions (not listed here) that are of potential significant interest to SERP conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences.

June 20

03:00 - 09:00pm: REGISTRATION (Second Floor, Conference Lobby; 1-5)

6:30am – 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

08:40 – 09:00am: **MultiConference Opening Remarks**
Hamid R. Arabnia (General Chair, 2004 IMCSCE)
University of Georgia, Georgia, USA
(LOCATION: Lance Burton Theater)

09:00 – 09:05am: **Introduction of Keynote Speaker by Prof. H. J. Siegel**
(LOCATION: Lance Burton Theater)

09:05 – 10:05am: **MultiConference Keynote Lecture:**
Computer Architecture, The Road Ahead
Professor Michael Flynn
Stanford University, USA
(LOCATION: Lance Burton Theater)

10:05 – 10:30am: **BREAK**

SESSION 6-SERP: **TEAM-BASED SOFTWARE ENGINEERING (TSE'04) +**
TOOLS & DEVELOPMENT ENVIRONMENTS
Co-Chairs: Prof. Pierre F. Tiako and Prof. Volker Gruhn
June 21, 2004 (Monday); 10:30am – 1:50pm
(LOCATION: Meeting Room 5)

10:30 – 10:50am: Empirical Foundations for Dispersed, Team-Based
Software Engineering
Herb Krasner
University of Texas at Austin, Texas, USA

10:50 – 11:10am: A Three Level Framework for Process Support: The
MOWAHS Approach
Alf Inge Wang*, Carl-Fredrik Sorensen, and Reidar Conradi
Norwegian University of Science and Technology, Norway

11:10 – 11:30am: INSECT: An Intelligent Software Exploration and
Collaboration Environment
V. Lakshmi Narasimhan
University of Newcastle, NSW, Australia

11:30 – 11:50am: Open Architecture for Building Large Scale
Deployment Systems
Noelle Merle and Noureddine Belkhatir
LSR - IMAG, Adele team, France

11:50 – 12:10pm: Continuous Productivity Assessment and Prediction Tool
Seok Jun Yun* and Dick B. Simmons
Texas A&M University, College Station, Texas, USA

12:10 – 12:30pm: Stream-Based Design of an Asynchronous Send-Receive
Protocol
Walter Dosch
University of Luebeck, Germany

12:30 - 01:10pm: LUNCH (On Your Own)

01:10 - 01:30pm: Open Framework for the Dynamic Reconfiguration of
Component-Based Software
Abdelmadjid Ketfi* and Noureddine Belkhatir
LSR-Adele, France

01:30 - 01:50pm: Introducing Control States into Communication Based
Specifications of Interactive Components
Walter Dosch and Annette Stuempel
University of Luebeck, Germany

SESSION 7-SERP: **ASPECT-ORIENTED, COLLABORATIONS, DISTRIBUTION & PARALLELISM**
Co-Chairs: Dr. Abdallah Tubaishat, UAE,
Dr. Donald M. Needham, USA &
Dr. Claudia Raibulet, Italy
June 21, 2004 (Monday); 1:50 - 2:30pm
(LOCATION: Meeting Room 5)

01:50 - 02:10pm: Adding Aspect-Oriented Programming Features to Visual
Basic.Net by using Multidimensional Separation
of Concerns (MDSOC) Approach
Haryono and Cui Zhang*
California State University Sacramento, California, USA

02:10 - 02:30pm: Locating Features in Distributed Systems
Sharon Simmons*, Dennis Edwards, and Norman Wilde
University of West Florida, Pensacola, Florida, USA

SESSION 2-SERP: **MOBILE, WEB-BASED SOFTWARE DEVELOPMENT & HIGH PERFORMANCE**
COMPUTING
Co-Chairs: Dr. Abdallah Tubaishat, UAE,
Dr. Donald M. Needham, USA &
Dr. Claudia Raibulet, Italy
June 21, 2004 (Monday); 2:30 - 3:10pm
(LOCATION: Meeting Room 5)

02:30 - 02:50pm: The Subclassing Anomaly in Evolving Cellular Application
Atanas Radenski
Chapman University, Orange, California, USA

02:50 - 03:10pm: FREE SLOT

SESSION 3-SERP: **HIGH ASSURANCE SOFTWARE SYSTEMS + PROGRAMMING LANGUAGES**
& ALGORITHMS
Co-Chairs: Dr. Abdallah Tubaishat, UAE,
Dr. Donald M. Needham, USA &
Dr. Claudia Raibulet, Italy
June 21, 2004 (Monday); 3:10 - 4:10pm
(LOCATION: Meeting Room 5)

03:10 - 03:30pm: Evolution of Software Security - A Must
Khaled Khan, Narendra Gangavarapu, and Hiep Pham
University of Western Sydney, Australia

03:30 – 03:50pm: Visualising Privacy and Security for Requirements
                   Engineering
                   Matthew Nicolas Kreeger* and Ishbel Duncan
                   University of St. Andrews, UK

03:50 – 04:10pm: Straightening Spaghetti-Code with Refactoring
                   Markus Pizka*, Gerd Beneken, and Tilman Seifert
                   Technische Universitat Munchen, Garching, Germany

04:10 – 05:10pm: DISCUSSION SESSION A-SERP (Refreshments will be available)
                   June 21 (Monday)
                   (LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
                   List of papers appears at the end of SERP's schedule.

09:00 – 11:00pm: CONFERENCE RECEPTION DINNER - June 21 (Monday)
                   (LOCATION: Meeting Rooms 1-5)

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 4-SERP: **WORKSHOP: SYSTEM/SOFTWARE ARCHITECTURES (WSSA) - I**
Co-Chairs: Prof. Lawrence Chung and Prof. Nary Subramanian
June 22, 2004 (Tuesday); 8:00 - 10:00am
(LOCATION: Meeting Room 5)

08:00 - 08:20am: Supporting ATAM with a Collaborative Web-Based Software
Architecture Evaluation Tool
Piyush Maheshwari and Albert Teoh
University of New South Wales, Australia

08:20 - 08:40am: COTS-Aware Requirements Engineering and Software
Architecting
Lawrence Chung* and Kendra Cooper
University of Texas at Dallas, Texas, USA

08:40 - 09:00am: Evaluating the Performance of Architectures in MASCOT
Pere P. Sancho and Carlos Juiz*
University of the Balearic Islands, Spain

09:00 - 09:20am: A Product Line Engineering Practices Model
Francois Coallier and Roger Champagne*
Ecole de technologie superieure, Montreal, Canada

09:20 - 09:40am: A Stateful Architecture Description Language and
Its Supporting Development Environment
Shifeng Zhang* and Steve Goddard
University of Nebraska-Lincoln, Nebraska, USA

09:40 - 10:00am: Process-Oriented Metrics for Software Architecture
Changeability
Nary Subramanian* and Lawrence Chung
Hofstra University, New York, USA

10:00 - 10:40am: DISCUSSION SESSION B-SERP (Refreshments will be available)
June 22 (Tuesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of SERP's schedule.

SESSION 5-SERP: **WORKSHOP: SYSTEM/SOFTWARE ARCHITECTURES (WSSA) - II**
Co-Chairs: Prof. Lawrence Chung and Prof. Nary Subramanian
June 22, 2004 (Tuesday); 10:40am - 12:20pm
(LOCATION: Meeting Room 5)

10:40 - 11:00am: A Calculus for Concurrent System with Higher-Order
Streaming Communication
Masaki Murakami
Okayama University, Okayama, Japan

11:00 - 11:20am: Software Architecture for Self-Healing of Concurrent
                  and Distributed Components
                  Michael E. Shin
                  Texas Tech University, Texas, USA

11:20 - 11:40am: A Model Driven Integration Process to Manage
                  Component Interoperability
                  Frederick Seyler* and Philippe Aniorte
                  Universite de Pau et des Pays de l'Adour, Bayonne, France

11:40 - 12:00pm: Performance Modeling and Analysis of Software
                  Architectures: An Aspect-Oriented UML Based Approach
                  Kendra Cooper, Lirong Dai*, and Yi Deng
                  University of Texas at Dallas, Texas, USA

12:00 - 12:20pm: Managing Misalignments Between Business and IT
                  Architectures: A BITAM Case Study
                  Hong-Mei Chen, Rick Kazman, and Aditya Garg
                  University of Hawaii, Honolulu, Hawaii, USA

12:20 - 01:00pm: LUNCH (On Your Own)

**SESSION 1-SERP: MODEL DRIVEN ARCHITECTURE (MDA) & UNIFIED MODELING
                  LANGUAGE (UML) + SOFTWARE ARCHITECTURES
                  Co-Chairs: Dr. Hassan Reza and Dr. Emanuel Grant
                  June 22, 2004 (Tuesday); 1:00 - 4:20pm
                  (LOCATION: Meeting Room 5)**

01:00 - 01:20pm: A Methodology for Secure Software Design
                  Eduardo B. Fernandez

01:20 - 01:40pm: Using ZOOM Approach to Support MDD
                  Xiaoping Jia, Adam Steele, Hongming Liu, Lizhang Qin,
                  and Chris Jones

01:40 - 02:00pm: An Architecture for Modeling Interaction in Cooperative
                  Information Systems Using Colored Petri Nets
                  Francisco Camargo-Santarcuz

02:00 - 02:20pm: Performance-Oriented Modeling for UML-RT Based System Design
                  Dongxi Jin and David C. Levy

02:20 - 02:40pm: Validation of Platform Specific Models Against Platform
                  Independent Models in the Context of Standard
                  Specifications: A Model Driven Architecture Approach
                  Juan Pablo Zamora Zapta

02:40 - 03:00pm: Combining Model-Driven and Schema-Based Program Synthesis
                  Ewen Denney and Jon Whittle

03:00 – 03:20pm: GREAT: UML Transformation Tool for Porting Middleware
                   Application
                   Alexander Christoph
                   FZI, Germany

03:20 – 03:40pm: BREAK

03:40 – 04:00pm: Formal Analysis of UML-Based Design
                   Boumedience Belkhouche

04:00 – 04:20pm: A Petri Net Based Software Architecture for UAV Simulation
                   Dianxiang Xu, ...

SESSION 8-SERP: SOFTWARE METRICS & MODELS IN SOFTWARE QUALITY ENGINEERING
Chair: Dr. John Aycock, Canada
June 22, 2004 (Tuesday); 4:20 - 5:40pm
(LOCATION: Meeting Room 5)

04:20 – 04:40pm: Run-Time Cohesion Metrics: An Empirical Investigation
                   Aine Mitchell* and James F. Power
                   National University of Ireland, Maynooth, Ireland

04:40 – 05:00pm: WebMetrics: A Tool for Improving Software Development
                   Marco Scotto*, Alberto Sillitti**, Tullio Vernazza*,
                   and Giancarlo Succi**
                   *University of Genova, Genova, Italy
                   **University of Bolzano, Bolzano, Italy

05:00 – 05:20pm: A Study of the Metrics for Measuring the Quality of
                   the Requirements Specification Document
                   Bernard Wong
                   University of Technology, Sydney, Australia

05:20 – 05:40pm: Adaptive Dynamic COCOMO II in Cost Estimation
                   Nasser Tadayon
                   Embry Riddle Aeronautical University, Florida, USA

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 9-SERP: SOFTWARE SPECIFICATION: APPROACHES & CASE STUDIES - I
Co-Chairs: Dr. Sergiu Dascalu & Dr. Fredrick C. Harris, Jr.
June 23, 2004 (Wednesday); 8:20 - 10:00am
(LOCATION: Meeting Room 5)

08:20 - 08:40am: Software Specification of MERTIS: Modifiable, Extensible
Real-Time Interactive Simulation System
Frederick C. Harris, Jr., Leandro Basallo, Ryan Leigh,
Regan Snyder, and Sam Talaie
University of Nevada, Reno, USA

08:40 - 09:00am: A Model for Test Case Design and Generation
Ahmed Salem
California State University, Sacramento, USA

09:00 - 09:20am: Software Modeling of an Electronic Ballot Reader
Lou Montulli, Walter Smith, Rosa Arias, and Chad Feller
University of Nevada, Reno, USA

09:20 - 09:40am: Specification of the "TrailBlazers" Interactive Trail
Mapping System
Lou Montulli, Daniel Collier, Sean Gilliland,
and Justin Reeves
University of Nevada, Reno, USA

09:40 - 10:00am: Designing Unit Tests with Mock Objects
Ahmed Salem and Amarjit Padda
California State University, Sacramento, USA

10:00 - 10:40am: DISCUSSION SESSION C-SERP (Refreshments will be available)
June 23 (Wednesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of SERP's schedule.

SESSION 10-SERP: SOFTWARE SPECIFICATION: APPROACHES & CASE STUDIES - II
Co-Chairs: Dr. Sergiu Dascalu & Dr. Fredrick C. Harris, Jr.
June 23, 2004 (Wednesday); 10:40am - 1:20pm
(LOCATION: Meeting Room 5)

10:40 - 11:00am: Utilizing UML Use Cases for Testing Requirements
Ahmed Salem and Lalitha Karthikeyan
California State University, Sacramento, USA

11:00 - 11:20am: Specification of a Collaborative Music Playlist
Generator
Sergiu Dascalu, Lou Montulli, Dawn Haddan,
Kevin Moffat, and Mark Harvey
University of Nevada, Reno, USA

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11:20 - 11:40am:   Modeling Aspects of the Dynasty 3D Game
                   Frederick C. Harris, Jr., Brent Devaney, John Kenyon,
                   Charles Robertson, and Tchad Rogers
                   University of Nevada, Reno, USA


11:40 - 12:00pm:   Virtual UNR Campus: The Specification Process
                   Sergiu Dascalu, Frederick C. Harris, Jr., Matt Knaus,
                   Robert Larmore, Gianpaolo Sorreta, and Devin Connell
                   University of Nevada, Reno, USA
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12:00 - 01:00pm: LUNCH (On Your Own)

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01:00 - 01:20pm:   Visualizing the Testedness of Data-flow Interactions
                   in Imperative Functions
                   Marcel R. Karam* and Trevor J. Smedley**
                   *American University of Beirut, Lebanon
                   **Dalhousie University, Halifax, Canada
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SESSION 11-SERP: SOFTWARE TESTING, EVALUATION & ANALYSIS
Chair: Dr. Yashwant K. Malaiya, USA
June 23, 2004 (Wednesday); 1:20 - 2:40pm
(LOCATION: Meeting Room 5)

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01:20 - 01:40pm:   A Framework to Analyse the Approach Adopted in the
                   Information Systems Requirements Engineering Activity
                   Alvaro Rocha* and Jose Braga de Vasconcelos
                   Fernando Pessoa University, Porto, Portugal


01:40 - 02:00pm:   Analyzing a High Energy Laser Modeling and Simulation
                   Framework
                   D. M. Needham* and E. Eckstrand
                   United States Naval Academy, Annapolis, MD, USA


02:00 - 02:20pm:   Qualitative Evaluation Profiles of Data-Warehousing
                   Systems
                   Cyril S. Ku* and Yu H. Zhou
                   William Paterson University, Wayne, New Jersey, USA


02:20 - 02:40pm:   Design and Evaluation of an Automated Aspect Mining Tool
                   David Shepherd*, Emily Gibson, and Lori Pollock
                   University of Delaware, Newark, Delaware, USA
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SESSION 12-SERP: AGENT-BASED SOFTWARE ENGINEERING + AI +
OBJECT-ORIENTED TECHNOLOGY & INTERFACE DESIGN
Chair: Dr. Yashwant K. Malaiya, USA
June 23, 2004 (Wednesday); 2:40 - 3:20pm
(LOCATION: Meeting Room 5)

