



SOCIETY FOR DESIGN AND
PROCESS SCIENCE



SOFTWARE ENGINEERING
SOCIETY

FINAL PROGRAM

INTEGRATED & PROCESS TECHNOLOGY

*Conference theme:
Transdisciplinary
Education, Research, and
Tradition*

**TOPKAPI PALACE
ANTALYA - TURKEY
June 3-8, 2007**

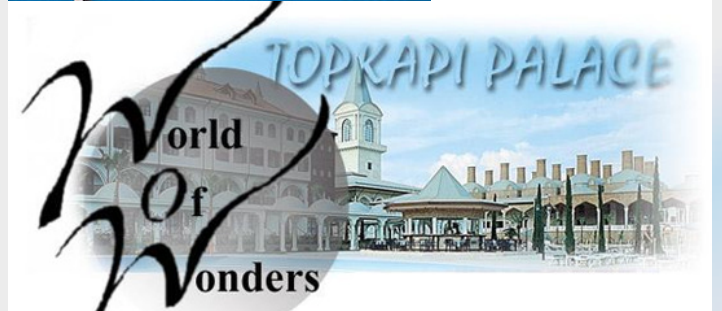
ANTALYA
GATEWAY TO TURKISH RIVIERA

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Dr. George Kozmetsky (1917-2003)
*Former Chairman of the Board
Society for Design and Process Science*

Transdisciplinary Design and Process: The George Kozmetsky Way

During the last decade, urged by our transdisciplinary mentor George Kozmetsky, IDPT conferences brought together interdisciplinary as well as international educators, thinkers and leaders for the purpose of working towards the development of principles and ideas for multidisciplinary modes of research and education. A generally accepted observation by the participants, building on Herb Simon's ideas on the centrality of design, has been that the notions of design and process are fundamental enough to warrant more attention.

The concepts of design and process span all disciplines, providing the patterns, insight, and logic necessary to apply knowledge and skills to any problem. Biology provides the vast laboratory for natural processes and designs. From the pragmatic point of view, our hypothesis is that the systematic study of these pervading concepts for their own sake provides us the necessary tools and methods to maintain intellectual control over large projects and natural phenomena, preventing information overflow. Complex natural processes and designs are highly suitable examples to study using abstract mathematical notions of process and design. Conversely, the systematic study of biological processes, by applying lessons learned from design and process science, would allow us to overcome the shortcomings of the classical, Cartesian-mechanistic, reductionist foundations, and methods of traditional sciences and engineering.

Herb Simon, discussing "holism and reductionism" in the little book, *The Sciences of the Artificial*, eludes the establishment of critical balance between holistic thinking and mechanistic thinking. There is an obvious parallel between "disciplinary/transdisciplinary" thinking and "reductionism/holism." There are certain aspects of transdisciplinary analysis that introduces a "greater logical economy" in our treatment of everyday concrete, natural, and man-made processes including our engineering activities and business relationships. "The greater logical economy" is what we need these days more than any other time in the history of mankind. Transdisciplinary way of acquiring knowledge means that education, research, development, production, and training are intertwined in such a way that we obtain a better picture and a higher level of abstraction.

During IDPT 1996 opening speech George said "The interdisciplinary theories and methodologies must embrace as well as have the ability to account for relevant cultural and social value factors. This is especially important in developing shared prosperity through commercialization of the key resources of world-class science and technology. The methods of dissemination, cooperation and collaboration must include the utilization of ubiquitous computers and communication.

SDPS celebrated its decade of growth and progress in 2006 at California. We are back to Turkey, one more time since IDPT-2000 meeting, at which time we had formalized the transdisciplinary education workshop. The transdisciplinary education and research workshops has been a tradition since year 2000. This year, the theme of the conference is transdisciplinary education in an international setting on which all SDPS members have been contributing for years. We are grateful for the dedication and long standing contributions of SDPS family.

A. Ertas and M. M. Tanik

IDPT SPECIAL FEATURES

THE TENTH WORLD CONFERENCE ON INTEGRATED DESIGN & PROCESS TECHNOLOGY June 3-8, 2007, TOPKAPI PALACE, ANTALYA - TURKEY



Dr. Azad M. Madni
President
Society for Design and Process Science

MESSAGE FROM SDPS PRESIDENT

Dear Fellow Transdisciplinaryans,

It gives me great pleasure to welcome you to the Tenth World Conference of Integrated Design and Process Technology (IDPT-07) in the resort surroundings of Antalya, Turkey. I have coined the term "transdisciplinary" to reflect who we are and what we stand for - - - transdisciplinary thinking and transdisciplinary collaboration.

With the growing interest in transdisciplinary research and education, our young and vibrant society finds itself well-positioned to provide an ideal forum for exchanging experiences and germinating new ideas in transdisciplinary thinking. Under the able stewardship of Professor Atila Ertas and the inspirational guidance of Professors C.V. Ramamoorthy, Raymond Yeh and Murat Tanik, and diligent efforts of former President, Bernd Kraemer, our society has managed to establish itself as a truly transdisciplinary society, the first of its kind. SDPS is now entering its next stage of growth in these truly historic times. I invite you to visit our enhanced, newly completed website to get familiar with membership and services that the society offers today.

As the current President of the Society and in keeping with the avant garde character of our society, I am committed to transforming our Journal and increasing our emphasis in certain areas that require transdisciplinary problem solving. In this regard, we have aggressively recruited researchers, practitioners and educators from a variety of disciplines and are constituting a new editorial board. Starting with the Ninth World Conference, we have also increased our emphasis on transdisciplinary collaboration as it pertains to the engineering of complex systems and formation of agile enterprises.

One of the main objectives of our society is to increase the frequency of interaction among the society's members and conference attendees and create a shared knowledge repository. To this end, we are formulating specific strategies. First, we are exploring a new format where the annual conference is supplemented by workshops and symposia in specific transdisciplinary venues. Second, we are investigating the creation of centers for transdisciplinary collaboration in specific fields. The first center will be in the System-of-Systems focus area because of the growing interest in ultra large-scale systems and the fact that this nascent field provides rich opportunities for transdisciplinary collaboration. This center will serve as a model for future centers that focus on other fields that benefit from collaborative transdisciplinary research. Your participation and leadership is key to shaping and sustaining these centers.

In keeping with our vision to increase the frequency of interaction among the society members, I urge you all to be proactive by proposing new transdisciplinary themes for workshops and symposia. Colleagues, you have an unprecedented opportunity to be pioneers in transdisciplinary science, research, and education as transdisciplinary thinking continues to gain greater momentum in academe, government and industry. While acutely aware that transdisciplinary problems, by their very nature, are difficult, I take heart from the words of Winston Churchill who famously said, "Difficulties mastered are opportunities won." Let us follow these sage words.

And last but not the least, I wish you all a most rewarding experience at IDPT 2007 and hope that you come away from this conference with new ideas and renewed enthusiasm to shape the future direction and growth of our society, and to rededicate our commitment to the betterment of mankind through transdisciplinary solutions.