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02:40 - 03:00pm:   Keeping Secrets within a Family: Rediscovering Parnas
                   H. Conrad Cunningham*, Cuihua Zhang**, and Yi Liu*
                   *University of Mississippi, Mississippi, USA
                   **Northwest Vista College, San Antonio, Texas, USA
```

03:00 - 03:20pm: Swarm: Agent-Based Storage
                   Scott Baker*, John H. Hartman*, and Ian Murdock**
                   *University of Arizona, Tucson, Arizona, USA
                   **Progeny Linux Systems, Indianapolis, Indiana, USA

03:20 - 03:40pm: BREAK

**SESSION 13-SERP: SOFTWARE ENGINEERING EDUCATION; BEST PRACTICES & INTERNET
                   APPLICATIONS, DATABASES, WEB PROTOCOLS + TRAINING, POLICIES,
                   ETHICS & PEOPLE
                   Chair: Prof. Srini Ramaswamy
                   June 23, 2004 (Wednesday); 3:40 - 5:40pm
                   (LOCATION: Meeting Room 5)**

03:40 - 04:00pm: Similarity Between Bow Tie Graphs (BTG): A Centrality
                   Score Analysis of BTGs
                   George Meghabghab
                   Roane State Community College, Oak Ridge, Tennessee, USA

04:00 - 04:20pm: Practical Methods for Preparing Software Engineering
                   Graduates to Succeed in Industry
                   Chlotia Posey Garrison
                   Winthrop University, Rock Hill, South Carolina, USA

04:20 - 04:40pm: An Interactive Visualization Tool for Understanding
                   Complex Programs
                   J. Cherry, M. Arrieta, E. Brown, and S. Ramaswamy
                   Tennessee Tech University, Tennessee, USA

04:40 - 05:00pm: Four Personality Traits Make a Good Software Engineer!?
                   Wolfgang Zuser* and Thomas Grechenig
                   Vienna University of Technology, Vienna, Austria

05:00 - 05:20pm: Does Requiring Students to Produce Alternative Solutions
                   Promote a High Quality of Software Design?
                   Janet Hughes* and Steve Parkes
                   University of Dundee, Dundee, UK

05:20 - 05:40pm: C#: Should CS Switch?
                   Ira Pohl
                   University of California, Santa Cruz, CA, USA

7:30am - 11:00am: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 14-SERP: SOFTWARE ENGINEERING: CONCEPTS, ISSUES & APPLICATIONS - I
Chair: Dr. Vinayak Tanksale, USA
June 24, 2004 (Thursday); 8:20 - 10:00am
(LOCATION: Meeting Room 5)

08:20 – 08:40am: Safety Requirements Specification on Open Distributed
Systems
Valter Fernandes Avelino and Selma Shin Shimizu Melnikoff
Polytechnic School of Sao Paulo University, Brazil

08:40 – 09:00am: A Stateful Architecture Description Language to Construct
Component Composition
Shifeng Zhang
University of Nebraska, Lincoln, USA

09:00 – 09:20am: Modeling a CMM Implementation Method with SPEM
Jorge Becerra*, Rubens Sales**, and Javier D. C. Elizondo**
*Polytechnic School of Sao Paulo, University (EPUSP), Brazil
**IPT - Inst. de Pesquisas Tecno. do Sao Paulo, Brazil

09:20 – 09:40am: Application of Self-Organizing Maps to Software
Repositories in Reuse-Based Software Development
S. Tangsripairoj* and M. H. Samadzadeh
Oklahoma State University, Stillwater, Oklahoma, USA

09:40 – 10:00am: A Formal Approach to Fault Tolerance in Parallel Systems
Elena Troubitsyna
Abo Akademi University, Turku, Finland

10:00 - 10:40am: DISCUSSION SESSION D-SERP (Refreshments will be available)
June 24 (Thursday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of SERP's schedule.

SESSION 15-SERP: SOFTWARE ENGINEERING: CONCEPTS, ISSUES & APPLICATIONS - II
Chair: Dr. Vinayak Tanksale, USA
June 24, 2004 (Thursday); 10:40 - 11:20am
(LOCATION: Meeting Room 5)

10:40 – 11:00am: Modeling and Resolving Inheritance Anomaly with
Colored Petri Nets
Bhushan Bauskar and Boleslaw Mikoajczak
University of Massachusetts, Dartmouth, MA, USA

11:00 – 11:20am: Using Clustering Technique to Restructure Programs
Chung-Horng Lung* and Marzia Zaman**
*Carleton University, Ottawa, Canada
**Cistel Technology, Ottawa, Canada

SESSION 16-SERP: **UML/MDA**
                      Chair: Dr. Hisham Haddad, USA
                      June 24, 2004 (Thursday); 11:20am - 1:40pm
                      (LOCATION: Meeting Room 5)

11:20 - 11:40am: Supporting Use Cases Based Requirements Simulation
                   Stephane S. Some
                   University of Ottawa, Ontario, Canada

11:40 - 12:00pm: On Properties of "Part of" Relations
                   Ryszard Janicki* and Yun Zhai
                   McMaster University, Ontario, Canada

12:00 - 01:00pm: **LUNCH (On Your Own)**

01:00 - 01:20pm: Using UML in a Risk-Driven Development Process
                   Siv Hilde Houmb* and Orjan Markhus Lillevik
                   NTNU, Trondheim, Norway

01:20 - 01:40pm: From MDA Platform-Specific Model to Code Generation: Coupling
                   of RM-ODP and UML Action Semantics Standards
                   Reda Bendraou*, Salim Bouzitouna, and Marie-Pierre Gervais
                   Laboratoire d'Informatique de Paris 6 (LIP6), France

SESSION 17-SERP: **SOFTWARE ARCHITECTURE, FRAMEWORK & DESIGN + APPLICATIONS**
                      Chair: Dr. Qusay H. Mahmoud, Canada
                      June 24, 2004 (Thursday); 1:40 - 3:40pm
                      (LOCATION: Meeting Room 5)

01:40 - 02:00pm: Interoperability via Enterprise Architecture
                   Morteza Abdollah
                   New Jersey City University, New Jersey, USA

02:00 - 02:20pm: A Component Framework for Resource Management Systems
                   Jing Dong*, Rucha Khisti*, Kendra Cooper*, and Yi Deng**
                   *University of Texas at Dallas, Richardson, Texas, USA
                   **Florida International University, Miami, Florida, USA

02:20 - 02:40pm: A Modeling and Integration Framework for Complex
                   Multilevel Systems
                   Thomas J. Wheeler
                   University of Maine, Orono, Maine, USA

02:40 - 03:00pm: Software Composition Using Design Patterns
                   Sargon Hasso* and C. R. Carlson
                   Illinois Institute of Technology, Chicago, IL, USA

03:00 - 03:20pm: RUXP: A Proposed Solution for the Gaps in the Current
                   State of the Thought on Software Process
                   Justin Siemens, Rose Joshua, and Brian Wyvill

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03:20 - 03:40pm:   The Modularization of VRML Language in 3D Dynamic
                   On-Line Geospatial Courses
                   Gang Wang* and Pamela Lawhead
                   University of Mississippi, Mississippi, USA
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03:40 - 04:00pm: **BREAK**

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04:00 - 04:20pm:   FREE SLOT

04:20 - 04:40pm:   FREE SLOT

04:40 - 05:00pm:   FREE SLOT

05:00 - 05:20pm:   FREE SLOT

05:20 - 05:40pm:   FREE SLOT

05:40 - 06:00pm:   FREE SLOT
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DISCUSSION SESSION A-SERP
June 21 (Monday), 2004
SERP RRR/SRP/PST Papers
04:10 - 05:10pm
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)

LIST OF PAPERS IN DISCUSSION SESSION A-SERP:

O. Conceptual Model for Software Fault Localization
    Abdallah Tubaishat
    Zayed Univeristy, Abu Dhabi, United Arab Emirates, UAE
O. Designing an Architecture for Multichannel Adaptive
    Information Systems
    Marzia Adorni, Francesca Arcelli, Claudia Raibulet*,
    Marcello Sarini, and Francesco Tisato
    Universita degli Studi di Milano-Bicocca, Milano, Italy
O. CMMI Framework in Small Business Environment - A Case Study
    Minoo Shinde and Sajjan G. Shiva*
    University of Memphis, Memphis, TN, USA
O. Software Practices in Academia
    Derrel Blain* and Sajjan G. Shiva
    University of Memphis, TN, USA
O. Seeking Systematic Feedback For Enhancing Curriculum
    Quality and Relevance
    Roy Morien*, E. Chang, and K. L. Chin
    Curtin University of Technology, Perth, Australia
O. Interdisciplinary Teams for Embedded Software Systems
    Donald M. Needham
    United States Naval Academy, USA
O. Software Process Component Analysis and Simulation
    Pierre F. Tiako*, Jean-Claude Derniame**, and Volker Gruhn***
    *Langston University, USA
    **Loria Lab, France
    ***University Leipzig, Germany
O. Measuring the Architecture Design Process
    Alberto Sillitti*, Andrea Janes, Giancarlo Succi,
    Tullio Vernazza
    Free University of Bolzano-Bozen, Italy
O. Data Warehouse Query Processing and Optimization Architecture
    Shahriar Movafaghi* and Hassan Pournaghshband**
    *Southern New Hampshire University, USA
    **Southern Polytechnic State University, USA
O. The Role of OMG IDL in Component Composition:
    A Survey and Case Study
    Emran Al-Shahrouri* and Mansur Samadzadeh**
    *Jordan Armed Forces, Amman, Jordan
    **Oklahoma State University, Stillwater, Oklahoma, USA
O. Paving the Road Toward Business to Software Unified Modeling
    Using Extended UML
    Ramin Nasiri, Ahmad Abdollahzadeh, and Ali Moeini
O. An Architecture for Decision-Based Processor
    Akram Salah
O. Architectural Influence on Java Enterprise Application's Performance
    Tarek Alameldin and Amitesh Sinha
    California State University, Fresno, CA, USA

LIST OF PAPERS IN DISCUSSION SESSION B-SERP:

O. Extending Old Compiler Tools with Meta-Tools
    John Aycock
    University of Calgary, Alberta, Canada
O. A Two-Way Modeling Approach to Architectural Design Using
    Reusable Specifications
    Hassan Reza and Emanuel S. Grant
O. Framework for Domain-Specific Modeling Language Development
    Emanuel S. Grant and Hassan Reza
O. A Prototype on GUI Based Editor for Z Specifications
    Hirpshi Ishikawa
O. A New Approach to Component-Oriented Programming
    W. Al-Ahmad
    University of Sharjah, Sharjah, UAE
O. Measurement of Properties of Software Agents
    Hardeep Singh; Guru Nanak Dev University, Amritsar
O. Girassol: A Web-Based Software Project Management Tool
    H. M. Filho*, K. S. Sousa*, E. C. Branco Jr.*,
    A. D. Belchior**, and F. S. de Siqueira**
    *Mentores Consultoria Ltda, Fortaleza, CE, Brazil
    **Universidade de Fortaleza, Fortaleza, CE, Brazil
O. Automated Generation of Component-Based Web Applications From Databases
    Ignacio Garcia Rodriguez de Guzman*, Grupo Alarcos,
    macario Polo Usaola, and Mario Piattini Velthuis
    Universidad de Castilla la Mancha, Spain
O. Transformation of Class Diagrams into Z Specifications
    Supattara Napapak and Wiwat Vatanawood*
    Chulalongkorn University, Thailand
O. Improving Concurrent Object Interactions Using Aspect
    Orientation
    Paniti Netinant* and Tzilla Elrad**
    *Bangkok Univ., Thailand / **Illinois Inst. of Tech.,Illinois, USA
O. Modelling Concurrency with Tabular Expressions
    Yuwen Yang and Ryszard Janicki*
    McMaster University, Ontario, Canada
O. An Awareness Model for Supporting Collaboration in
    Distributed eXtreme Programming
    Michael Reeves and Jihan Zhu
    University of Queensland, Australia
O. Requirements Tracing - An Automation Paradigm
    P. Krishnakumar, Rajesh Balakrishnan, N. S. Nagaraj, Srinivas Thonse,
    and Salil Agrawal
    Infosys Technologies Limited, Bangalore, India
O. Requirements Engineering for Process Framework in a Multifunctional
    R&D Organization
    A. Kaginalkar, S. Bhonsale, M. Dhurandhar, and C. Kumar
    C-DAC, Pune University, India

LIST OF PAPERS IN DISCUSSION SESSION C-SERP:

O. People and Project Team Dynamics
    Hana Phung
    Paceworks, Inc., USA
O. Lessons Learned and Perspectives on Successful HPC
    Software Engineering and Development
    Dale R. Shires* and Brian J. Henz
    U.S. Army Research Laboratory, Maryland, USA
O. Methodology for Multi-Site Software Engineering
    Using Ontology
    Ponpit Wongthongtham*, E. Chang*, and T. S. Dillon**
    *Curtin University of Technology, Perth, Australia
    **University of Technology, Sydney, Australia
O. A Formal Method Applied to Reverse Engineering
    Chia-Chu Chiang
    University of Arkansas at Little Rock, Arkansas, USA
O. From DEVS Model to Timed Automata
    Frederic Chane*, Norbert Giambiasi, and Jean-Luc Paillet
    University of Aix-Marseille III, France
O. Formalizing Effects of Program Structure
    Kishimoto Yorinori* and Satou Tadamasa**
    *Nagoya Institute of Technology, Nagoya, Japan
    **Shimane University, Shimane-Ken, Japan
O. Fine-Grained Semantic Metrics for Object-Oriented Software
    Cara Stein
    University of Alabama in Huntsville, Alabama, USA
O. Analysis and Metrics of XML Schema
    Andrew McDowell, Chris Schmidt*, and Kwok-Bun Yue
    University of Houston, Clear Lake, Texas, USA
O. Component Integration Metrics
    V. Lakshmi Narasimhan and B. Hendradjaya*
    University of Newcastle, NSW, Australia
O. The Quality Model for the Test of Mobile Game Software
    Jaehyun Choi, Woojin lee, Dohyung Kwon and Kiwon Chong
    Soongsil University, Korea
O. Adequacy Criteria for Testing Polymorphism in
    the Context of Interactions
    Siros Supavita* and Taratip Suwannasart
    Chulalongkorn University, Bangkok, Thailand
O. Augmenting Test Case Generation Using Statechart
    Jiao Chen and Yashwant K. Malaiya*
    Colorado State University, Fort Collins, CO, USA
O. Optimal Software Testing
    Moustafa Elshafei, Mehmood Khan, and Mohamed Boraie
    King Fahd University of Petroleum & Minerals, Saudi Arabia
O. An XML-Based Engineering Change Impact Analysis With
    Non-Functional Requirements
    Namho Yoo
    George Washington University, Washington, DC, USA
O. Applying ISO/IEC 9126 Quality Characteristics According

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        to the Application Fields and Test Phases
        Junga Choi, Sunyoung Park and Kiwon Chong
        Soongsil University, Korea
O.   The Architectural Design of FRUIT: A Family of
        Retargetable User Interface Tools
        Yi Liu*, H. Conrad Cunningham, and Hui Xiong
        University of Mississippi, Mississippi, USA
O.   Graphical User Interface Using a Reflective
        Architecture and XML
        Mahesh Patel, Sara Stoecklin, and Daniel Schwartz*
        Florida State University, Tallahassee, Florida, USA
O.   An Approach for Adaptive Guidance Process in a Centred
        Software Engineering Environment
        Ines Bayoudh Saadi, Yassine Jamoussi, and
        Henda Ben Ghezala
O.   Universal Security Reinforcement Modelusing TCE Algorithm
        Sheeja Mary Z and Aloysius G
O.   Requirements and System Architecture Validation Using
        Model Animation
        Borislav Roussev and Yvonna Rousseva
O.   Unified Management Process: Managing a Multi-Project
        Environment successfully
        Ellen Pesochin
O.   An Extended Rijndael Block Cipher Algorithm Using Java
        A. Abdali Rashed** and Naim Ajlouni*
        *Applied Science University, Jordan
        **Arab Academy for Banking & Financial Science, Jordan
O.   Risk Analysis of a Software Code Reuse in Real Time
        Aspect-Oriented Systems
        Leonardo Pujatti
        Polytechnic School of Sao Paulo University, Brazil
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DISCUSSION SESSION D-SERP
June 24 (Thursday), 2004
SERP RRR/SRP/PST Papers
10:00 - 10:40am
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)

LIST OF PAPERS IN DISCUSSION SESSION D-SERP:

O. A Study of Existing Architecture Description Approaches
    from Enterprise System Development Perspective
    Santonu Sarkar
    Infosys Technologies Ltd., Bangalore, India
O. Architecture Pattern Organization
    Riaz Kapadia, Santonu Sarkar, and Reva Modi
    Infosys Technologies Ltd., Bangalore, India
O. An Empirical Validation of the Cohesion Measure Based
    on Member Connectivity for Object-Oriented Classes
    G. Jayababu, Peter S. David, and Mary Idicula Sumam*
    Cochin University of Science and Technology, Kerala, India
O. Component Aspects in Object-Oriented Databases
    Octavian Paul Rotaru* and Marian Dobre
    University "Politehnica" Bucharest, Romania
O. Integrating Usability Evaluation into User Interface Modeling
    Yonglei Tao
    Grand Valley State University, Allendale, MI, USA
O. Evaluating Usability of Parallel Communication Libraries
    Cornelia Blankenhorn* and Ewa Z. Bem
    University of Western Sydney, Australia
O. A Wrapper Pre-Processor for Implementing
    Domain-Specific Reusable Components
    Hisham Haddad* and Walter Fortner
    Kennesaw State University, Georgia, USA
O. Essential Parameters for Component Specification
    Berahne Zewdie* and C. R. Carlson
    Illinois Institute of Technology, Chicago, IL, USA
O. A Component-Based Application Development, Test, and
    Evaluation Environment for Network Applications
    Margaret M. McMahon
    US Naval Academy, Annapolis, MD, USA
O. Design Challenges and Possible Solutions to Wireless
    Application Development
    Qusay H. Mahmoud
    University of Guelph, Guelph, ON, Canada
O. Abstracting Low-Level Network Programming With ACE, a
    Pattern-Oriented Network Programming Framework
    Michael LeMay* and Jack Tan
    University of Wisconsin-Eau Claire, WI, USA
O. Recognition and Completion of Incomplete XML Documents
    Yong-Yoon Cho*, Sang-Heon Kim, and Chae-Woo Yoo
    Soongsil University, Seoul, Korea
O. F^2-Rules for Qualification of Developing and Managing
    Software Product Line
    Luiz Fernando Capretz and Faheem Ahmed*
    University of Western Ontario, Ontario, Canada
O. The Model of the Integrated Tool for the Management of
    Processes and Artifacts of CBD Projects
    Younghee Kim, Dongkyu Kim, Woojin Lee and Kiwon Chong

Soongsil University, Korea
O. A Development Process to Technology Projects: An
    Academic Approach
    Roberto Cesar Durscki*, Marcelo Eduardo Soeke,
    Robert Carlisle Burnett, and Sheila S. Reinehr
    ICET, Brazil
O. Mapping Cache Artifacts to Design Metrics Primitives
    Vinayak Tanksale* and Dolores Zage
    Ball State University, Muncie, Indiana, USA
O. Visual Experimental Data Structure Framework Based
    on MVC Pattern
    P. L. Zhou* and Bz Xu
    Monash University, Australia
O. EVA - Scripting Language for Database Applications
    Armen Asatryan and Ara Aslyan
O. Application of A Revised NOC Metric to Redesign An OO Design
    Ghassan Alkadi*, Ihssan Alkadi, and Travis Larkins
O. Entropy Metrics-Based Approach to Risk Analysis in the
    Maintenance Phase of Large-Scale Computer Systems
    Maureen Ann Raley and Dr. Letha Hughes Etzkorn
O. Evaluation Framework for Open Source Software
    Koponen Timo and Hotti Virpi

IKE'04 CONFERENCE SCHEDULE

The 2004 International Conference on Information
and Knowledge Engineering

Monte Carlo Resort, Las Vegas, Nevada, June 21-24, 2004

Note: There are a number of other sessions (not listed here) that are of potential significant interest to IKE conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences.

June 20

03:00 - 09:00pm: REGISTRATION (Second Floor, Conference Lobby; 1-5)

6:30am – 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

08:40 – 09:00am: **MultiConference Opening Remarks**
Hamid R. Arabnia (General Chair, 2004 IMCSCE)
University of Georgia, Georgia, USA
(LOCATION: Lance Burton Theater)

09:00 – 09:05am: **Introduction of Keynote Speaker by Prof. H. J. Siegel**
(LOCATION: Lance Burton Theater)

09:05 – 10:05am: **MultiConference Keynote Lecture:**
Computer Architecture, The Road Ahead
Professor Michael Flynn
Stanford University, USA
(LOCATION: Lance Burton Theater)

10:05 – 10:30am: BREAK

10:30a – 12:30p: Note: There are a number of other sessions (not listed here)
that are of potential significant interest to IKE
conference participants (sessions belonging to other
joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint
conferences.

12:30 – 01:30pm: **LUNCH (On Your Own)**

SESSION 2-IKE: **AUTONOMOUS COMPUTING & AGENTS FOR INFORMATION & KNOWLEDGE PROCESSING**

                        Chair: Dr. Hanh Pham
                        June 21, 2004 (Monday); 1:30 - 2:30pm
                        (LOCATION: Meeting Room 3)

01:30 - 01:50pm: Open Ontologies - The Need for Modeling Heterogeneous Knowledge
                        Tina Froehner, Matthias Nickles*, and Gerhard Weiss
                        Technical University of Munich, Germany

01:50 - 02:10pm: AuInSys: An Autonomic Information System
                        Hanh Pham
                        State University of New York, USA

02:10 - 02:30pm: Agent-Based Optimization of Business Functions Using Coevolutionary Algorithms
                        Grgoire Danoy*, Pascal Bouvry, and Franciszek Seredynski
                        Luxembourg University (Luxembourg)
                        Polish Academy of Sciences, Poland

SESSION 3-IKE: **INTELLIGENT AGENTS & SYSTEMS + RESOURCE MANAGEMENT**
                        Chair: Dr. Hanh Pham
                        June 21, 2004 (Monday); 2:30 - 4:10pm
                        (LOCATION: Meeting Room 3)

02:30 - 02:50pm: Intelligent Mailer
                        Anand Dinakar and Bon Sy
                        City University of New York, Flushing, New York, USA

02:50 - 03:10pm: An Agent-Based Negotiation System for B2C E-Commerce
                        Bhanu Prasad
                        Florida A & M University, Tallahassee, Florida, USA

03:10 - 03:30pm: Mobile Agent Assisted Information Retrieval for E-Learning
                        Jon T. S. Quah*, Y. M. Chen*, and C. H. Leow**
                        *Nanyang Technological University, Singapore
                        **Singapore Polytechnic, Singapore

03:30 - 03:50pm: FREE SLOT

03:50 - 04:10pm: Making A Case For Resource Management in P2P Environment
                        A. Rajput and S. Rotenstreich
                        George Washington University, DC, USA

04:10 - 05:10pm: **DISCUSSION SESSION A-IKE (Refreshments will be available)**
June 21 (Monday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of IKE's schedule.

09:00 - 11:00pm: **CONFERENCE RECEPTION DINNER - June 21 (Monday)**
(LOCATION: Meeting Rooms 1-5)

7:00am - 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

SESSION 4-IKE: **ADAPTIVE SYSTEMS**
Co-Chairs: Dr. Nam Ho Yoo, USA, Dr. Li Yang, USA &
Dr. Theresa Beaubouef, USA
June 22, 2004 (Tuesday); 8:20 - 9:20am
(LOCATION: Meeting Room 3)

08:20 - 08:40am: N-Codes: A Computerized Decision Support System for
Acute Care Nursing
Howard E. Michel*, Paul J. Fortier, Nancy M. Dluhy,
and Eileen S. O'Neil
University of Massachusetts, Dartmouth, Massachusetts, USA

08:40 - 09:00am: Dynamically Constructing Classification Rules With
Visualization Techniques
Danyu Liu*, Alan Sprague, and Upender Manne
University of Alabama, Birmingham, Alabama, USA

09:00 - 09:20am: Rules Extraction for Securities Analysis Based on
Decision Tree Classification Model
Na Ren and Mehdi R. Zargham*
Southern Illinois University, Carbondale, Illinois, USA

SESSION 5-IKE: **DATA PROCESSING**
Co-Chairs: Dr. Nam Ho Yoo, USA, Dr. Li Yang, USA &
Dr. Theresa Beaubouef, USA
June 22, 2004 (Tuesday); 9:20 - 10:00am
(LOCATION: Meeting Room 3)

09:20 - 09:40am: Analyzing Large Collections of Email
Daniel A. Keim, Christian Panse, Joern Schneidewind*,
and Mike Sips
University of Konstanz, Konstanz, Germany

09:40 - 10:00am: Supporting Data Quality and Processing Performance
in ETL System
Tsae-Feng Yu
Oracle Corporation, Nashua, NH, USA

10:00 - 10:40am: **DISCUSSION SESSION B-IKE (Refreshments will be available)**
June 22 (Tuesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of IKE's schedule.

SESSION 6-IKE: **DATABASES & DATA WAREHOUSING & MINING**
                             Chair: Prof. Ping-Tsai Chung, USA
                             June 22, 2004 (Tuesday); 10:40am - 12:00pm
                             (LOCATION: Meeting Room 3)

10:40 - 11:00am: Conditional Mapping in Data Mediation
                             Paul L. Bergstein* and Vishal Shah
                             University of Massachusetts, Dartmouth, MA, USA

11:00 - 11:20am: Case Study of OLAP Enterprise Data Warehouse
                             Kennard Gopaul and Ping-Tsai Chung*
                             Long Island University, Brooklyn, New York, USA

11:20 - 11:40am: FREE SLOT

11:40 - 12:00pm: Mining Short Association Rules with One Database Scan
                             Li Yang* and Mustafa Sanver
                             Western Michigan University, Kalamazoo, Michigan, USA

12:00 - 01:00pm: LUNCH (On Your Own)

01:00 - 05:40pm: Note: There are a number of other sessions (not listed here)
                           that are of potential significant interest to IKE
                           conference participants (sessions belonging to other
                           joint conferences in this event.) Therefore, you are
                           encouraged to also check the schedules for other joint
                           conferences.

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 1-IKE: (Concurrent Session) COGNITIVE TOOLS & INTEGRATED
KNOWLEDGE-BASED TECHNOLOGY
Chair: Dr. Raymond A. Liuzzi
June 23, 2004 (Wednesday); 08:00 - 10:20am
(LOCATION: Conference Room C)

08:00 - 08:20am: Knowledge Acquisition via a Script Driven Wizard
Interface
Daniel Bostwick*, Amy Kao, Michael Sao Pedro, and
John Everett
Alphatech, Inc., Burlington, MA, USA

08:20 - 08:40am: Knowledge Discovery for Electromagnetic (EM)
Compatibility
Gerard Capraro*, Gerald B. Berdan, Michael C. Wicks,
James S. Perretta, and Raymond A. Liuzzi
Capraro Technologies, Inc., Utica, New York, USA

08:40 - 09:00am: The MILO: A General-Purpose, Mid-Level Ontology
Ian Niles* and Allan Terry
Teknowledge, Palo Alto, California, USA

09:00 - 09:20am: Threat Identification and Prediction System (TIPS)
Perakath Benjamin*, Paul Koola, Satheesh Ramachandran,
and Richard Mayer
Knowledge Based Systems, Inc., College Station, Texas, USA

09:20 - 09:40am: Analogy for Knowledge Discovery: Experiments and Extension
James C. Reynolds and Adam Pease (John Li)
Teknowledge, Palo Alto, California, USA

09:40 - 10:00am: Information Security: Using A Novel Event-Based Approach
Raman Adaikkalavan*, Sharma Chakravarthy*, Raymond Liuzzi**,
and Leah Wong***
*University of Texas at Arlington, Texas, USA
**AFRL/IFTD, Rome, New York, USA
***SPAWARSYSCEN, San Diego, California, USA

10:00 - 10:20am: A Knowledge-Based Framework for Biosurveillance Problem
Solvers
David L. Buckeridge*, Martin J. O'Connor, Haobo Xu, and
Mark A. Musen
Stanford University School of Medicine, Stanford, CA, USA

SESSION 7-IKE: **(Concurrent Session) APPLICATIONS + BUSINESS ETHICS**
Co-Chair: Marcello Bertoli, Australia &
Dr. Myron Sheu, USA
June 23, 2004 (Wednesday); 8:20 - 10:00am
(LOCATION: Meeting Room 3)

08:20 - 08:40am: Supporting Federal Agency Field Operations
L. L. Miller
Iowa State University, Ames, Iowa, USA

08:40 - 09:00am: DarWin: A Project for Language-Based Schema and
Knowledge Management
Elisabeth Heinemann* and Erich Ortner
Technische Universitat Darmstadt, Darmstadt, Germany

09:00 - 09:20am: A Document-Centric Approach to Business Management
Subhasish Mazumdar* and Majed AbuSafiya
New Mexico Institute of Mining Technology, Socorro, NM, USA

09:20 - 09:40am: The Implications of Business Ethics in a Free Market
Economy
Nicholas J. Mauro
Dowling College School of Business, Oakdale, LI, NY, USA

09:40 - 10:00am: Exploiting Method Semantics in Client Cache Consistency
Protocols for Object-Oriented Databases
Johannes Dwiartanto* and Paul Watson
University of Newcastle, Newcastle upon Tyne, UK

10:00 - 10:40am: **DISCUSSION SESSION C-IKE (Refreshments will be available)**
June 23 (Wednesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of IKE's schedule.

SESSION 8-IKE: **ALGORITHMS/APPLICATIONS**
Co-Chair: Marcello Bertoli, Australia &
Dr. Myron Sheu, USA
June 23, 2004 (Wednesday); 10:40 - 11:20am
(LOCATION: Meeting Room 3)

10:40 - 11:00am: A New Method for Aging Greek Artifacts
Thornton Burn

11:00 - 11:20am: Improving the Compression Performance of Turkish
Texts with PoS Tags
Ebru Celikel and Bekir Taner Dincer

11:20 - 03:20pm: Note: There are a number of other sessions (not listed here)
that are of potential significant interest to IKE
conference participants (sessions belonging to other
joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint
conferences.

03:20 - 03:40pm: BREAK

**SESSION 9-IKE: MULTIMEDIA DATA MINING
                    Co-Chairs: Dr. JungHwan Oh, Dr. Wallapak Tavanapong, &
                               Dr. Hyoil Han
                    June 23, 2004 (Wednesday); 3:40 - 5:40pm
                    (LOCATION: Meeting Room 3)**

03:40 - 04:00pm: Object Classification Using Pre-Assigned Intervals
in Image Databases
June-Suh Cho
HanKook University of Foreign Studies, Korea

04:00 - 04:20pm: ACTIVe3D: Semantic and 3D Databases for Civil
Engineering Projects
Christophe Cruz*, Renaud Vanlande*, and
Christophe Nicolle**
*Active3D-Lab, Dijon, France
**Universite de Bourgogne, Dijon, France

04:20 - 04:40pm: Motion Histogram: A New Motion Feature to Index Motion
Content in Video Segment
Haoran Yi*, Deepu Rajan, and Liang-Tien Chia
Nanyang Technological University, Singapore

04:40 - 05:00pm: Visualizing and Browsing Large Image Databases
Hichem Frigui
University of Memphis, TN, USA

05:00 - 05:20pm: Semantic Web Mining
Hyoil Han* and JungHwan Oh**
*Drexel University, Philadelphia, PA, USA
**The University of Texas at Arlington, USA

05:20 - 05:40pm: Integration of Domain-Specific and Domain-Independent
Ontologies for Colonoscopy Video Database Annotation
Jie Bao, Yu Cao*, Wallapak Tavanapong, and Vasant Honavar
Iowa State University, Ames, IA, USA

7:30 - 11:00am: **Registration (Second Floor, Conference Lobby: 1-5)**

08:20 – 10:00am: Note: There are a number of other sessions (not listed here) that are of potential significant interest to IKE conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences.

10:00 - 10:40am: **DISCUSSION SESSION D-IKE (Refreshments will be available)**
June 24 (Thursday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of IKE's schedule.

10:40 – 12:40pm: Note: There are a number of other sessions (not listed here) that are of potential significant interest to IKE conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences.

SESSION 10-IKE: **ALGORITHMS**
Chair: Dr. Wolfgang Semar, Germany
June 24, 2004 (Thursday); 12:40 - 2:00pm
(LOCATION: Meeting Room 3)

12:40 – 01:00pm: Using Term Dependency to Enhance Partitional Text Clustering
Wantao Deng* and Wendy Wu
Middlesex University, London, UK

01:00 – 01:20pm: Comparative Analysis of the Efficiency of R-Tree Based Indexing Strategies for Information Retrieval
Li Wu* and T. Bretschneider
Nanyang Technological University, Singapore

01:20 – 01:40pm: Performance Evaluation of Two-Phase Locking with Resource Contention
Yu Wang, Wen-Chi Hou, and Chih-Fang Wang*
Southern Illinois University, Carbondale, IL, USA

01:40 – 02:00pm: Cluster Validity Through Graph-Based Boundary Analysis
Jianhua Yang* and Ickjai Lee**
*University of Western Sydney, NSW, Australia
**James Cook University, Townsville, QLD, Australia

SESSION 11-IKE: **MODELING & REASONING + KNOWLEDGE ENGINEERING THEORY**
                     Chair: Dr. Wolfgang Semar, Germany
                     June 24, 2004 (Thursday); 2:00 - 2:40pm
                     (LOCATION: Meeting Room 3)

02:00 - 02:20pm: A Survey of Merging Techniques and Tools for
                   Ontologies
                   Michael Zipparo*, Damla Turgut, and Ladislau Boloni
                   University of Central Florida, Orlando, Florida, USA

02:20 - 02:40pm: Archive - The Foundation of Knowledge Management
                   John A. Griffith
                   The Boeing Company, Canoga Park, California, USA

SESSION 12-IKE: **EMERGING & OPEN ISSUES + ALGORITHMS**
                     Chair: Dr. Wolfgang Semar, Germany
                     June 24, 2004 (Thursday); 2:40 - 3:20pm
                     (LOCATION: Meeting Room 3)

02:40 - 03:00pm: Children's Web Portals: Novel Designs
                   Jamshid Beheshti*, Andrew Large, Valerie Nesset, and
                   Leanne Bowler
                   McGill University, Montreal, Canada

03:00 - 03:20pm: The Relation Between Education Effect and Individual
                   Characteristics of WBT Teaching Materials
                   Hiroo Hirose*, Yoshito Yamamoto, and Masao Okuhara
                   Tokyo University of Science, Suwa, Japan

03:20 - 03:40pm: BREAK

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LIST OF PAPERS IN DISCUSSION SESSION A-IKE:

O.   Software Agents for use in Automatic Software
     Distribution
     Grant Miller*, Victor Walker, Steve Burnham, and Mark Brown
     IBM, USA
O.   Mobile Agents for Distributed Processing of
     Electronic Records Archives
     Binh Nguyen
     US Army Research Laboratory, Maryland, USA
O.   Adaptive Watermarking in Spatial Domain for Still Image
     Somchok Kimpan*, Attasit Lasakul*, and Chom Kimpan**
     *King Mongkut's Inst. of Tech. Ladkrabang, Thailand
     **Sriphatum University, Bangkok, Thailand
O.   Dynamically Grouped Subscriptions for Information
     Dissemination in Continuous Information Generating Environment
     Rabbia Qaswar*, Uzair Ahmad, and Arshad Ali
     NUST Institute of Information Technology, Pakistan
O.   Real-Time Decision Support System for Space Missions Control
     J. Moura Pires**, M. Pantoquilho*, and N. Viana*
     *UNINOVA, Caparica, Portugal
     **DI-CENTRIA, Caparica, Portugal
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LIST OF PAPERS IN DISCUSSION SESSION B-IKE:

O. An XML-Based Approach for Interface Impact Analysis
    in Sustained System
    Namho Yoo* and Hyeong-Ah Choi
    George Washington University, Washington, DC, USA
O. Rough Functional Dependencies
    Theresa Beaubouef* and Frederick E. Petry**
    *Southeastern Louisiana University, Hammond, LA, USA
    **Tulane University, New Orleans, LA, USA
O. XQuery Translation to Sem-SQL
    Li Yang* and Naphtali Rishe**
    *State University of West Georgia, Carrolton, GA, USA
    **Florida International University, Miami, Florida, USA
O. Non-negative Matrix Factorization for Filtering
    Chinese and Oriental Language Document
    Baowen Xu, Jixiang Jiang, and Jianjiang Lu
    Southeast University, Nanjing, P. R. China
O. An Extension to the ADT-Based Spatiotemporal Data Model
    Peiquan Jin*, Yuchang Gong, and Lihua Yue
    University of Science and Technology of China, P. R. China
O. Performance Evaluation of Cache Conscious
    Multi-Dimensional Index Structures
    Jae Soo Yoo**, Han Suk Choi*, and Tae-Wan Ryu***
    *Mokpo National University, Korea
    **Chungbuk National University, Korea
    ***California State University, Fullerton, CA, USA
O. Connected Neighborhood Graph for Data Projection and
    Dimensionality Reduction
    Li Yang
    Western Michigan University, Kalamazoo, Michigan, USA

LIST OF PAPERS IN DISCUSSION SESSION C-IKE:

O. Query Cost Estimated in Noisy Wide Area Environment
    Zhining Liao* and Gongde Guo
    University of Ulster, Northern Ireland, UK
O. Detecting Spatial Outliers Using Bipartite Outlier
    Detection Methods
    Mingzhen Wei*, Andrew H. Sung, and Martha Cather
    New Mexico Tech., New Mexico, USA
O. Processing Range Top-k Queries in a Sparse Data Cube
    Seokjin Hong*, Bongki Moon**, and Sukho Lee*
    *Seoul National University, Seoul, Korea
    **University of Arizona, Tucson, Arizona, USA
O. Discovering Inter-Document Connectivity by Applying Topic
    Analysis Techniques
    Fu-Ming Lee and Chi-Hsu Chen
    Chaoyang University of Technology, Wufeng, Taiwan
O. Sequential Data Processing for Supporting Healthcare
    Data Analysis
    Lilian Harada* and Yuuji Hotta
    Fujitsu Laboratories Ltd., Kanagawa, Japan
O. An Improved Method for Text Filtering Using Lexical Chains
    Shaozi Li*/**, Wenjian You*, and Huowang Chen**
    *Xiamen University, Xiamen, P. R. China
    **National University of Defense Technology, P. R. China
O. Forecasting a Complex Dataset with Association Rules
    Marcello Bertoli* and Andrew Stranieri
    University of Ballarat, Victoria, Australia
O. An Architecture for Semantic Facilitation and Reuse
    of Directory Metadata
    Lei Li*, Vijay Vaishnavi, and Art Vandenberg
    Georgia State University, Atlanta, Georgia, USA
O. A Discovery of Rules of Hierarchy for Very Large Databases
    Hyontai Sug
    Dongseo University, Busan, Korea
O. An XML Storage System Using Object-Relational DBMSs: Syntax,
    Semantics, and Implementation
    Wook-Shin Han*, Ki-Hoon Lee**, Byung S. Lee***, and
    Won-Sik Kim*
    *Kyungpook National University, Korea
    **KAIST, Korea
    ***University of Vermont, USA
O. Towards a Domain Ontology for Haematology - DOHa
    Adegboyega K. Ojo, R. O. Basanya, and V. O. Mabayoje
    University of Lagos, Nigeria
    LAUTECH University Teaching Hospital, Nigeria

LIST OF PAPERS IN DISCUSSION SESSION D-IKE:

O. Multidimensional SME Performance Evaluation: Upgrading
    to Data Warehousing & Data Mining Techniques
    Sylvain Delisle*, Mathieu Dugre, and Josee St-Pierre
    Universite du Quebec a Trois-Rivieres, Canada
O. Predictive Analysis Method Based on Railway Ticket
    Data Warehouse
    Guoqiang Cai*, Yangdong Ye**, Xiaoyan Lv**, and Limin Jia*
    *China Academy of Railway Science, Beijing, P. R. China
    **Zhengzhou University, Zhengzhou, P. R. China
O. A Structure for Designing Materialized Views of Data
    Warehouse with Concurrency Control
    Fan Wu
    Nationa Chung-Cheng University, Taiwan
O. Incentive Systems in Knowledge Management to Support
    Cooperative Distributed Forms of Creating and Acquiring
    Knowledge
    Wolfgang Semar
    University of Konstanz, Germany
O. Software Production Infrastructure to Support Agile
    Methodologies
    Alberto Sillitti* and Giancarlo Succi
    Free University of Bozen, Bolzano, Italy
O. Infrastructure for Mobile Learning Environments
    Arif M. Bhatti
    Zayed University, Abu Dhabi, UAE
O. Towards an Integrated Biological Information System (BIS)
    Emmanuel Udoh* and David Erbach
    Indiana University-Purdue University, Indiana, USA
O. PDF2XML: Converting PDF to XML
    Yonggao Yang*, Kwang Paick, Yanxiong Peng, and Yukong Zhang
    Prairie View A&M University, Texas, USA
O. Recognizing Modern CRM in Retail Business
    Naipeng Ding* and Sidney A. Morris**
    *Shanghai University, Shanghai, P. R. China
    **University of Ballarat, Australia
O. Understanding Knowledge Discovery Techniques for the
    Information Analyst
    N. A. Gemelli*, P. M. LaMonica*, J. Spina*, and M. Bilinski**
    *Air Force Research Laboratory, Rome, New York, USA
    **BAE Systems, Rome, New York, USA
O. A Framework for Constraint Management in VLSI Design
    Database Applications
    Armen Asatryan
O. Strategies for Replacing Cache Data in Data Broadcast
    Systems for Mobile Database Environments
    Dong Cheon Shin
O. A Query Unnesting and Rewritting Approach To Query Processing
    D. Saravanan and L. Prema Rajeshwari
O. A Goal-Oriented Component Reuse Approach

ESA'04 CONFERENCE SCHEDULE

The 2004 International Conference on
Embedded Systems and Applications

Monte Carlo Resort, Las Vegas, Nevada, June 21-24, 2004

Note: There are a number of other sessions (not listed here) that are of potential significant interest to ESA conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences.

June 20

03:00 - 09:00pm: REGISTRATION (Second Floor, Conference Lobby; 1-5)

6:30am – 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

08:40 – 09:00am: MultiConference Opening Remarks
                    Hamid R. Arabnia (General Chair, 2004 IMCSCE)
                    University of Georgia, Georgia, USA
                    (LOCATION: Lance Burton Theater)

09:00 – 09:05am: Introduction of Keynote Speaker by Prof. H. J. Siegel
                    (LOCATION: Lance Burton Theater)

09:05 – 10:05am: MultiConference Keynote Lecture:
                    Computer Architecture, The Road Ahead
                    Professor Michael Flynn
                    Stanford University, USA
                    (LOCATION: Lance Burton Theater)

10:05 – 10:30am: BREAK

10:30a – 05:10p: Note: There are a number of other sessions (not listed here)
                    that are of potential significant interest to ESA
                    conference participants (sessions belonging to other
                    joint conferences in this event.) Therefore, you are
                    encouraged to also check the schedules for other joint
                    conferences (in particular, schedules for PDPTA, MSV,
                    SERP, PCC, and ERSA.)

09:00 – 11:00pm: CONFERENCE RECEPTION DINNER – June 21 (Monday)
                    (LOCATION: Meeting Rooms 1-5)

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

10:00 - 10:40am: **DISCUSSION SESSION A-ESA (Refreshments will be available)**
                      June 22 (Tuesday)
                      (LOCATION: Hallways/Lobby - Meeting Rooms 6-8)
                      List of papers appears at the end of ESA's schedule.

10:40a - 02:40p: Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to ESA
                   conference participants (sessions belonging to other
                   joint conferences in this event.) Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences (in particular, schedules for PDPTA, MSV,
                   SERP, PCC, and ERSA.)

SESSION 1-ESA: **REAL-TIME & EMBEDDED OS**
                      Chair: Dr. Enoch Hwang, USA
                      June 22, 2004 (Tuesday); 2:40 - 4:20pm
                      (LOCATION: Meeting Room 6)

02:40 - 03:00pm: Scheduling Similarity-Constrtained Real-Time Tasks
                   Deji Chen* and Aloysius K. Mok**
                   *Emerson Process Management, USA
                   University of Texas, Austin, Texas, USA

03:00 - 03:20pm: Emdedded Systems for Real-Time Control of a Differential
                   Drive WMR
                   Jason Garbutt, Thurai Vinay, and Sabu John*
                   RMIT University, Bundoora, VIC, Australia

03:20 - 03:40pm: BREAK

03:40 - 04:00pm: Synchronization in CAN-Based Embedded Systems
                   Ye Su and Gurdip Singh
                   Kansas State University, USA

04:00 - 04:20pm: Best-Effort Scheduling (m,k)-Firm Real-Time Tasks
                   Based on the (m,k)-Firm Constraint Meeting Probability
                   Kyong Hoon Kim, Jong Kim, and Sung je Hong
                   Pohang University, Korea

SESSION 2-ESA: **SYSTEM-ON-A-CHIP & EMBEDDED ARCHITECTURES**
       Chair: Dr. Sabu John, Australia
       June 22, 2004 (Tuesday); 4:20 - 5:40pm
       (LOCATION: Meeting Room 6)

04:20 - 04:40pm: An Intelligent Communications Back Plane Architecture
       Jeff Willis, Amit Gaur, and Scott Cannon*
       Utah State University, Logan, Utah, USA

04:40 - 05:00pm: An Adaptive Superscalar Architecture for Embedded Systems
       Mars Lan and Morteza Biglari-Abhari
       University of Auckland, New Zealand

05:00 - 05:20pm: Configurable System-on-Chip Architecture with
       Descriptors for Dynamic Reconfiguration
       Sebastian Waller
       Technical University Hamburg, Harburg, Germany

05:20 - 05:40pm: HiDRA: A New Architecture for Heterogeneous Embedded Systems
       Zoran Salcic*, P. Roop, D. Hui, and I. Radojevic
       University of Auckland, New Zealand

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

08:20a – 12:00p: Note: There are a number of other sessions (not listed here)
                    that are of potential significant interest to ESA
                    conference participants (sessions belonging to other
                    joint conferences in this event.) Therefore, you are
                    encouraged to also check the schedules for other joint
                    conferences (in particular, schedules for PDPTA, MSV,
                    SERP, PCC, and ERSA.)

12:00 - 1:00pm: LUNCH (On Your Own)

**SESSION 3-ESA: WORKSHOP: METHODOLOGIES IN LOW POWER DESIGN (MLPD'04)
                    Co-Chairs: V. Asari, B. Izadi, A. P. Preethy, & D.
                    Radhakrishnan
                    June 23, 2004 (Wednesday); 1:00 - 4:20pm
                    (LOCATION: Meeting Room 6)**

01:00 – 01:20pm: Driving Fully-Adiabatic Logic Circuits Using Custom
                    High-Q MEMS Resonators
                    Uma Aghoram, Venkiteswaran Anantharam, Maojiao He,
                    Krishna Natarajan, Huikai Xie, and Michael P. Frank*
                    University of Florida, Gainesville, Florida, USA

01:20 – 01:40pm: A Bus Encoding Scheme to Reduce Power Consuming
                    Signal Transitions
                    Ahmed Elkammer, Srinivasa R. Vemuru*, and Norman Scheinberg
                    Ohio Northern University, Ada, Ohio, USA

01:40 – 02:00pm: Experimental Analysis of Batteries Under Continuous and
                    Intermittent Operations
                    Smith Castillo, Naveen K. Samala, Kerron Manwaring,
                    Baback Izadi*, and Damu Radhakrishnan
                    State University of New York, New Paltz, New York, USA

02:00 – 02:20pm: A Low Energy Deep Sub-Micron Bus Coding Technique
                    Naveen K. Samala, Damu Radhakrishnan*, and Baback Izadi
                    State University of New York, New Paltz, New York, USA

02:20 – 02:40pm: Switching Activity Minimization in Combinational Logic
                    Design
                    Rakesh Menon, Naveen K. Samala, Sarita Chennupati,
                    Damu Radhakrishnan, and Baback Izadi*
                    State University of New York, New Paltz, New York, USA

02:40 – 03:00pm: A Noval Bus Encoding Technique for Low Power VLSI
                    Jayapreetha Natesan, Damu Radhakrishnan*, and
                    Natesan Venkateswaran
                    State University of New York, New Paltz, New York, USA

03:00 – 03:20pm: Low-Power Delta-Sigma Modulator with Dynamic Bias
                   Fun Ye, Jen-Shiun Chiang*, and Chun-Cheng Wu
                   Tamkang University, Taipei, Taiwan

03:20 – 03:40pm: Low Energy Adaptive Bus Coding Considering Inter-Wire
                   Capacitances
                   Yi Sun, Hong Yang, and A. P. Preethy
                   Georgia State University, Atlanta, Georgia, USA

03:40 – 04:00pm: Low-Power Switched-Capacitor Filters for
                   Telecommunication Applications
                   Jen-Shiun Chiang*, Ming-Hung Tu, Yi-Chen Sung,
                   and Yi-Taung Li
                   Tamkang University, Taipei, Taiwan

04:00 – 04:20pm: A Low-Power Pipelined Implementation of 2D Discrete
                   Wavelet Transform
                   Y. Liu, E.M-K. Lai*, and A. B. Premkumar
                   Nanyang Technological University, Singapore

**SESSION 4-ESA: CODE GENERATION & OPTIMIZATION OF EMBEDDED PROGRAMS
                   Chair: Dr. Nader F. Mir, USA
                   June 23, 2004 (Wednesday); 4:20 - 5:40pm
                   (LOCATION: Meeting Room 6)**

04:20 – 04:40pm: Evaluating Conditional Statements in Embedded
                   System Software Systematic Methodologies for
                   Reducing Energy Consumption
                   Keith S. Vallerio and Niraj K. Jha
                   Princeton University, USA

04:40 – 05:00pm: Link-time Compaction of MIPS Programs
                   Matias Madou, Bjorn De Sutter*, Bruno De Bus,
                   Ludo Van Put, and Koen De Bosschere
                   Ghent University, Gent, Belgium

05:00 – 05:20pm: Implementing Software Programs in FPGAs Using Flowpaths
                   Darrin M. Hanna
                   Oakland University, USA

05:20 – 05:40pm: Exploiting Symmetries for Optimal Integrated Code
                   Generation
                   Andrzej BednarskiL and Christoph Kessler
                   Linkoping University, Sweden

7:30am - 11:00am: Registration (Second Floor, Conference Lobby: 1-5)

10:00 - 10:40am: DISCUSSION SESSION B-ESA (Refreshments will be available)
June 24 (Thursday)
(LOCATION: Hallways/Lobby - Meeting Rooms 6-8)
List of papers appears at the end of ESA's schedule.

10:40a – 11:30p: Note: There are a number of other sessions (not listed here) that are of potential significant interest to ESA conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences (in particular, schedules for PDPTA, MSV, SERP, PCC, and ERSA.)

11:30 - 12:40pm: LUNCH (On Your Own)

SESSION 5-ESA: SENSOR-ACTUATOR NETWORKS FOR ENGINEERING
Chair: Dr. Shiva Sastry
June 24, 2004 (Thursday); 12:40 - 2:20pm
(LOCATION: Meeting Room 6)

12:40 – 01:00pm: A New Fair Scheduling MAC Protocol for Wireless Sensor Networks
Niranjan Regatte and Sarangapani Jagannathan
University of Missouri-Rolla, USA

01:00 – 01:20pm: Predictive Data Mining for Delinquency Modeling
T. L. Bharateesh and S. S. Iyengar
Louisiana State University, USA

01:20 – 01:40pm: Challenges in Monitoring Sensor Networks and a Solution Framework
Sheik I. Ahmed and Avinash Vyas
Marquette University

01:40 – 02:00pm: A Self-Organizing Wireless Sensor-Actuator Network
Nader Mir
San Jose State University, USA

02:00 – 02:20pm: Evaluating Communication Protocols in a Sensor-Actuator Network for Automation
Kun Huang and Shivakumar Sastry
University of Akron, USA

SESSION 6-ESA: **TESTING & VERIFICATION**
                     Co-Chairs: Dr. Ragu Athinarayanan & Dr. Darrin Hanna, USA
                     June 24, 2004 (Thursday); 2:20 - 3:20pm
                     (LOCATION: Meeting Room 6)

02:20 - 02:40pm: Performance Analysis Techniques in SOC Design
                     Suboh A. Suboh, Yuebo Ma, Nikitas A Alexandridis, and
                     Tarek EI-Ghazawi
                     George Washington University, USA

02:40 - 03:00pm: Flexible Internet Based Diagnostics of Embedded Systems
                     Jan Traumuller
                     University of Stuttgart, Germany

03:00 - 03:20pm: Analytical Analysis of Data and Decision Fusion in
                     Sensor Networks
                     Zille Huma Kamal, Mohammad Ali Salahuddin, Ajay Gupta,
                     Mark Terwilliger, Vijay Bhuse, and Benjamin Beckmann
                     Western Michigan University, USA

03:20 - 03:40pm: BREAK

SESSION 7-ESA: **HARDWARE/SOFTWARE CO-DESIGN**
                     Co-Chairs: Dr. Ragu Athinarayanan & Dr. Darrin Hanna, USA
                     June 24, 2004 (Thursday); 3:40 - 4:20pm
                     (LOCATION: Meeting Room 6)

03:40 - 04:00pm: X32V: A Design of a Configurable Processor Core for
                     Embedded Systems
                     David Zier*, Jumnit Hong*, Savithri Venkatachalapathy*,
                     Jarrod Nelson*, John Mark Matson**, Ben Lee*,
                     Younghwan Bae***, and Hanjin Cho***
                     *Oregon State University, Corvallis, Oregon, USA
                     **Intel Corporation, Hillsboro, Oregon
                     ***Electronics & Telecommunications Research Institute, Korea

04:00 - 04:20pm: Admission Control for Dynamic Software Reconfiguration in
                     Systems of Embed Systems
                     Y. Qiao, Luqi
                     US Naval Postgraduate School, USA

SESSION 8-ESA: **JAVA TECHNOLOGY FOR EMBEDDED SYSTEMS**
                     Co-Chairs: Dr. Ragu Athinarayanan & Dr. Darrin Hanna, USA
                     June 24, 2004 (Thursday); 4:20 - 5:40pm
                     (LOCATION: Meeting Room 6)

04:20 - 04:40pm: Language Selection for Mobile Systems: Java, C,
                     or Both?
                     Keith S. Vallerio, ...
                     Princeton University, USA

04:40 - 05:00pm: FREE SLOT
05:00 - 05:20pm: FREE SLOT
05:20 - 05:40pm: FREE SLOT

LIST OF PAPERS IN DISCUSSION SESSION A-ESA:

O. RECAST - Design Space Exploration for Dynamic and
    Reconfigurable Embedded Computing
    Thomas B. Preusser, Steffen Kohler, and Rainer G. Spallek
    Dresden University of Technology, Germany