Dr. Mehmet Aksit
2007 IDPT Conference Co-Chair
Software Engineering Chair
University of Twente
The Netherlands

Dr. Mehmet Aksit Holds an M.Sc. degree from the Eindhoven University of Technology and a Ph.D. degree from the University of Twente. Currently, he is working as a full professor at the Department of Computer Science, University of Twente and affiliated with the institute Centre for Telematics and Information Technology. He is the head of the Software Engineering chair and the leader of the Twente Research and Education on Software Engineering (TRESE) Group.

He has served as the program co-chair of several conferences and symposia, such as ECOOP'97, SACT'00, HQSAD'00, NoD'02 and AOSD2003. He has been serving as a program committee member of various international conferences and he was the tutorial chair of the ECOOP'92 conference and the organizing chair of the AOSD'02 conference. Since 1988, he has been serving as a reviewer of various European projects.

He has given more than 100 international and in-company courses and conference tutorials mainly in the Netherlands, but also in Canada, Denmark, France, Germany, Hungary, Ireland, Portugal, Spain, Sweden, Switzerland and the United States.

Mehmet Aksit has been the user and developer of object-oriented systems since 1983. Later, in the end of 80's, he started to work on firstly, software composition techniques and later, on aspect-oriented software engineering. He has been involved in designing architectures for several large industrial projects. He and the TRESE group were among the pioneers of the following techniques.

Since 1988, the TRESE group has developed, probably the first aspect-oriented language called Sina, which has later evolved into

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Composition Filters. The group has organized the first Aspect-Oriented Software Development conference (AOSD2002) and Aksit is the co-editor of the first aspect-oriented journal. Since beginning of the 90's, the TRESE group has developed synthesis based architecture/software design, which adopts controlled problem solving techniques in designing software architectures. Since 1994, the TRESE group has applied, probably for the first time, fuzzy-logic based techniques to modeling software design heuristics and processes. Since 1997, the TRESE group has been developing new design formalisms called Design Algebra for managing large design spaces.



Dr. James L. Smith
2007 IDPT Conference Co-Chair
Industrial Engineering
Texas Tech University
Lubbock, Texas

Dr. James Smith has been at Texas Tech for the past 27+ years and currently holds the academic rank of Professor. He has served as IE department Chair (9 years), Associate Dean (4 years), and Interim Dean of Engineering (2 years). He has been elected as a Fellow of: the Human Factors and Ergonomics Society, the Ergonomics Society, the Institute of Industrial Engineers, and the Society for Design & Process Science. Dr. Smith currently serves as national Executive Vice-President of Alpha Pi Mu, the Industrial Engineering Honor Society. He also currently serves as Director of the Center for Space Sciences, where he has directed over \$ IOM of NASA research over the past six years, as well as Director of the Institute for Ergonomics Research at Texas Tech. He is a Director Emeritus for the Board of Certification in Professional Ergonomics, and currently serves on the Board of Directors of the Texas Space Grant Consortium. Dr. Smith is currently serving a four year term on the National Center for Injury Prevention and Control Initial Review Group for the Centers for Disease Control and Prevention (CDC). Dr. Smith currently teaches ergonomics courses at both the undergraduate and graduate levels and is actively involved in ergonomics research.



OPENING RECEPTION
Sunday, June 3, 5:30-7:00 pm
Room: Fuaye

Dr. Ziya Aktas
Professor, Cankaya University
Ankara, Turkey

Ziya Aktas was born in 1940. He got his BS and MS in 1962 and 1963, respectively, both at METU (Middle East Technical University) in Ankara. He had a Fulbright Scholarship in 1966 and went to the USA for graduate study. He received his Ph.D. in 1969 at Lehigh University, Bethlehem, Pennsylvania/USA. He returned home in the same year and joined today's Department of Computer Engineering at METU. He visited Vienna Technical University as an associ-

ate professor during the school year 1973-1974. He became a full professor in 1978, and was the first full professor of Computer Science/Engineering in Turkey. Prof. Aktas served as the chairman of the Department during 1977-81 and 1983-1988.

Prof. Aktas taught at Purdue University School of Engineering and Technology at Indianapolis, Indiana, USA, between 1981-1983 as a Visiting Professor. Between 1988-1991 he became the founding General Manager of a technical consultancy firm, STRABIS, in Ankara. He is the author of the book "Structured Analysis and Design of Information Systems" published by Prentice Hall in 1987 in the USA.

He has been a faculty member of the Department of Computer Engineering, METU and also served as the Vice President of State Institute of Statistics (SIS) of Turkey in charge of Information Systems during 1992-1995.

In the general elections of December 1994 and April 1999 he was elected as the Deputy of Istanbul in the Democratic Left Party (DSP) to the Turkish Grand National Assembly. Prof. Aktas had served as the Minister of Energy and Natural Resources in the Ecevit's Cabinet during January 11-May 28, 1999. He has been a member of IPU (Inter-Parliamentary Union) and Chairman of the Information and Information Technology Group in the Turkish Parliament and Vice President of Turkish - US Interparliamentary Friendship Group.

May 24, 2004-2007 he was the President (rector) of Çankaya University - Ankara. Prior to that he served as Acting Rector at the same university during 07.11.2003 - 24.05.2004. He also served as the Dean of School of Engineering and Architecture of Çankaya University. Prof. Aktas is a member of ACM, TBD and a Board Member of TBV.



OPENING ADDRESS
Monday, June 4, 9:00-9:30 am
Room: Kanuni Sultan Suleyman

Dr. Vicki Rainey
Dyersburg Community
College, TN

Dr. Vicki Rainey is a native of Dyersburg, Tennessee. She received her B.S. in Secondary Education from the University of Tennessee - Martin (1968), an M.S. in Mathematics from the University of Mississippi (1970), a Ph.D. in Higher Education (mathematics concentration) at the University of Mississippi (1979), and an M.A. in Counseling from Amberton University (2001). Dr. Rainey began her career as a math teacher for the Memphis City Schools from 1969 through 1975. In the Fall of 1975, she joined the mathematics staff at Shelby State Community College (consolidated as a part of South-west Tennessee Community College) where she attained the rank of Associate Professor of Mathematics. In November of 1980, Dr. Rainey left West Tennessee to work as a software engineer for E-Systems, a small defense company in the suburbs of Dallas, Texas. In 22 years at the Texas location, including acquisition by the defense giant Raytheon, she rose to the rank of Director, Software Engineering responsible for the management and technical direction of up to 850 engineers.

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As Director, Software Engineering, Dr. Rainey worked with several universities to aid in the coordination of industrial needs and academic curricula. She was also active in the efforts to integrate engineering concepts into other academic areas through sponsoring of transdisciplinary education. Dr. Rainey presented her ideas through publications, national presentations, international presentations, and development of societies and academies to further these ideas. Her involvement with the theory behind the way engineering processes blend with other subjects and the way engineers approach problem solving, led her to pursue a degree in counseling. After completing her counseling degree and "retiring" from Raytheon to return home, Dr. Rainey was hired as an instructor of developmental mathematics at Dyersburg State Community College.



KEYNOTE SPEAKER

Monday, June 4, 9:30-10:00 am
Room: Kanuni Sultan Suleyman

Dr. Juan M. Sanchez

*Vice President for Research
The University of Texas at Austin, TX*

Dr. Juan M. Sanchez is the Vice President for Research at The University of Texas at Austin and holder of the Temple Foundation Endowed Professorship #4 in the Department of Mechanical Engineering. He obtained his B.S. in Physics at the University of Cordoba, Argentina, 1971; M.S. in Materials Science, 1974; and Ph.D. in Materials Science, 1977 at the University of California, Los Angeles.

Dr. Sanchez is the author and co-author of over 140 technical publications on a wide range of topics in materials science and engineering. His current research interests are in the electronic, thermodynamic and structural properties of materials including inter-metallic compounds, magnetic and non-magnetic alloys, thin films and magnetic multilayers. His primary interest is the development and application of first principles computational methods for the construction of phase diagrams of multicomponent material systems. Other research interests include the development of laser-controlled selective chemical vapor deposition processes for metals, alloys and ceramics.

Dr. Sanchez serves on the Council of Federal Relations of the Association of American Universities; on the Board of Directors as Council Vice Chair for the Oak Ridge Associated Universities, and the Texas Nanotechnology Initiative. He also serves as a Representative to the Government-University-Industry Research Roundtable of the National Academies, as Trustee for the South-eastern Universities Research Association, Inc., as a Member of the Institutional Oversight Board Member for the National Partnership for Advanced Computing Infrastructure (NPACI), Institutional Oversight Board Member for the National Partnership for Advanced Computing Infrastructure (NPACI), the Board of Visitors of the US Army War College, Member of the International Consulting Board, Advisory Board for the Texas Coalition for Capital, and the National Scientific and Policy Advisory Council for the Hogg Foundation for Mental Health.

DISTINGUISHED SPEAKERS

Monday, June 4, 10:30 am - 12:15 pm



Dr. C.V. Ramamoorthy

University of California, Berkeley, CA

Professor Ramamoorthy's distinguished career tracks back to the 1960s. In 1961, while working as a scientist for Honeywell, Ramamoorthy developed the entire microcode to handle instruc-

KEYNOTE PANEL SCIENCE, TECHNOLOGY, TRADITION, AND MEANING

9:30 am - 12:15 pm, Monday June 4, 2007
Room: Kanuni Sultan Suleyman

Organizer and Chair: Dr. Hiroshi Yamaguchi, Chuo University, Tokyo, Japan



Dr. Hiroshi Yamaguchi

*Professor
Research & Development Initiative
Chuo University, Tokyo, Japan*

Dr. Hiroshi Yamaguchi received his B.S. degree in Instrumentation Engineering from Keio University and the Dr. Eng. degree in Information Security from Chuo University in Japan. He originally joined NEC in 1963, in the Computer Software Development Department. While with NEC, he was a member of the team that designs the Operating systems and Database systems. He has served as the vice president in NEC Soft. He pioneered the design of information security systems and the collaboration with the universities in the USA. He was a head of the research and development group on the next generation electronic voting system funded by the NICT in Japan.

Currently he is serving as a full professor in the Research and Development Initiative, Chuo University and as a visiting professor in the Bioinformatics Research Institute, Waseda University since 2004. He has been a Keynote and plenary speaker at several international conferences, such as IEEE-ICTAI, HASE, BIBE, and ISM. He is a fellow of SDPS and serving as the President of the Software Engineering Society (SES) since 2002.

tion sequencing and control for the H290, Honeywell's first transistorized system. The H290 was a general-purpose, stored-program digital computer designed for process monitoring and control. In the late 1960s, Ramamoorthy joined the University of Texas, Austin, as a professor of electrical engineering and computer science, later becoming chair of the computer science department. At UC Berkeley, where he joined the faculty in 1972, Ramamoorthy is an emeritus professor of Electrical Engineering and computer science. Most recently, his research investigations have focused on service industries-functions, features, and control-and the relationships between software and service engineering. IEEE Society has honored Ramamoorthy's achievements with the Taylor L. Booth Education Award in 1989, the Richard E. Merwin Distinguished Service Award in 1993, Golden Core recognition in 1966, and Tsutomu Kanai Award in 2000. He also received the IEEE Centennial Medal and the IEEE Third Millennium Medal. He has been an IEEE Fellow since 1978 and is a Fellow of the Society for Design and Process Science, from which he received the R.T. Yeh Distinguished Achievement Award in 1997. A longtime Computer Society volunteer, Ramamoorthy was founding editor in chief of IEEE Transactions on Knowledge and Data Engineering and served as editor in chief of IEEE Transactions on Software Engineering. He has published more than 150 papers, coedited three books, and holds patents in computer architecture, software engineering, computer testing and diagnosis and databases. He holds two undergraduate degrees in Physics from India. He obtained two graduate degrees in Mechanical Engineering from University of California at Berkeley, and two graduate degrees in Applied mathematics and Computer Sciences from Harvard.



Dr. Raymond T. Yeh
SDPS Lifetime Honorary Member

Meaning Making

Dr. Raymond T. Yeh taught computer science at Pennsylvania State University, the University of Texas at Austin, the University of Minnesota, and the University of Maryland at College Park. He was also Chairman of the Department of Computer Sciences at both Texas and Maryland. Under his leadership, he helped both departments to gain top-ten ranking nationally. He was the Control Data Corporation Distinguished professor at the University of Minnesota, and is an honorary professor at four leading universities in China. He is founding editor-in-chief of IEEE Transactions on Software Engineering as well as Journal on Systems Integration and is on the editorial board of various journals. He also founded the Technical Committee on Software Engineering as well as the International Software Engineering Conference (ICSE) within the IEEE.

He has published 10 books, including the four volume classic on Programming Methodology published by Prentice-Hall, and more than 120 scientific articles. Most recently, he co-authored his first business book "Zero Time" published by John Wiley & Sons. in August, 2000. He founded three successful software companies during the time of 1983 to 1999. Dr. Yeh served as a board member for several organizations. He has also served as a management consultant to many nations including United Nations, US, Sweden, Japan, China, Taiwan, and Singapore as well as to world-class organizations including IBM, AT&T, Siemens (Germany), IISis (Brazil), Fujitsu (Japan), NEC (Japan), Hitachi (Japan), Price Waterhouse, Singapore Housing and Economic Development

Boards, etc. He is a fellow of Institute of Electrical and Electronic Engineers (IEEE), Society for Design and Process Science (SDPS), and a senior research fellow at the ICC Institute at the University of Texas at Austin. He was an honorary research fellow at Fujitsu from 1976 to 1985. He is a co-founder of the Society for Design and Process Science and its first President, and co-founder of the Software Engineering Society.

Dr. Yeh is a recipient of the IEEE Centennial Medal, the IEEE Golden-Core award, Special Award of the IEEE Computer Society, the SDPS Awards for Scholarship and Lifetime Achievement, as well as Visionary Leadership in Information Technology Award from the government of Taiwan, among others.