O. Bedded Software for an Array of Processors
    Stephen Bique
    University of Alaska, Fairbanks, USA

O. Building A Custom System-On-A-Chip
    Enoch Hwang
    La Sierra University, Riverside, California, USA

O. Realization of Platform Based on Java Technology for
    Embedded Systems
    A-Qun Deng*, Huan-Jun Yu, and Shang-Xu Hu
    Zhejiang University, Hangzhou City, P. R. China

O. The Real-Time Implementations of AMR Codec for
    IMT-2000 System
    Hyung-Jung Kim*, Deock-Gu Jee*, Man-Ho Park*,
    Byung-Sik Yoon*, and Song-In Choi*
    Electronics & Telecommunications Research Institute, Korea

O. DSP Implementations of 3D Sound System Using HRTF
    Hyung-Jung Kim, Deock-Gu Jee, Man-Ho Park,
    Byung-Sik Yoon, and Song-In Choi
    Electronics & Telecommunications Research Institute, Korea

O. Bedded Systems for Meteorological Sensor Applications
    Young Yee and Edward Vidal, Jr.
    Army Research Laboratory, Missile Range, NM, USA

O. Multimedia Architectures for Mobile Phones
    Achim Ibenthal, Christoph Minkwitz, and Mathias Lindner
    sci-worx GmbH, Hannover, Germany

O. Intelligent Resource Agents For Embedded Systems
    En-Hsin Huang* and Tzilla Elrad**
    *Lucent Technologies, USA
    **Illinois Institute of Technology, Chicago, IL, USA

O. An Efficient Approach for Design Space Exploration
    Using Static Constraints for IP-based SOC Design
    Ananth.K.S, Abhishek Agarwal, Nikitas A Alexandridis,
    Tarek EI-Ghazawi, Sean X. Wang

LIST OF PAPERS IN DISCUSSION SESSION B-ESA:

O. FPGA Implementation of a Novel Architecture for PCR
    Related Measurements in DVB-T
    C. Mannino, H. Rabah, C. Tanougast, Y. Berviller,
    M. Janiaut
O. SMS over ETSI Compliant Landline Telephones
    Konda Reddy
O. Automated Credit Oriented System for Computer
    Network Administration
    Samir Omar and T. S. Ng
O. Design of Embedded Wireless LAN Device
    Samir Omar and P. Techateerawat
O. Case Study: Compiler Comparison for an Embedded
    Cryptographical Application
    E. Barteska, J. Pelzl, C. Paar, V. Wittelsberger,
    and T. Wollinger
O. A Computational Intellegence Approach for
    Parametrized SoC Optimization
    Suboh A. Suboh and Nikitas Alexandridis
O. An Energy-Aware Synthesis Methodology for OS-Driven
    Multi-Process Embedded Software
    Tat Kee Tan, Anand Raghunathan, and Niraj Jha
O. DPM Centric Block-Level Voltage/Frequency Scheduling
    for Low Power
    Li-Chuan Weng, XiaoJun Wang, Alan P. Su, and Bin Liu
O. A Software Linearization Technique Using Embedded
    Applications for Measuring Microwave Dielectric
    Response of Materials
    R. Athinarayanan*, J. N. Dahiya*, and J. A. Roberts**
    *Southeast Missouri State University, Missouri, USA
    **University of North Texas, Denton, Texas, USA

IC'04 CONFERENCE SCHEDULE

The 2004 International Conference on Internet Computing

Monte Carlo Resort, Las Vegas, Nevada, June 21-24, 2004

Note: There are a number of other sessions (not listed here) that are of potential significant interest to IC conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences.

June 20

03:00 - 09:00pm: REGISTRATION (Second Floor, Conference Lobby; 1-5)

6:30am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

08:40 - 09:00am: **MultiConference Opening Remarks**
                       Hamid R. Arabnia (General Chair, 2004 IMCSCE)
                       University of Georgia, Georgia, USA
                       (LOCATION: Lance Burton Theater)

09:00 - 09:05am: **Introduction of Keynote Speaker by Prof. H. J. Siegel**
                       (LOCATION: Lance Burton Theater)

09:05 - 10:05am: **MultiConference Keynote Lecture:**
                       Computer Architecture, The Road Ahead
                       Professor Michael Flynn
                       Stanford University, USA
                       (LOCATION: Lance Burton Theater)

10:05 - 10:30am: **BREAK**

SESSION 1-IC: **WEB MINING**
                       Chair: Dr. Anthony Scime
                       June 21, 2004 (Monday); 10:30am - 2:30pm
                       (LOCATION: Meeting Room 7)

10:30 - 10:50am: Area-Efficient Visualization of Web Data
                   Vishal Anand*, Keith Hansen*, and Adrian Rusu
                   State University of New York (SUNY), Brockport, USA

10:50 - 11:10am: An Incremental Algorithm for Discovering Fuzzy
                   Temporal Web Usage Patterns
                   Wan-Jui Lee* and Shie-Jue Lee
                   National Sun Yat-Sen University, Kaohsiung, Taiwan

11:10 - 11:30am: A J2EE Technology Based Distributed Software Architecture
                   for Web Usage Mining
                   Juan M. Hernansaez*, Juan A. Botia, and Antonio F. G.
                   Skarmeta; University of Murcia, Spain

11:30 - 11:50am: Wrapper Induction under Web Layout Changes
                   Roshni Mohapatra and Kanagasabai Rajaraman*
                   Institute for Infocomm Research, Singapore

11:50 - 12:10pm: Using Context to Disambiguate Web Image Captions
                   Neil C. Rowe; Naval Postgraduate School, Monterey, CA, USA

12:10 - 12:30pm: Computation of Dense Data Cubes Using Packaged Arrays
                   Lixin Fu
                   University of North Carolina, Greensboro, NC, USA

12:30 - 01:30pm: **LUNCH (On Your Own)**

01:30 - 01:50pm: MASACAD: A Learning Multi-Agent System That Mines
                   The Web To Advise Students
                   Mohamed Salah Hamdi
                   UAE University, Al Ain, United Arab Emirates

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01:50 - 02:10pm:   Web Digital Archives Integrated Architecture
                   Carmen Costilla*, Juan P. Palacios, M. Jose Rodriguez,
                   Raul Fernandez, Jose Cremades, and Antonio Calleja
                   Technical University of Madrid, Spain


02:10 - 02:30pm:   Architectural Frameworks for Web Warehousing and
                   Knowledge Management
                   Gil Laware* and Frank Kowalkowski
                   Purdue University, Indiana, USA
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SESSION 2-IC: WORKSHOP: XML TECHNOLOGY (XMLTech'04)
Chair: Dr. Joan Lu
June 21, 2004 (Monday); 2:30 - 4:10pm
(LOCATION: Meeting Room 7)

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02:30 - 02:50pm:   Intelligent Cooperative Design Based on Multi-Agent
                   System on Internet and System Development
                   Chen Hua*/**, Cao Yan*, Bai Tao**, and Zhao Rujia*
                   *Xi'an Jiaotong University, Shaanxi, P. R. China
                   **Shaanxi University of Science & Tech., P. R. China


02:50 - 03:10pm:   Building XML Applications in Science and Technology:
                   An XML Approach to Authentication in Scientific Documents
                   Joan Lu and Nathan Cripps; University of Huddersfield, UK


03:10 - 03:30pm:   Researches on the Integrated Information Framework for
                   Cooperation Based on MAS
                   Chen Hua*/**, Wu Jingmin**, Cao Yan*, and Zhao Rujia*
                   *Xi'an Jiaotong University, Shaanxi, P. R. China
                   **Shaanxi University of Science & Tech., P. R. China


03:30 - 03:50pm:   Use of XML Files to Make Navigation Menu Configurable
                   in Web Application
                   Chen Hua*/**, Xi Zongyue***, Dong Jixian*, Cao Yan**,
                   and Zhao Rujia**
                   *Shaanxi University of Science & Tech., P. R. China
                   **Xi'an Jiaotong University, Shaanxi, P. R. China
                   ***Xianyang Power Bureau, P. R. China


03:50 - 04:10pm:   Intelligent Search Technology for Extracting Scientific
                   Data/Documents On Web
                   Zhongyu Lu and U. Rahman
                   University of Huddersfield, UK
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04:10 - 05:10pm: DISCUSSION SESSION A-IC (Refreshments will be available)
June 21 (Monday)
(LOCATION: Hallways/Lobby - Meeting Rooms 6-8)
List of papers appears at the end of IC's schedule.

09:00 - 11:00pm: CONFERENCE RECEPTION DINNER - June 21 (Monday)
(LOCATION: Meeting Rooms 1-5)

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 3-IC: **SOFTWARE DEVELOPMENT, TOOLS & LANGUAGES FOR**
INTERNET-COMPUTING
Chair: Dr. Qiang Zhu, USA
June 22, 2004 (Tuesday); 8:20 - 9:20am
(LOCATION: Meeting Room 7)

08:20 - 08:40am: A Short Survey of Document Structure Similarity Algorithms
David Buttler
Lawrence Livermore National Laboratory, CA, USA

08:40 - 09:00am: Refactoring and Redesiging a Multidimensional,
Open-Source Web Application Development System
Using a Relational Database to Enhance Adaptability
Jacques Levin* and John Scigliano
Nova Southeastern University, Fort Lauderdale, Florida, USA

09:00 - 09:20am: Marshalgen: Marshaling Objects in the Presence of
Polymorphism
Gene Cooperman* and Viet Ha Nguyen
Northeastern University, USA

SESSION 4-IC: **(MOBILE) AGENTS**
Co-Chairs: Dr. David Buttler & Dr. Jacques Levin, USA
June 22, 2004 (Tuesday); 9:20 - 10:00am
(LOCATION: Meeting Room 7)

09:20 - 09:40am: A Scheme for Personalized Bookmark Services in a Mobile
Agent Environment
Sohryun Shin and Eenjun Hwang
Ajou University, Korea

09:40 - 10:00am: Mobile Agents: A Construction Kit for Mobile Device
Applications
Michael Friedrich*, Kirsten Terfloth, Gerd Nusser,
and Wolfgang K?chlin
University of Tuebingen, Germany

10:00 - 10:40am: **DISCUSSION SESSION B-IC (Refreshments will be available)**
June 22 (Tuesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 6-8)
List of papers appears at the end of IC's schedule.

SESSION 5-IC: **DISTRIBUTED SCIENTIFIC & ENGINEERING APPLICATIONS**
Chair: Dr. Hoda El-Sayed
June 22, 2004 (Tuesday); 10:40am - 12:20pm
(LOCATION: Meeting Room 7)

10:40 - 11:00am: An Open Source Intellectual Property Optimal Selection
Tool (IPOST - Level 1)
Abhishek Agarwal*, Anuj Mallick, K. S. Ananth, Joel DCruz,
Nikitas A Alexandridis, and Tarek EI-Ghazawi
George Washington University, Washington, DC, USA

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11:00 - 11:20am:   Challenges To Build Web-based Scientific Databases
                   Abdelghani Bellaachia*, Avinash Kanal, Simon Berkovich,
                   William Briscoe, Ron Workman, and Igor Srakovski
                   George Washington University, Washington, D.C., USA


11:20 - 11:40am:   A Comparitive Evaluation of Modern Distributed Technologies
                   Hoda El-Sayed* and Proshanta Saha
                   Bowie State University, Bowie, MD, USA


11:40 - 12:00pm:   DAGs Scheduling in Grid Computing Environments
                   Mohammad F. Tolba, Ismail A. Taha, and Ahmad A. Anbar*
                   Ain Shams University, Cairo, Egypt
12:00 - 12:20pm:   Grid Computing Experience with the grid Implementation
                   Between GWU and Egypt
                   Hatim Diab*, Mohamed Taher, Proshanta Saha, and
                   Tarek El Ghazawi
                   George Washington University, Washington, DC, USA
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12:20 - 01:00pm: LUNCH (On Your Own)

**SESSION 6-IC: STRATEGIES FOR SERVERS & CACHES, PERFORMANCE,
                     FUNCTIONALITY, POLICIES
                     Chair: Olaf Drogehorn, Germany
                     June 22, 2004 (Tuesday); 1:00 - 2:00pm
                     (LOCATION: Meeting Room 7)**


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01:00 - 01:20pm:   Improving Web Server Performance with Predictive Caching
                   Chenggang Wu and Michael Bauer*
                   University of Western Ontario, Canada
01:20 - 01:40pm:   Automatic Wide-Area Deployment and Caching of
                   Component-Based Services
                   Peter Backx, Bart Dhoedt, Filip De Turck*, & Piet Demeester
                   Ghent University - IMEC, Gent, Belgium
01:40 - 02:00pm:   The Role of an Access Control Policy Sandbox in a
                   Service Oriented Architecture
                   Hicham Tout* and Brook Schoenfiend
                   Cisco Systems, San Jose, California, USA
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**SESSION 7-IC: WEB INTELLIGENCE
                     Co-Chairs: Prof. Zhixiang Chen & Prof. Xiannong Meng
                     June 22, 2004 (Tuesday); 2:00 - 4:40pm
                     (LOCATION: Meeting Room 7)**


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02:00 - 02:20pm:   Effectiveness of Dynamic Clustering Techniques in
                   Real-time Web Search System
                   Xiannong Meng
                   Bucknell University, Lewisburg, PA, USA
02:20 - 02:40pm:   On Exponential Growth of the Web
                   Song Xing* and Bernd-Peter Paris
                   California State University, Los Angeles, CA, USA
02:40 - 03:00pm:   On User-Oriented Measurements of Effectiveness of Web
                   Information Retrieval Systems
                   Xiannong Meng* and Zhixiang Chen
                   Bucknell University, Lewisburg, PA, USA
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03:00 – 03:20pm: ANTES: A Web-Based Acanthosis Nigricans and Other
                   Obesity Related Information System
                   Zhixiang Chen* and Chunyue Wang
                   University of Texas-Pan American, Edinburg, Texas, USA

03:20 – 03:40pm: BREAK

03:40 – 04:00pm: Dynamic Visualization of Hubs and Authorities During
                   Web Search
                   Richard H. Fowler, David Navarro,
                   Wendy A. Lawrence-Fowler*, and Xusheng Wang
                   University of Texas-Pan American, Texas, USA

04:00 – 04:20pm: Web Agent in a 3D Graphical Teaching and Learning
                   Environment
                   Xusheng Wang* and Richard H. Fowler
                   University of Texas-Pan American, Edinburg, Texas, USA

04:20 – 04:40pm: On Measuring Topic Bias in Web Search
                   Zhixiang Chen* and Yong Lang
                   University of Texas-Pan American, Edinburg, Texas, USA

SESSION 8-IC: NETWORK PERFORMANCE, PROTOCOLS & OPTIMIZATIONS
**   Chair: Olaf Drogehorn, Germany**
**   June 22, 2004 (Tuesday); 4:40 - 5:40pm**
**   (LOCATION: Meeting Room 7)**

04:40 – 05:00pm: Performance Evaluation of an Enhanced Popularity-Aware
                   Web Proxy Cache Replacement Algorithm
                   Xuan-Hien Dang* and Thabotharan Kathiravelu
                   University of Akron, Ohio, USA

05:00 – 05:20pm: An Efficient TCP Buffer Tuning Technique Based on
                   Packet Loss Ratio (TBT-PLR)
                   Gi-chul Yoo*, Eun-sook Sim, Dongkyun Kim, Tae Young Byun,
                   Kook-han Kim, and Ok-hwan Byun
                   Kyungpook National University, Daegu, Korea

05:20 – 05:40pm: Performance Monitoring on Networked Virtual Environments
                   Christos Bouras* and Eri Giannaka
                   RACTI; &
                   University of Patras, Greece

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 9-IC: **SOFTWARE DEVELOPMENT, TOOLS & LANGUAGES**
                     FOR INTERNET-COMPUTING
                     Chair: Steve Kirby, USA
                     June 23, 2004 (Wednesday); 8:20 - 10:00am
                     (LOCATION: Meeting Room 7)

08:20 – 08:40am: Comparison of Distributed Open Source Message Queues
                    Sanjay P. Ahuja* and Jayant Mishra
                    University of North Florida, Jacksonville, Florida, USA

08:40 – 09:00am: A Model for Integrating Deterministic and Asynchronous
                    Events in Reactive Multimedia Internet Based Languages
                    Angela Guercio* and Arvind Bansal
                    Hiram College, USA

09:00 – 09:20am: A Markup Language for Generic User Interaction
                    Stephan Steglich* and Bernd Mrohs
                    Technical University Berlin, Germany

09:20 – 09:40am: Evaluation of Usage Environment Description Tools
                    Robbie De Sutter*, Frederik De Keukelaere, and
                    Rik Van de Walle
                    Ghent University, Belgium

09:40 – 10:00am: Towards A Peer-To-Peer Simulator
                    Dwight Deugo* and Jon Harris
                    Carleton University, Canada

10:00 - 10:40am: **DISCUSSION SESSION C-IC (Refreshments will be available)**
                        June 23 (Wednesday)
                        (LOCATION: Hallways/Lobby - Meeting Rooms 6-8)
                        List of papers appears at the end of IC's schedule.

SESSION 10-IC: **MIDDLEWARE/PLATFORM DRIVEN APPROACHES**
                      Co-Chairs: Steve Kirby, USA & Dr. Jiang B. Liu, USA
                      June 23, 2004 (Wednesday); 10:40 - 11:20am
                      (LOCATION: Meeting Room 7)

10:40 – 11:00am: Towards Distributed Service Platform for Extending
                    Enterprise Applications to Mobile Computing Domain
                    Daniel Pakkala*, Markus Sihvonen, and Juhani Latvakoski
                    VTT Technical Research Centre of Finland, Finland

11:00 – 11:20am: The FAME Platform Concept - Moving Platforms to the Mobile
                    Bjoern Wuest*, Olaf Drogehorn, and Klaus David
                    University of Kassel, Germany

SESSION 11-IC: **APPLICATIONS + THE (MOBILE) INTERNET**
                           Chair: Dr. Charlie Obimbo, Canada
                           June 23, 2004 (Wednesday); 11:20am - 2:20pm
                           (LOCATION: Meeting Room 7)

11:20 – 11:40am: Web Based Enterprise Computing Development
                           Strategies
                           Jiang B. Liu*, Dairui Chen and Srihari Muthyala
                           Bradley University, Peoria, IL, USA

11:40 – 12:00pm: The GINA Messaging System
                           Jonathan M. Gentle and Iyad A. Ajwa*
                           Ashland University, Ashland, Ohio, USA

12:00 – 12:20pm: Developing a Framework for Learning Objects Search Engine
                           Jinan Fiaidhi, Kalpdrum Passi, and Sabah Mohammed
                           Lakehead University, Ontario, Canada
                           Laurentian University, Ontario, Canada

12:20 – 01:00pm: **LUNCH (On Your Own)**

01:00 – 01:20pm: Weather Model Characteristic Determination via Java
                           Web Services Composition
                           Stephen Kirby
                           Army Research Laboratory, New Mexico, USA

01:20 – 01:40pm: A Metric Model for Intranet Portals
                           Grant A. Jacoby* and Luqi
                           Naval Postgraduate School, USA

01:40 – 02:00pm: A GIS-Aware Architecture for Tourism Portals
                           Bernd Muller*, Harald Wehr, and Bjorn Voigt
                           Hochschule Harz, Germany

02:00 – 02:20pm: IPMicra: An IP-address Based Location Aware Distributed
                           Web Crawler
                           Odysseas Papapetrou* and George Samaras
                           University of Cyprus, Cyprus

02:20 – 05:40pm: Note: There are a number of other sessions (not listed here)
                           that are of potential significant interest to IC
                           conference participants (sessions belonging to other
                           joint conferences in this event.) Therefore, you are
                           encouraged to also check the schedules for other joint
                           conferences (in particular, schedules for PDPTA, IKE,
                           ICWN, ISWS, PCC, SAM, and CIC.)

7:30am - 11:00am: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 12-IC: NETWORK MANAGEMENT ARCHITECTURES, PROTOCOLS &
SERVICES FOR NEXT GENERATION INTERNET
Chair: Prof. Ping-Tsai Chung
June 24, 2004 (Thursday); 8:20 - 10:00am
(LOCATION: Meeting Room 7)

08:20 - 08:40am: Load Balancing Algorithm for Wireless Ad Hoc
                   Routing Protocol
                   Hamed El-Afandi*, Hossein Hosseini, and K. Vairavan
                   University of Wisconsin - Milwaukee, WI, USA

08:40 - 09:00am: Protecting the Infrastructure: Evaluating a Model
                   for Secured Network Connectivity using Identity and
                   Authentication for use in a Mobile Computing Environment
                   T. Ray Campbell
                   Nova Southeastern University, Florida, USA

09:00 - 09:20am: A Web Interface for Nessus Network Security Scanner
                   Chuming Chen* and Manton M. Matthews
                   Univeristy of South Carolina, Columbia, SC, USA

09:20 - 09:40am: Relational Network Manager for IP Networks
                   Yuri Breitbart and Deepakraj Shanthilal*
                   Kent State University, Kent, Ohio, USA

09:40 - 10:00am: Free Steering Update Schemes for Distributed Flow
                   Control in Networks
                   Ping-Tsai Chung* and Richard Van Slyke**
                   *Long Island University, Brooklyn, New York, USA
                   **Polytechnic University, Brooklyn, New York, USA

10:00 - 10:40am: DISCUSSION SESSION D-IC (Refreshments will be available)
                   June 24 (Thursday)
                   (LOCATION: Hallways/Lobby - Meeting Rooms 6-8)
                   List of papers appears at the end of IC's schedule.

SESSION 13-IC: WEB-BASED INFORMATION SYSTEMS
Chair: Dr. Mao Lin Huang
June 24, 2004 (Thursday); 10:40am - 2:00pm
(LOCATION: Meeting Room 7)

10:40 - 11:00am: Navigating Product Catalogs Using 2+1D Fisheye Browser
                   Wu Quan* and Mao Lin Huang
                   University of Technology, Sydney, Australia

11:00 - 11:20am: A ENCCON Visual Browser for Large-Scale Online Auctions
                   Quang Vinh Nguyen* and Mao Lin Huang
                   University of Technology, Sydney, Australia

11:20 - 11:40am: Finding Appropriate Learning Resources over the Internet
                   with the Assistance of Software Agents
                   Weidong Pan*, Mao Lin Huang, and Igor Hawryszkiewycz
                   University of Technology, Sydney, Australia

11:40 - 12:00pm: Using Target Object Color Information For Web Image
                   Retrieval
                   Haizhen Dong* and Wei Lai
                   Swinburne University of Technology, VIC, Australia

12:00 - 12:20pm: Multimedia Distributed Infrastructure for B2B Operations
                   in Web Services
                   Vlad Wietrzyk, Robyn Lawson, and Makoto Takizawa
                   University of Western Sydney, Australia
                   Tokyo University, Tokyo, Japan

12:20 - 01:00pm: LUNCH (On Your Own)

01:00 - 01:20pm: An Integrated Visual Intrusion Detection and
                   Analysis System
                   Aurangzieb Rana* and Mao Lin Huang
                   University of Technology, Sydney, Australia

01:20 - 01:40pm: A Web Graph Filtering and Clustering System
                   Xiaodi Huang* and Wei Lai
                   University of Southern Queensland, Australia

01:40 - 02:00pm: A Novel Framework for Graph Visualization
                   Xiaodi Huang* and Wei Lai
                   University of Southern Queensland, Australia

SESSION 14-IC: **NETWORK & TRAFFIC MANAGEMENT**
                   Co-Chairs: Rita Steinmetz, Germany & Olaf Drogehorn, Germany
                   June 24, 2004 (Thursday); 2:00 - 3:00pm
                   (LOCATION: Meeting Room 7)

02:00 - 02:20pm: Controlling Inbound Traffic
                   Saad Biaz
                   Auburn University, Auburn, Alabama, USA

02:20 - 02:40pm: Statistical Analysis of Propagation Properties with
                   Heavy-tailedness
                   Takuo Nakashima
                   Kyushu Tokai University, Japan

02:40 - 03:00pm: Scalable Reliable Multicast Using Receiver Grouping
                   Elias G. Khalaf* and S. Sitharama Iyengar**
                   *Loyola University New Orleans, Louisiana, USA
                   **Louisiana State University, Baton Rouge, Louisiana, USA

SESSION 15-IC: **WEB-SERVICE DRIVEN APPROACHES**
                Co-Chairs: Rita Steinmetz, Germany & Olaf Drogehorn, Germany
                June 24, 2004 (Thursday); 3:00 - 4:20pm
                (LOCATION: Meeting Room 7)

03:00 - 03:20pm: Web Service-Oriented Framework for Software Development
                Formal Peer Inspection
                Gilda Pour
                San Jose State University, San Jose, CA, USA

03:20 - 03:40pm: BREAK

03:40 - 04:00pm: Accurate Web Service Composition Using Global Data Schema
                Shoujian Yu*, Chao Yang, and Jiajin Le
                Donghua University, Shanghai, P. R. China

04:00 - 04:20pm: A Web Services Based Streaming Gateway for Heterogeneous
                A/V Collaboration
                Hasan Bulut*, Wenjun Wu, Geoffrey Fox, Ahmet Uyar,
                Shrideep Pallickara, and Harun Altay
                Indiana University, USA

SESSION 16-IC: **WEB-SEARCH & KNOWLEDGE MANAGEMENT**
                Chair: Dr. Saad Biaz, USA
                June 24, 2004 (Thursday); 4:20 - 5:20pm
                (LOCATION: Meeting Room 7)

04:20 - 04:40pm: Optimized Internet Search Based on an Intersection Test
                for XPath Expressions Under a DTD
                Stefan Bottcher and Rita Steinmetz
                University of Paderborn, Germany

04:40 - 05:00pm: Efficient Deferred Incremental Refresh of XML Query
                Cache with RDBMS as XML Store
                Dae Hyun Hwang and Hyunchul Kang*
                Chung-Ang University, Seoul, Korea

05:00 - 05:20pm: FREE SLOT

LIST OF PAPERS IN DISCUSSION SESSION A-IC:

O. A Web-based XML Editor
    Rahul Shrivastava, Sherif Elfayoumy*, and Sanjay Ahuja
    University of North Florida, Jacksonville, Florida, USA
O. Universal DTD Driven XML Access
    Myung Sook Kim, Kwan Soon Choi, and Yong Hae Kong*
    Soonchunhyang University, Choongnam, Korea
O. Architecture of a Reconfigurable and Reusable Environment
    for Web-Based Applications
    Ngai-Pan Chow*, Ajit Singh, and Afzal Mawji
    University of Waterloo, Ontario, Canada
O. Dual Problems: Attribute Selection and Example Selection
    Puntip Pattaraintakorn*, Kanlaya Naruedomkul*, and
    Nick Cercone**
    *Mahidol University, Bangkok, Thailand
    **Dalhousie University, Halifax, Canada
O. Caching XML Data on Mobile Web Clients
    Stefan Bottcher and Adelhard Turling
    University of Paderborn, Germany
O. Implementation and Performance Evaluation of PVR Network
    Multimedia Streaming Server Using Edge-Triggered
    Notification
    H. H. Park, Hyewon K. Lee, and S. M. Yang
    Soongsil University, Korea
O. A Scalable Federated Data Grid Server
    Nong Xiao*, Bin Chen, Wei Fu, and Bin Huang
    National University of Defense Technology, P. R. China
O. Internet-Based Multi-Agent Architecture for Service Delivery
    Gilda Pour
    San Jose State University, San Jose, CA, USA
O. Information Exchange Based on XML on Internet
    Cao Yan*, Chen Hua*/**, Liu Baolong**, and Zhao Rujia*
    *Xi'an Jiaotong University, Shaanxi, P. R. China
    **Shaanxi University of Science & Technology, Shaanxi, P. R. China

LIST OF PAPERS IN DISCUSSION SESSION B-IC:

O.   Adaptation of the Internet Product Information for Mobile Clients
     Sangho Ha and In-Gook Chun
     Soonchunhyang University, Korea
O.   An Online Multiple Choice Exam in XML
     Ali Farahani
     National University, La Jolla, CA, USA
O.   Online Remote Data Backup for iSCSI-Based Storage Systems
     Dan Zhou*, Li Qu*, Xubin (Ben) He*, and Stephen Scott**
     *Tennessee Technological University, Cookeville, TN, USA
     **Oak Ridge National Laboratory, Oak Ridge, TN, USA
O.   Reputation in Peer-to-Peer Communication
     Farookh Khadeer Hussain*, Elizabeth Chang, and Tharam Dillon
     Curtin University of Technology, Australia
O.   TOP: A Transport Overlay Protocol for Peer-to-Peer
     Applications
     Thierry Rakotoarivelo*, Patrick Senac, Sebastien Ardon,
     and Aruna Seneviratne
     University of News South Wales, Australia
O.   iSCSI Simulation for the Internet Applications
     S. Hussain and R. D. McLeod*
     University of Manitoba, Canada
O.   Interleaving Staircase Broadcasting and Receiving Scheme
     With Loss-Anticipation Delivery
     Hung-Chang Yang
     National Central University, Taiwan
O.   An Internet-Based Distributed Virtual Educational
     System for Java Language Using Java Web Player
     Dongsik Kim*, Dongyeop Lee, Sunheum Lee, Kwansun Choi,
     and Sangyeon Woo
     Soonchunhyang University, Korea
O.   Traffic Characterization for Network Attack Flows on
     Internet Backbone Links
     Yong-Jae Jeon, Byeong-hee Roh, and Jin-soo Kim
     Ajou University, Korea
O.   A Method of Dynamic Switching Between Multicast And Unicast
     Using Robust Bridge In Access Grid
     Ryo Katsuma* and Yoichi Muraoka
     Waseda University, Tokyo, Japan
O.   Look-Ahead Improves the Routing in Freenet-style
     Peer-to-Peer Systems
     Jens Mache* and Jeff Lesh
     Lewis & Clark College, USA
O.   Is It Possible to Use One Name for Many Sites?
     Ladda Preechaveerakul* and Pattarasinee Bhattarakosol
     Chula, Thailand

LIST OF PAPERS IN DISCUSSION SESSION C-IC:

O. The Implementation of Residential Media Gateway in
    Internetworking between Megaco/H.248 and SIP
    Seunghan Choi*, Hyun-Ju Bae, and Doyoung Kim
    Electronics and Telecommunications Research Institute,
    ETRI, Daejeon, South Korea
O. Tree-Based Text Chat Using XML-Based Messages
    Kyungdeok Kim; Uiduk University, Kyungbuk, Korea
O. Performance Assessment of Open Source Java Based
    CORBA ORBs: Middleware for Internet Applications
    Sanjay P. Ahuja*, Raquel Clark, Roger Eggen, and Sherif Elfayoumy
    University of North Florida, Jacksonville, Florida, USA
O. Improving Online Protection for Children
    R. Jesmin; King's College, Strand, London, UK
O. An Online Linking System for Researchers
    Charlie Obimbo* and Rohit Makhijani; University of Guelph, Guelph, Canada
O. Designing an Adaptive Tutor for Web-Based Laboratory
    Jungsoon Yoo*, Suk Jai Seo, and Sung Yoo
    Middle Tennessee State University, USA
O. Towards Efficient Integration of Complex Web Services
    Using a Unified Model for Protocol and Process
    Xiaochuan Yi and Krys J. Kochut; University of Georgia, Georgia, USA
O. Optimizing Performance of Web Services with Chunk-Overlaying
    and Pipelined-Send
    Nayef Abu-Ghazaleh, Michael J. Lewis, and Madhusudhan Govindaraju*
    State University of New York, Binghamton, NY, USA
O. Caching of Tagged XML Query Results
    Dae Hyun Hwang, Seungchul Han, and Hyunchul Kang*
    Chung-Ang University, Seoul, Korea
O. Adaptive Web Pages using Preference Function Web Mining
    M. Ghosh and Sam K. Makki; University of Toledo, Toledo, Ohio, USA
O. IskaWeb: A Web-Based Information System for the
    Classification of Industrial and Wastes
    Joseph Olufemi Dada*, Hans-Dieter Kochs, and Joerg Petersen
    Universitaet Duisburg-Essen, Germany
O. A Model of EGovernance Based on Knowledge Management
    Paul Manuel*, Salahadin Mohammed and Albert William
    King Fahd University of Petroleum & Minerals, Saudi Arabia
O. Utilization of Internet Computing as a Tool for
    Engineering Design
    Ashraf M. Ghaly* and Linda G. Almstead
    Union College, Schenectady, New York, USA
O. Improving Usability of WAP Portal Through Adaptation
    Jon T. S. Quah* and Vincent L. H. Seet
    Nanyang Technological University, Singapore
O. NEST: NEtwork Server Tool
    Kelly Wilson* and John Aycock
    University of Calgary, Alberta, Canada

LIST OF PAPERS IN DISCUSSION SESSION D-IC:

O. A Data Persistency Approach for the DIET Metacomputing Environment
    Bruno Del-Fabbro*, David Laiymani, Jean-Marc Nicod, and
    Laurent Philippe; Lab. d`informatique de Franche-Comte, France
O. Interactive Voice Modifiable 3D Dynamic Object Based
    Movies over the Internet
    Bonita Simoes* and Arvind K. Bansal
    Kent State University, USA
O. End-to-End Web Service Performance Comparision with
    Web Server Stress Tool 6.0
    M. Aramudhan and V. Rhymend Uthaiaraj
O. Slot Based Admission Control and Remote Access Level
    Redirection for QOS-Aware Web Servers
    M. Aramudhan and V. RhymendUthaiaraj
O. An Efficient Scheduling Algorithm for Multimedia
    Presentations on a Connection-Oriented Network
    Elsa Valeroso Poh and Santosh Satyan
O. An Internet-Wide Distributed System for Data-Stream Processing
    Gabriel Parmer, Xin Qi, Gerald Fry, Yuting Zhang, & Rich West
O. Floating Parasitic Data Storage
    Joseph Gill and Legand Burge
O. Improved Selective Acknowledgment (ISACK) Scheme for TCP
    Rajkumar Kettimuthu and William Allcock
O. Unified Messaging Application Based on CTI and
    Internet Technologies
    Samir Omar and B. Yang, T. Hung
O. Service Level Agreement Management System Over IP Networks
    Noh-sam Park and Gil-haeng Lee
O. Context Specific PageRank Algorithm
    Lee Wookey, Kwangseop Shin, and Suk-ho Kang
O. Design and Implementation of a Tourism Enterprise
    Information System Based on Remote Information
    Sharing Architecture Jie Zhao
O. Content Based Search in Information Retrieval Systems
    Vivek Sharma*, Vivek Marwaha, and
    Davinderjit Kaur Kairon
O. A Study on Detection Technique of Bookmarking (Favorites)
    Using Favicon in Web Browser
    Bong Joon Choi*, Yong Won Shin, and Yong Won
    Masan College, Korea
O. A Study of Link-Competition in a Hyperlinked Environment
    Bong Joon Choi*, Yong Won Shin, IL Kim, Yeon Hong Jung,
    and Kyoo Seok Park; Masan College, Korea
O. Architecturing Responsive Web Services
    Vlad Wietrzyk, Robyn Lawson, and Makoto Takizawa
    Univ. of Western Sydney, Australia / Tokyo Univ., Tokyo, Japan
O. Network Strategic Planning and Requirements for Migrating to
    IP Telephony
    Khaled A. Shuaib & Ahmed E. Barbour; United Arab Emirates Univ., UAE

ICWN'04 CONFERENCE SCHEDULE

**The 2004 International Conference on
Wireless Networks**

Monte Carlo Resort, Las Vegas, Nevada, June 21-24, 2004

Note: There are a number of other sessions (not listed here) that are of potential significant interest to ICWN conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences.

June 20

03:00 - 09:00pm: REGISTRATION (Second Floor, Conference Lobby; 1-5)

6:30am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

08:40 - 09:00am: **MultiConference Opening Remarks**
Hamid R. Arabnia (General Chair, 2004 IMCSCE)
University of Georgia, Georgia, USA
(LOCATION: Lance Burton Theater)

09:00 - 09:05am: **Introduction of Keynote Speaker by Prof. H. J. Siegel**
(LOCATION: Lance Burton Theater)

09:05 - 10:05am: **MultiConference Keynote Lecture:**
Computer Architecture, The Road Ahead
Professor Michael Flynn
Stanford University, USA
(LOCATION: Lance Burton Theater)

10:05 - 10:30am: **BREAK**

SESSION 1-ICWN: **WIRELESS SECURITY & QoS**
Chair: Dr. Eltayeb Abuelyaman, USA
June 21, 2004 (Monday); 10:30am - 11:30am
(LOCATION: Meeting Room 8)

10:30 - 10:50am: FREE SLOT

10:50 - 11:10am: Secure Routing in Wireless Mobile Ad Hoc Networks without
the Support of Key Management Infrastructure
Huirong Fu, ...
North Dakota State University, USA

11:10 - 11:30am: RESACO: An Open and Programmable Multi-Domain
Platform for Cooperative and Autoconfigurable Networks
W. Laouiti, K. Cordoso, W. Laouiti, H. Labiod,
M. Genet, A. Hecker

SESSION 2-ICWN: **BLUETOOTH SYSTEMS**
Chair: Dr. Eltayeb Abuelyaman, USA
June 21, 2004 (Monday); 11:30am - 12:30pm
(LOCATION: Meeting Room 8)

11:30 - 11:50am: Bandwidth Allocation Strategies for Multimedia
Services in Wireless Networks
Li-Jun Chen and Herman D. Hughes
Michigan State University, USA

11:50 - 12:10pm: PNC Selection Method with Candidate List and Radio
                  Coverage for WPAN
                  HeonJu Jeong*, SeungHee Kim*, Mooho Cho**, and
                  JungTae Lee***
                  *Electronics & Telecommunications Research Institute, Korea
                  **Gyeongju University, Korea
                  ***Pusan National University, Korea

12:10 - 12:30pm: Wireless IP Phone System by Bluetooth Technology
                  C. Dermawan and A. Sugiura
                  Toyohashi University of Technology, Japan

12:30 - 01:30pm: LUNCH (On Your Own)

01:30 - 04:10pm: Note: There are a number of other sessions (not listed here)
                  that are of potential significant interest to ICWN
                  conference participants (sessions belonging to other
                  joint conferences in this event.) Therefore, you are
                  encouraged to also check the schedules for other joint
                  conferences (in particular, schedules for IC, CIC, PDPTA,
                  ISWS, PCC, and SAM.)

04:10 - 05:10pm: DISCUSSION SESSION A-ICWN (Refreshments will be available)
                  June 21 (Monday)
                  (LOCATION: Hallways/Lobby - Meeting Rooms 6-8)
                  List of papers appears at the end of ICWN's schedule.

09:00 - 11:00pm: CONFERENCE RECEPTION DINNER - June 21 (Monday)
                  (LOCATION: Meeting Rooms 1-5)

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 3-ICWN: **MOBILE & WIRELESS AD HOC NETWORKING (MWAN) - I**
Co-Chairs: Ben Lee, Chansu Yu, & Myungchul Kim
June 22, 2004 (Tuesday); 8:20am - 10:00am
(LOCATION: Meeting Room 8)

08:20 - 08:40am: Sustaining Performance Under Traffic Overload
Saman DeSilva* and Rajendra V. Boppana
University of Texas at San Antonio, Texas, USA

08:40 - 09:00am: Incorporation of Bin Packing into Deficit Round Robin
for Efficient Slot Scheduling with Bluetooth
Hye Hwan Ahn, Hee Yong Youn*, and Changwon Park
Sungkyunkwan University, Gyeonggi-do, Korea

09:00 - 09:20am: A Randomized Connected Dominating Set Algorithm in
Wireless Ad Hoc Networks
Guangtong Cao
Texas A&M University, College Station, Texas, USA

09:20 - 09:40am: Enhancing the Performance of Mobile Ad Hoc Networks
with the Aid of Internet Gateways
Shiv Mehra and Chansu Yu*
Cleveland State University, Ohio, USA

09:40 - 10:00am: Mobility Prediction Based Routing for Minimizing Control
Overhead in Mobile Ad hoc Networks
R. Chellappa Doss*, A. Jennings, and N. Shenoy
Deakin University, Victoria, Australia

10:00 - 10:40am: **DISCUSSION SESSION B-ICWN (Refreshments will be available)**
June 22 (Tuesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 6-8)
List of papers appears at the end of ICWN's schedule.

SESSION 4-ICWN: **MOBILE & WIRELESS AD HOC NETWORKING (MWAN) - II**
Co-Chairs: Ben Lee, Chansu Yu, & Myungchul Kim
June 22, 2004 (Tuesday); 10:40am - 3:20pm
(LOCATION: Meeting Room 8)

10:40 - 11:00am: A Distributed Clustering Framework in Mobile Ad Hoc
Networks
Mohit Garg and R. K. Shyamasundar*
Tata Institute of Fundamental Research, Bombay, India

11:00 - 11:20am: Fast Recovery for TCP-Friendly Rate Control in
Mobile IP Networks
Jeongin Kim, Myungchul Kim, Kyounghee Lee*, and
Seungphil Hong
Information and Communications University, Daejon, Korea

11:20 - 11:40am: A Comparison Study of Address Autoconfiguration Schemes
                     for Mobile Ad hoc Network
                     Soyeon Ahn*, Namhoon Kim, Woohyun Kim, and Younghee Lee
                     Information and Communications University, Daejeon, Korea

11:40 - 12:00pm: Performance Issues for Wireless Web Servers
                     Guangwei Bai, Kehinde Oladosu, and Carey Williamson*
                     University of Calgary, Calgary, AB, Canada

12:00 - 12:20pm: A Three-Way Authentication Protocol for Public Access
                     Wireless Networks
                     P. Prasithsangaree and P. Krishnamurthy
                     University of Pittsburgh, USA

12:20 - 01:00pm: LUNCH (On Your Own)

01:00 - 01:20pm: Context-Conflict Management for Context-Aware Applications
                     in a Shared Pervasive Computing Environment
                     Insok Park, Soon J. Hyun*, Dongman Lee, and Myungchul Kim
                     Information and Communications University, Daejeon, Korea

01:20 - 01:40pm: Does Cluster Architecture Enhance Performance Scalability
                     of Clustered Mobile Ad Hoc Networks?
                     Myeong L. Lim and Chansu Yu*
                     Cleveland State University, Ohio, USA

01:40 - 02:00pm: Mapping Wireless Signal Strength for Mobile Adhoc Networks
                     Henry Larkin*, Zheng da Wu, and Warren Toomey
                     Bond University, Gold Coast, Australia

02:00 - 02:20pm: Position-Based Topology-Independent Scheduling,
                     Algorithms for Mobile Ad Hoc Networks
                     Jong-Hoon Youn*, Bella Bose**, and Seungjin Park***
                     *University of Nebraska at Omaha, USA
                     **Oregon State University, USA
                     ***Michigan Tech. University, USA

02:20 - 02:40pm: Channel-Changing Strategies to Preserve Bandwidth
                     of Flows in Ad Hoc Networks
                     Stephen W. Turner
                     University of Michigan, Flint, USA

02:40 - 03:00pm: Transmission Behavior of IEEE 802.11 WLAN Stations
                     in String Topologies
                     Ting-Chao Hou*, Hsin-Chiao Liu*, Ling-Fan Tsao*, and
                     James Yu**
                     *National Chung Cheng University, Taiwan
                     **DePaul University, USA

03:00 - 03:20pm: Mobility on a Large Scale Wireless Network
                     Jeremy Shaffer and Daniel P. Siewiorek
                     Carnegie Mellon University, USA

03:20 - 03:40pm: BREAK

03:40 - 05:40pm: Note: There are a number of other sessions (not listed here)
                    that are of potential significant interest to ICWN
                    conference participants (sessions belonging to other
                    joint conferences in this event.) Therefore, you are
                    encouraged to also check the schedules for other joint
                    conferences (in particular, schedules for IC, CIC, PDPTA,
                    ISWS, PCC, and SAM.)

7:00am – 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 5-ICWN: **PERFORMANCE EVALUATION**
Co-Chairs: Dr. D. Manivanann & Dr. Sirisha Medidi, USA
June 23, 2004 (Wednesday); 8:20 - 10:00am
(LOCATION: Meeting Room 8)

08:20 – 08:40am: Doppler Location Algorithm for Wireless Sensor Networks
Jagoba Arias and Aitzol Zuloaga
University of the Basque Country, Spain

08:40 – 09:00am: UDP Performance over an Ad Hoc Network for Mobile Robots
Whitney Howell and Seema Patel
University of South Florida, Tampa, Florida, USA

09:00 – 09:20am: Carrier Interferometry/OFDM Performance in the
Presence of Multipath and Impulse Noise
Andrew J. Best and Balasubramaniam Natarajan
Kansas State University, USA

09:20 – 09:40am: Modeling and Performance Analysis of Multiple
Traffic Wireless and Mobile Internet
Yong Xu, Huazhou Liu, and Qing-An Zeng
University of Cincinnati, USA

09:40 – 10:00am: Modeling and Analysis of Multi-Hop Wireless Mobile
Ad Hoc Networks Using The IEEE 802.11 DCF Protocol
Xiaolong Li and Qing-An Zeng
University of Cincinnati, USA

10:00 - 10:40am: **DISCUSSION SESSION C-ICWN (Refreshments will be available)**
June 23 (Wednesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 6-8)
List of papers appears at the end of ICWN's schedule.

SESSION 6-ICWN: **ROUTING PROTOCOLS + MULTICASTING**
Co-Chairs: Dr. Murali Medidi & Dr. D. Manivanann, USA
June 23, 2004 (Wednesday); 10:40am - 12:00pm
(LOCATION: Meeting Room 8)

10:40 – 11:00am: Power Control Routing for High Throughput in Mobile
Ad Hoc Networks
Masakazu Ono and Hiroaki Higaki
Tokoy Denki University, Japan

11:00 – 11:20am: Routing Protocol for Wireless Sporadic Communication
Between Cluster and Base Station
Sayaka Harada and Hiroaki Higaki
Tokoy Denki University, Japan

11:20 - 11:40am: Loop-Based Source Routing Protocol for Mobile
                   Ad hoc Networks
                   Hiroyuki Unoki and Hiroaki Higaki
                   Tokoy Denki University, Japan

11:40 - 12:00pm: Grid Based Multicast routing protocol in Ad Hoc Networks
                   Anand Visvanathan and Bhagyashree Prabhakar
                   University of Nebraska, USA

12:00 - 01:00pm: LUNCH (On Your Own)

**SESSION 7-ICWN: WORKSHOP: MOBILE AD HOC NETWORKS & INTEROPERABILITY ISSUES
                   (MANETII'04)
                   Chair: Dr. Mieso Denko
                   June 23, 2004 (Wednesday); 1:00 - 3:20pm
                   (LOCATION: Meeting Room 8)**

01:00 - 01:20pm: The Performance of Group Diffie-Hellman Paradigms
                   Kieran S. Hagzan* and Hans - Peter Bischof
                   Rochester Institute of Technology, New York, USA

01:20 - 01:40pm: Sufficient Evaluation Times and Necessary Repetitions for
                   Reasonable Ad Hoc Network Simulations
                   Ingo Gruber* and Hui Li
                   Technical University of Munich, Germany

01:40 - 02:00pm: Stability and Resource Consideration Algorithm for
                   Clustering in Mobile Ad Hoc Networks
                   Fabien Nimbona* and Samuel Pierre
                   Ecole Polytechnique De Montreal, Quebec, Canada

02:00 - 02:20pm: Secure Routing in Ad Hoc Networks for Reactive Next Hop
                   Routing Protocols
                   P. Brandao*, S. Sargento, S.Crisostomo, and R.Prior
                   Oporto University, Porto, Portugal

02:20 - 02:40pm: Voice-Controlled Ubiquitous Computing
                   Sebastian Speicher*, Stephan PreuB, Igor Sedov,
                   and Clemens Cap
                   University of Rostock, Rostock, Germany

02:40 - 03:00pm: Modeling And Analysis Of Link Stability In Wireless
                   Mobile Ad Hoc Networks
                   Xiaolong Li* and Qing-An Zeng
                   University of Cincinnati, Cincinnati, Ohio, USA

03:00 - 03:20pm: Demand Driven Clustering in MANETs
                   C. Cramer*, O. Stanze, K. Weniger, and M. Zitterbart
                   University of Karlsruhe (TH), Karlsruhe, Germany

03:20 - 03:40pm: BREAK

SESSION 8-ICWN: **MOBILE WIRELESS IP**
                      Chair: Dr. Susan Lincke-Salecker, USA
                      June 23, 2004 (Wednesday); 3:40 - 4:20pm
                      (LOCATION: Meeting Room 8)

03:40 - 04:00pm: Providing Seamless Communication through Heterogeneous
                   Wireless IP Networks
                   Riaz Inayat, Reiji Aibara, and Kouji Nishimura
                   Hiroshima University, Japan

04:00 - 04:20pm: VPN Traversal Scheme in Hierarchical Mobile IP
                   Environment
                   Sulyun Sung, Jungho Kang, and Yongtae Shin
                   Soongsil University, Korea

SESSION 9-ICWN: **MAC PROTOCOLS**
                      Chair: Dr. Susan Lincke-Salecker, USA
                      June 23, 2004 (Wednesday); 4:20 - 5:00pm
                      (LOCATION: Meeting Room 8)

04:20 - 04:40pm: Enhancing Fairness in Receiver-Oriented Medium Access
                   Control for Wireless Networks
                   Murali Medidi* and Balvinder Kaur Thind
                   Washington State University, Pullman, WA, USA

04:40 - 05:00pm: Asynchronous Power Saving Schemes for IEEE 802.11
                   Ad Hoc Networks
                   Jong-Hoon Youn*, Cheolsoon Kang*, and Seungjin Park**
                   *University of Nebraska at Omaha, USA
                   **Michigan Tech. University, USA

SESSION 10-ICWN: **RADIO CHANNEL & MODULATION**
                       Co-Chairs: Dr. R. Handorean & Dr. Susan Lincke-Salecker, USA
                       June 23, 2004 (Wednesday); 5:00 - 5:40pm
                       (LOCATION: Meeting Room 8)

05:00 - 05:20pm: Kernel Density Estimation for Wireless Fading
                   Channels Using Slepian Semi-Wavelets
                   Xiaoping Shen and Hongxiang Li
                   Ohio University, USA

05:20 - 05:40pm: Affect of Adjacent Channel Interference in the Parallel
                   Transmission for the Wireless LAN
                   Takeshi Nakaya, Yoshimasa Okubo, and Akihiko Sugiura
                   Toyohashi University of Technology, Japan

7:30am - 11:00am: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 11-ICWN: ALGORITHMS & APPLICATIONS
Chair: Dr. Susan Lincke-Salecker, USA
June 24, 2004 (Thursday); 8:20 - 10:00am
(LOCATION: Meeting Room 8)

08:20 - 08:40am: Streaming Java Applications to Mobile Computing Devices
Gita Alaghband and David Gnabasik
University of Colorado at Denver, CO, USA

08:40 - 09:00am: Face Recognition Using MMS-Mobile Devices
O. Kao*, U. Rerrer*, G. Steinert*, and S. Witting**
*University of Paderborn, Paderborn, Germany
**Technical University of Clausthal, Germany

09:00 - 09:20am: SSH Client for Mobile Phones Using I-Mode
Samir Omar and Takahiro Kimura
University of New South Wales, Australia

09:20 - 09:40am: Optimizing Adaptive Placement for Wireless Load
Distribution
Susan Lincke-Salecker
University of Wisconsin, USA

09:40 - 10:00am: Congestion Control in a High Speed Radio Environment
Sara Landstrom, Lars-Ake Larzon, and Ulf Bodin
Lulea University of Technology, Sweden

10:00 - 10:40am: DISCUSSION SESSION D-ICWN (Refreshments will be available)
June 24 (Thursday)
(LOCATION: Hallways/Lobby - Meeting Rooms 6-8)
List of papers appears at the end of ICWN's schedule.

SESSION 12-ICWN: SENSOR NETWORKS
Chair: Prof. Odej Kao, Germany
June 24, 2004 (Thursday); 10:40am - 12:00pm
(LOCATION: Meeting Room 8)

10:40 - 11:00am: Enhancing Energy Efficiency for Wireless Sensor
Networks
Krishna Nuli*, Prasad Raviraj*, Hamid Sharif*, and
Song Ci**
*University of Nebraska, Lincoln, USA
**University of Michigan, Flint, USA

11:00 - 11:20am: Sub-Grid Based Key Vector Assignment: A Key
Pre-Distribution Scheme For Distributed Sensor Networks
R. Kalidindi, V. Parachuri, S. Basavaraju, C. Mallanda,
A. Kulshrestha, L. Ray, R. Kannan*, A. Durresi, and
S. Iyengar
Louisiana State University, Baton Rouge, LA, USA

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11:20 - 11:40am:   Efficient Minimum-Cost Bandwidth-Constrained
                   Routing in Wireless Sensor Networks
                   Maulin Patel, R. Chandrasekaran, and S. Venkatesan
                   University of Texas, Dallas, Texas, USA


11:40 - 12:00pm:   Acoustic Ranging in Resource-Constrained Sensor Networks
                   Janos Sallai, Gyorgy Balogh, Miklos Maroti, and
                   akos Ledeczi
                   Vanderbilt University, USA
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12:00 - 01:00pm: LUNCH (On Your Own)

SESSION 13-ICWN: CDMA SYSTEMS + AD HOC NETWORKS
Co-Chairs: Dr. David Gnabasik, USA &
**   Dr. Carlos Henrique Rodrigues de Oliveira, Brazil**
June 24, 2004 (Thursday); 1:00 - 2:20pm
(LOCATION: Meeting Room 8)


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01:00 - 01:20pm:   Nonlinear Multiuser Parameters Estimation by The
                   Scaled Unscented Filter in CDMA Systems
                   Jang-Sub Kim*, Ho-Jin Shin*, Dong-Ryeol Shin*, and
                   Woogon Chung**
                   *Sungkyunkwan University, Suwon, Korea
                   **California State University at Bakersfield, CA, USA


01:20 - 01:40pm:   Performance of Serial Interference Cancellation Receivers
                   in Synchronous Carrier Interferometry/MC-CDMA Uplink
                   Vijaya Thippavajjula and Balasubramanium Natarajan
                   Kansas State University, USA


01:40 - 02:00pm:   WDP: A Wormhole Discovery Protocol For Mobile
                   Ad-Hoc Networks
                   Ravindranath Gummadidala*, Chunming Qiao, and
                   Shambhu Upadhyaya
                   State University of New York at Buffalo, New York, USA


02:00 - 02:20pm:   A Reverse Channel Call Admission Control Scheme
                   Based on Total Received Power for CDMA Systems
                   Supporting Integrated Voice/Data Services
                   Wei Li, Hang Chen, and Dharma P. Agrawal
                   University of Cincinnati, USA
```