Dr. Majid M. Naini
Universal Vision & Research
Delray Beach, Florida

Dr. Naini received his B.S. in Electronics Engineering, M.S. in Computer Science, and Ph.D. in Computer and Information Science from University of Pennsylvania. For most of the past 28 years he has been a Professor, Program Director, Laboratory Director, Department Chair, and College Dean at major universities throughout the world, including University of Pennsylvania, Hawaii, Oman, Cairo, Colorado, and Florida, in the fields of Computer Science, Engineering, and Information Technology. He has been an active researcher, the designer of several state-of-the-art Computer and IT projects with prestigious multi-national corporations, and the author of many innovative books and papers in the fields of science, technology, mysticism, and inspiration. He has obtained numerous grants and contracts from various funding organizations and industries for research and development of high tech products.

Professor Naini, a world traveler, has lived and taught in 4 different continents. He is one of the foremost scholars of Rumi, the 13th century Sufi mystic, who has been the best-selling poet in the U.S. for the past several years. For over 35 years of his life, Dr. Naini also has been a student of mysticism, literature, history, and numerous traditions. He has spoken at over 500 national and international conferences, seminars, and programs. In the U.S., he has presented numerous workshops/lectures at many prestigious places including the United Nations, Princeton, Yale, Penn, Stanford, Johns Hopkins, GWU, Rutgers, UCSD, UCLA, UCSB, Caltech, University of Illinois at Urbana-Champaign, Tennessee, New Mexico, Embry Riddle, John Carroll, Florida International, Florida Atlantic, Molana House, IMAN, Kashi Center, Chaplain Associations, Unity Churches, Science of Mind Centers, Milagro Center, and the Melbourne Museum of Art and Science, in addition to numerous cultural and art centers throughout the world. Recently he was honored as a keynote speaker at the Mayor's Summit for Race, Culture, and Human Relations in Tallahassee and his speech was chosen to be televised repeatedly. He was honored for his extraordinary career and dissemination of knowledge, peace, and love by IAMA and SUSMA, prestigious medical associations. Dr. Naini has been featured in numerous newspapers, magazines, websites, and TV/radio shows in USA, Canada, Asia, Europe, and Australia, including San Francisco Chronicle, Sun-Sentinel, Boca News, a PBS special, and an 18-part TV series. He is invited by UNESCO as a keynote speaker for the Year of Rumi (2007).

Professor Naini has been traveling throughout the world to promote universal peace, harmony, and love via the amazing words

and superb teachings of Rumi and others, and to enhance understanding and communication among people of all faiths and backgrounds. His latest book, *The Mysteries of the Universe and Rumi's Discoveries on the Majestic Path of Love*, has also traveled across the globe. His talks attract a broad and culturally diverse audience with an array of topics encompassing science, technology, mysticism, the mind-body-spirit relation and balance, etc. Over 40 DVDs and CDs of his lectures and TV/radio programs have been produced. In his two upcoming books, *The Mind, Body, Spirit Relation & Mystical Balance* and *The Majestic Journey in Time and Space on Earth and Beyond*, Dr. Naini discusses the latest discoveries of science, technology, medicine, and psychology, and their relation to the human journey and endeavor.

DINNER SPEAKER

Dr. Juan M. Sanchez
Vice President for Research
The University of Texas at Austin, TX

Monday, June 4, 7:00-9:30 pm
Room: *Salon*

TRANSDISCIPLINARY SCIENCE & ENGINEERING DISTINGUISHED KEYNOTE PANEL

Thursday, June 7, 9:00 am -12:15 am
Room: Kanuni Sultan Suleyman

Organizer and Chair: Dr.-Ing Reiner W. Hartenstein,
Kaiserslautern, University of Technology, Germany



Dr.-Ing. Reiner W. Hartenstein
*Professor, Kaiserslautern
University of Technology
Germany*

Dr.-Ing. Reiner W. Hartenstein is professor of Computer Science and Engineering at Kaiserslautern University of Technology (TU Kaiserslautern), where his most recent research focuses on Reconfigurable Computing (RC), Reconfigurable Supercomputing, Configware / Software Co-Compilation, and design flows for RC in embedded systems. Reiner Hartenstein is an IEEE life fellow, FPL fellow, and member of the ACM. He has published more than 400 professional papers for journals and conference proceedings, and has authored or co-edited 14 books. Reiner Hartenstein frequently receives invitations to give keynote addresses at international conferences. In 1981 he was visiting professor at University of California at Berkeley. Before joining TU Kaiserslautern he was a professor at University of Karlsruhe. He has graduated more than 100 M.S. and 25 Ph.D. students. He acquired extensive government and industrial research funding, received several awards, and consulted for more than 10 international companies. Reiner Hartenstein received all his academic degrees from the EE Department at University of Karlsruhe (TH), where he was the first Ph.D. graduate student of Karl Steinbuch, the pioneer of artificial neuronal networks.



KEYNOTE SPEAKER
Thursday, June 7, 9:00-9:30 am
Room: *Kanuni Sultan Suleyman*

Dr. Juergen Becker
*Vice President of the University
of Karlsruhe, Germany*

Adaptive Reliable Chips: Challenges in Reconfigurable and Organic Computing in the Nano Era

Juergen Becker is Vice President of Universitaet Karlsruhe (TH), Germany, Head of the Institute for Information Processing (ITIV), managing co-director of the International Department at Universitaet Karlsruhe (TH), and co-director of the Electronic Systems and Microsystems (ESM) group at Karlsruhe's Computer Science Research Center (FZI). Dr. Juergen Becker received his Diploma degree and his Ph.D. degree from the University of Kaiserslautern, Germany, where his research has focused on parallelizing compilers and other application development tools for Reconfigurable Computing and hardware/software codesign, and has been local administrator of the EUROCHIP VLSI design organization. In 1997 Dr. Becker joined the Institute of Microelectronic Systems at Darmstadt University of Technology, Germany, as an assistant professor teaching VLSI design, and doing research on Reconfigurable Systems-on-Chip (SoC) architectures for mobile communication. Since 2001 Juergen Becker is full professor at the Universitaet Karlsruhe (TH), where he teaches digital design (undergraduate), as well as (graduate) VLSI design and hardware/software codesign. His research is focused on industrial-driven SoCs with emphasis on dynamically reconfigurable architectures for embedded systems, also including low power design. He is author and co-author of more than 150 peer-reviewed international journal and conference papers, chair or member of several international program and steering committees, as well as of several professional societies' committees.

DISTINGUISHED SPEAKERS

Thursday, June 7, 9:30 am - 12:15 pm



Dr. Hans Meuer
*Director
Prometeus GmbH*

Prof. Dr. Hans Meuer is the Managing Director of Prometeus GmbH, and the General Chairman of ISC'07 in Dresden. He is professor of computer science at the University of Mannheim, Department of Mathematics and Computer Science. In 1986, he became founder and organizer of the first Mannheim Supercomputer Conference, which has been held annually ever since. In 1993, Hans Meuer started the TOP500 initiative together with Erich Strohmaier at the University of Mannheim, Germany. At ISC'07 in Dresden the 29th TOP500 will be presented. Hans Meuer received his doctorate in mathematics from the RWTH Aachen University, Germany. He has been involved in data processing and computer science for more than 45 years. He served as specialist, project leader, group and department chief during his 11 years at the Research Center in Jülich, Germany, from 1962 – 1973. For the following 26 years, he was Director of the Computer Center at the University of Mannheim, Germany. Since 1998, he has been Managing Director of Prometeus GmbH, the service company specialized in the field of High Performance Computing.