SESSION 14-ICWN: LOCATION-BASED SERVICE & MANAGEMENT
Co-Chairs: Dr. David Gnabasik, USA &
**   Dr. Carlos Henrique Rodrigues de Oliveira, Brazil**
June 24, 2004 (Thursday); 2:20 - 3:20pm
(LOCATION: Meeting Room 8)


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02:20 - 02:40pm:   LArGEMANet: Location Information-Based Architecture for
                   Integrating the Internet and Mobile Ad Hoc Networks
                   Habib Ammari and Hesham El-Rewini
                   Southern Methodist University, USA
```

```
02:40 - 03:00pm:   A 3D Location Discovery Algorithm for Ad Hoc Networks
                   William R. Michalson and Hasti Ahlehagh
                   Worcester Polytechnic Institute, USA


03:00 - 03:20pm:   FREE SLOT


03:20 - 03:40pm:   BREAK


03:40 - 05:40pm:   Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to ICWN
                   conference participants (sessions belonging to other
                   joint conferences in this event.)  Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences (in particular, schedules for IC, CIC, PDPTA,
                   ISWS, PCC, and SAM.)
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LIST OF PAPERS IN DISCUSSION SESSION A-ICWN:

O. Design and Evaluation of a Weighted Sacrificing
    Fair Queueing Algorithm for Wireless Packet Networks
    Sheng-Tzong Cheng and Ming-Hung Tao
    National Cheng Kung University, Taiwan
O. A Mobility Model for Bluetooth Scatternets in
    Wireless Personal Area Networks
    Chorng-Horng Yang*, Yi-Sheng Chen, Jian-Wei Ruan, and
    Wu-Ping Ho
    I-Shou University, Kaohsiung, Taiwan
O. Providing a Secure Wireless LAN Relaying Service
    Elsa Valeroso* Poh and Jody Grassel**
    *Eastern Michigan University, USA
    **University of North Dakota, Grand Forks, USA
O. Problems/Issues in 3G QoS Service Level Agreement
    Monitoring
    Yin-Ling Liong and Man Li
    Nokia Research Center, USA
O. Trusted Route Discovery with AODV Protocol
    Asad Amir Pirzada*, Amitava Datta, and Chris McDonald
    University of Western Australia, Australia
O. Introduction to Blueweb: A new Bluetooth-Based
    Multihop Ad Hoc Networks
    Chih-Min Yu and Chia-Chi Huang (Chorng-Horng Yang*)
    National Chiao Tung University, Taiwan
O. Securing Data Transmissions and Retransmissions
    Management in Ad Hoc Networks
    Souheila Bouam* and Jalel Ben-Othman
    Universit de Versaille, Versailles, France
O. Dynamic Probabilistic Retransmission in Ad hoc Networks
    Donald J. Scott and Alec Yasinsac
    Florida State University, USA
O. A Markov Chain-Based Location Prediction Algorithms
    in Mobile Ad Hoc Networks
    Mieso K. Denko
    University of Guelph, Canada
O. User Profiling for Wireless Security
    R. Rajeshwari and S. D. Sudarsan
    Bharat Electronics Limited, India
O. An Intelligent RFID Base Wireless Tools and Asset Tracking System
    Guillermo A. Francia, III
    Jacksonville State University, Alabama, USA

LIST OF PAPERS IN DISCUSSION SESSION B-ICWN:
O. QoS Support in Wireless Sensor Networks: A Survey
    Dazhi Chen and Pramod K. Varshney
    Syracuse University, USA
O. Access Control Based on Fuzzy Probability for
    Guaranteeing QoS in Wireless Networks
    Li-jun Chen and Herman D. Hughes
    Michigan State University, USA
O. Fast and Efficient IP Handover in IEEE 802.11
    Wireless LANs
    Ioanna Samprakou*, Christos J. Bouras**, and
    Theodore Karoubalis***
    *University of Patras, Greece
    **Research Academic Computer Technology Institute, Greece
    ***Atmel Hellas, Greece
O. An Efficient Binding Mechanism in Mobile IPv6 for
    Domain-Based Wireless Networks
    Jung-Jun Han and Miae Woo
    Sejong University, Korea
O. Ad-Hoc Mobility Management with an Adaptive Randomized
    Database Group Scheme
    Sun-Jin Oh
    Semyung University, Korea
O. End-to-End Mobility Management: A Two-Phase
    Deployment Scheme for Personal Use
    Satoshi Kawamura, Huirong Fu, Meegeum Choi, and Shanhong Wu
    North Dakota State University, USA
O. A Distributed Algorithm for Mesh Scatternet Formation in
    Bluetooth Networks
    Murali Medidi* and Aniruddha Daptardar
    Washington State University, Pullman, WA, USA
O. A Comparative Framework for Scatternet Formation Protocols
    Leigh E. Hodge and Roger M. Whitaker
    Cardiff University, UK
O. Elimination of Unnecessary Packet Transmission in
    Spanning Tree Based Multicasting in Cellular Networks
    S. Swaminathan*, Z. Liu**, and B. Gupta**
    *Southern Illinois University, USA
    **Southeast Missouri State University, USA
O. An Algorithm To Prevent Packet Loss Due To Handoff
    While Multicasting In Cellular Networks
    N. J. Lavu, R. Jandhyala, and Bidyut Gupta
    Southern Illinois University, Carbondale, USA
O. Analysis of MLD-Based Mobile Multicast for
    Handling Source Mobility in All-IP Networks
    ByoungSeob Park and SungChun Kim
    Sogang University, Korea
O. A 802.11 MAC Backoff Mechanism for Decreasing Mobile
    IP Handoff latency
    Jae-Wan Park*, Kil-Ho Ahn, Jun-Ho Jang, and Dong-Ryeol Shin
    SungKyunKwan University, Suwon KyungGido, Korea

LIST OF PAPERS IN DISCUSSION SESSION C-ICWN:

O. Distributed Self-Healing Bluetooth Scatternet Formation
    K. Persson and D. Manivannan; University of Kentucky, USA
O. Applying Forward Security and Threshold Cryptography
    in Ad Hoc Networks
    H. W. Go, Lucas C. K. Hui, S. M. Yiu, Y. Dong, and Victor O. K. Li
    University of Hong Kong, Hong Kong
O. A Fair Scheduling for IEEE 802.11 Wireless LAN
    Kyung-Soo Jang, Kee-Hyun Choi and Dong-Ryeol Shin
    Sungkyunkwan University, Korea
O. Wireless Channel Modeling Based on Randomly Moving Objects
    Xiaoyu Liu* and Bing W. Kwan
    Florida State University, Tallahassee, Florida, USA
O. Robust Multi-Hop Time Synchronization in Sensor Networks
    Miklos Maroti, Branislav Kusy, Gyula Simon, and Akos Ledeczi
    Vanderbilt University, USA
O. Secure Cluster Based Energy Aware Routing for Wireless Sensor Networks
    Cariappa Mallanda, Shivakumar Basavaraju, Archit Kulshrestha,
    Rajgopal Kannan, and S. Sitharama Iyengar
    Louisiana State University, Baton Rouge, LA, USA
O. Modeling with Diverse Job Sizes: Gauss-Seidel versus
    Multidimensional Markov Chain
    Susan Lincke-Salecker* and Jeff Burton
    University of Wisconsin Parkside, WI, USA
O. Saturated Throughput and Delay of a Scheduling Scheme
    in Single-Hop Senario
    Jun Yin*, Xiaodong Wang, and Dharma P. Agrawal
    University of Cincinnati, Ohio, USA
O. Performance Evaluation of AODY and DSR Routing
    Protocols for Mobile Ad Hoc Networks MANET
    Haider A. Mohammed and Mahi Lohi; University of Westminster, England, UK
O. Performance Analysis of a Mobile-Node-Assisted
    Localized Mobility Support Scheme for IPv6
    Hyun-Duk Choi, Hong-Sun Jun, and Miae Woo; Sejong University, Korea
O. Performance Evaluation of a Call Admission Control
    Protocol for Cellular Networks
    Mokhtar Aboelaze; York University, Canada
O. Performance Evaluation of H.264 Error Resilience
    Tools over 3GPP/3GPP2 Networks
    Myung-Don Kim* and Sung-Woong Ra**
    *Electronics & Telecommunications Research Institute, Korea
    **Chungnam National University, Korea
O. Mobile Information Systems and Applications
    Tagelsir Mohamed Gasmelseid
O. Performance of Hybrid Decision SIC with Transmit Diversity
    Wei Li and T. Aaron Gulliver
O. Call Admission Control for Soft Handoff in Multimedia
    CDMA Cellular Networks
    Ming-Hsing Chiu and Wenzhong Jiang
    University of New Orleans, New Orleans, LA, USA

LIST OF PAPERS IN DISCUSSION SESSION D-ICWN:

O. Multimedia Services for Location-Aware, Ad-hoc Collaboration in Wireless
    Networks
    O. Kao* and U. Rerrer University of Paderborn, Paderborn, Germany
O. UWB Location System for Indoor Navigation
    Ok-Sun Park*, Sung-Hee Kim*, and Jae-Min Ahn**
    *Electronics & Telecommunications Research Institute, Korea
    **Chungnam National University, Korea
O. Quantitative Analysis of A Hybrid Replication With Forwarding Strategy For
    Efficient And Uniform Location Management In Mobile Wireless Networks
    N. Radhika* and S. Arumugam**
    *Amrita Vishwa Vidhyapeetham, India; **Anna University, India
O. E2E Simulation Model for CDMA2000 1xEV-DO
    Amaury Budri and Carlos Henrique Rodrigues de Oliveira*
    Telecommunication Research and Development Center, Brazil
O. Route Optimization by Top Level Mobile Router with
    Source Routing in Nested Mobility
    Yunkuk Kim, Sangwook Kang, and Sunshin An; Korea University, Korea
O. Optimal Partitioning Algorithm for Minimizing Signaling Cost Under the
    Delay Constraint
    Jun Zheng and Emma Regentova; University of Nevada, Las Vegas, USA
O. RED for Improving TCP over Wireless Networks
    Saad Biaz* and Xia Wang; Auburn University, Auburn, Alabama, USA
O. The Potential Use of Wireless Technologies by Activist Groups
    Chris Hu; Edith Cowan University, Perth, Australia
O. TastyStreet System: Context-Aware Application Using User's Favorite Shop
    Information by GPS Locator-Equipped Cell-Phone
    Hiroyuki Katayama and Yoichi Muraoka; Waseda University, Japan
O. RodeoNet: n-e-twork of the Roaming Shopper
    Samir Omar and Thomas Cheng; University of New South Wales, Australia
O. Quality Control Scheme for ATM Switching Network
    Aman Taneja, Hardeep Singh, and Sukhminder Singh
O. Simple and Efficient Connectionless Semi-Compulsory
    Routing Protocols for Mobile Ad-hoc Networks
    Xian Cui, Yong Sun, and K. Alagarsamy
O. Optimizing Implementation of Active Network
    Vaneet Kaur Dhaliwal and Karan Pal Singh Chahal
O. On Calculating Minimum Connected Dominating Set for
    Wireless Ad Hoc Networks Using A New Distributed Heuristic Algorithm
    Bo Gao, Yuhang Yang and Huiye Ma
O. Context-Conflict Management for Context-Aware
    Applications in a Shared Pervasive Computing Environment
    Insuk Park, Soon J. Hyun, Dongman Lee, and Seongwoon Kim
O. Pocket Data
    Jason Dai, Rose Joshua, and Brian Wyvill
O. Improvements to LAR Through Directional Count Restrictions
    Michael Colagrosso, Nathan Enochs, and Tracy Camp
O. Study of Techniques to Reduce IEEE 802.11b Handoff Process Latency
    Rana Azeem Muhammad and M. M. Yasin

ISWS'04 CONFERENCE SCHEDULE

**The 2004 International Conference on
Web Services and Applications**

Monte Carlo Resort, Las Vegas, Nevada, June 21-24, 2004

*Note: There are a number of other sessions (not listed here) that are of potential significant interest to ISWS
conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint conferences.*

June 20

03:00 - 09:00pm: REGISTRATION (Second Floor, Conference Lobby; 1-5)

6:30am - 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

08:40 - 09:00am: **MultiConference Opening Remarks**
                       Hamid R. Arabnia (General Chair, 2004 IMCSCE)
                       University of Georgia, Georgia, USA
                       (LOCATION: Lance Burton Theater)

09:00 - 09:05am: **Introduction of Keynote Speaker by Prof. H. J. Siegel**
                       (LOCATION: Lance Burton Theater)

09:05 - 10:05am: **MultiConference Keynote Lecture:**
                       Computer Architecture, The Road Ahead
                       Professor Michael Flynn
                       Stanford University, USA
                       (LOCATION: Lance Burton Theater)

10:05 - 10:30am: **BREAK**

10:30a – 12:30p: Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to ISWS
                   conference participants (sessions belonging to other
                   joint conferences in this event.) Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences (in particular, schedules for IC, PDPTA,
                   IKE, ICWN, and CIC.)

12:30 - 01:30pm: **LUNCH (On Your Own)**

SESSION 1-ISWS: **INTEGRATION & COMPOSITION**
                      Chair: Dr. Sandeep Chatterjee, USA
                      June 21, 2004 (Monday); 1:30 - 2:10pm
                      (LOCATION: Conference Room G)

01:30 – 01:50pm: Towards Virtualization of On-Demand Web Service
                   Composition Using An Improved Ranking Algorithm
                   Muawyah Akash, Michel Bercovier, Ami Marowka*, and
                   Elan Pavlov
                   Hebrew University of Jerusalem, Israel

01:50 – 02:10pm: Using Web Services for a Workflow Engine
                   Francesca Arcelli, Francesca Tisato, and Luigi Ubezio*
                   Universita Milano Bicocca, Milano, Italy

SESSION 2-ISWS: **APPLICATIONS**
                        Chair: Dr. Sandeep Chatterjee, USA
                        June 21, 2004 (Monday); 2:10 - 4:10pm
                        (LOCATION: Conference Room G)

02:10 - 02:30pm: FREE SLOT

02:30 - 02:50pm: A Web-Based Distributed Document Management System - The
                   Evolution of a Business Model
                   Diana M. Thompson and Garry R. Homer*
                   University of Wolverhampton, UK

02:50 - 03:10pm: A Framework for Constraint-Based Collaborative Web Service
                   Applications and a Travel Application Case Study
                   A. Hariharan*, S. K. Prasad*, A. G. Bourgeois*,
                   E. Dogdu*, S. Navathe**, R. Sunderraman*, and Y. Pan*
                   *Georgia State University, Atlanta, Georgia, USA
                   **Georgia Institute of Technology, Atlanta, Georgia, USA

03:10 - 03:30pm: Reflecting The World in the Eye of the Mote
                   Douglas Holzhauer and Zen Pryk*
                   Air Force Research Laboratory (IFTC), Rome, New York, USA

03:30 - 03:50pm: Relevance of State, Nature, Scale and Location of
                   Business E-Transformation in Web Services
                   C. Subramanian, A. Kuppuswami, and B. Unhelkar
                   University of West Sydney, Australia

03:50 - 04:10pm: FREE SLOT

04:10 - 05:10pm: DISCUSSION SESSION A-ISWS (Refreshments will be available)
                   June 21 (Monday)
                   (LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
                   List of papers appears at the end of ISWS's schedule.

09:00 - 11:00pm: CONFERENCE RECEPTION DINNER - June 21 (Monday)
                   (LOCATION: Meeting Rooms 1-5)

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

**SESSION 3-ISWS: MULTIMEDIA, PORTALS & MOBILE + INTEGRATION & COMPOSITION
+ MIDDLEWARE TECHNOLOGY + APPLICATIONS
Chair: Dr. Guoliang Qian, USA
June 22, 2004 (Tuesday); 8:20 - 10:00am
(LOCATION: Conference Room G)**

08:20 - 08:40am: Personal Assistant: A Case Study on Web Service vs.
Web Based Application
Guoliang Qian*, Jing Zou, and Bon Sy
City University of New York, New York, USA

08:40 - 09:00am: Design of a Service-Oriented Middleware for Making the
Global RFID System
Kyung-Lang Park, Chang-Soon Kim, Hie-Cheol Kim, and
Shin-Dug Kim
Yonsei University, Seoul, Korea
Daegu University, Daegu, Korea

09:00 - 09:20am: Auction-Based Broker for Dynamic Web Service Composition
Chihiro Ono*, Gen Hattori, and Fumiaki Sugaya
KDDI R&D Laboratories, Inc., Saitama, Japan

09:20 - 09:40am: Web Services for Portlet Integration into Corporate
Portals
Christian M. Kaspar, Markus Burghardt, and Svenja Hagenhoff
University of Goettingen, Germany

09:40 - 10:00am: A Session Migration Scheme for Smart Web Services in
Mobile Computing
Pan-Lung Tsai* and Chin-Laung Lei
National Taiwan University, Taiwan

10:00 - 10:40am: DISCUSSION SESSION B-ISWS (Refreshments will be available)
June 22 (Tuesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of ISWS's schedule.

10:40a - 05:40p: Note: There are a number of other sessions (not listed here)
that are of potential significant interest to ISWS
conference participants (sessions belonging to other
joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint
conferences (in particular, schedules for IC, PDPTA,
IKE, ICWN, and CIC.)

7:00am - 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

08:20a - 03:40p: Note: There are a number of other sessions (not listed here) that are of potential significant interest to ISWS conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences (in particular, schedules for IC, PDPTA, IKE, ICWN, and CIC.)

SESSION 4-ISWS: **WEB SERVICES SECURITY**
Co-Chairs: Dr. Eduardo Fernandez-Medina & Dr. Mario Piattini
June 23, 2004 (Wednesday); 3:20 4:20pm
(LOCATION: Conference Room C)

03:20 - 03:40pm: Considerations about Web Services Security
C. Gutierrez, E. Fernandez-Medina, and M. Piattini
Paseo de la Universidad, Spain

03:40 - 04:00pm: Two Patterns for Web Services Security
Eduardo B. Fernandez
Florida Atlantic University, Boca Raton, Florida, USA

04:00 - 04:20pm: Enhancements to Securing XML Web Services
Edward Heinz and Erdogan Dogdu
Georgia State University, Georgia, USA

SESSION 5-ISWS: **DESIGN & ARCHITECTURE**
Chair: Dr. Jiang Liu, USA
June 23, 2004 (Wednesday); 4:20 - 6:00pm
(LOCATION: Conference Room C)

04:20 - 04:40pm: Scheduling Web Services Transactions
Erdogan Dogdu
Georgia State University, Atlanta, Georgia, USA

04:40 - 05:00pm: WSPDS: Web Services Peer-to-Peer Discovery Service
Farnoush Banaei-Kashani, Ching-Chien Chen, and
Cyrus Shahabi
University of Southern California, USA

05:00 - 05:20pm: Web Services as an Alternative to Software Porting
J. Dana Eckart
Virginia Bioinformatics Institute, Virginia, USA

05:20 - 05:40pm: Conversational Agents as Web Services
Elizabeth Figa* and Paul Tarau
University of North Texas, Denton, Texas, USA

05:40 - 06:00pm: Performance of Dynamically Resizing Message Fields for
Differential Serialization of SOAP Messages
N. Abu-Ghazaleh, M. Govindaraju, and Michael J. Lewis*
Binghamton University, New York, USA

7:30am - 11:00am: Registration (Second Floor, Conference Lobby: 1-5)

08:20a – 05:40p: Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to ISWS
                   conference participants (sessions belonging to other
                   joint conferences in this event.) Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences (in particular, schedules for IC, PDPTA,
                   IKE, ICWN, and CIC.)

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LIST OF PAPERS IN DISCUSSION SESSION A-ISWS:


O.  Servicing the Future: Web Services
    Sudeep Mallick*, B. V. Kumar, and S. V. Subrahmanya
    Infosys Technologies Limited, Bangalore, India
O.  On the Design of Web Services
    Sanjay P. Ahuja* and Raquel Clark
    University of North Florida, Jacksonville, Florida, USA
O.  Designing the Agile Enterprise - Managed Migration
    to SOA Holds the Key
    Sumanta Deb
    Infosys Technologies Ltd., Bangalore, India
O.  Toward a General Framework for Building Scientific Data
    Sharing Web Services
    Sean Warden*, Arturo Sanchez, and Sherif Elfayoumy
    University of North Florida, Jacksonville, Florida, USA
O.  On the Development of Software Tools for Testing Web Service
    Tsung-Teng Cheng** and Chih-Hsiung Fu*
    **National Taipei University, Taipei, Taiwan
    *Education Network Center of Tainan City, Tainan, Taiwan
O.  Adding Semantics To Attribute-Based Discovery of
    Web Services
    Natenapa Sriharee*, Twittie Senivongse*, Chayan Teppaboot*,
    and Kokichi Futatsugi**
    *Chulalongkorn University, Bangkok, Thailand
    **Japan Advanced Institute of Science & Technology, Japan
O.  Classification of Service Discovery
    Baiming Feng, Zhiwei Xu, Xingwu Liu*, and Yuzhong Sun
    Chinese Academy of Sciences, Beijing, P. R. China
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LIST OF PAPERS IN DISCUSSION SESSION B-ISWS:

O. Web Based LMS Implementation for SCORM Standard
   Young-hwan Woo and Jin-wook Chung
   Geochang Provincial College, Korea
   Sung-kyun-kwan University, Korea
O. Constructing Finite State Automata for High-Performance
   Web Services
   Robert van Engelen
O. A New Framework for Teaching Web Technology
   Jigang Liu
   Metropolitan State University, MN, USA
O. The Design and Implementation of the Spacecraft Navigation
   and Ancillary Information Web Service
   Joseph Gill, Legand Burge, and Moses Garuba
O. A Modular Framework for Building and Managing Online
   Communities
   Samir Omar and T. Lim
O. Versatile e-Wallet Web Service via SET and SSL
   Protocols - Combination
   Samir Omar and K. Chan
O. Centralized Supply Chain Coordination: A Service
   Oriented Architecture
   Reza Seyedshohadaie and Yukong Zhang
O. Semantic Based Dynamic Workflow E-Services
   Sree Kumar and S. Swamynathan
O. Semantic Based Dynamic Workflow E-Service
   S. Swamynathan, K.Sree Kumar, and T.V.Geetha
O. The Metaclinic Database System: A Metadata Approach to
   Building Research Database Systems
   Tom Caldwell
   Vanderbilt University Medical Center, Nashville, TN, USA

PCC'04 CONFERENCE SCHEDULE

The 2004 International Conference on Pervasive Computing and Communications

Monte Carlo Resort, Las Vegas, Nevada, June 21-24, 2004

Note   There are a number of other sessions (not listed here) that are of potential significant   interest   to   PCC conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences.