Dr. Ishfaq Ahmad
Professor and Director
Institute for Research in Security
UTA, Arlington, Texas, USA

Dr. Ahmad received a BSc degree in Electrical Engineering from the University of Engineering and Technology, Lahore, Pakistan, in 1985, and an MS degree in Computer Engineering and a PhD degree in Computer Science from Syracuse University, New York, U.S.A., in 1987 and 1992, respectively. His recent research focus has been on designing high-performance parallel and distributed systems, grid computing, scheduling and mapping algorithms for scalable architectures, multimedia systems, and video compression techniques. His research work in these areas is published in close to 200 technical papers in refereed journals and conferences, with best paper awards at Supercomputing 90 (New York), Supercomputing '91 (Albuquerque), and 2001 International Conference on Parallel Processing (Spain). He is currently a full professor of computer science and engineering in the CSE Department of the University of Texas at Arlington. His current research is funded by the Department of Justice (DOJ), National Science Foundation (NSF), and Sun Microsystems. At UTA, he leads the Multimedia Laboratory and IRIS (Institute for Research in Security), an inter-disciplinary university wide research center.



Dr. Bernd J. Krämer
Professor at FernUniversität Hagen
Germany

Dr. Bernd J. Krämer is a professor of the Department of mathematics and Computer Science of FernUniversität in Hagen, Germany. He is also the president and co-founder of the Scientific Academy for Service Technology (SacSTech), a director and founder of the Research Institute for Efficient Energy Use in Buildings, a founder and member of the board of the German Academy for IT Sciences, and a member of FTK, a Research Institute for Telecommunications. He obtained his diploma and doctorate in computer science from the Technical University of Berlin. He was an adjunct professor of the School of Information Systems at Queensland University of Technology in Brisbane, Australia, adjunct professor of the Computer Science Department of the Naval Postgraduate School in Monterey, California, and a senior researcher and project director of the German National Research Institute for Information Technology. He was a visiting professor of McGill University in Montreal, Canada, in 1991, the University of California at Berkeley in 1997, Monash University in Melbourne, Australia, in 2001, and the University of Trento, Italy, in 2002. His research interests include Web-based hypermedia systems, distributed systems management and engineering, safety-related software, and formal methods. Currently he is the scientific director of a large EU project in the 5th Framework Program. Prior to this he has been the principal investigator of further EU funded projects and he received funding from the German Minister of Research and Technology, the Minister of Science of the state of North-Rhine Westphalia, the National Science Foundation, and other U.S. funding agencies.

TECHNICAL PAPER SESSIONS

SESSION-1 Room: Kanuni Sultan Suleyman
Monday, June 4, 1:30 pm - 3:15 pm

SIMULATION-BASED ADAPTIVE LEARNING AND INSTRUCTION
Session Organizer and Chair: A. M. MADNI, Intelligent Systems Technology, Inc., CA, USA and B. SORENSEN, Air Force Research Laboratory, AZ, USA

Simulation-Based Context-Sensitive Learning of Leadership Skills by A. M. MADNI, C. C. MADNI, Intelligent Systems, Technology, Inc., Santa Monica, CA, USA, H. B. Sorensen, Warfighter Readiness Research Division/AFRL, AZ, USA

Optimizing Leadership Performance Through Simulation Adaptive Training by J. RIESS, Education and Training Solutions, Vienna, VA, USA, B. SORENSEN, Air Force Research Laboratory, Mesa, AZ, USA, E. ALLELY, Tekamah Corporation, Fairfax, VA, USA

Intelligent Tutoring System Adapted to Satellite and Space Robot Training Simulation by B. A. BABBITT, The Aerospace Corporation, Los Angeles, CA, USA

From Simulations to Automated Tutoring by S. RAMACHANDRAN, Stottler Henke Associates, Inc., San Mateo, CA, USA, B. SORENSEN, Air Force Research Laboratory, Mesa, AZ, USA

Predicting the Cognitive Readiness of Military Health Teams Through M-Crest by B. A. BOLSTAD, H. M. CUEVAS, SA Technologies, Marietta, GA, USA, B. A. BABBITT, C. A. SEMPLE, R. E. VESTEWIG, UsabilityMDx, Gilbert, AZ, USA

SESSION-2 Room: Kanuni Sultan Suleyman
Monday, June 4, 3:30 pm - 5:00 pm

IMAGE PROCESSING & ALGORITHMS

Session Organizer and Chair: F. SCHURZ and D. FEY, Friedrich-Schiller-University Jena, Institute of Computer Science, GERMANY

A Programmable Parallel Processor Architecture in FPGAs for Image Processing Sensors by F. SCHURZ and D. FEY, Friedrich-Schiller-University Jena, Institute of Computer Science, GERMANY

Developing an Image Processing Application on Compression and Filtering of Multidimensional Medical Images by E. GOCERI, and A.K. YALDIR, Department of Computer Engineering, Pamukkale University, Denizli, TURKEY

Elliptical Sense with Effective Nine Fold Scan Time Reduction for Small FOV 3D MR Spectroscopic Imaging of Glioma Patients at 3T by Esin Ozturk-Isik^{1,2}, Albert P. Chen², Jason C. Crane², Eric T. Han³, Duan Xu², Daniel B. Vigneron^{1,2}, Susan M. Chang⁴, Sarah J. Nelson^{1,2}, ¹UCSF/UCB Joint Graduate Group in Bioengineering, University of California, San Francisco, CA, USA, ²Surbeck Laboratory of Advanced Imaging, Department of Radiology, University of California, San Francisco, CA, USA, ³GE Healthcare, ASL West, Palo Alto, CA, ⁴Department of Neurological Surgery, University of California, San Francisco, CA, USA

A Bioinformatics study on metabolic network of Brain-Pancreas-Gut and their role in Obesity and Type-2 Diabetes (invited Paper) by A. APPARAO¹, G.R. SRIDHAR², B. SRINIVAS¹ and K.M. DEEPAK¹. ¹CS&SE, AUCE, Visa-khapatnam, India, ²EDRC, Visakhapatnam, INDIA

SESSION-3 Room: Kanuni Sultan Suleyman
Tuesday, June 5, 9:00 am - 10:30 pm

MODELING MOBILE AD-HOC NETWORKS

Session Organizer and Chair: J. PADBERG and K. HOFFMANN, Institute for Software Technology and Theoretical Computer Science Technical University of Berlin, GERMANY

On a General Notion of Transformation for Multiagent Systems by J. PFALZGRAF, T. SOBOLL, Department of Computer Science, University of Salzburg, AUSTRIA

Resources as Synchronizers: Managing Process Adaptation in MANETs by P. BOTTONI*, F. De ROSA**, M. MECCELLA**, by *Universita di Roma \La Sapienza", Dipartimento di Informatica, **Universita di Roma \La Sapienza", Dipartimento di Informatica e Sistemistica, ITALY

Hypertexts - A Flexible Environment for Flexible Manufacturing Systems by M. A. BEDNARCZYK, J. SLAWINSKI, Instytut Podstaw Informatyki, filia Gdansk, POLAND