June 20

```
03:00 - 09:00pm: REGISTRATION (Second Floor, Conference Lobby; 1-5)
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6:30am - 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

08:40 - 09:00am: **MultiConference Opening Remarks**
Hamid R. Arabnia (General Chair, 2004 IMCSCE)
University of Georgia, Georgia, USA
(LOCATION: Lance Burton Theater)

09:00 - 09:05am: **Introduction of Keynote Speaker by Prof. H. J. Siegel**
(LOCATION: Lance Burton Theater)

09:05 - 10:05am: **MultiConference Keynote Lecture:**
Computer Architecture, The Road Ahead
Professor Michael Flynn
Stanford University, USA
(LOCATION: Lance Burton Theater)

10:05 - 10:30am: **BREAK**

SESSION 1-PCC: **SERVICE & RESOURCE DISCOVERY**
Chair: Dr. Qiang Zhu, USA
June 21, 2004 (Monday); 10:30 - 11:10am
(LOCATION: Conference Room C)

10:30 - 10:50am: Distributed Service Platform for Adaptive Mobile Services
D. Pakkala and J. Latvakoski
VTT Electronics, Finland

10:50 - 11:10am: Web Service for Pervasive Corporate Information Systems
Thomas Diekmann and Svenja Hagenhoff
Germany

SESSION 2-PCC: **MONITORING, POSITIONING & SEARCHING**
Chair: Dr. Lee McCauley, USA
June 21, 2004 (Monday); 11:10 - 11:50am
(LOCATION: Conference Room C)

11:10 - 11:30am: Remote Monitoring of a Heterogeneous Sensor Network
for Biomedical Research in Space
Kathy J. Liszka*/**, Michael A. Mackin**,
David W. York**, and Michael J. Lichter
*University of Akron, Akron, Ohio, USA
**NASA Glenn Research Center, Cleveland, Ohio, USA

11:30 - 11:50am: Liquid Schedule Searching Strategies for the
Optimization of Collective Network Communications
Emin Gabrielyan* and Roger D. Hersch
Ecole Polytechnique Federale de Lausanne, Switzerland

SESSION 3-PCC: **EMBEDDED DEVICES & SYSTEMS + APPLICATIONS**
                    Co-Chairs: Dr. Mieso Denko, Canada &
                                Dr. Daryoush D. Farsi, USA
                    June 21, 2004 (Monday); 11:50am - 12:50
                    (LOCATION: Conference Room C)

11:50 - 12:10pm: Mobile Agent Technology and Networked Reconfigurable
                    Embedded Devices
                    Timothy O'Sullivan and Richard Studdert
                    University College Cork, Ireland

12:10 - 12:30pm: Towards the Design and Implementation of Embedded
                    Database for Pervasive Computing Applications
                    Sheikh I. Ahamed and Sanjay Vallecha
                    Marquette University Milwaukee, WI, USA

12:30 - 12:50pm: Augmenting Speech Recognition and Understanding
                    Using Latent Semantic Analysis
                    Lee McCauley
                    University of Memphis, TN, USA

12:50 - 01:30pm: **LUNCH (On Your Own)**

01:30 - 05:10pm: Note: There are a number of other sessions (not listed here)
                    that are of potential significant interest to PCC
                    conference participants (sessions belonging to other
                    joint conferences in this event.) Therefore, you are
                    encouraged to also check the schedules for other joint
                    conferences (in particular, schedules for PDPTA, MSV,
                    ESA, IC, ICWN, ISWS, SAM, CIC, and VLSI.)

09:00 - 11:00pm: **CONFERENCE RECEPTION DINNER - June 21 (Monday)**
                    (LOCATION: Meeting Rooms 1-5)

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

10:00 - 10:40am: **DISCUSSION SESSION A-PCC (Refreshments will be available)**
June 22 (Tuesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of PCC's schedule.

SESSION 4-PCC: **WORKSHOP: INTELLIGENT PERVASIVE COMPUTING**
Chair: Dr. Stanislav Kurkovsky
June 22, 2004 (Tuesday); 10:40am - 1:40pm
(LOCATION: Conference Room C)

10:40 - 11:00am: Wireless Student Testing
Vladimir Zanev
Columbus State University, Columbus, Georgia, USA

11:00 - 11:20am: A Hierarchical Approach to Formalization of
Distributed Computing Environments
Anatoly Kurkovsky
University of the Sciences in Philadelphia, USA

11:20 - 11:40am: HomeOS: Context-Aware Home Connectivity
Neal Rosen, Rizwan Sattar*, Robert W. Lindeman,
Rahul Simha, and Bhagirath Narahari
George Washington University, Washington, DC, USA

11:40 - 12:00pm: Intelligent Pervasive Framework for Consumer-Supplier
Interaction
Stan Kurkovsky* and Karthik Harihar
Columbus State University, Columbus, Georgia, USA

12:00 - 01:00pm: **LUNCH (On Your Own)**

01:00 - 01:20pm: Agents in the Small - Autonomous and Context-Aware
Smart Tags
Fano Ramparany*, Olivier Boissier**, Cosmin Carabelea**,
Lionel Rimbert**, and Alfred Chioiu*
*DIH-OCF France Telecom, France
**SMA-SIMMO-ENS Mines de Saint-Etienne, France

01:20 - 01:40pm: Suitability of Existing Service Discovery Protocols
for Mobile Users in an Ambient Intelligence Environment
Davy Preuveneers and Yolande Berbers
K.U.Leuven, Belgium

SESSION 5-PCC: **COMMUNICATION ISSUES INCLUDING AD-HOC NETWORKS**
                      Co-Chairs: Dr. R. Handorean, USA, Dr. F. Ramparany, France,
                      T. O'Sullivan, Ireland & K. S. Vallerio, USA
                      June 22, 2004 (Tuesday); 1:40 - 3:20pm
                      (LOCATION: Conference Room C)

01:40 - 02:00pm: An Architecture Supporting Run-Time Upgrade of
                    Proxy-Based Services in Ad Hoc Networks
                    Rohan Sen, Radu Handorean, Gregory Hackmann, and
                    Gruia-Catalin Roman
                    Washington University in St. Louis, USA

02:00 - 02:20pm: Design and Performance Evaluation of a Novel
                    Architecture to the Integration of the Internet and
                    Mobile Ad Hoc Networks
                    Habib Ammari* and Hesham El-Rewini
                    Southern Methodist University, Dallas, USA

02:20 - 02:40pm: Fast Simulation Technique for LDPC Code Analysis
                    Rajeshwary Tayade and Gwan Choi
                    Texas A&M University, USA

02:40 - 03:00pm: An Open Platform for Discovery, Delivery and Hosting
                    Applications in Mobile Ad hoc Networks
                    Nicolas Le Sommer and Herv? Roussain
                    Valoria Laboratory University of South Brittany, France

03:00 - 03:20pm: Providing Unified Security Mechanisms for MANET
                    Network Layer
                    Chunxiao Chigan, Leiyuan Li, and Rahul Bandaru
                    Michigan Tech, Houghton, USA

03:20 - 03:40pm: BREAK

03:40 - 05:40pm: Note: There are a number of other sessions (not listed here)
                    that are of potential significant interest to PCC
                    conference participants (sessions belonging to other
                    joint conferences in this event.) Therefore, you are
                    encouraged to also check the schedules for other joint
                    conferences (in particular, schedules for PDPTA, MSV,
                    ESA, IC, ICWN, ISWS, SAM, CIC, and VLSI.)

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

08:20a - 01:00p: Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to PCC
                   conference participants (sessions belonging to other
                   joint conferences in this event.) Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences (in particular, schedules for PDPTA, MSV,
                   ESA, IC, ICWN, ISWS, SAM, CIC, and VLSI.)

SESSION 6-PCC: PEER-TO-PEER COMPUTING
Co-Chairs: Chunxiao (Tricia) Chigan, USA & Habib Ammari, USA
June 23, 2004 (Wednesday); 1:00 - 2:00pm
(LOCATION: Conference Room C)

01:00 - 01:20pm: Repute Relationships for Reputation Management in
                   Peer-to-Peer; Communication-II
                   Farookh Khadeer Hussain*, Elizabeth Chang, and
                   Tharam Dillon
                   Curtin University of Technology, Australia

01:20 - 01:40pm: A Peer-to-Peer Approach to Asynchronous Data
                   Dissemination in Ad Hoc Networks
                   Herve Roussain and Frederic Guidec
                   Universita de Bretagne-Sud Vannes, France

01:40 - 02:00pm: Searching Variably Connected P2P Networks
                   Njaal T. Borch and Lars Kristian Vognild
                   Norut Information Technology Ltd.

SESSION 7-PCC: LOCATION & CONTEXT-AWARE + MULTIMEDIA & SPEECH RECOGNITION
Co-Chairs: Chunxiao (Tricia) Chigan, USA & Habib Ammari, USA
June 23, 2004 (Wednesday); 2:00 - 3:20pm
(LOCATION: Conference Room C)

02:00 - 02:20pm: LATTE: Location And Time Triggered Email
                   Andronikos Nedos, Alex O'Connor, Graham Abell,
                   Siobh?n Clarke, and Vinny Cahill
                   Trinity College Dublin, Ireland

02:20 - 02:40pm: Location-Aware Middle Agents in Pervasive Computing
                   Akio Sashima, Noriaki Izumi, and Koichi Kurumatani
                   Cyber Assist Research Center, AIST, Japan

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02:40 - 03:00pm:   Pervasive Multimedia via an Intelligent Remocon
                   for Digital Home Environments
                   Hyun Jeong, Jeongyeon Lim, Qonita shahab, Hendry
                   and Munchurl Kim
                   Communications & Broadcasting Information &
                   Communications University, Korea

03:00 - 03:20pm:   FREE SLOT
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03:20 - 03:40pm: BREAK

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03:40 - 05:40pm:   Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to PCC
                   conference participants (sessions belonging to other
                   joint conferences in this event.)  Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences (in particular, schedules for PDPTA, MSV,
                   ESA, IC, ICWN, ISWS, SAM, CIC, and VLSI.)
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7:30am - 11:00am: Registration (Second Floor, Conference Lobby: 1-5)

08:20a – 05:40p: Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to PCC
                   conference participants (sessions belonging to other
                   joint conferences in this event.) Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences (in particular, schedules for PDPTA, MSV,
                   ESA, IC, ICWN, ISWS, SAM, CIC, and VLSI.)

LIST OF PAPERS IN DISCUSSION SESSION A-PCC:

O. A Mobile Agent-Based Location Management Scheme
    for Mobile Ad-Hoc Networks
    Ikram Jaffery and Mieso Denko
    University of Guelph, Canada
O. Developing an Interactive Kiosk for Mobile Devices:
    A Practical Experience
    Stan Kurkovsky*, Bhagyavati, and Manish Shah
    Columbus State University, Columbus, Georgia, USA
O. Utilizing Service Oriented Architecture for Personal
    Information Management
    Daryoush D. Farsi* and Aron Sogor**
    *University of San Francisco, USA
    **Vodafone, USA
O. States-Detection-Based Reducing Power Use Method in
    Resource Discovery and Interaction
    Tang Shancheng* and Hou Yibin**
    *Xi'an Jiaotong University, P. R. China
    **Beijing University of Technology, P. R. China
O. An Embedded Healthcare System for Blood Glucose
    Monitoring in Body Area Networks
    Kil-Ho Ahn, Jae-Wan Park, Dong-Ryeol Shin and Jun-Dong Cho
    SungKyunKwan University, Korea
O. A Survey on Current and Future Pervasive Computing
    Devices and Applications
    Paula Stroud and Sheikh I Ahamed
    Marquette University Milwaukee, WI, USA
O. Reducing Latency in Ad Hoc Networks by Pre-Fetching
    Johnson P Thomas, Tanvir Alam, and Istvan Jonyer
O. A Performance Model For Peer-to-Peer Downloading
    Lu Yan and Fei Xue
O. Energy-Efficient Graphical User Interface Design
    Keith S. Vallerio, Lin Zhong, and Niraj K. Jha
O. Women and Technology: The Next Step in Bridging the Divide
    Cynthia Lester* and Marcus Brown
    University of Alabama, Tuscaloosa, Alabama, USA

SAM'04 CONFERENCE SCHEDULE

The 2004 International Conference on
Security and Management

Monte Carlo Resort, Las Vegas, Nevada, June 21-24, 2004

Note   There are a number of other sessions (not listed here) that are of potential significant interest to SAM conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences.

June 20

03:00 - 09:00pm: REGISTRATION (Second Floor, Conference Lobby; 1-5)

6:30am – 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

08:40 – 09:00am: **MultiConference Opening Remarks**
                       Hamid R. Arabnia (General Chair, 2004 IMCSCE)
                       University of Georgia, Georgia, USA
                       (LOCATION: Lance Burton Theater)

09:00 – 09:05am: **Introduction of Keynote Speaker by Prof. H. J. Siegel**
                       (LOCATION: Lance Burton Theater)

09:05 – 10:05am: **MultiConference Keynote Lecture:**
                       Computer Architecture, The Road Ahead
                       Professor Michael Flynn
                       Stanford University, USA
                       (LOCATION: Lance Burton Theater)

10:05 – 10:30am: **BREAK**

10:30 – 01:10pm: Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to SAM
                   conference participants (sessions belonging to other
                   joint conferences in this event.) Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences.

SESSION 1-SAM: **TRUSTED COMPUTING PLATFORMS**
                     Chair: Dr. Selim Aissi
                     June 21, 2004 (Monday); 12:50 - 2:10pm
                     (LOCATION: Meeting Room 8)

12:50 – 01:10pm: A Comparison of the Trusted Computing Group Security
                   Model with Clark-Wilson
                   Ned M. Smith
                   Intel Corporation, Hillsboro, OR, USA

01:10 – 01:30pm: User Authentication with Smart Cards in Trusted
                   Computing Architecture
                   Patrick George

01:30 – 01:50pm: Machine Authentication and Security Compliance
                   Mary Rossell and Alan D. Ross
                   Intel Corporation, Folsom, California, USA

01:50 – 02:10pm: Malware Mitigation Using Host Intrusion Prevention
                   in the Enterprise
                   Alan D. Ross and Dennis Morgan
                   Intel Corporation, Folsom, California, USA

SESSION 2-SAM: **SECURITY ENGINEERING**
                     Co-Chairs: Dr. Luis Javier G. Villalba,
                     Dr. E. Fernandez-Medina, &
                     Dr. Julio C. Hernandez Castro
                     June 21, 2004 (Monday); 2:10 - 3:10pm
                     (LOCATION: Meeting Room 8)

02:10 - 02:30pm: Analysis of ISO/IEC 17799:2000 Code of Practice for
                   Information Security Management
                   Carlos Villarrubia and E. Fernandez

02:30 - 02:50pm: Vulnerabilities in 802.11b Wireless Local Area Networks
                   Jesus Arturo Perez Diaz and Gerardo Del Valle Torres

02:50 - 03:10pm: Secure Business Processes Optimization System
                   Antonio Sarasa Cabezuelo, Daniel Ruiz-Zorrilla Gonzalo,
                   and Marcos Muinos Martin
                   Spain

SESSION 3-SAM: **COMMUNICATION NETWORKS**
                     Chair: Dr. Ruijian Zhang, USA
                     June 21, 2004 (Monday); 3:10 - 4:10pm
                     (LOCATION: Meeting Room 8)

03:10 - 03:30pm: Legal File and Profit Sharing in a Peer to Peer Network
                   Giancarlo Ruffo
                   Universita' di Torino, Torino, Italy

03:30 - 03:50pm: Relationships for Reputation Management in
                   Peer-to-Peer; Communication-I
                   Farookh Khadeer Hussain*, Elizabeth Chang*, and
                   Tharam Dillon**
                   *Curtin University of Technology, Perth, Australia
                   **University of Technology, Sydney, Australia

03:50 - 04:10pm: Secure IP Multicast for Distributed Multimedia System
                   Jing Wu* and Tianbing Xia
                   University of Wollongong, Wollongong, Australia

04:10 - 05:10pm: DISCUSSION SESSION A-SAM (Refreshments will be available)
                   June 21 (Monday)
                   (LOCATION: Hallways/Lobby - Meeting Rooms 6-8)
                   List of papers appears at the end of SAM's schedule.

05:20 - 06:20pm: **PANEL DISCUSSION SAM-PANEL-1:**
UNIFIED SECURITY POLICY LANGUAGE: IS IT ACHIEVABLE IN A
MULTI-VENDOR, MULTI-PROTOCOL ENTERPRISE ENVIRONMENT?
Moderator: Dr. Hong Li, CISSP
Panelists:
Paul Agbabian, Symantec Corporation, CA, USA
Carl Ellison, Microsoft, USA
Arosha Bandara, Imperial College, London, UK
David Durham, Intel Corporation, OR, USA
Atul Prakash, University of Michigan, Ann Arbor, MI, USA
(LOCATION: Meeting Room 8)

06:20 - 07:20pm: **PANEL DISCUSSION SAM-PANEL-2:**
OPEN MOBILE ARCHITECTURE & SECURITY
Moderator: Dr. Raziq Yakub
Panelists:
Nora Dabbous, Gemplus
Charlie Kaufman, Microsoft
Anand Prasad, NTT DoCoMo Europe
Selim Aissi, Intel Corporation, USA
(LOCATION: Meeting Room 8)

09:00 - 11:00pm: **CONFERENCE RECEPTION DINNER - June 21 (Monday)**
(LOCATION: Meeting Rooms 1-5)

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

10:00 - 10:40am: **DISCUSSION SESSION B-SAM (Refreshments will be available)**
                 June 22 (Tuesday)
                 (LOCATION: Hallways/Lobby - Meeting Rooms 6-8)
                 List of papers appears at the end of SAM's schedule.

10:40 - 3:20pm: Note: There are a number of other sessions (not listed here)
                 that are of potential significant interest to SAM
                 conference participants (sessions belonging to other
                 joint conferences in this event.) Therefore, you are
                 encouraged to also check the schedules for other joint
                 conferences.

SESSION 4-SAM: **INTRUSION MANAGEMENT & ALGORITHMS**
                 Chair: Fariborz Farahmand, USA
                 June 22, 2004 (Tuesday); 3:20 - 5:40pm
                 (LOCATION: Meeting Room 8)

03:20 - 03:40pm: Data Confidentiality in E-government and E-commerce
                 Fariborz Farahmand, Shamkant B. Navathe, Gunter P. Sharp,
                 and Philip H. Enslow
                 Georgia Institute of Technology, Atlanta, Georgia, USA

03:40 - 04:00pm: Analysis and Management of Intrusion Data Collection
                 Robert F. Erbacher
                 Utah State University, Logan, Utah, USA

04:00 - 04:20pm: A State Transition Model Case Study for Intrusion
                 Detection Systems
                 Brian J. d'Auriol* and Kishore Surapaneni
                 University of Texas at El Paso, Texas, USA

04:20 - 04:40pm: An Architectural Framework for Distributed Intrusion
                 Detection using Smart Agents
                 V. Chatzigiannakis, G. Androulidakis, M. Grammatikou*,
                 and B. Maglaris; National Tech. Univ.of Athens, Greece

04:40 - 05:00pm: Intrusion-Based Survivability Architecture
                 Hiep Pham* and Zhuhan Jiang
                 University of Western Sydney, Australia

05:00 - 05:20pm: A Hardware Implementation of Speaker Verification
                 using Support Vector Machine
                 Yongwha Chung**, Byung-Hee Hwang***, Woo-Yong Choi*,
                 Daesung Moon*, Sung Bum Pan*, and Sang-Hwa Chung***
                 *Electronics & Telecommunications Research Institute, Korea
                 **Korea University, Korea; Pusan National University, Korea

05:20 - 05:40pm: ASAM: An Automated System for Authorisation Data
                 Change Management in GRID Environments
                 Nick Antonopoulos*, Tatjana Bitzakidis, and Roger Peel
                 University of Surrey, Guildford, UK

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

10:00 - 10:40am: DISCUSSION SESSION C-SAM (Refreshments will be available)
June 23 (Wednesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 6-8)
List of papers appears at the end of SAM's schedule.

10:40 - 02:40pm: Note: There are a number of other sessions (not listed here) that are of potential significant interest to SAM conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences.

SESSION 5-SAM: ENCRYPTION & AUTHENTICATION
Co-Chairs: Dr. Albert Ball, USA & Dr. Anand Prasad, Germany
June 23, 2004 (Wednesday); 2:40 - 5:00pm
(LOCATION: Meeting Room 7)

02:40 - 03:00pm: Managing Access Rights for Terminated Employees
Dennis Heimbigner
University of Colorado, Boulder, Colorado, USA

03:00 - 03:20pm: A Survey of Biometric Authentication Systems
Farhan A. Qazi
Syracuse University, New York, USA

03:20 - 03:40pm: **BREAK**

03:40 - 04:00pm: User Isolation and Policy-Based Security Management
M. Ammar Rayes* and Michael Cheung
Cisco Systems, Inc., San Jose, California, USA

04:00 - 04:20pm: Authentication and Authorization for Network Security
Service
Taesung Kim*, Sangrae Cho, and Seunghun Jin
Electronics & Telecommunications Research Institute, Korea

04:20 - 04:40pm: A Graphical Password Scheme Strongly Resistant to Spyware
Dawei Hong**, Shushuang Man*, Barbra Hawes*, &
Manton Matthews***
*Southwest Minnesota State University, Marshall, MN, USA
**Rutgers University, Camden, New Jersey, USA
***University of South Carolina, Columbia, SC, USA

04:40 - 05:00pm: 2 Channel Authentication
Raghavan Subramanian
Infosys Technologies Ltd., Bangalore, India

SESSION 6-SAM: ARCHITECTURAL DESIGNS & FRAMEWORKS
Co-Chairs: Dr. Albert Ball, USA & Dr. Anand Prasad, Germany
June 23, 2004 (Wednesday); 5:00 - 5:40pm
(LOCATION: Meeting Room 7)

05:00 – 05:20pm: A Security Architecture for a Web Portal of Sensitive
Archival Records
Binh Q. Nguyen
US Army Research Laboratory, Maryland, USA

05:20 – 05:40pm: A Unified Framework for Mobile Security
Wayne Jansen*, Vlad Korolev*, Booz-Allen Hamilton*,
Serban Gavrila**, Thomas Heute*, and Clement Seveillac*
*National Institute of Standards and Technology, USA
**VDG, Inc., USA

7:30 - 11:00am: **Registration (Second Floor, Conference Lobby: 1-5)**

10:00 - 10:40am: **DISCUSSION SESSION D-SAM (Refreshments will be available)**
June 24 (Thursday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of SAM's schedule.

10:40 - 02:00pm: Note: There are a number of other sessions (not listed here) that are of potential significant interest to SAM conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences.

SESSION 7-SAM: **ALGORITHMS & APPLICATIONS**
Chair: Dr. Myron Sheu, Cal State University, USA
June 24, 2004 (Thursday); 2:00 - 3:20pm
(LOCATION: Meeting Room 2)

02:00 - 02:20pm: KLADS: Unix Based Kernel Level Anomaly Detection System
Vamshi Krishna Venapally, William S. Harrison*, and Nadine Hanebutte
University of Idaho, Moscow, Idaho, USA

02:20 - 02:40pm: Using Metadata to Protect the Audiovisual Contents in MPEG-7 Applications
Leon Pan* and Chang N. Zhang
University of Regina, Canada

02:40 - 03:00pm: CAPTCHA-Based Anti-Spam Mail Model
Phen-Lan Lin*, Juen-Lin Huang, and Ting-Jung Chang
Providence University, Taichung, Taiwan

03:00 - 03:20pm: FREE SLOT

03:20 - 03:40pm: BREAK

SESSION 8-SAM: **EMERGING RESEARCH + WIRELESS & MOBILE SECURITY**
        Chair: Dr. Selim Aissi
        June 24, 2004 (Thursday); 3:40 - 6:00pm
        (LOCATION: Meeting Room 2)

03:40 - 04:00pm: Possible Attacks on and Countermeasures for
        Secure Multi-Agent Computation
        Regine Endsuleit* and Arno Wagner
        Universitat Karlsruhe, Karlsruhe, Germany &
        ETH Zurich, Switzerland

04:00 - 04:20pm: A Systematic Approach to Security Deployment in
        a Networking Environment
        Myron Sheu*, Le Tang**, and Ravi Mukkamala***
        *Cal State University at DH, Carson, California, USA
        **Cal State Univ. at LA, Los Angeles, California, USA
        ***Old Dominion University, Virginia, USA

04:20 - 04:40pm: Testing IPv6 Security
        Albert Ball, Donald G. Cole, and Michael L. Nelson*
        International College, Ft Myers, Florida, USA

04:40 - 05:00pm: Proposal and Implemantation of Router-Based
        Traceback Technique
        Yuhei Kawakoya* and Yoichi Muraoka
        Waseda University, Tokyo, Japan

05:00 - 05:20pm: Web Spoofing Techniques, Implementation, and Solutions
        Tarek Alameldin* and Amitesh Sinha
        California State University, Fresno, CA, USA

05:20 - 05:40pm: Survivable Systems Analysis for Real Time Control
        Systems in Critical Infrastructures
        Matt Benke*, John Waite, Paul Oman, & A. Abdel-Rahim
        University of Idaho, Moscow, Idaho, USA

05:40 - 06:00pm: A Protocol for Secure Seamless Handover
        Anand R. Prasad* and Hu Wang
        DoCoMo Comm. Labs Europe GmbH, Munich, Germany

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LIST OF PAPERS IN DISCUSSION SESSION A-SAM:


O.   Ontology-Based Framework for E-Survivability Analysis
     Hiep Pham* and Zhuhan Jiang
     University of Western Sydney, Australia
O.   Byzantine Agreement with Threshold Cryptography
     in Unknown Networks
     SoonHwa Sung* and Eun Bae Kong
     Chungnam National University, Korea
O.   The Analyses of Graffiti Input and Its Application to
     Personal Identification
     Hiroshi Dozono*, Hiroaki Sanada*, Masanori Nakakuni**,
     and Yoshio Noguchi*
     *Saga University, Saga, Japan
     **Miyazaki University, Japan
O.   The Key Authority - Secure Key Management in
     Hierarchical Public Key Infrastructures
     A. Wiesmaier*, E. Karatsiolis, and M. Lippert
     Darmstadt University of Technology, Darmstadt, Germany
O.   Towards A Perfect Secure Routing Protocol for Mobile
     Ad Hoc Networks
     Chunxiao Chigan* and Rahul Bandaru
     Michigan Tech., Houghton, Michigan, USA
O.   JxPS2 - An Intelligent, Portable and Pluggable Security Service
     for Web Applications Using Java, XML and JIProlog (Java Internet
     Prolog)
     Mathias Fonkam and Chamraj Bathirappan
     St. Joseph's University, PA, USA
O.   Abnormal Traffic Detection for Network Intrusion Detection
     Young-Jun Heo and Keol-Woo Ryu
     ETRI, Korea
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LIST OF PAPERS IN DISCUSSION SESSION B-SAM:

O. 802.11b Wireless Networks Insecure at Any Speed
    Craig Valli and Peter Wolski
    Edith Cowan University, Mount Lawley Campus, Australia
O. Detecting Packet Mishadling in MANETs
    Sirisha R. Medidi*, Muralidhar Medidi, Sireesh Gavini,
    Richard L. Griswold
    Washington State University, Pullman, WA, USA
O. Scenarios for Hijacking Execution Flow of .NET Managed Code
    Alexander Maslov
    New Jersey Institute of Technology, Avenel, NJ, USA
O. Measures for Detecting Network Attacks at the Aggregate
    Traffic Level on Highspeed Internet Backbone
    Byeong-hee Roh, S. W. Yoo, and Won-joon Choi
    Ajou University, Korea
O. Tolerating Intrusions in Grid Systems
    Luis Sardinha*, Nuno Ferreira Neves, & Paulo Verissimo
    University of Lisboa, Lisboa, Portugal
O. An XML-Based Impact Analysis Using Security Management
    With IAVN
    Namho Yoo*, Hwajung Lee**, and Hyeong-Ah Choi*
    *George Washington University, Washington, DC, USA
    **Radford University, Radford, Virginia, USA
O. General Considerations on Data Warehouses Security
    Rodolfo Villarroel*, Eduardo Fernandez-Medina**,
    and Mario Piattini**
    *Universidad Catolica del Maule, Chile
    **Universidad de Castilla-La Mancha, Spain

LIST OF PAPERS IN DISCUSSION SESSION C-SAM:

O. A Study on CRL Distribution for Response Time
    Reduction in Distributed OCSP
    Sung-Ock Hong*, Kyoung-Ja Kim, and Tae-Mu Chang
    Dongguk University, Seoul, Korea
O. Experimental Analysis of the Arcanum Key Exchange Protocol
    A. S. Mian* and R. Iqbal**
    *University of Western Australia, Australia
    **National University of Science & Technology, Pakistan
O. Boolean Functions with Good Properties
    Tianbing Xia* and Jing Wu
    University of Wollongong, Australia
O. An Efficient Access Control Model Based on
    User-Classification and Role-Division
    Yong-Seok Kim, Jun-Cheol Jeon, Jin-Woo Jeon,
    and Kee-Young Yoo*
    Kyungpook National University, Daegu, Korea
O. NSPPM: A Node Sampling Approach to Probabilistic
    Packet Marketing-Based IP Traceback
    Shu Jin*, Fengyu Liu, and Manwu Xu
    Nanjing University of Science and Technology, P. R. China
O. DPA Methods of Smart Cards
    Hee-Bong Choi*, Jong-Gil Kim, Sang-Yun Han, Mung-Gil Choi,
    Chun-Soo Kim, and Hoon-Jae Lee
    National Security Research Institute, Taejun, Korea
O. A New Modulo ($2^n +1$) Multiplier for IDEA
    Yi-Jung Chen**, Dyi-Rong Duh*, and Yungshiang Sam Han*
    *National Chi Nan University, Nantou, Taiwan
    **National Taiwan University, Taipei, Taiwan
O. A ZRP-Based Reliable Route Discovery Scheme in Ad-Hoc Networks
    Kyoung-Ja Kim* and Tae-Mu Chang
    Dongguk University, Korea
O. EZ-Park: An Innovative Secure M-Commerce Application
    J. Adams, R. Abbadasari, and R. Mukkamala*
    Old Dominion University, Norfolk, Virginia, USA

LIST OF PAPERS IN DISCUSSION SESSION D-SAM:

O. TCP SYN Flood Sensor for Internet Backbone
    Madiha Zafar and S. M. H. Zaidi
    NUST Institute of Information Technology, Pakistan
O. Survivable Systems Analysis of the North American Power
    Grid Communications Infrastructure
    Patrick R. Merry, Axel W. Krings*, and Paul W. Oman
    University of Idaho, Moscow, Idaho, USA
O. Secure Email in the Corporate World
    Hassan Aljifri
    University of Miami, Florida, USA
O. An Efficient Protocol for Mutual Authentication and
    Key Agreement Using the Subscriber Identity Module
    Mun-Kyu Lee and Dowon Hong
O. A Proposal for an Automated Approach to Real Time
    Profiling of IT Security Compromises
    Najib Saylani
O. Time Bound Authorisation in PKI
    Durai Pandian and C. Chellappan
O. IP Traceback Using Deterministic Edge Router Marking (DERM)
    Shravan K Rayanchu and Gautam Barua
O. Apply GPS Devices for Improving Aircraft Security
    Ruijian Zhang, Jon Ellch, Michael Carter, Sean Henderson,
    and Michael Heenan
O. Processing Biometric Information for Smart Cards Using a
    Dedicated Hash Function
    Ghasem S. Alijani*, Nam Tran, and J. Steven Welsh
    Southern University of New Orleans, USA
O. Modeling Host Status Transition for Network Intrusion Detection
    Mira Kwak* and Dong-Sub Cho
    Ewha Womans University, Korea
O. A Study on Security Risk Modeling over Information
    and Communication Infrastructure
    InJung Kim*, YoonJung Jung*, JoongGil Park*, and DongHo Won**
    *Electronics & Telecommunications Research Institute, Korea
    **SungKyunKwan University, Korea
O. The Development of Risk Analysis Methodology for
    Information Asset on Network
    YoonJung Jung, InJung Kim, NamHoon Lee, and JoongGil Park
    Electronics & Telecommunications Research Institute, Korea

METMBS'04 CONFERENCE SCHEDULE

**The 2004 International Conference on Mathematics
and Engineering Techniques in Medicine and
Biological Sciences**

Monte Carlo Resort, Las Vegas, Nevada, June 21-24, 2004

Note: There are a number of other sessions (not listed here) that are of potential significant interest to METMBS conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences.

June 20

03:00 - 09:00pm: REGISTRATION (Second Floor, Conference Lobby; 1-5)

6:30am - 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

08:40 - 09:00am: **MultiConference Opening Remarks**
Hamid R. Arabnia (General Chair, 2004 IMCSCE)
University of Georgia, Georgia, USA
(LOCATION: Lance Burton Theater)

09:00 - 09:05am: **Introduction of Keynote Speaker by Prof. H. J. Siegel**
(LOCATION: Lance Burton Theater)

09:05 - 10:05am: **MultiConference Keynote Lecture:**
Computer Architecture, The Road Ahead
Professor Michael Flynn
Stanford University, USA
(LOCATION: Lance Burton Theater)

10:05 - 10:30am: **BREAK**

10:30 – 12:30pm: Note: There are a number of other sessions (not listed here) that are of potential significant interest to METMBS conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences (in particular, schedules for CISST, IKE, and PDPTA.)

12:30 - 01:30pm: **LUNCH (On Your Own)**

SESSION 1-METMBS: **SIGNAL PROCESSING**
Chair: TBA
June 21, 2004 (Monday); 01:30 - 03:10pm
(LOCATION: Meeting Room 1)

01:30 – 01:50pm: De Novo Analysis of Tandem Mass Spectrometry Data as a Non-Deterministic Optimization Problem
Alejandro Heredia-Langner*, William R. Cannon, Kenneth D. Jarman, and Kristin H. Jarman
Pacific Northwest National Laboratory, Richland, WA, USA

01:50 – 02:10pm: A Neighbor-Joining Method for Identifying a Stage I Ovarian Cancer Signature in the Mass-Spectrum of Serum Proteins
Jack K. Horner
Science Applications International Corp., New Mexico, USA

02:10 – 02:30pm: Estimating Probabilities of Peptide Assignments to LC-FTICR-MS Observations
Kevin K. Anderson, Matthew E. Monroe, & Don Simone Daly
Pacific Northwest National Lab., Richland, WA, USA

02:30 – 02:50pm: Co-Variation Analysis of Helix Caps & Applications
                          in Classification
                          Lu-yong Wang and An-suei Yang
                          Columbia University, New York, USA

02:50 – 03:10pm: Towards a Cohort-Selective Frequency-Compression
                          Hearing Aid
                          Marie Roch, Richard R. Hurtig, Jing Liu, & Tong Huang
                          San Diego State University, California, USA

03:10 – 04:10pm: Note: There are a number of other sessions (not listed here)
                          that are of potential significant interest to METMBS
                          conference participants (sessions belonging to other
                          joint conferences in this event.) Therefore, you are
                          encouraged to also check the schedules for other joint
                          conferences (in particular, schedules for CISST, IKE,
                          and PDPTA.)

04:10 – 05:10pm: **DISCUSSION SESSION A-METMBS (Refreshments will be available)**
                          June 21 (Monday)
                          (LOCATION: Hallways/Lobby – Meeting Rooms 1-5)
                          List of papers appears at the end of METMBS's schedule.

09:00 – 11:00pm: **CONFERENCE RECEPTION DINNER – June 21 (Monday)**
                          (LOCATION: Meeting Rooms 1-5)

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 2-METMBS: BIOINFORMATICS - I
                Chair: TBA
                June 22, 2004 (Tuesday); 8:20 - 10:00am
                (LOCATION: Meeting Room 1)

08:20 - 08:40am: Effective Sampling of Protein Conformation Space:
                  Identification of Independent Folding Units
                  Geraint Thomas*, Richard B. Sessions**, and
                  Martin J. Parker*
                  *University of Leeds, Leeds, UK
                  **University of Bristol, Bristol, UK

08:40 - 09:00am: An XML-Based Approach to Integrating Heterogeneous
                  Yeast Genome Data
                  Kei-Hoi Cheung*, Deyun Pan, Andrew Smith,
                  Michael Seringhaus, Shawn Douglas, and Mark Gerstein
                  Yale University, New Haven, Connecticut, USA

09:00 - 09:20am: Discovering Statistically Significant Clusters by Using
                  Iterative Genetic Algorithms in Gene Expression Data
                  Hua-Sheng Chiu, Han-Yu Chuang*, Huai-Kuang Tsai,
                  Tao-Wei Huang, and Cheng-Yan Kao
                  National Taiwan University, Taiwan

09:20 - 09:40am: Prediction of Protein Secondary Structure from PDB
                  Structure Information Based on Sequence Fragments
                  Homology Searching
                  Shouji Tatsumoto*, Kenji Satou**, and Akihiko Konagaya*
                  *RIKEN, Kanagawa, Japan
                  **Japan Advanced Institute of Science & Technology, Japan

09:40 - 10:00am: Applications of EMAGEN on Comparing Multiple
                  Prokaryotic Genomes
                  Jitender S. Deogun, Jingyi Yang*, and Fangrui Ma
                  University of Nebraska-Lincoln, NE, USA

10:00 - 10:40am: DISCUSSION SESSION B-METMBS (Refreshments will be available)
                  June 22 (Tuesday)
                  (LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
                  List of papers appears at the end of METMBS's schedule.

SESSION 3-METMBS: MEDICAL & IMAGING INFORMATICS
Chair: Dr. Usha Sinha, UCLA, USA
June 22, 2004 (Tuesday); 10:40am - 12:00pm
(LOCATION: Meeting Room 1)

10:40 - 11:00am: Towards Semantics-Based Intra-Document Coreference
                   Resolution
                   Roderick Y. Son*, Frank Meng, Andrew A. Chen,
                   Ricky K Taira, and Hooshang Kangarloo
                   University of California, Los Angeles, CA, USA

11:00 - 11:20am: Information Extraction using Semantic Patterns for
                   Populating Clinical Data Models
                   Frank Meng*, Andrew A. Chen, Roderick Y. Son,
                   R. K. Taira, B. M. Churchill, & Hooshang Kangarloo
                   University of California, Los Angeles, CA, USA

11:20 - 11:40am: Framework for the Automated Validation of Nomograms for
                   the Prediction of Cancer Outcomes
                   Andrew A. Chen*, Frank Meng, Roderick Y. Son,
                   R. K. Taira, B. M. Churchill, & Hooshang Kangarloo
                   University of California, Los Angeles, CA, USA

11:40 - 12:00pm: Automated Decision Support for Brain MRI Protocol
                   Selection
                   Luis E. Selva*, Suzie El-Saden, Jim Sayre,
                   Hooshang Kangarloo, and Usha Sinha
                   University of California, Los Angeles, CA, USA

12:00 - 01:00pm: LUNCH (On Your Own)

01:00 - 03:20pm: Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to METMBS
                   conference participants (sessions belonging to other
                   joint conferences in this event.) Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences (in particular, schedules for CISST, IKE,
                   and PDPTA.)

03:20 - 03:40pm: BREAK

SESSION 4-METMBS: BIOINFORMATICS - II
Chair: TBA
June 22, 2004 (Tuesday); 3:40 - 5:40pm
(LOCATION: Meeting Room 1)

03:40 - 04:00pm: Identification of Mouse mslp2 Gene from EST Databases
                   by Repeated Searching, Comparison, and Assembling
                   Yen-Ping Chu*, Wen-Ling Chan*/**, Yung-Fu Chen***,
                   Yung-Kuan Chan*, and Jan-Gowth Chang**
                   *National Chung-Shing University, Taichung, Taiwan
                   **China Medical Univ. Hospital, Taichung, Taiwan
                   ***Chungtai Inst. of Health Sciences & Tech., Taiwan

04:00 - 04:20pm: Analysis of Promoter Regions for Essential Genes of
                   Bacillus subtilis using PIDA
                   Catherine Putonti and Yuriy Fofanov
                   University of Houston, Texas, USA

04:20 - 04:40pm: New Techniques for Generation and Analysis of
                   Evolutionary Trees
                   Chang Wang, Stephen D. Scott, Qingping Tao,
                   Dmitri E. Fomenko, and Vadim N. Gladyshev
                   University of Nebraska, USA

04:40 - 05:00pm: An Open Problem in RNA Secondary Structure Prediction by the
                   Comparative Approach
                   Stefan Engelen and Fariza Tahi
                   Laboratoire La.M.I., CNRS, Universite Val-d. Essonne, France

05:00 - 05:20pm: The Human Genome Contains Numerous Clusters of Adjacent
                   Co-Regulated Genes
                   Gabriela Hristescu*, Marc Kirschner**, Jonathan Ploski**,
                   and Aurelian Radu**
                   *Rowan University, Glassboro, NJ, USA
                   **Mount Sinai School of Medicine, New York, USA

05:20 - 05:40pm: Integrating Evolving Tools for Proteomics Research
                   Susan Havre, Mudita Singhal, Banu Gopalan, Deborah Payne,
                   Kyle Klicker, Gary Kiebel, Ken Auberry, Eric Stephan,
                   Bobbie-Jo Webb, and Deborah Gracio
                   Pacific Northwest National Laboratory, Richland, WA, USA

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 5-METMBS: **BIOINFORMATICS - III**
                     Chair: TBA
                     June 23, 2004 (Wednesday); 8:20 - 10:00am
                     (LOCATION: Meeting Room 1)

08:20 - 08:40am: Genome Scale Identification of Regulons
                   Haluk Resat and Linyong Mao
                   Pacific Northwest National Laboratory, Richland, WA, USA

08:40 - 09:00am: A Comparison of DNA Fragment Assembly Algorithms
                   Lishan Li and Sami Khuri
                   San Jose State University, California, USA

09:00 - 09:20am: Reconstruction of gt-Networks from Gene Trees
                   Sergey Bereg
                   University of Texas at Dallas, Richardson, Texas, USA

09:20 - 09:40am: Effective Dimension Reduction Using Sequential Projection
                   Pursuit on Gene Expression Data for Cancer Classification
                   Bobbie-Jo M. Webb-Robertson and Susan L. Havre
                   Pacific Northwest National Laboratory, Richland, WA, USA

09:40 - 10:00am: A Combinatorial Approach to Reconstructing Transcriptional
                   Regulatory Networks
                   Ying-Zhe Hsu and Yuh-Jyh Hu
                   National Chiao Tung University, Hsinchu, Taiwan

10:00 - 10:40am: **DISCUSSION SESSION C-METMBS (Refreshments will be available)**
                   June 23 (Wednesday)
                   (LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
                   List of papers appears at the end of METMBS's schedule.

SESSION 6-METMBS: **IMAGE PROCESSING**
                     Chair: TBA
                     June 23, 2004 (Wednesday); 10:40am - 12:00pm
                     (LOCATION: Meeting Room 1)

10:40 - 11:00am: Multi-Resolution Image Segmentation for Quantifying
                   Spatial Heterogeneity in Mixed Population Biofilms
                   Saeid Belkasim, Jian Gu, Gordana Derado, Eric Gilbert,
                   and Heather O'Connell
                   Georgia State University, Atlanta, Georgia, USA

11:00 - 11:20am: Automated Segmentation in Computer Tomography Imaging
                   S. Hyder Ali*, R. Sukenesh**, and R. Avinsha*
                   *Noorul Islam College of Engineering, Tamilnadu, India
                   **Thyagarajar College of Engineering, Tamilnadu, India

11:20 - 11:40am: A New Software (Sequencer) for a Dedicated DSP-Based
MRI System
Aktham Asfour**, Kosai Raoof*, Michal Sicner**, and
Jean-Marc Fournier**
*Laboratoire des Images et des Signaux (LIS), ENSIEG, France
**Lab. d.Electrotechnique de Grenoble (LEG), ENSIEG, France

11:40 - 12:00pm: MR Multi-Spectral Texture Analysis Using Space-Frequency
Information
H. Zhu*/**, Y. Zhang*/**, X. Wei*/**, L. M. Metz*/**,
A. G. Law*/**, and J. R. Mitchell*/**
*University of Calgary, Canada
**Seaman Family MR Research Ctr, Foothills Med. Ctr, Canada

12:00 - 01:00pm: LUNCH (On Your Own)

01:00 - 03:20pm: Note: There are a number of other sessions (not listed here)
that are of potential significant interest to METMBS
conference participants (sessions belonging to other
joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint
conferences (in particular, schedules for CISST, IKE,
and PDPTA.)

03:20 - 03:40pm: BREAK

SESSION 7-METMBS: DATA & INFORMATION MANAGEMENT
Chair: TBA
June 23, 2004 (Wednesday); 3:40 - 4:40pm
(LOCATION: Meeting Room 1)

03:40 - 04:00pm: The Biological Sciences Collaboratory
George Chin Jr. and Carina S. Lansing
Pacific Northwest Laboratory, USA

04:00 - 04:20pm: Laboratory Information Management System (LIMS) for
Handling the Heterogeneous Data from High Throughput
Experiments in the Post-Genomic Era
Madhusudan*, I. Vadivelu, L. Krause, P. Morrison,
and S. Subramaniam
University of California San Diego, California, USA

04:20 - 04:40pm: Synchronized Biological Knowledge and Data Management:
A Hybrid Approach
Eric G. Stephan, George Chin Jr., Abigail L. Corrigan,
Kyle R. Klicker, and Heidi J. Sofia
Pacific Northwest National Lab., Richland, WA, USA

SESSION 8-METMBS: FUZZY LOGIC IN MEDICINE
                Chair: TBA
                June 23, 2004 (Wednesday); 4:40 - 5:20pm
                (LOCATION: Meeting Room 1)

04:40 - 05:00pm: A Knowledge Acquisition Tool for Weaning From Artificial
                Ventilation in Intensive Care Units
                Christian Schuh*, M. Hiesmayr, & Klaus-Peter Adlassnig
                University of Vienna, Vienna, Austria

05:00 - 05:20pm: Fuzzy Sets in Medicine - Historical Remarks
                Rudolf Seising
                University of Vienna, Vienna, Austria

SESSION 9-METMBS: IMAGE PROCESSING
                Chair: TBA
                June 23, 2004 (Wednesday); 5:20 - 6:20pm
                (LOCATION: Meeting Room 1)

05:20 - 05:40pm: Using An Optimization Method to Determine the
                Parameters of the Accommodative System of the Eye
                Matthew He, Bai-chuan Jiang, and Yuliya Poberezhnyak
                Nova Southeastern University, USA

05:40 - 06:00pm: The Application of Infrared Imaging to Psychological
                Status Assessment - A Preliminary Study
                Jin-Guey Lee*, Fong-Lin Jang**, and Ming-Shi Wang*
                *National Cheng Kung University, Tainan, Taiwan
                **Chi-Mei Medical Center, Tainan, Taiwan

06:00 - 06:20pm: 3D Progressive Imaging with Feature Selection
                R. A. Brown, A. G. Law, J. R. Mitchell, and H. Zhu
                University of Calgary, Canada

7:30am - 11:00am: Registration (Second Floor, Conference Lobby: 1-5)

10:00 - 10:40am: DISCUSSION SESSION D-METMBS (Refreshments will be available)
June 24 (Thursday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of METMBS's schedule.

10:40am – 12:00: Note: There are a number of other sessions (not listed here) that are of potential significant interest to METMBS conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences (in particular, schedules for CISST, IKE, and PDPTA.)

12:00 - 01:00pm: LUNCH (On Your Own)

SESSION 10-METMBS: MEDICAL DIAGNOSIS & DECISION MAKING + TOOLS & RECEPTORS
Chair: TBA
June 24, 2004 (Thursday); 1:00 - 2:20pm
(LOCATION: Meeting Room 1)

01:00 – 01:20pm: Med-LIFE: A Diagnostic Aid For Medical Imagery
Joshua R. New, Erion Hasanbelliu, and Mario Aguilar*
Jacksonville State University, Alabama, USA

01:20 – 01:40pm: Microcalcification Detection Using Independent Component Analysis
Jun Zheng and Emma Regentova
University of Nevada, Las Vegas, NV, USA

01:40 – 02:00pm: Viewing and Evaluating Accuracy Differences Between Diagnostic Classes
Steve P. Chadwick
Embry-Riddle Aeronautical University, Arizona, USA

02:00 – 02:20pm: EGF Receptor Sorting in Endosomal Compartments
Haluk Resat
Pacific Northwest National Laboratory, Richland, WA, USA

SESSION 11-METMBS: APPLICATIONS
Chair: TBA
June 24, 2004 (Thursday); 2:20 - 5:40pm
(LOCATION: Meeting Room 1)

02:20 – 02:40pm: The Properties of the Cardiac Cell Mathematical Model with a Markovian Representation of Potassium Channel Gating Processes Under High Pacing Rate
R. Samade and B. Kogan
University of California, Los Angeles, USA

02:40 – 03:00pm: Machine Learning Techniques for the Evaluation of
                    External Skeletal Fixation Structures
                    Ning Suo*, Khaled Rasheed, Walter D. Potter, and
                    Dennis N. Aron
                    University of Georgia, Georgia, USA

03:00 – 03:20pm: An Agent-Based Simulation Prototype for Evaluating
                    Health Behavior Interventions
                    Mark T. Jones* and Eloise Coupey**
                    Virginia Tech, Blacksburg, Virginia, USA

03:20 – 03:40pm: BREAK

03:40 – 04:00pm: Quantum Simulation Using Membrane Computing
                    Jon Inouye
                    National University

04:00 – 04:20pm: A Power-Law Model of Dengue Haemorrhagic Fever
                    Epidemics in Thailand
                    Jack K. Horner
                    Science Applications International Corp., NM, USA

04:20 – 04:40pm: Computational Cell Environment: A Problem Solving
                    Environment for Integrating Diverse Biological Data
                    Kyle Klicker, Mudita Singhal, Eric Stephan, Lynn Trease,
                    and Deborah Gracio
                    Pacific Northwest National Laboratory, Richland, WA, USA

04:40 – 05:00pm: Optimal Statistical Model for Forecasting Air
                    Quality Data
                    M. Abdollahian and R. Foroghi
                    RMIT University, Melbourne, Australia

05:00 – 05:20pm: Automatic Identification of Key Sub-Structures for
                    Protein Annotation
                    Craig Lucas and Andrew Bulpitt
                    University of Leeds, Leeds, UK

05:20 – 05:40pm: FREE SLOT

LIST OF PAPERS IN DISCUSSION SESSION A-METMBS:
O.   Diagnosis of Colon Cancer and Cancer of the Esophagus
     Based on Blood Mechanoemission
     V. E. Orel**, D. A. Klyushin*, A. V. Romanov*,
     Yu. I. Petunin*, and R. I. Andrushkiw*
     *New Jersey Institute of Technology, Newark, NJ, USA
     **Institute of Oncology of Academy of Medical Sciences, Ukraine
O.   Mathematical Models of the Respiratory System and
     Practical Problems of Medicine
     Galyna Onopchuk* and Kostyantyn Polinkevich**
     *NCJ Educational Services, Montreal, Canada
     **Computer Horizons Corp., Montreal, Canada
O.   Mathematical Modeling Reveals that the Recent Developmental
     Secular Trend May Contribute to the Epidemiological Changes
     of type 1 Diabetes
     Xujing Wang and Soumitra Ghosh / Medical College of Wisconsin, USA
O.   Multifocal Electroretinogram 3D Wave Representation and Analysis
     Aram Arakelyan*, Narine Pirumyan*, Mariam Arakelyan**,
     and Angelika Shamshinova**
     *University of International Economic Relations, Armenia
     **Moscow Institute of Eye Diseases, Moscow, Russia
O.   Development of Alzheimer's Disease Detection and Analysis
     System Using Brain Signals of Alzheimer Model Animals
     Sunyoung Cho*, Insop Shim**, Jong Woo Kim***,
     Eui Whan Hwang***, and Hyun Taek Kim****
     *Chungbuk University, Chungbuk, Korea
     **Kyunghee University, Kyunggi, Korea
     ***Kyunghee University, Seoul, Korea
     ****Korea University, Seoul, Korea
O.   Quantitative Analysis of the Electrode Polarization and pH Measurement
     Jian-Guo Bau*/**, Wei-Kung Wang*/**, and Yuh-Ying Lin Wang**
     *National Taiwan University, Taipei, Taiwan
     **Academia Sinica, Taipei, Taiwan
O.   The Application of Gradient Vector Flow Active Contour
     Model in the Detection of Cervical Cells Obtained from Pap Smears
     Yung-Fu Chen*, Jan-Ray Liao**, and Su-Jiau Chen***
     *Chungtai Institute of Health Sciences & Technology, Taiwan
     **National Chung Hsin University, Taichung, Taiwan
     ***National Taichung Home Economical & Commercial Senior
     Vocational School, Taiwan
O.   Decomposition of Saccadic Pulse and Step Components by
     Independent Component Analysis
     Yung-Fu Chen*, Hsuan-Hung Lin***, Yaw-Yin Li**, and
     Tainsong Chen**
     *Chungtai Institute of Health Sciences & Technology, Taiwan
     **National Cheng Kung University, Taiwan
     ***Chungtai Institute of Health Sciences & Technology, Taiwan
O.   Chaos on Nerve Cell and Neural Cells Activities
     Hossein S. Ansari, France
O.   Software Support for Classification of MRI Images
     M. Fathi, U. Wellen, and H. Garmestani; GATech, USA

LIST OF PAPERS IN DISCUSSION SESSION B-METMBS:

O. A Neural Network Method for Identifying the Signature of
    Prostate Cancer in Serum Mass Spectra
    Jack K. Horner
    Science Applications International Corp., NM, USA
O. Design and Simulation of a RF Coil for a Dedicated
    Low-Field MRI System
    Aktham Asfour**, Perrine Maliverney**,
    Jean-Marc Fournier**, and Kosai Raoof*
    *Lab. des Images et des Signaux (LIS), ENSIEG, France
    **Lab. d.Electrotechnique de Grenoble (LEG), ENSIEG, France
O. Representing Sequences of Biological Macromolecules
    Using Prime Numbers
    Rajaram Gana*, Sarma S. R. Dittakavi,
    Rajalakshmi Srinivasan and Sona Vasudevan
    University of Toronto, Ontario, Canada
O. Cloning and Characterization of Resistance Gene-Like
    Sequences in Warm Season Turfgrass Species
    H. Budak*, R. C. Shearman, and I. Dweikat
    University of Nebraska-Lincoln, Lincoln, Nebraska, USA
O. On The Alleviation of Side Effect of Outliers to Fisher's
    Discriminate Criterion (FDC) in Micro-Array Data Analysis
    Kajia Cao*, Qiuming Zhu, Javeed Iqbal, and John W. C. Chan
    University of Nebraska at Omaha, Nebraska, USA
O. Residual Dipolar Couplings in High Throughput Backbone
    Solution Structure Determination of Proteins
    Homayoun Valafar*, Kristen L. Mayer, Peter D. LeBlond,
    Catherine Bougault, and James H. Prestegard
    University of Georgia, Georgia, USA
O. Segmentation of Electrophoretic Images in Doping Control
    Herbert Ramoser, Jurgen Biber, Ivan Bajla, and
    Igor Hollander
O. A Pilot Study into the Use of HCI in Replacing Drug
    Treatment Charts for Use with Patients
    R. Chowdhury, G. Pearce*, and H. Ashdown
    Wolverhampton University, UK
O. Algorithm Design with MATLAB for Cryosection Image Processing
    Xiaolin Tian*, Yan Zhao, and Zesheng Tang
    Macao University of Science and Technology, Macao
O. An Improved Analysis on De-Noising Using B-SPLINE
    with Adaptation
    Poornachandra S, Dr. Kumaravel N, Karthikeyan K P,
    Karthikeyan J, and Karthik G
O. Denoising Electrocardiogram Using Soft Thresholding
    in Iterative Wavelet Domain
    Karthikeyan K P, Karthikeyan J, Karthik G,
    Jai Krishna Prabhu P, and Dilip G

LIST OF PAPERS IN DISCUSSION SESSION C-METMBS:

O. Exploring of Radiation Resistance from Bacterium Deinococcus
    Radiodurans R1 by Amino Acid Compositions of Proteins: View
    from Comparative Whole Protein Sequences
    Chia-Wen Chang*, Wen-Chang Chang*/**, Mao-Yen Chen**,
    and Cheng-Yan Kao*
    *National Taiwan University, Taipei, Taiwan
    **Academia Sinica, Taipei, Taiwan
O. A System Biology Informatics Systems Integration Framework
    Thomas J. Wheeler
    University of Maine, Orono, Maine, USA
O. A Site-Based Method for Prediction of Protein
    Orthologous Relations
    Hsuan-Chao Chiu and Yuh-Jyh Hu
    National Chiao Tung University, Hsinchu, Taiwan
O. Using Statistical Properties of Short Subsequences in
    Microbial Identification
    Sergei Chumakov, Catherine Putonti, B. Montgomery Pettitt,
    George E. Fox, Richard C. Willson, and Yuriy Fofanov
    University of Houston, Texas, USA
O. Retrospective Cohort Investigation of Risk Factors
    For Breast Cancer
    N. V. Boroday**, D. A. Klyushin***, Yu. I. Petunin***,
    O. Lyakhovka***, A. Miropolska***, R. I. Andrushkiw*
    *New Jersey Institute of Technology, Newark, NJ, USA
    **National Academy of Sciences of Ukraine, Ukraine
    ***Kiev National Taras Shevchenko University, Ukraine
O. Disulfide Connectivity Prediction Using Support Vector
    Machine and Novel Features
    Ci-Hun Tsai, Huai-Kuang Tsai*, Shih-Chieh Chen, and Cheng-Yan Kao
    National Taiwan University, Taiwan
O. Comparison of the Pudendo-to-Pudendal and Pelvic-to-Pudendal
    Nerve Reflexes in Urethane-Anesthetized Rats
    Hui-Yi Chang*, Chi-Wei Peng*, Jia-Jin J. Chen*, Chen-Li Cheng**,
    and William C de Groat***
    *National Cheng Kung University, Tainan, Taiwan
    **Taichung Veterans General Hospital, Taichung, Taiwan
    ***University of Pittsburgh School of Medicine, Pennsylvenia, USA
O. Recognition of Child's Expressions and Reactions Using
    Multimedia Communication Network For Examining Child's
    Development
    Rini Pura Kirana and Akihiko Sugiura
    Toyohashi University of Technology, Toyohashi, Japan
O. Antigen Epitope Density Dependent Cell Surface
    Discrimination and the Role of the Lipid Rafts
    German Nudelman and Yoram Louzoun
    Bar-Ilan University, Ramat-Gan, Israel

LIST OF PAPERS IN DISCUSSION SESSION D-METMBS:

O. An Extended Linear Strategy Bridging the Gap Between
    Regression and SVD Decomposition for Modeling Protein
    Tandem Mass Spectrometry Dat
    Han Liu
O. The Study on Protein Folding Based on The Small-World
    Effect of Complex Network
    Lu Quanguo and Chen Dingfang
O. Medical Data Mining: Case of Cervical Cancer
    Mohamad Saraee, Tim Ritchings, and Chufan Feng
O. Piecewise Fittings of the Saccadic Velocity Profiles
    Using the Rational Power Functions
    Hsuan-Hung Lin, Yung-Fu Chen, Tainsong Chen,
    and Tze-Tung Tsai
O. A Tool to Determine the Specificity of Antisense Oligonucleotide
    Yu-Cheng Huang, Yu-Chih Chao, Shwu-Bin Lin, Huai-Kuang Tsai,
    and Cheng-Yan Kao
    National Taiwan University, Taipei, Taiwan
O. A Practical and Efficient Web-Based Dermatology System
    Tarek Alameldin, Preston J. Cooper, and Amitesh Sinha
    California State University Fresno, California, USA
O. Rating Visual Capability for Computer Access with a
    Fuzzy Rule-Based Model
    Thomas A. Pushchak and Sreela Sasi
    Gannon University, USA

MLMTA'04 CONFERENCE SCHEDULE

**The 2004 International Conference on Machine Learning;
Models, Technologies and Applications**

Monte Carlo Resort, Las Vegas, Nevada, June 21-24, 2004

Note: There are a number of other sessions (not listed here) that are of potential significant interest to MLMTA conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences.

June 20

03:00 - 09:00pm: REGISTRATION (Second Floor, Conference Lobby; 1-5)

6:30am – 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

08:40 – 09:00am: **MultiConference Opening Remarks**
Hamid R. Arabnia (General Chair, 2004 IMCSCE)
University of Georgia, Georgia, USA
(LOCATION: Lance Burton Theater)

09:00 – 09:05am: **Introduction of Keynote Speaker by Prof. H. J. Siegel**
(LOCATION: Lance Burton Theater)

09:05 – 10:05am: **MultiConference Keynote Lecture:**
Computer Architecture, The Road Ahead
Professor Michael Flynn
Stanford University, USA
(LOCATION: Lance Burton Theater)

10:05 – 10:30am: **BREAK**

SESSION 1-MLMTA: **NATURAL LANGUAGE ENGINEERING FOR MACHINE TRANSLATION**
& KNOWLEDGE MANAGEMENT SYSTEMS
Chair: Dr. Elena B. Kozerenko
June 21, 2004 (Monday); 10:30am - 12:30pm
(LOCATION: Conference Room G)

10:30 – 10:50am: Syntactic Polysemy in Machine Translation
Elena B. Kozerenko
Institute for Informatics Problems of Russian Academy
of Sciences, Moscow, Russia

10:50 – 11:10am: Post-Processing of OCR Results Using Automatically
Constructed Partially Defined Syntax
Vassili V. Postnikov and Dmitry L. Sholomov
Institute for System Analysis of the Russian
Academy of Sciences, Moscow, Russia

11:10 – 11:30am: Using Linguistic Resources to Build Conceptual Graphs
John Dunnion
University College Dublin, Ireland

11:30 – 11:50am: A Topic Detection System for the News Domain
John Dunnion
University College Dublin, Ireland

11:50 – 12:10pm: Learning Natural Language Using Genetic Algorithms
J. Nelson Rushton
Texas Tech University, Lubbock, Texas, USA

12:10 – 12:30pm: FREE SLOT

12:30 – 01:30pm: **LUNCH (On Your Own)**

01:30 - 04:10pm: Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to MLMTA
                   conference participants (sessions belonging to other
                   joint conferences in this event.) Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences (in particular, schedules for IC-AI, PDPTA,
                   and IKE.)

09:00 - 11:00pm: CONFERENCE RECEPTION DINNER - June 21 (Monday)
                   (LOCATION: Meeting Rooms 1-5)

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

10:00 - 10:40am: **DISCUSSION SESSION A-MLMTA (Refreshments will be available)**
                       June 22 (Tuesday)
                       (LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
                       List of papers appears at the end of MLMTA's schedule.

10:40a - 03:20p: Note: There are a number of other sessions (not listed here)
                       that are of potential significant interest to MLMTA
                       conference participants (sessions belonging to other joint
                       conferences in this event.) Therefore, you are encouraged to
                       also check the schedules for other joint conferences (in
                       particular, schedules for IC-AI, PDPTA, and IKE.)

03:20 - 03:40pm: **BREAK**

SESSION 2-MLMTA: **CLASSIFICATION**
                       Chair: Dr. Evelyne Hausen-Tropper, USA
                       June 22, 2004 (Tuesday); 3:40 - 5:00pm
                       (LOCATION: Conference Room G)

03:40 - 04:00pm: An Empirical Evaluation of the Classification Error
                       of Two Thresholding Methods for Fisher's Classifier
                       Luis Rueda* and Alioune Ngom
                       University of Windsor, Windsor, Canada

04:00 - 04:20pm: Supervised Segmentation of Visible Human Data with
                       Image Analogies
                       James B. Lackey and Michael D. Colagrosso*
                       Colorado School of Mines, Golden, Colorado, USA

04:20 - 04:40pm: Support Vector Machine Classification of Ultrasonic
                       Shaft Inspection Data Using Discrete Wavelet Transform
                       Kyungmi Lee* and Vladimir Estivill-Castro
                       Griffith University, Nathan, Australia

04:40 - 05:00pm: Training Distributed Cooperating Classifiers
                       Dale E. Courte
                       University of Dayton, Ohio, USA

SESSION 3-MLMTA: **ALGORITHMS**
                       Chair: Dr. Evelyne Hausen-Tropper, USA
                       June 22, 2004 (Tuesday); 5:00 - 5:40pm
                       (LOCATION: Conference Room G)

05:00 - 05:20pm: A Comparison of Resampling Methods for Clustering Ensembles
                       Behrouz Minaei-Bidgoli*, Alexander Topchy, and
                       William F. Punch
                       Michigan State University, East Lansing, Michigan, USA

05:20 - 05:40pm: Comparison of MLP and Bayesian Approaches on Mineral
                       Prospectivity Mapping Tasks
                       Andrew Skabar
                       Deakin University, Burwood, Victoria, Australia

7:00am - 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

10:00 - 10:40am: **DISCUSSION SESSION B-MLMTA (Refreshments will be available)**
June 23 (Wednesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of MLMTA's schedule.

SESSION 4-MLMTA: **ALGORITHMS**
Chair: Dr. M. Saraee, UK
June 23, 2004 (Wednesday); 10:40am - 12:00pm
(LOCATION: Conference Room G)

10:40 - 11:00am: Action Inhibition
Myriam Abramson
George Mason University, Virginia, USA

11:00 - 11:20am: K-medoid-style Clustering Algorithms for Supervised
Summary Generation
Nidal Zeidat* and Christoph F. Eick
University of Houston, Houston, Texas, USA

11:20 - 11:40am: Improving Decision Trees by Clustering
Venkat Chalasani
SRA International, Fairfax, Virginia, USA

11:40 - 12:00pm: Use of Histogram Distances in Iris Authentication
Seung-Seok Choi, Sungsoo Yoon, Sung-Hyuk Cha*, and
Charles C. Tappert
Pace University, Pleasantville, New York, USA

12:00 - 01:00pm: **LUNCH (On Your Own)**

SESSION 5-MLMTA: **DATA ANALYSIS & MODELING & LEARNING**
Chair: Dr. M. Saraee, UK
June 23, 2004 (Wednesday); 1:00 - 2:20pm
(LOCATION: Conference Room G)

01:00 - 01:20pm: Capturing Temporal Sequences for Text Representation
Using Hierarchical SOMs
Xiao Luo*, A. Nur Zincir-Heywood
Dalhousie University, Halifax, Canada

01:20 - 01:40pm: Anti-Spam Filtering Using Neural Networks
Yue Yang, Sherif Elfayoumy*, and Sanjay Ahuja
University of North Florida, Florida, USA

01:40 - 02:00pm: A Data Signature Approach for Analyzing, Manipulating
and Understanding Collections of Graphical Summaries
of Scenarios
Paul Whitney*, George Chin*, Olga Kuchar*, Mary Powers*,
Katherine E. Johnson*, and McLean Sloughter**
*Pacific Northwest National Lab., Richland, WA, USA
**University of Washington, Seatle, WA, USA

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02:00 - 02:20pm:  Authoritative Citation KNN Learning with Noisy
                  Training Datasets
                  Joseph Bernadt* and Leen-Kiat Soh
                  University of Nebraska, Lincoln, NE, USA
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SESSION 6-MLMTA: CLASSIFICATION
                     Chair: Dr. Ruijian Zhang
                     June 23, 2004 (Wednesday); 2:20 - 3:00pm
                     (LOCATION: Conference Room G)

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02:20 - 02:40pm:  Real-Time Gene-Expression Extraction with Fast
                  Classification (FC) Networks
                  Yan Chen*, Yi-Ping Phoebe Chen*/**, and Jihan Zhu***
                  *Deakin University, Australia
                  **Australia Research Council Ctr in Bioinformatics, Australia
                  ***University of Queensland, Australia

02:40 - 03:00pm:  A New Model for Classification Problems by Second Order
                  Cone Programming
                  Rameswar Debnath*, Masakazu Muramatsu, and
                  Haruhisa Takahashi
                  University of Electro-Communications, Tokyo, Japan

03:00 - 03:20pm:  FREE SLOT
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03:20 - 03:40pm: BREAK

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03:40 - 05:40pm:  Note: There are a number of other sessions (not listed here)
                  that are of potential significant interest to MLMTA
                  conference participants (sessions belonging to other
                  joint conferences in this event.)  Therefore, you are
                  encouraged to also check the schedules for other joint
                  conferences (in particular, schedules for IC-AI, PDPTA,
                  and IKE.)
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7:30am - 11:00am: Registration (Second Floor, Conference Lobby: 1-5)

08:20a – 05:40p: Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to MLMTA
                   conference participants (sessions belonging to other
                   joint conferences in this event.) Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences (in particular, schedules for IC-AI, PDPTA,
                   and IKE.)

LIST OF PAPERS IN DISCUSSION SESSION A-MLMTA:

O. Feature Subset Selection in SOM Based Text Categorization
    S. Bassiouny, M. Nagi, and M. F. Hussein*
    University of Alexandria, Alexandria, Egypt
O. Polarized Lexicon for Review Classification
    Sreenivasa P. Sista* and S. H. Srinivasan
    Satyam Computer Services Limited, Bangalore, India
O. Multi-Class SVM and Its Application in TM Image Segmentation
    Qi Hengnian, Fang Luming, and Ding Lixia
    Zhejiang University, P. R. China
    Zhejiang Forestry University, P. R. China
O. Task-Oriented Machine Learning and Review
    Pierre Abdelmalek and Howard E. Michel*
    University of Massachusetts, Dartmouth, Massachusetts, USA
O. Using Machine Learning Techniques for Stylometry
    Ramyaa, Congzhou He, and Khaled Rasheed
    University of Georgia, Georgia, USA
O. A Faster Data Structure and Algorithm for the Machine
    Learning System Gandalf
    E. Hausen-Tropper
    University of Quebec at Montreal, Canada &
    Plattsburgh State University, New York, USA
O. A Noise Metric on Binary Training Inputs and a
    Framework for Learning Generalization
    Ahmet Ugur & H. Thompson; Central Michigan University,
    Mt. Pleasant, MI, USA
O. Analysis of Performance of Neural Networks in Password
    Authentication Using the Back Propagation Algorithm
    Hend F. Kendela
    Ajman University for Sci. & Tech. Network, United Arab Emirates
O. High Dimension Web Cluster Algorithm
    Le Zhang*, Xingui Tang, and Weizhong Dai
    Louisiana Tech University, Ruston, LA, USA
O. Exploratory Analysis of Transaction Data
    Paul Whitney*, Mark Weimar, and Gus Calapristi
    Pacific Northwest National Laboratory, Richland, WA, USA
O. Sawtooth Identification and Counting of Leaf Edge Based on SVM
    Hengnian Qi* and Jiangang Yang
    Zhejiang University, P. R. China
O. Improved Data-Filtering for Linear Systems by Means
    of Normalized Centroid Vectors
    Jonathan P. Bernick
    Coastal Carolina University, Conway, SC, USA
O. Statistical Issues with Labeled Sample Size Analysis
    for Semi-Supervised Linear Discriminant Analysis
    Han Liu*, Di Wu*, Xiaobin Yuan*, Xiaolin Yang**,
    Ji Zhang*, and Rafal Kustra*
    *University of Toronto, Toronto, Canada
    **Harbin Institute of Technology, P. R. China

DISCUSSION SESSION B-MLMTA
June 23 (Wednesday), 2004
MLMTA RRR/SRP/PST Papers
10:00 - 10:40am
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)

LIST OF PAPERS IN DISCUSSION SESSION B-MLMTA:

O.   VisiLogic: An Intelligent Visual Tool for Teaching
     Digital Logic
     Georgios A. Demetriou*, W. Eugene Simmons**, and
     Dawn McKinney**
     *University of Southern Mississippi, Mississippi, USA
     **University of South Alabama, Mobile, Alabama, USA
O.   Utterance Verification Based on Support Vector Machine
     Binfeng Yan* and Xiaoyan Zhu
     Tsinghua University, Beijing, P. R. China
O.   PCA for Face Detection
     Young Lee* and James R. Parker
     University of Calgary, Calgary, Canada
O.   Natural Language Processing and Diagrams
     David Dodds
     Open-Meta Computing Inc, Coquitlam, BC, Canada
O.   Recognition of Image With Natural Textures Based on
     Cheng Xian-Yi, Yuan Xiao-Hua, Li Shu-Qin, and Xia De-Shen
O.   Discrete Sequence Prediction Using Machine Learning Methods
     Hooshang Sharif and Michael Conner
O.   Design and Fabrication of Mobile Pick and Place Robot
     Karthikeyan.S and Muralidharan.G
O.   Application of Data Mining: Case of Road Accidents in
     the UK West Midlands Area
     Mohamad Saraee, Jonathan kerry, Michelle Lloyd, and
     Christine Markey
O.   SVM Categorizer: A Generic Categorization Tool Using
     Support Vector Machines
     Elias Kapoutsis, Babis Theodoulidis, and Mohamad Saraee
O.   Two-Phase Robustness Analysis for Optimal Feedforward
     Neural Network Architecture Selection
     L. A. Yu, K. K. Lai, and S. Y. Wang
O.   Genetic Programming Reconsidered
     Russ Abbott
O.   Fuzzy Clustering on Satellite Image Data as an Identifier
     to the Locations of the Volcanoes on the Planet Venus
     Serdar Turkeli
O.   Seek Appropriate Training Set for Neural Networks
     Forecasting
     Wei Huang, Yoshiteru Nakamori, and Shouyang Wang
O.   Using Constructive Induction to Enhance the Predictive
     Accuracy of the C5 Machine Learning Environment
     Ruijian Zhang

CIC'04 CONFERENCE SCHEDULE

**The 2004 International Conference on
Communications in Computing**

Monte Carlo Resort, Las Vegas, Nevada, June 21-24, 2004

*Note: There are a number of other sessions (not listed here) that are of potential significant interest to CIC
conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint conferences.*

June 20

03:00 - 09:00pm: REGISTRATION (Second Floor, Conference Lobby; 1-5)

6:30am - 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

08:40 - 09:00am: **MultiConference Opening Remarks**
Hamid R. Arabnia (General Chair, 2004 IMCSCE)
University of Georgia, Georgia, USA
(LOCATION: Lance Burton Theater)

09:00 - 09:05am: **Introduction of Keynote Speaker by Prof. H. J. Siegel**
(LOCATION: Lance Burton Theater)

09:05 - 10:05am: **MultiConference Keynote Lecture:**
Computer Architecture, The Road Ahead
Professor Michael Flynn
Stanford University, USA
(LOCATION: Lance Burton Theater)

10:05 - 10:30am: **BREAK**

10:30 - 11:50am: Note: There are a number of other sessions (not listed here) that are of potential significant interest to CIC conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences (in particular, schedules for PDPTA, ESA, IC, ICWN, PCC, SAM, and ERSA.)

11:50 - 12:45pm: **LUNCH (On Your Own)**

12:45 - 12:50pm: **Opening Remarks (CIC'04 Chair, Dr. Brian d'Auriol)**

12:50 - 01:30pm: **CIC'04 Keynote**
Yi Pan; Georgia State University, USA

SESSION 1-CIC: **WORKSHOP: KNOWLEDGE PRESENTATION, SHARING, MINING, & PROTECTION (PSMP)**
Chair: Dr. Jan Smid
June 21, 2004 (Monday); 1:30 - 4:10pm
(LOCATION: Chapel)

01:30 - 01:50pm: Lexicon in TIL and Verb Valency Frame
A. Horak and K. Pala

01:50 - 02:10pm: Dialogues for Agent Communication
I. Kopecek

02:10 - 02:30pm: Word Association Thesaurus as Semantic Networks
A. Sinopalnikova and P. Smrz

02:30 - 02:50pm: Semantically Based Knowledge Representation
Jan Smid, M. Obitko, and V. Snasel

02:50 - 03:10pm: Towards a Comprehensive Peer-to-Peer Communication Model
J. Pajaro and B. d'Auriol

03:10 - 03:30pm: Wordnet Ontology Based Model for Information Retrieval
                  P. Moravec, M. Kolovrat, and V. Snasel

03:30 - 03:50pm: Communication in Robot-Soccer Game
                  V. Snasel, B. Horak*, M. Obitko, and J. Smid

03:50 - 04:10pm: Designing Ontologies Using Formal Concept Analysis
                  M. Obitko, V. Snasel, and J. Smid

04:10 - 05:10pm: DISCUSSION SESSION A-CIC (Refreshments will be available)
                  June 21 (Monday)
                  (LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
                  List of papers appears at the end of CIC's schedule.

09:00 - 11:00pm: CONFERENCE RECEPTION DINNER - June 21 (Monday)
                  (LOCATION: Meeting Rooms 1-5)

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 2-CIC: - I **NETWORK SIMULATION & PERFORMANCE ANALYSIS: PRACTICE & THEORY**

Chair: Dr. Antonio Pescape
June 22, 2004 (Tuesday); 8:20 - 10:00am
(LOCATION: Chapel)

08:20 - 08:40am: Predicting TCP/IP Stack Timings with Artificial
Neural Networks
R. Dwayne Ramey* and Robert S. Tarte
Cumberland University, USA

08:40 - 09:00am: Overview and Application of a Modelling Simulation
Environment to Support Protocol Performance Evaluations
in Mobile Communications Networks
G. Comparetto*, E. Lindy, M. Mirhakkak, and N. Schult

09:00 - 09:20am: Intelligent CAC and Routing for Multi-Point Connections
Pham Van Tien, Franz Rammig, and Yoshiaki Tanaka

09:20 - 09:40am: Tansport Service for Session Initiation Protocol in
SIP-T Scenarios
Luigi Alcuri* and Michele L. Fasciana
Univ. di Palermo-Dipartimento di Ingegneria Ele. (DIE),
Italy

09:40 - 10:00am: Cochannel Interference Reduction for CDMA Wireless
Communications
M. A. Salam, M. M. Al-Khatib, and S. Alsharif
University of South Alabama, Mobile, AL, USA

10:00 - 10:40am: **DISCUSSION SESSION B-CIC (Refreshments will be available)**
June 22 (Tuesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of CIC's schedule.

SESSION 3-CIC: - II **NETWORK SIMULATION & PERFORMANCE ANALYSIS: PRACTICE & THEORY**

Chair: Dr. Antonio Pescape
June 22, 2004 (Tuesday); 10:40am - 2:00pm
(LOCATION: Chapel)

10:40 - 11:00am: Progressive Scheduling Models for Next
Generation Networks
J. Tsiligaridis* and R. Acharya
Amherst, New York, USA

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11:00 - 11:20am:  Receiver-Initiated Collision Avoidance in Multi-Hop
                  Ad Hoc Networks
                  Renato M. de Moraes* and J. J. Garcia-Luna-Aceves
                  University of California, Santa Cruz, CA, USA


11:20 - 11:40am:  An Adaptable, Role-Based Simulator for P2P Networks
                  Vasilios Darlagiannis, Andreas Mauthe,
                  Nicolas Liebau, and Ralf Steinmetz


11:40 - 12:00pm:  Audio Quality for a Simple Forward Error Correcting Code
                  Yvan Calas* and Alain Jean-Marie
                  LIRMM, Montpellier, France
```