Flexible Modeling of Emergency Scenarios using Reconfigurable Systems by K. HOFFMANN, H. EHRIK, J. PADBERG, Institute for Software Technology and Theoretical Computer Science Technical University of Berlin, GERMANY

Layered Architecture Consistency for MANETs: Introducing new Team Members by E. BIERMANN, K. HOFFMANN, J. PADBERG, Institute for Software Technology and Theoretical Computer Science Technical University of Berlin, GERMANY

SESSION-4 Room: Revan Kosk

Tuesday, June 5, 9:00 am - 10:30 pm

EDUCATIONAL TECHNOLOGY: EFFECTIVE INTEGRATION AND MANAGEMENT

Session Organizer and Chair: T. RAHAL, L. JOLOLIAN, Zayed University, Dubai, U.A.E; JEAN-CLAUDE NGATCHOU, New Jersey City University, New Jersey, USA

Introduction of Class Response Systems in Higher Education Classrooms by W. BAZZI, Computer Engineering, American University in Dubai, Dubai, U.A.E

Identifying Challenges to Technology Integration in Urban Planning and Design Instruction by A. Husnéin, Al Hosn University, Dubai, U.A.E

A Comprehensive Framework for the Introduction of Information Technology in the UAE Educational System by T. RAHAL, L. JOLOLIAN, Zayed University, Dubai, U.A.E.

Why Would I Want To Pursue a Transdisciplinary Systems Design and Process PhD Degree? By T.E. KOLLMAN, Texas Tech University, Department of Mechanical Engineering, TX, USA

SESSION-5 Room: Kanuni Sultan Suleyman

Tuesday, June 5, 10:45 pm - 12:15 pm

METHODOLOGY FOR SYSTEMS DESIGN & PROCESS

Session Organizer and Chair: K. ITOH, Sophia University, JAPAN

Active User Support for Engineering Changes in Product Life-cycle Management by V. KOCAR and A. AKGUNDUZ, Concordia University, CANADA

Towards a New Transdisciplinary Architecture for Knowledge Based Systems by T. GONSALVES, R. KAWABATA and K. ITOH, Sophia University, JAPAN

Creating Effective Interactive Voice Response Systems by E. ONAL, UnitedHealth Technologies Plymouth, MN, USA

Modeling and Simulation of an Interface-Based System Architecture by W. WESTERMANN, and F. KOCAN, Computer Science and Engineering, Southern Methodist University, TX, USA

A Lyapunov Formulation for Nonlinear Interconnected Systems: Variable gradient Approach by M. KIDOUICHE, M. ZEL-MAT, S. GROUNDI, University M'hamed Bougara of Boumerdes, ALGERIA

SESSION-6 Room: Revan Kosk

Tuesday, June 5, 10:45 pm - 12:15 pm

SOFTWARE

Session Organizer and Chair: A. DOGRU, METU, Ankara, TURKEY

The Method of the Member Report on their Relative Contribution in the Student Group Work by R. YAEHASHI*, K. NAKAMURA**, T. IDO**, K. ODAGIRI***, T. MASA-HARU***, S. KOMIYA**, *YAYASAN PELAJARAN MARA/ Shibaura Institute of Technology, **Graduate School of Shibaura Institute of Technology, *Toyota Technological Institute, JAPAN

The Evaluation of State Explosion on Producer/Consumer Problem Using Promela/Spin Model Checker by D. CARTER, and *R.S. AYGUN, COLSA Corporation, Alabama, USA, *University of Alabama in Huntsville, Department of Computer Science, Alabama, USA

Host-Target Testing via Automated Tools by N. A. YILMAZ, and E. ARKIN, Aselsan Inc., MGEO Division Image Processing Department, TURKEY

A Process Personalization Model for Enabling Biological Research by R. S. SADASIVAM, G. SUNDAR, M. M. TANIK, M. N. TANJU, and L. JOLOLIAN, Department of Electrical and Computer Engineering, UAB, Birmingham, AL, USA

A Model-Driven approach for Service-Centric System development by V. BICER, C. TOGAY, A. H. DOGRU, METU, Ankara, TURKEY

SESSION-7 Room: Kanuni Sultan Suleyman

Tuesday, June 5, 1:30 pm - 3:00 pm

SOFTWARE & MANAGEMENT

Session Organizer and Chair: L. YILMAZ, Computer Science & Software Eng., Auburn University, AL, USA

Optimizing Project Team Formation for Exercises in Software Development Conducted in Units of Groups by H. HASHIURA*, T. KUWABARA**, Y. QIU**, T. ISHIKAWA*, K. YAMASHITA*, S. KOMIYA*, *Graduate School of Engineering, **Department of Information Science and Engineering, Shibaura Institute of Technology. Komiya Lab, Kenkyu-to, Toyosu Koto-ku, Tokyo, JAPAN

Simulation-Based Uncertainty Analysis for Planning Parameters in Operational Product Management by A. AL-EMRAN, K. KHOSROVIAN, D. PFAHL, G. RUHE, University of Calgary, Department of Electrical And Computer Engineering, Alberta, CANADA

Generating a Set of Rules to Determine the Meanings of "Kekkou" by K. KOMIYA, Y. TAJIMA, and Y. KOTANI, Department of Computer, Information and Communication Sciences, Tokyo University of Agriculture and Technology, Tokyo, JAPAN

On Multiresolution Simulation Modeling of Team And Human Behavior For Software Process Design by L. YILMAZ¹, T. I. ÖREN^{2,1} Computer Science And Software Engineering, Auburn University, Auburn, AL, USA, ²Ottawa Center of The Miss Site, University of Ottawa, Ottawa, CANADA and Beykent University, Istanbul, TURKEY

Time Management at Executive Manager's Level - Research in Romanian Organizations/Entities by L.A. KOVÁCS, P. DUMBRAVĂ, C.I. CHIFU, Faculty of Business, "Babeş-Bolyai" University, ROMANIA

Design of a Service-Oriented Composite Dashboard by G. SUNDAR, R. S. SADASIVAM, and M. M. TANIK, Department of Electrical and Computer Engineering, UAB, Birmingham, AL, USA

SESSION-8 Room: Revan Kosk

Tuesday, June 5, 1:30 pm - 3:00 pm

SOFTWARE INTEROPERABILITY

Session Organizer and Chair: R. JURIC, University of Westminster, UK

Analysis of Requirements for Automated Interoperability Testing by M-E BÉGIN¹, P. COUVARES², G. DIEZ-ANDINO SANCHO¹, S. DA RONCO³, A. DI MEGLIO¹, L. DINI¹, P. FABRIANI⁴, B. GIETZ², A. PAVLOS², E. RONCHIERI⁵, M. SELMI⁵, E. TAKACS⁶, M. CEUREK¹, ¹CERN, Geneva, SWITZERLAND, ²University of Wisconsin, Madison, WI, USA, ³INFN, University of Padua, Padova, ITALY, ⁴Engineering Ingegneria Informatica S.p.A., Via San Martino della Battaglia, Roma, ITALY, ⁵INFN CNAF, Via Ranzani, Bologna, ITALY, ⁶Soft Software Development Ltd., Telepy, HUNGARY