12:00 - 12:40pm: LUNCH (On Your Own)

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12:40 - 01:00pm:  An Empirical Validation of Robust Active Queue
                  Management Control
                  S. Manfredi*, M. di Bernardo, and Franco Garofalo
                  Universito di Napoli Federico II, Napoli, Italy


01:00 - 01:20pm:  A Competitive Model of User Behaviour for Resource
                  Allocation in Congested Networks
                  S. Manfredi*, M. di Bernardo, and Franco Garofalo
                  Universito di Napoli Federico II, Napoli, Italy


01:20 - 01:40pm:  Identifying and Evaluating Critical Infrastructures -
                  A Goal-Driven Dependability Analysis Framework
                  Paolo Donzelli, Roberto Setola*, and Salvatore Tucci
                  Universita' Campus Biomedico di, Roma, Italy


01:40 - 02:00pm:  On the Analysis of Packet-Train Probing Schemes
                  Andreas Johnsson*, Bob Melander, and Mats Bjorkman
                  Sweden



02:00 - 05:40pm:  Note: There are a number of other sessions (not listed here)
                  that are of potential significant interest to CIC
                  conference participants (sessions belonging to other
                  joint conferences in this event.)  Therefore, you are
                  encouraged to also check the schedules for other joint
                  conferences (in particular, schedules for PDPTA, ESA,
                  IC, ICWN, PCC, SAM, and ERSA.)
```

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 4-CIC: **SWITCHING, ROUTING & OPTIMIZATION FOR TELECOMMUNICATION**
                       NETWORKS (SROTN) - INTERNET, OPTICAL & WIRELESS
                       NETWORKING, & BROADBAND HIGH SPEED NETWORKS
                       Chair: Prof. Ping-Tsai Chung
                       June 23, 2004 (Wednesday); 8:20 - 10:00am
                       (LOCATION: Chapel)

08:20 - 08:40am: An Adaptive Bandwidth Control Algorithm for IP Routers
                       Y. Drabu and Hassan Peyravi*
                       Kent State University, Kent, Ohio, USA

08:40 - 09:00am: Analysis of 4th Degree Chordal Rings
                       S. Bujnowski, B. Dubalski*, and A. Zabludowski
                       Institute of Telecommunications ATR, Poland

09:00 - 09:20am: On the Existence of Nash Equilibria in Power Based
                       Flow Control for Virtual Circuits in Networks
                       Ping-Tsai Chung* and Richard Van Slyke**
                       *Long Island University, Brooklyn, New York, USA
                       **Polytechnic University, Brooklyn, New York, USA

09:20 - 09:40am: Convergence of Noncooperative Bottleneck Flow Control
                       for Virtual Circuits in Two User Networks
                       Ping-Tsai Chung* and Richard Van Slyke**
                       *Long Island University, Brooklyn, New York, USA
                       **Polytechnic University, Brooklyn, New York, USA

09:40 - 10:00am: An Efficient Delay Sensitive Multicast Routing Algorithm
                       Gang Feng
                       University of Wisconsin, Platteville, WI, USA

10:00 - 10:40am: **DISCUSSION SESSION C-CIC (Refreshments will be available)**
                       June 23 (Wednesday)
                       (LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
                       List of papers appears at the end of CIC's schedule.

SESSION 5-CIC: **INTERCONNECTION & OPTICAL NETWORKS**
                       Chair: Dr. Gang Feng, USA
                       June 23, 2004 (Wednesday); 10:40am - 12:00pm
                       (LOCATION: Chapel)

10:40 - 11:00am: Some Properties of Swapped Interconnection Networks
                       Behrooz Parhami
                       University of California, Santa Barbara, USA

11:00 - 11:20am: Fault-Tolerant Networks for Electronic Textiles
                       Zahi Nakad, Mark Jones*, and Thomas Martin
                       Virginia Polytechnic Institute & State University, USA

```
11:20 - 11:40am:   Hexagonal and Pruned Torus Networks as Cayley Graphs
                   Wenjun Xiao* and Behrooz Parhami**
                   *Xiamen University, P. R. China
                   **University of California, Santa Barbara, USA


11:40 - 12:00pm:   Probabilistic Analysis of Wavelength Assignment in
                   WDM Optical Networks with Random Connection Requests
                   Keqin Li
                   SUNY, New Paltz, USA
```

12:00 - 01:00pm: LUNCH (On Your Own)

```
01:00 - 05:40pm:   Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to CIC
                   conference participants (sessions belonging to other
                   joint conferences in this event.)  Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences (in particular, schedules for PDPTA, ESA,
                   IC, ICWN, PCC, SAM, and ERSA.)
```

7:30am - 11:00am: Registration (Second Floor, Conference Lobby: 1-5)

SESSION 6-CIC: **NETWORK PROTOCOLS & QoS + ARCHITECTURE & SYSTEMS**
                                Chair: Dr. Victor Clincy, USA
                                June 24, 2004 (Thursday); 8:20 - 10:00am
                                (LOCATION: Conference Room G)

08:20 – 08:40am: Employing Active Admission Control as Traffic
Engineering Mechanism in QoS Multicast Routing
Bo Rong*, Maria Bennani*, Michel Kadoch* & A. Elhakeem**
*Universite du Quebec, Montreal, Canada
**Concordia University, Montreal, Canada

08:40 – 09:00am: Client-Side Encoding, Protocol and Transport
Extensibility for Remoting Systems
Harold Carr
Sun Microsystems, Inc. USA

09:00 – 09:20am: TCP Vegas-Like Algorithm for Layered Multicast Transmission
Omar Ait-Hellal* and Guy Leduc**
*Long Island University, USA
**Universite de Liege, Belgium

09:20 – 09:40am: Voice Over Multi-Protocol Label Switching
(VoMPLS) - A Case Study
Victor A. Clincy* and Nael Abu-Halaweh
Kennesaw State University, Kennesaw, Georgia, USA

09:40 – 10:00am: Modeling and Fabrication of RF MEMS Switches
Barbara Robertson*, Fat Duen Ho**, and Tracy Hudson*
*US Army Research, Weapons Sciences Dir, Alabama, USA
**University of Alabama in Huntsville, Alabama, USA

10:00 - 10:40am: **DISCUSSION SESSION D-CIC (Refreshments will be available)**
June 24 (Thursday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of CIC's schedule.

10:40a – 03:00p: Note: There are a number of other sessions (not listed here)
that are of potential significant interest to CIC
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joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint
conferences (in particular, schedules for PDPTA, ESA,
IC, ICWN, PCC, SAM, and ERSA.)

SESSION 7-CIC: **ARCHITECTURE & SYSTEMS + MODELING**
Chair: Dr. Victor Clincy, USA
June 24, 2004 (Thursday); 3:00 - 3:40pm
(LOCATION: Conference Room G)

03:00 - 03:20pm: Digital Channel Modelling Based on Chaotic Signal
Generators and Application to ATM Networks
Wilson W. C. Chiu* and Stevan M. Berber
University of Auckland, New Zealand

03:20 - 03:40pm: Communication Induced Checkpoint Protocol for
Multimedia Network Systems
Masakazu Ono* and Hiroaki Higaki
Tokyo Denki University, Japan

SESSION 8-CIC: **NETWORKS AND ROUTING**
Chair: Dr. Brian d'Auriol, USA
June 24, 2004 (Thursday); 3:40 - 4:20pm
(LOCATION: Conference Room G)

03:40 - 04:00pm: Broadband Communication in Access Network
Ayman Ghobrial** and Reza Adhami*
*University of Alabama in Huntsville, Alabama, USA
**ADTRAN, Inc., Huntsville, Alabama, USA

04:00 - 04:20pm: Temporal Difference Learning in Network Routing
Reid Broadbent, Casey T. Deccio, and Mark Clement
Brigham Young University, USA

SESSION 9-CIC: **ALGORITHMS & PARTITIONING METHODS**
Chair: Dr. Brian d'Auriol, USA
June 24, 2004 (Thursday); 4:20 - 5:40pm
(LOCATION: Conference Room G)

04:20 - 04:40pm: A Study on Exact Algorithm for Topology Discovery
of Capacitated Minimum Spanning Tree Network
Yong-Jin Lee* and M. Atiquzzaman**
*Woosong University, Korea
**University of Oklahoma, USA

04:40 - 05:00pm: Detection of Peaks in Spectral Representation of
Music Signals
Hamid Satar-boroujeni and Bahram Shafai*
Northeastern University, Boston, MA, USA

05:00 - 05:20pm: Design of Distributed Component Frameworks for
Computational Grids
M. Govindaraju*, himanshu Bari, & Michael Lewis
SUNY Binghamton, USA

05:20 - 05:40pm: Efficient Communication Channel Utilization for
Mapping FFT onto Mesh Array
Cheng-Yi Chen*, Soonkeon Kwon, and Kaushik Roy
Purdue University, USA

LIST OF PAPERS IN DISCUSSION SESSION A-CIC:

O. Quality Of Service (QoS) Controls In Core Of The Internet
    Deepak Mathur; Kean University, USA
O. Availability requirements of a Core Switch
    Deepak Mathur; Kean University, USA
O. Software Architecture of a Network Fault Management
    System in Real Time
    Thomas J. Liu; New Jersey City University, NJ, USA
O. A Survivable Multi-agent Approach to Network Routing
    Casey T. Deccio, Mark Clement, and Quinn Snell
    Brigham Young University, USA
O. A Server Placement Algorithm for Overlay Networks
    Delivering end-to-end QoS
    Bart De Vleeschauwer, Filip De Turck*, Bart Dhoedt,
    and Piet Demeester; Ghent University - IMEC, Gent, Belgium
O. Network Performance Measurement Tools
    Guillermo A. Francia, III, Aditya Kilaru, Le Phuong, and
    Mehul B. Vashi; Jacksonville State University, Alabama, USA

LIST OF PAPERS IN DISCUSSION SESSION B-CIC:

O. Backoff Time Shifting Mechanism for Distributed Fair
    Scheduling in Wireless LANs
    Kee-Hyum Choi*, Kyung-Soo Jang**, Ho-Jin Shin*, and
    Dong-Ryeol Shin*
    *Sungkyunkwan University, Korea / **Kyungin Women's College, Korea
O. Architecture for Network Processors: Aspects,
    Evaluation, and Trends
    Mohammad Shorfuzzaman*, Rasit Eskicioglu, and Peter C. J. Graham
    University of Manitoba, Canada
O. A Study of Dispersion-Based Measurement Methods in
    IEEE 802.11 Ad-Hoc Networks
    Andreas Johnsson*, Mats Bjorkman, and Bob Melander; Sweden
O. Remote Level Access Redirection for QoS-Aware Web Servers
    M. Aramudhan and V. Rhymend Uthaiaraj
O. An Efficient Channel Equalization on the Transmission
    of Turbo Coded Signals
    Oguz Bayat, Bahram Shafai*, and Osman N. Ucan
    Northeastern University, Boston, MA, USA
O. Throughput Analysis Based on New Backoff Scheme
    Ho-Jin Shin* and Dong-Ryeol Shin; Sungkyunkwan University, Korea

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LIST OF PAPERS IN DISCUSSION SESSION C-CIC:

O.  Defining Trustworthiness in Peer-to-Peer(P2P) Communication
    Farookh Khadeer Hussain, Elizabeth Chang, and Tharam Dillon
O.  Multi-Player Gaming for Mobile Phones through GPRS/WCDMA
    Samir Omar and L. Hesieh
O.  QoS Guaranteed SIP Communication Service by Bandwidth
    Reservation at Edge
    Wonchul Chung, Jung-Ho Kim, Han-Ho Cheong, and Sanghyuck Lee
O.  HYPHEN - A File Replication Strategy Analyzer on P2P Networks
    M. Arshad Islam and M. Mehboob Yasin
O.  Network Managment System In Active Networks
    Velmurugan and Shantha
```

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LIST OF PAPERS IN DISCUSSION SESSION D-CIC:

O.  An Optimistic Deadlock Free Adaptive Routing Algorithm
    for Two-Dimensional Meshes
    R. S. Rajesh* and S. Arumugam**
    *M.S. University, India
    **Govt. College of Engineering, Coimbatore, India
O.  A Novel Double-Link Failure Protection Algorithm in
    WDM Mesh Networks
    Lei Guo*, Hongfang Yu, Tao Zhou, and Lemin Li
    Univ. of Elec. Sc. & Tech. of China, P. R. China
O.  Remote Controlling the PC Applications Using Mobile Phone
    P. Kurinchi
O.  New DBA Algorithm Supporting QoS for EPON
    Seong-Ho Jang and Jong-Wook Jang
O.  Handoff Improvement between WiFi and CDMA2000
    Samir Omar and J. Lee
O.  Dynamic Characteristics of k-ary n-cube Networks
    for Real-time Communication
    Gerald Fry and Richard West
O.  Enabling CDN for Live Streaming: A Joint Server-CDN Perspective
    Yunfei Zhang
O.  On the Union of Chord-like Networks
    Yunfei Zhang
```

VLSI'04 CONFERENCE SCHEDULE

The 2004 International Conference on VLSI

Monte Carlo Resort, Las Vegas, Nevada, June 21-24, 2004

Note: There are a number of other sessions (not listed here) that are of potential significant interest to VLSI conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences.

June 20

03:00 - 09:00pm: REGISTRATION (Second Floor, Conference Lobby; 1-5)

6:30am – 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

08:40 – 09:00am: **MultiConference Opening Remarks**
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(LOCATION: Lance Burton Theater)

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(LOCATION: Lance Burton Theater)

09:05 – 10:05am: **MultiConference Keynote Lecture:**
Computer Architecture, The Road Ahead
Professor Michael Flynn
Stanford University, USA
(LOCATION: Lance Burton Theater)

10:05 – 10:30am: **BREAK**

SESSION 1-VLSI: **HIGH PERFORMANCE, LOW POWER VLSI DESIGN**
Chair: Dr. Jabulani Nyathi
June 21, 2004 (Monday); 10:30 - 11:50am
(LOCATION: Chapel)

10:30 – 10:50am: A Novel Segmented Parabolic Sine Approximation
for Direct Digital Frequency Synthesizers
David J. Betowski, Daniel Dwyer, and Valeriu Beiu
Washinton State University, Pullman, WA, USA

10:50 – 11:10am: An H-Tree Configuration Scheme for Reconfigurable
DSP Hardware
Andy Widjaja and Jose G. Delgado-Frias*
Washinton State University, Pullman, WA, USA

11:10 – 11:30am: A Distributed FIFO Scheme for System on Chip
Inter-Component Communication
Robert Ray Rydberg, Jabulani Nyathi*, and
Jose G. Delgado-Frias
Washinton State University, Pullman, WA, USA

11:30 – 11:50am: Optimal Practical Perceptron Addition – Application
to Single Electron Technology
Valeriu Beiu and Mawahib Sulieman*
Washinton State University, Pullman, WA, USA

SESSION 2-VLSI: **BIOLOGICAL & QUANTUM COMPUTING**
Co-Chairs: Dr. Hussain Al-Asaad, USA & Dr. Nazmul Ula, USA
June 21, 2004 (Monday); 11:50am - 12:30pm
(LOCATION: Chapel)

11:50 – 12:10pm: Repair of the Genetic Material in Biologically
Inspired Embryonic-Cell-Based Systems
X. Zhang, G. Dragffy, and A. G. Pipe
University of the West of England, UK

```
12:10 - 12:30pm:   A Scalable Coprocessor for Bioinformatic Sequence
                   Alignments
                   Scott F. Smith
                   Boise State University, Boise, Idaho, USA
```

12:30 - 01:30pm: LUNCH (On Your Own)