Case Study: Information System Interoperability in the Energy Sector of the Construction Industry by BRIDGET SAUNDERS, BRIAN WEIGHTMAN, London Metropolitan University, Department of Computing, Communications Technology and Mathematics, London, UK

Databases for Facilitating Data Sharing in the UK NHS by A. AKRAM, R. JURIC AND M. RANGANATHAN, L. SLEVIN, University of Westminster, School of Informatics, Department of Information Systems, London, UK

Supporting Interoperability Frameworks in the UK Public Sector by N. GRANATIR^{1,2}, R. JURIC², J. KULJIS³, I. TESANOVIC^{3,1}TPCom, Melbourne, Royston, UK, ²University of Westminster, School of Informatics, London, UK, ³Brunel University West London, School of Information Systems, Uxbridge, UK

An Overview of Intreoperability Standards for Electronic Health Records by A. BEGOYAN, University of Westminster, School of Informatics, Department of Information Systems, London, UK

Developing Databases for Enabling Interoperability in the UCAS Admissions Process by F. J. ALI², L. SLEVIN¹, H. DAGDEVIREN¹, ¹University of Westminster, School of Informatics, Department of Information Systems, London, UK, ²Electronic Data Systems, London, UK

Bulding Ontology for Intelligent Software Applications in Hospitals by P. KATARIA, R. JURIC, K. MADANI AND J. CROFT, University of Westminster, School of Informatics, Department of Information Systems, London, UK

SESSION-9 Room: Kanuni Sultan Suleyman

Wednesday, June 6, 9:00 am - 10:30 am

EVOLUTION IN SYSTEMS DESIGN CONCEPTS DESIGN AND METHODOLOGIES

Session Organizer and Chair: S. R. DAS and M. SAHINOGLU, Troy University, AL, USA

A Web-Based Decision Support System for Elective Course Assignment: An Integer Programming Approach by E. B. EDIS, P. MIZRAK OZFIRAT, and I. OZKARAHAN, Troy University, USA, and Dokuz Eylul University, TURKEY

Complex ASIC Core Design Using Coverage-Driven Functional Verification and Reuse Methodology by M. H. ASSAF, S. R. DAS, W. HERMAS, E. M. PETRIU, S. BISWAS, W-B. JONE, and M. SAHINOGLU University of Ottawa, Canada, and Georgia Southern University, University of Cincinnati, and Troy University, AL, USA

Creativity in Design: An Exploration of the Relationship between Design Creativity and Configurational Properties of Architectural Designs by E. ORHUN and D. ORHUN, Troy University, AL, USA

An Ant-Based Fault Identification Algorithm for Distributed and Parallel Systems by M. ELHADEF, A. NAYAK, and N. ZENG, University of Ottawa, CANADA

The Re-emergence of Analog Computers as the Future Computing Paradigm: A Position Paper by S. GHOSH Department of Computer Science The University of Texas, Tyler, Texas, USA

SESSION-10 Room: Revan Kosk

Wednesday, June 6, 9:00 am - 10:30 am

COMMUNICATION, COLLABORATION & INFORMATION TECHNOLOGY-I

Session Organizer and Chair: U. GURLER, Department of Industrial Engineering, Bilkent University, Ankara, TURKEY

An Extracting System of Personal Profile from Telephone Dialogue Sentences by C. IGARASHI, H. NAGASAKI, K. KOMIYA, T. KOISO, J. NAKAMURA, Y. TAJIMA, *T. NAKABAYASHI, ***K. FUJIMOTO, **M. NAKANO, **T. KITADE, Y. KOTANI, Tokyo University of Agriculture and Technology, *NIWS Financial Engineering Group, Inc., **Transcosmos inc., ***Tensor Consulting Co. Ltd, JAPAN

Secure Visual Secret Sharing Scheme by I.S.PALLAVI, P.S.AVADHANI, Department of Computer Science and Systems Engineering, Visakhapatnam, INDIA

Using Bayesian Methods for Information Updating: Applications in Maintenance and Inventory Control by U. GURLER, Department of Industrial Engineering, Bilkent University, Ankara, TURKEY

A Grammar Acquisition System for Sequential Data from Characteristic Examples and Queries by Y. TAJIMA, and Y. KOTANI, Department of Computer and Information Sciences, Tokyo University of Agriculture and Technology, Tokyo, JAPAN

SESSION-11 Room: Kanuni Sultan Suleyman

Wednesday, June 6, 10:45 am - 12:15 pm

COMMUNICATION, COLLABORATION & INFORMATION TECHNOLOGY-II

Session Organizer and Chair: U. GURLER, Department of Industrial Engineering, Bilkent University, Ankara, TURKEY

A Group Root Cause Analysis System based on Kepner-Tregoe Program: Proposals of a Method for Inducing Discussants to Take Firm Steps to Clarify the Cause by Keiichi NAKAMURA*, Satoshi SUZUKI**, Takeo NAGASHIMA*, Kiyomi SHIRAKAWA*, Rihito YAEGASHI*, Seiichi KOMIYA*, *Department of Electorical and Information Engineering, Graduate School of Engineering Shibaura Institute of Technology, **Saitama Medical School, *Komiya Lab, Tokyo, JAPAN, **Saitama Medical School, Morohongou, Moroyama-machi, Iruma-gun, Saitama, JAPAN

Science, Parallel Realities, and Human Perception & Development by M. M. Naini, and *Joan F. Naini, Universal Vision & Research, Florida, USA, *Pediatric Neurologists of Palm Beach, Loxahatchee, Florida, USA

The Description and Retrieval of Diagrams Based on Case Grammar by T. KASAHARA, R. KAWABATA, K. ITOH Faculty Science and Technology, Sophia University, JAPAN

A Study on Human Factors to Affect Whether or Not Formation of Project Teams for Software Development Exercise Is Proper: An Analysis of the Human Factors Based on an Experiment and Covariance Structure Analysis by K. SHIRAKAWA, H. HASHIURA, H. SAITO, K. YAMASHITA, S. KOMIYA, Graduate School of Engineering, Shibaura Institute of Technology, Komiya Lab, Tokyo, JAPAN

SESSION-12 Room: Revan Kosk

Wednesday, June 6, 10:45 am - 12:15 pm

COLLABORATION & MNAGEMENT

Session Organizer and Chair: S. C. SUH, Department of Computer Science, Texas A&M University-Commerce, Commerce, TX. I. ESAT, Mechanical Engineering Department, Brunel University, UK

Timed STDS for Analysis of Collaboration Task by Y. TOYOHARA, R. KAWABATA, K. ITOH Faculty Science and Technology Sophia, JAPAN

Decision Making Under Risk and Uncertainty in an International Development Project by M. ALENEZI and I. ESAT Mechanical Engineering Department, Brunel University, UK University, JAPAN

A Group Risk Analysis System based on Kepner-Tregoe Program: Experiment-Based Confirmation of Effectiveness as Coordinator Support Facilities by T. NAGASHIMA, K. NAKAMURA, H. HASHIURA, T. IDO, R. YAEGASHI, S. KOMIYA, Graduate School of Engineering, Shibaura Institute of Technology Komiya Lab, Tokyo, JAPAN

A Metrics Approach to Content Management Systems by O. AKTUNC, M. M. TANI, Electrical and Computer Engineering, UAB, USA