```
01:30 - 05:40pm:   Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to VLSI
                   conference participants (sessions belonging to other
                   joint conferences in this event.)  Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences (in particular, schedules for PDPTA, MSV,
                   ESA, PCC, and ERSA.)
```

09:00 - 11:00pm: CONFERENCE RECEPTION DINNER - June 21 (Monday)
                   (LOCATION: Meeting Rooms 1-5)

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

10:00 - 10:40am: **DISCUSSION SESSION A-VLSI (Refreshments will be available)**
June 22 (Tuesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of VLSI's schedule.

10:40a - 02:00p: Note: There are a number of other sessions (not listed here) that are of potential significant interest to VLSI conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences (in particular, schedules for PDPTA, MSV, ESA, PCC, and ERSA.)

SESSION 3-VLSI: **TESTING & VERIFICATION**
Chair: Dr. Hussain Al-Asaad, USA
June 22, 2004 (Tuesday); 2:00 - 3:00pm
(LOCATION: Chapel)

02:00 - 02:20pm: Fault-Tolerance Analysis of Some Sorting Networks for Single and Multiple Passes
Der-Haw Wang and Salam N. Salloum*
California State Polytechnic Univ., Pomona, CA, USA

02:20 - 02:40pm: An Investigation of Non-linear Machines as PRPGs in BIST
Jing Zhong and Jon C. Muzio
University of Victoria, Canada

02:40 - 03:00pm: An Automated Algorithm for Partitioning Sequential VLSI Circuits
Bassam Shaer
University of Minnesota, Duluth, USA

SESSION 4-VLSI: **LOW POWER + LOGIC DESIGN**
Chair: Dr. Hussain Al-Asaad, USA
June 22, 2004 (Tuesday); 3:00 - 4:00pm
(LOCATION: Chapel)

03:00 - 03:20pm: Performance/Energy Efficiency Analysis of Register Files in Superscalar Processors
Shahzad Nazar, Behrooz A. Shirazi, & Sungyong Jung
University of Texas at Arlington, USA

03:20 - 03:40pm: Area- And Power-Reduced Standard-Cell Spanning Tree Adders
Pasquale Corsonello*, Stefania Perri** and Vitit Kantabutra***
*University of Reggio Calabria, Italy
**University of Calabria, Italy
***Idaho State University - Pocatello, USA

```
03:40 - 04:00pm:   A Design Methodology for Self-Timed Event Logic
                   Pipelines
                   Xin Jia and Ranga Vemuri
                   University of Cincinnati, USA
```

04:00 - 04:20pm: BREAK

```
04:20 - 05:40pm:   Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to VLSI
                   conference participants (sessions belonging to other
                   joint conferences in this event.)  Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences (in particular, schedules for PDPTA, MSV,
                   ESA, PCC, and ERSA.)
```

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

10:00 - 10:40am: **DISCUSSION SESSION B-VLSI (Refreshments will be available)**
June 23 (Wednesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of VLSI's schedule.

10:00 - 01:00pm: Note: There are a number of other sessions (not listed here) that are of potential significant interest to VLSI conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences (in particular, schedules for PDPTA, MSV, ESA, PCC, and ERSA.)

SESSION 5-VLSI: **LOGIC DESIGN**
Co-Chairs: Dr. Ronald F. DeMara & Dr. Howard E. Michel, USA
June 23, 2004 (Wednesday); 1:00 - 2:00pm
(LOCATION: Chapel)

01:00 - 01:20pm: FREE SLOT

01:20 - 01:40pm: A New Reversible Logic Gate and Its Applications
D. P. Vasudevan and P. K. Lala*
Univ. of Arkansas, Fayetteville, Arkansas, USA

01:40 - 02:00pm: A Graph Approach To Two-Level Logic Minimization
Kazuya Shinozuka
Artgraphics, USA

SESSION 6-VLSI: **DEVICE & CIRCUIT DESIGNS**
Co-Chairs: Dr. Howard E. Michel & Dr. Scott C. Smith, USA
June 23, 2004 (Wednesday); 2:00 - 2:40pm
(LOCATION: Chapel)

02:00 - 02:20pm: Feedback Techniques for Dual-Rail Self-Timed Circuits
Ronald F. DeMara, Amit Kejriwa, and L. Jude Seeber
University of Central Florida, USA

02:20 - 02:40pm: Impact of Gate Leakage on the Performance of Analog Integrated Circuits - A Simulation Study
K. Harihara*, Shoba Krishnan*, & V. P. Gopinath**
*Santa Clara University, USA
**Sun Micro Systems, USA

SESSION 7-VLSI: **SYSTEM/NETWORK-ON-CHIP**
Chair: Dr. Ronald F. DeMara, USA
June 23, 2004 (Wednesday); 2:40 - 3:20pm
(LOCATION: Chapel)

02:40 - 03:00pm: Approaches for Monitoring Vectors on Microprocessor Buses
Hector Arteaga and Hussain Al-Asaad*
University of California, Davis, CA, USA

03:00 – 03:20pm: Automatic Extraction of Non-Iterated System Behavior
                   from Verilog Specifications
                   Lubomir Ivanov
                   Iona College, USA

03:20 - 03:40pm: BREAK

SESSION 8-VLSI: DEVICE & CIRCUIT DESIGNS
                    Chair: Dr. Ronald F. DeMara, USA
                    June 23, 2004 (Wednesday); 3:40 - 4:40pm
                    (LOCATION: Meeting Room G)

03:40 – 04:00pm: High Radix Modular Multiplication of Large
                   Integers Optimised with Respect to Area and Time
                   Viktor Bunimov and Manfred Schimmler
                   Christian-Albrechts-University of Kiel, Germany

04:00 – 04:20pm: Design of a NULL Convention Self-Timed Divider
                   Scott C. Smith
                   University of Missouri - Rolla, USA

04:20 – 04:40pm: A 2.4GHz CMOS Direct Downconversion Mixer
                   Jie Long and Robert J. Weber
                   Iowa State University, Ames, IA, USA

SESSION 9-VLSI: APPLICATIONS
                    Chair: Dr. Scott F. Smith, USA
                    June 23, 2004 (Wednesday); 4:40 - 5:40pm
                    (LOCATION: Meeting Room G)

04:40 – 05:00pm: CMOS Implementation of Phase-Encoded Complex-Valued
                   Artificial Neural Networks
                   Howard E. Michel, David Rancour, & S. Iringentavida
                   University of Massachusetts Dartmouth, USA

05:00 – 05:20pm: AES Crypto-Processor Design Supporting
                   128/ 192/ 256 Bits Input Key Length for Smart Card
                   YunKyung Lee, SangWoo Lee, and YoungSae Kim
                   Electronics & Telecommunications Research Inst., Korea

05:20 – 05:40pm: Novel Quantum Computer Emulator Chip
                   John Robert Burger
                   California State University, USA

7:30am - 11:00am: Registration (Second Floor, Conference Lobby: 1-5)

10:40a – 03:20p: Note: There are a number of other sessions (not listed here) that are of potential significant interest to VLSI conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences (in particular, schedules for PDPTA, MSV, ESA, PCC, and ERSA.)

03:20 - 03:40pm: BREAK

SESSION 10-VLSI: SYSTEM/NETWORK-ON-CHIP
Chair: Dr. Laurence T. Yang, Canada
June 24, 2004 (Thursday); 3:40 - 4:20pm
(LOCATION: Meeting Room 3)

03:40 – 04:00pm: VLSI Issues for the Implementation of 10GBASE-T Ethernet
Stephen Bates; University of Alberta, Canada

04:00 - 04:20pm: Reliability Modelling of Embedded System-in-a-Package
Nagendra Bhargava Bharatula*, Stijn Ossevoort, Paul Lukowicz, and Gerhard Troster
Swiss Federal Inst. of Tech. (ETH) Zurich, Switzerland

SESSION 11-VLSI: High Speed - Performance Issues
Chair: Dr. Laurence T. Yang, Canada
June 24, 2004 (Thursday); 4:20 - 5:00pm
(LOCATION: Meeting Room 3)

04:20 – 04:40pm: Designing NULL Convention Combinational Circuits to Fully Utilize Gate-Level Pipelining for Maximum Throughput
Scott C. Smith; University of Missouri - Rolla, USA

04:40 - 05:00pm: A High Performance, Low Area Overhead Carry Lookahead Adder
James Levy and Jabulani Nyathi*
Washington State University, Pullman, WA, USA

SESSION 12-VLSI: FPGA
Chair: Dr. Laurence T. Yang, Canada
June 24, 2004 (Thursday); 5:00 - 5:40pm
(LOCATION: Meeting Room 3)

05:00 – 05:20pm: A Fast Hierarchical Approach to FPGA Placement
Gary Grewal

05:20 – 05:40pm: Quantum Gates Revisited: A Tensor Product Based Interpretation Model
Chao-Ming Tseng, Chih-Sheng Chen & Chua-Huang Huang
Feng Chia University, Taiwan

DISCUSSION SESSION A-VLSI
June 22 (Tuesday), 2004
VLSI RRR/SRP/PST Papers
10:00 - 10:40am
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)

```
LIST OF PAPERS IN DISCUSSION SESSION A-VLSI:
O.  Survey and Evaluation of Low-Power Full-Adder Cells
    Ahmed Sayed and Hussain Al-Asaad*
    University of California, Davis, CA, USA
O.  A 4GHz Low-Power Folded-Cascode CMOS LC Quadrature
    VCO for RF Transceivers
    S. M. Rezaul Hasan* and Nazmul Ula**
    *University of Sharjah, Sharjah, United Arab Emirates
    **Loyola Marymount University, Los Angeles, California, USA
O.  BDD Minimization Using Graph Parameter Permutation
    P. W. Chandana Prasad, Ali Assi, and Mohamed Raseen
    United Arab Emirates University, UAE
O.  Simultaneous Reduction of Test Data Volume and Testing Power For
    Scan-Based Test
    Yinhe Han and Xiaowei Li; Chinese Academy of Sciences, P. R. China
```

DISCUSSION SESSION B-VLSI
June 23 (Wednesday), 2004
VLSI RRR/SRP/PST Papers
10:00 - 10:40am
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)

```
LIST OF PAPERS IN DISCUSSION SESSION B-VLSI:
O.  High Performance Single Chip Implementation for a Digital
    Protective Relay Using FPGA
    Jong Kang Park, Jong Tae Kim*, and Myung Chul Shin
    Sungkyunkwan University, Kyunggi-do, Korea
O.  Design of Neural Network on FPGA
    S. P. Joy Vasantha Rani* and P. Kanagasabapathy
    Madras Institute of Technology, India
    Anna University, India
O.  An Efficient VLSI Architecture for MC Interpolation in
    AVC Video Coding
    Deng Lei; Harbin Institute of Technology, P. R. China
O.  An Efficient Divider Architecture over GF(2m)
    for Elliptic Curve Cryptography
    Sang-Woo Lee, Jeong-Nyeo Kim, and Jong-Su Jang; ETRI, Korea
O.  Energy Recovery Low Power CAM Design
    N. Poonkuzhali, G. Josemin Bala, and J. Raja Paul Perinmbam
O.  PAL Based CAM
    N. Poonkuzhali, G. Josemin Bala, and J. Raja Paul Perinbam
O.  FPGA Based Controller Area Network
    R. Pushpavathi and S. Vengatachalam
O.  Efficient Memory Performance for Multi - Issue Processors
    Salwa S. Moustafa, Mohamed A. Berbar, and Nabil A. Ismail
O.  Low Power Heuristic Block-level Voltage/Frequency Scheduling
    Li-Chuan Weng, XiaoJun Wang, Alan P. Su, and Bin Liu
```

ERSA'04 CONFERENCE SCHEDULE

**The 2004 International Conference on Engineering
of Reconfigurable Systems and Algorithms**

Monte Carlo Resort, Las Vegas, Nevada, June 21-24, 2004

*Note: There are a number of other sessions (not listed here) that are of potential significant interest to ERSA
conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint conferences.*

June 20

03:00 - 09:00pm: REGISTRATION (Second Floor, Conference Lobby; 1-5)

6:30am - 6:00pm: **Registration (Second Floor, Conference Section)**

08:40 - 09:00am: **MultiConference Opening Remarks**
                       Hamid R. Arabnia (General Chair, 2004 IMCSCE)
                       University of Georgia, Georgia, USA
                       (LOCATION: Lance Burton Theater)

09:00 - 09:05am: **Introduction of Keynote Speaker by Prof. H. J. Siegel**
                       (LOCATION: Lance Burton Theater)

09:05 - 10:05am: **MultiConference & ERSA Keynote Lecture:**
                       Computer Architecture, The Road Ahead
                       Professor Michael Flynn
                       Stanford University, USA
                       (LOCATION: Lance Burton Theater)

10:05 - 10:30am: **BREAK**

10:30 - 10:40am: **ERSA Opening Remarks**
                       Toomas P. Plaks, ERSA Chair
                       LSBU, London, UK
                       (LOCATION: Meeting Room 6)

SESSION ERSA1:   **Reconfigurable Systems for Energy-Efficient Mobile Systems**
                       Chair: Gerard J. M. Smit
                       University of Twente, The Netherland
                       June 21, 2004 (Monday); 10:40am - 12:00pm
                       (LOCATION: Meeting Room 6)

10:40 - 10:50am: Session Overview
                   Gerard J. M. Smit

10:50 - 11:10am: Energy-Efficiency of the Montium Reconfigurable
                   Tile Processor
                   Paul M. Heysters*, Gerard J.M. Smit & E. Molenkamp
                   University of Twente, The Netherlands

11:10 - 11:30am: Overview of the Tool-Flow for the Montium
                   Processing Tile
                   Gerard J. M. Smit*, M. A. J. Rosien, Yuanqing Guo,
                   and Paul M. Heysters
                   University of Twente, the Netherlands

11:30 - 12:00pm: (Distinguished Paper)
                   A New General Model for Adaptive Processors
                   Stephan Gatzka and Christian Hochberger*
                   TU Dresden, Germany

12:00 - 12:30pm: (Invited Paper)
                   On the Use of FPGAs for OFDM Signal Processing
                   Chris Dick*, Fred Harris**
                   *Signal Processing Group, Xilinx Inc., San Jose, USA
                   **San Diego State University, San Diego, CA, USA

12:30 - 01:30pm: **LUNCH (On Your Own)**

01:35 - 02:20pm: (Invited Talk)
                 Reconfigurable Systems, New Tools and New Math
                 Richard Shoup
                 Boundary Institute, USA

SESSION ERSA2:   **Operating System Approaches for Reconfigurable Hardware**
                 Chair: Marco Platzner
                 ETH, Zurich, Switzerland
                 June 21, 2004 (Monday); 02:20 - 03:50pm
                 (LOCATION: Meeting Room 6)

02:20 - 02:30pm: Session Overview
                 Marco Platzner

02:30 - 02:50pm: Virtualization of Hardware - Introduction and Survey
                 Christian Plessl* and Marco Platzner
                 ETH, Switzerland

02:50 - 03:10pm: A Comparative Study on System Approaches for
                 Partially Reconfigurable Architectures
                 H. Kalte*, M. Koester, B. Kettelhoit, M. Porrmann,
                 and U. Ruckert
                 Heinz Nixdorf Institute &
                 University of Paderborn, Paderborn, Germany

03:10 - 03:30pm: Area Fragmentation in Reconfigurable Operating
                 Systems
                 Manish Handa* and Ranga Vemuri
                 University of Cincinnati, USA

03:30 - 03:50pm: QoS Aware HW/SW Partitioning on Run-Time
                 Reconfigurable Multimedia Platforms
                 Nam Pham Ngoc, ...
                 Katholieke Universiteit Leuven, Belgium

03:50 - 04:10pm: **DISCUSSION & SOFTWARE DEMO**
                 (LOCATION: Meeting Room 6)

04:10 - 05:10pm: **DISCUSSION SESSION A-ERSA (Refreshment will be available)**
                 Short and Poster Papers (List will be available at the
                 conference.)
                 June 21 (Monday)
                 (LOCATION: Hallways/Lobby of Meeting Rooms 6, 7, & 8)

09:00 - 11:00pm: **CONFERENCE RECEPTION DINNER - June 21 (Monday)**
                 (LOCATION: Meeting Rooms 1-5)

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

SESSION ERSA5:   **Applications and Tools**
                       Chair: Christian Hochberger
                       TU Dresden, Germany
                       June 22, 2004 (Tuesday); 08:20 - 10:00am
                       (LOCATION: Meeting Room 6)

08:20 – 08:30am: Session Overview
                   Christian Hochberger

08:30 – 08:50am: A Portable Face Recognition System Using
                   Reconfigurable Hardware
                   Jawad Khan
                   University of Cincinnati, USA

08:50 – 09:10am: A High Performance Intermediate Representation for
                   Reconfigurable Systems
                   Wenrui Gong and Ryan Kastner*
                   University of California, Santa Barbara, CA, USA

09:10 – 09:30am: Task Scheduling of Control-Data Flow Graphs for
                   Reconfigurable Architectures
                   Arvind Sudarsanam*, Dasu Arvind, and
                   Sethuraman Panchanathan
                   Arizona State University, AZ, USA

09:30 – 10:00am: (Distinguished Paper)
                   High Visibility Debug-By-Design for FPGA Platforms
                   Peter Bellows
                   USC Information Sciences Institute, USA

10:00 - 10:30am: BREAK

10:30 – 11:00am: (Keynote Talk)
                   The Present and Future of Reconfigurable Computing
                   Walid A. Najjar
                   University of California, Riverside, CA, USA

SESSION ERSA5:   **Applications and Tools (Continued ...)**
                       Chair: Christian Hochberger
                       TU Dresden, Germany
                       June 22, 2004 (Tuesday); 11:00 - 11:40am
                       (LOCATION: Meeting Room 6)

11:00 – 11:20am: A Reconfigurable Approach to Structural Engineering
                   Design Computations
                   Zafer Gurdal, Tom Hartka, Mark Jones* & Sun Wook Kim
                   Virginia Tech., USA

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11:20 - 11:40am:   Incremental Timing Budget Management in Programmable
                   Systems
                   Elaheh Bozorgzadeh*, S. Ghiasi**, A. Takahashi***
                   & M. Sarrafzadeh**
                   *University of California, Irvine, CA, USA
                   **University of California, Los Angeles, CA, USA
                   ***Tokyo Institute of Technology, Japan
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SESSION ERSA4:   Reconfigurable Supercomputing
Chair: Maya B. Gokhale
Los Alamos National Laboratory, USA
June 22, 2004 (Tuesday); 11:40am - 12:30pm
(LOCATION: Meeting Room 6)

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11:40 - 11:50am:   Session Overview
                   Maya B. Gokhale


11:50 - 12:10pm:   Computing Lennard-Jones Potentials and Forces with
                   Reconfigurable Hardware
                   Ronald Scrofano* and Viktor K. Prasanna
                   University of Southern California, USA


12:10 - 12:30pm:   Experiences with a Reconfigurable Computer
                   Duncan A. Buell*, J. P. Davis, G. Quan, S. Akella,
                   S. Devarkal, P. Kancharla, E. A. Michalski, and
                   H. A. Wake
                   University of South Carolina, SC, USA
```

12:30 - 01:30pm: LUNCH (On Your Own)

01:30 - 02:30pm: DISCUSSION SESSION B-ERSA
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                   Short and Poster Papers  (List will be available at the
                   conference.)
                   June 22 (Tuesday)
                   (LOCATION: Meeting Room 6)


02:30 - 05:40pm:   Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to ERSA
                   conference participants (sessions belonging to other
                   joint conferences in this event.)  Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences.
```

7:00am - 6:00pm: Registration (Second Floor, Conference Lobby: 1-5)

SESSION ERSA6:   Reconfigurable System-On A Chip (SOC) Architectures
Chair: Michael J. Wirthlin
Birgham Young University, USA
June 23, 2004 (Wednesday); 8:20 - 10:00am
(LOCATION: Meeting Room 6)

08:20 - 08:30am: Session Overview
Michael J. Wirthlin

08:30 - 08:50am: System-Level Runtime Reconfigurability-Optical
Interconnection Networks for Switching Applications
Sacki Agelis* and Magnus Jonsson
Halmstad University, Sweden

08:50 - 09:10am: Embedded Linux as a Platform for Dynamically
Self-Reconfiguring Systems-on-Chip
John Williams
University of Queensland, Australia

09:10 - 09:30am: H-Tree Interconnection Structure for Reconfigurable
DSP Hardware
Mitchell J. Myjak, Fredrick L. Anderson, and
Jose G. Delgado-Frias*
Washington State University, USA

09:30 - 10:00am: (Distinguished Paper)
Automated Combination of Simulation and Hardware
Prototyping
Tero Rissa*, Wayne Luk, and Peter Cheung
Imperial College, London, UK

10:00 - 10:30am: BREAK

10:30 - 11:00am: (Keynote Talk)
Customisable Hardware Compilation
Wayne Luk
Imperial College, UK

11:00 - 11:30am: (Keynote Talk)
Computing Without Processors
Seth Copen Goldstein
Carnegie Mellon University, USA

SESSION ERSA6:   **Reconfigurable System-On A Chip (SOC) Architectures**
(Continued)

Chair: Michael J. Wirthlin
Birgham Young University, USA
June 23, 2004 (Wednesday); 11:30am - 12:10pm
(LOCATION: Meeting Room 6)

11:30 - 11:50am: Two-Level Reconfigurable Architecture for
High-Performance Signal Processing
Dennis Johnsson*, Jerker Bengtsson, and Bertil Svensson
Halmstad University, Sweden

11:50 - 12:10pm: Customizing Processor Cores to Support Reactivity
Zoran Salcic* and Partha Roop
University of Auckland, New Zealand

12:10 - 01:00pm: **LUNCH (On Your Own)**

01:00 - 05:40pm: Note: There are a number of other sessions (not listed here)
that are of potential significant interest to ERSA
conference participants (sessions belonging to other
joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint
conferences.

7:30 - 11:00am: **Registration (Second Floor, Conference Lobby: 1-5)**

SESSION ERSA3:   **HW/SW Environments for Reconfigurable Hardware**
                        Chair: Miriam Leeser
                        Norteastern University, USA
                        June 24, 2004 (Thursday); 8:20 - 9:30am
                        (LOCATION: Meeting Room 6)

08:20 - 08:30am: Session Overview
                      Miriam Leeser

08:30 - 08:50am: Physical Resource Binding for a Coarse Grain
                      Reconfigurable Array
                      Fred Ma*, John Knight, and Calvin Plett
                      Carleton University, Canada

08:50 - 09:10am: Genetic Algorithms in Hardware-Software Partitioning
                      Madhura Purnaprajna*, Marek Reformat & Witold Pedrycz
                      University of Alberta, Alberta, Canada

09:10 - 09:30am: Implementing Multi Threaded System Support for Hybrid
                      FPGA/CPU Computational Components
                      Razali Jidin*, David Andrews, and Douglas Niehaus
                      University of Kansas, USA

09:30 - 10:00am: (Keynote)
                      Energy-Efficient Computations on FPGAs
                      Viktor Prasanna
                      University of Southern California, Los Angeles, USA

10:00 - 10:30am: **BREAK**

SESSION ERSA3:   **HW/SW Environments for Reconfigurable Hardware (Continued**
...)
                        Chair: Miriam Leeser
                        Norteastern University, USA
                        June 24, 2004 (Thursday); 10:30 - 11:40am
                        (LOCATION: Meeting Room 6)

10:30 - 11:00am: (Distinguished Paper)
                      Automatic Local Memory Architecture Generation for
                      Data Reuse in Custom Data Paths
                      Per Andersson* and Krzysztof Kuchcinski
                      Lunds University, Lund, Sweden

11:00 - 11:20am: The Task-Resource Matrix: Control for a Distributed
                      Reconfigurable Multi-Processor Hardware RTOS
                      Spencer Isaacson and Doran Wilde*
                      Brigham Young University, USA

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11:20 - 11:40am:   Dynamo: A Runtime Partitioning System
                   L. A. Smith King**, Miriam Leeser*, and Heather Quinn*
                   *Northeastern University, USA
                   **College of the Holy Cross, USA

11:40 - 12:00pm:   ERSA Closing Remarks
                   Toomas P. Plaks
                   (LOCATION: Meeting Room 6)
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12:00 - 01:00pm: LUNCH (On Your Own)

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01:00 - 05:40pm:   Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to ERSA
                   conference participants (sessions belonging to other
                   joint conferences in this event.)  Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences.
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AMCS'04 CONFERENCE SCHEDULE

**The 2004 International Conference on Algorithmic
Mathematics & Computer Science**

Monte Carlo Resort, Las Vegas, Nevada, June 21-24, 2004

Note: There are a number of other sessions (not listed here) that are of potential significant interest to AMCS conference participants (sessions belonging to other joint conferences in this event.) Therefore, you are encouraged to also check the schedules for other joint conferences.

June 20

03:00 - 09:00pm: REGISTRATION (Second Floor, Conference Lobby; 1-5)

6:30am – 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

08:40 – 09:00am: **MultiConference Opening Remarks**
Hamid R. Arabnia (General Chair, 2004 IMCSCE)
University of Georgia, Georgia, USA
(LOCATION: Lance Burton Theater)

09:00 – 09:05am: **Introduction of Keynote Speaker by Prof. H. J. Siegel**
(LOCATION: Lance Burton Theater)

09:05 – 10:05am: **MultiConference Keynote Lecture:**
Computer Architecture, The Road Ahead
Professor Michael Flynn
Stanford University, USA
(LOCATION: Lance Burton Theater)

10:05 – 10:30am: **BREAK**

10:30 – 12:30pm: Note: There are a number of other sessions (not listed here)
that are of potential significant interest to AMCS
conference participants (sessions belonging to other
joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint
conferences (in particular, schedules for PDPTA, CISST,
and METMBS.)

12:30 – 01:30pm: **LUNCH (On Your Own)**

SESSION 1-AMCS: **APPLICATIONS OF MATHEMATICAL COMPUTATIONS**
Co-Chairs: Dr. Anatoly Kurkovsky, USA & Dr. Iyad A. Ajwa, USA
June 21, 2004 (Monday); 1:30 - 2:10pm
(LOCATION: Conference Room C)

01:30 – 01:50pm: Efficient Methodology and Robust Infrastructure for
Assigning Weapons to Targets
Zbigniew Bogdanowicz* and Norman Coleman
US Army Armament R&D Center, New Jersey, USA

01:50 – 02:10pm: Computational Analysis of Microwave Heating in Single
and Multi-Mode Resonant Cavities
Dusko Dincov
University of Westminster, UK

SESSION 2-AMCS: **SYMBOLIC COMPUTATION SYSTEMS & AUTOMATED SOLVERS**
           Co-Chairs: Dr. Anatoly Kurkovsky, USA & Dr. Iyad A. Ajwa, USA
           June 21, 2004 (Monday); 2:10 - 2:50pm
           (LOCATION: Conference Room C)

02:10 - 02:30pm: An Effective QBF Solver for Planning Problems
           Charles Otwell*, Anja Remshagen*, and Klaus Truemper**
           *State University of West Georgia, Carrollton, Georgia, USA
           **University of Texas at Dallas, Dallas, Texas, USA

02:30 - 02:50pm: Symbolic Stochastic Systems
           Kumar Jeev* and Jean Louis Lassez
           Coastal Carolina University, South Carolina, USA

02:50 - 04:10pm: Note: There are a number of other sessions (not listed here)
           that are of potential significant interest to AMCS
           conference participants (sessions belonging to other
           joint conferences in this event.) Therefore, you are
           encouraged to also check the schedules for other joint
           conferences (in particular, schedules for PDPTA, CISST,
           and METMBS.)

09:00 - 11:00pm: **CONFERENCE RECEPTION DINNER - June 21 (Monday)**
           (LOCATION: Meeting Rooms 1-5)

7:00am - 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

10:00 - 10:40am: **DISCUSSION SESSION A-AMCS (Refreshments will be available)**
June 22 (Tuesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of AMCS's schedule.

10:40a – 03:20p: Note: There are a number of other sessions (not listed here)
that are of potential significant interest to AMCS
conference participants (sessions belonging to other
joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint
conferences (in particular, schedules for PDPTA, CISST,
and METMBS.)

03:20 - 03:40pm: **BREAK**

SESSION 3-AMCS: **COMPUTATIONAL MATHEMATICS**
Co-Chairs: Dr. N. Mogharreban, USA & Dr. H. Kettani, USA
June 22, 2004 (Tuesday); 3:40 - 5:40pm
(LOCATION: Conference Room C)

03:40 – 04:00pm: Trajectory-Based Morphological Operators: A
Morphological Model for Tool Path Computation
Antonio M. Jimeno Morenilla*, Francisco Macia-Perez
& Juan Manuel Garcia-Chamizo
University of Alicante, Spain

04:00 – 04:20pm: Normalized Isomorphic Preconditioned Methods for
Solving Sparse Non-Linear
G. A. Gravvanis*/*** and K. M. Giannoutakis**

*Hellenic Open University, Greece
**University of Athens, Greece
***Democritus University of Thrace, Greece

04:20 – 04:40pm: S(b)-Trees: An Optimal Balancing of Variable
Length Keys
Konstantin V. Shvachko
Fourth Dimension Software, Redwood City, CA, USA

04:40 – 05:00pm: An Efficient Distributed Algorithm for Ear
Decomposition
Yung H. Tsin
University of Windsor, Windsor, Ontario, Canada

05:00 – 05:20pm: FREE SLOT

05:20 – 05:40pm: FREE SLOT

7:00am - 6:00pm: **Registration (Second Floor, Conference Lobby: 1-5)**

10:00 - 10:40am: **DISCUSSION SESSION B-AMCS (Refreshments will be available)**
June 23 (Wednesday)
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)
List of papers appears at the end of AMCS's schedule.

SESSION 4-AMCS: **ALGORITHMS**
Chair: Dr. Xiaoping Shen, USA
June 23, 2004 (Wednesday); 10:40am - 12:00pm
(LOCATION: Conference Room C)

10:40 - 11:00am: Stochastic Sorting Using Deterministic Consecutive
and Leader Filters
B. J. Oommen, J. R. Zgierski and D. Nussbaum*
Carleton University, Ottawa, Ontario, Canada

11:00 - 11:20am: On Subspace System Identification Algorithms Implemented
Through Sequences of Modified Householder Algorithms
Catarina J. M. Delgado*, P. Lopes dos Santos, and
J. L. Martins de Carvalho
Instituto de Sistemas e Robotica, Porto, Portugal

11:20 - 11:40am: Comparison of Clique-Listing Algorithms
Eric R. Harley
Ryerson University, Ontario, Canada

11:40 - 12:00pm: FREE SLOT

12:00 - 01:00pm: **LUNCH (On Your Own)**

01:00 - 05:40pm: Note: There are a number of other sessions (not listed here)
that are of potential significant interest to AMCS
conference participants (sessions belonging to other
joint conferences in this event.) Therefore, you are
encouraged to also check the schedules for other joint
conferences (in particular, schedules for PDPTA, CISST,
and METMBS.)

7:30am - 11:00am: Registration (Second Floor, Conference Lobby: 1-5)

08:20 – 05:40pm: Note: There are a number of other sessions (not listed here)
                   that are of potential significant interest to AMCS
                   conference participants (sessions belonging to other
                   joint conferences in this event.) Therefore, you are
                   encouraged to also check the schedules for other joint
                   conferences (in particular, schedules for PDPTA, CISST,
                   and METMBS.)

LIST OF PAPERS IN DISCUSSION SESSION A-AMCS:

O. From Decimal to Binary
    Houssain Kettani
    Jackson State University, Jackson, MS, USA
O. A Determinant Representation of Degrees 3 and 6
    Invariants of a 3-ary Form of Degree 4
    Fengmei Zou
    Xiamen University, Fujian, P. R. China
O. Modified Continuous Valued Number System
    Sira Srivanasont* and A. Surarerks
    Chulalongkorn University, Thailand
O. A Comparison of Constraint Handling Rules with
    Equivalent Transformation Rules
    Yoshinori Shigeta*, Kiyoshi Akama**, and Takahiko Ishikawa**
    *Toshiba Corporation, Kawasaki, Japan
    **Hokkaido University, Sapporo, Japan
O. Towards Quality of Service Based Resource Management for
    Cluster-Based Image Retrieval Systems
    A. Bruning**, F. Drews***, M. Hoefer**, O. Kao*& U. Rerrer*
    *University of Paderborn, Paderborn, Germany
    **University of Clausthal, Germany
    ***Ohio University, Athens, Ohio, USA
O. The First Stage of a System Verification Strategy for
    API-Calculus
    Shahram Rahimi, Namdar Mogharreban*, and Raheel Ahmad
    Southern Illinois University, Carbondale, IL, USA
O. AFKAR: A Logo Turtle Educational Tool
    Ahamd S. Hindawi* and Iyad A. Ajwa**
    *ASH Computer Solutions and Consultancy, Canada
    **Ashland University, Ashland, Ohio, USA
O. On the Termination of Non-Deterministic Programs Based
    on the Equivalent Transformation Computation Model
    Itaru Takarajima**, Kiyoshi Akama*, Yoshinori Shigeta***,
    and Ikumi Imani**
    *Hokkaido University, Sapporo, Japan
    **Nagoya Gakuin University, Seto, Japan
    ***Stanford University, Stanford, CA, USA
O. Fast Computation of Factorials of Numbers
    Henry Thompson and Ahmet Ugur*
    Central Michigan University, Mt. Pleasant, Michigan, USA
O. The Threat of a Deterministic Polynomial Time Algorithm
    for Primality Testing in Applied Cryptography
    Charlie Obimbo* and Stephen Doxsee
    University of Guelph, Guelph, Canada

DISCUSSION SESSION B-AMCS
June 23 (Wednesday), 2004
AMCS RRR/SRP/PST Papers
10:00 - 10:40am
(LOCATION: Hallways/Lobby - Meeting Rooms 1-5)

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LIST OF PAPERS IN DISCUSSION SESSION B-AMCS:


O.   MABAC - Matrix Based Clustering Algorithm
     Yonghui Chen* and Alan Sprague
     University of Alabama, Birmingham, Alabama, USA
O.   An Algorithm for Removing Artifacts in Wavelet Expansions
     Xiaoping Shen
     Ohio University, Athens, Ohio, USA
O.   Application of DFS Spectral Method to the Two-Dimensional
     Barotropic Instability of Multiple-Shear Flows on the Sphere
     Hyeong-Bin Cheong and In-Hyuk Kwon
     Pukyong National University, Korea
O.   Matrix Equality, An Application Of Graph Isomorphism
     Khadija Riaz, M. Sikandar Hayat Khiyal, and M.Arshad Zia
O.   Spoken Word Reocgnition for Punjabi Language Using
     Hidden Markov Model
     Chandan Singh, Mohanjit Singh, and Ravinder Kumar
O.   On the Asymptotic Stability of Systems of Differential
     Equations with Piecewise Constant Arguments
     G. H. Turner
O.   A Property for Church-Turing Thesis
     Ulisses Ferreira
O.   On The Busy-Beaver Problem
     Ulisses Ferreira
O.   On Turing's Proof of The Undecidability of The
     Halting Problem
     Ulisses Ferreira
O.   The Real Set Can Be Seen As Denumerable
     Ulisses Ferreira
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