SESSION-13 Room: Kanuni Sultan Suleyman

Wednesday, June 6, 1:30 pm - 3:00 pm

INTERNET & WEB BASED RESEARCH

Session Organizer and Co-Chair: V. KARADAG, Istanbul Technical University, Dept. of Mechanical Engineering, Istanbul, TURKEY; S. C. SUH, Department of Computer Science, Texas A&M University-Commerce, Commerce, TX

A Web Page Keyword Generator by Related Web Page Information by T. Koiso, Y. Tajima, Y. Kotani, Department of Computer and Information Sciences, Tokyo University of Agriculture and Technology, Tokyo, JAPAN

Motion Compensated Three Dimensional Wavelet Transform Based Video Compression and Coding by A. BIÇER, Z. ÜNVER, Middle East Technical University, Department of Electrical and Electronics Engineering, Ankara, TURKEY

Adaptive Web Navigation and Personalization through the Integration of Web Content and Usage Mining by S. C. SUH, Department of Computer Science, Texas A&M University-Commerce, Commerce, TX, Y. K. CHEUNG Department of Computer Science, University of Texas at Dallas, Richardson, TX, USA

SESSION-14 Room: Revan Kosk*Wednesday, June 6, 1:30 pm - 3:00 pm***GENERAL DESIGN & APPLICATIONS-I****Session Organizer and Chair:** I. I. ESAT, Mechanical Engineering Department, Brunel University, UK**Free Vibration Analysis of Laminated and Fibre Oriented Composite Plates** by M. OZAKINCI and V. KARADAG, Istanbul Technical University, Dept. of Mechanical Engineering, Istanbul, TURKEY**Using Complexity Theory to Compare the Original Fujita Tornado Intensity Scale to the New Enhanced Fujita Scale** by C. ADAMS, T.E. KOLLMAN, B.G. MCPEAK, S. SYMEONIDIS, T.J. THEODORE and, J. ZANOFF, Texas Tech University, Department of Mechanical Engineering, TX, USA**Elbow Joint Mobilities: A Review of Measurement Methods and Development of Two New Devices** by N. OZADA, S. KAMINENI, I. ESAT, School of Engineering and Design, Brunel University, Uxbridge, Middlesex, UK**Human Joint Modeling in 3D, Linear and Non-linear treatment** by N. OZADA, S. KAMINENI, I. ESAT, School of Engineering and Design, Brunel University, Uxbridge, Middlesex, UK**SESSION-15 Room: Kanuni Sultan Suleyman***Friday June 8, 9:00 am - 10:30 am***GENERAL DESIGN & APPLICATIONS-II****Session Organizer and Chair:** S. H. OH, Chung Ang University, Department of Mechanical Engineering, Seoul, SOUTH KOREA and S. GATCHEL, 14UCC, Inc., DALLAS, TX, USA**Design Of Electric Forklift Truck Driving System** by J. H. SHIM, H. K. KANG, N. I. KIM and S. H. OH, Chung Ang University, Department of Mechanical Engineering, Seoul, SOUTH KOREA**GA-Based control Force Strategy for Full-Vehicle Active Suspension System Using Convolution Integral** by M. SAUD AND I.I. ESAT, School of Engineering and Design, Brunel University, Uxbridge, Middlesex, UK**A Synergistic Validation Methodology for Digital Enterprise Engineering** by U. J. TANI^{*} and G. J. GRIMES^{**}, ^{*}Department of Accounting and Information Sciences, UAB, Birmingham, AL, ^{**}Department of Electrical and Computer Engineering, UAB, Birmingham, AL, USA**A Simulation Study of Stretch Blow Moulding of Pet Bottle Using B-SIM** by D.U. ERBULUT, S.H. MASOOD, I. SBARSKI, Faculty of Engineering & Industrial Sciences, Swinburne University of Technology, AUSTRALIA**SESSION-16 Room: Revan Kosk***Friday June 8, 9:00 am - 10:30 am***DATA, PROCESS, AND SIMULATION****Session Organizer and Chair:** T. GONSALVES, Information Systems Engineering Laboratory, Faculty of Science & Technology, Sophia University, Tokyo, JAPAN**A Graph-Based Framework for Rapid Construction of Document Integration Tools** by A. T. KORTGEN, S. BECKER, S. HEROLD, Department of Computer Science, Aachen University, Aachen, GERMANY**Performance Simulation and Design of Petri Net Systems** by T. GONSALVES, K. SHIIBA, and K. ITOH, Information Systems Engineering Laboratory, Faculty of Science & Technology, Sophia University, Tokyo, JAPAN**Neural Network Approach for Modeling Digital Circuits** by J. POCHMARA, Poznan Technical University, Poznan, POLAND**Towards A Predictive Model Architecture for Current or Emergent Pandemic Situations** by F.S. MHLANGA^{*}, E.L. PERRY^{**}, C-S. WEI^{***}, And P.A. NG^{****}, ^{*}Department of Computer Sciences, Faulkner University, Montgomery, AL, USA, ^{**}Northrop Grumman It, Montgomery, AL, USA, ^{***}Computer Information Systems Dept, City University of New York, NY, USA, ^{****}Department of Computer Science, Univ. of Texas – Pan American, Edinburg, TX, USA**SESSION-17 Room: Revan Kosk***Friday, June 8, 10:45 am - 12:15 pm***GENERAL DESIGN & APPLICATIONS-III****Session Organizer and Chair:** S. GATCHEL, 14UCC, Inc., DALLAS, TX, USA**State of Art in Human Upper Limb Biomechanics and Tennis Elbow** by M. MS. ATAF, S. KAMENINI, I. ESAT, Mechanical Engineering Department, Brunel University, UK**Design of Robot Speed Reducer with Straight Line Teeth Profile** by W. NAM^{*}, Y. JEONG^{**}, N. KIM^{*}, and S. H. OH^{*}, ^{*} School of Mechanical Engineering, Chungang University, Seoul, SOUTH KOREA, ^{**} Kangwon University, School of Mechatronics Engineering, Kangwondo, SOUTH KOREA**Use of Complex System Design to Improve Glaucoma Implants** by S. GATCHEL, A. YILDIRIM, F. GUNGOR, E. GUMUS, L. CAGLAR, Texas Tech University, Department of Mechanical Engineering, TX, USA**Problems and Advances in Shoulder Implants** by N. ABOULKAIR, O. LEVY, S. KAMENINI, I. ESAT, Mechanical Engineering Department, Brunel University, UK**Kinematic Analysis of Underactuated Leg for a Biomimetic Hexapod** by B. I GAJJAR¹, N. ALHAIFI², and I. ESAT³ Space Robotics Co/NASA/MIT, USA¹, University of Brunel, UK^{2,3}**COFFEE BREAKS****10:30 am -10:45 am****3:15 pm - 3:30 pm****CONFERENCE OPENING RECEPTION****Sunday, June 3, 2007, 5:30-7:00 pm****Room: Fuaye****CONFERENCE DINNER****Monday, June 4, 2007, 7:00 pm - 9:30 pm****Room: Salon****NOTE**

Conference hotel is approximately 20 minutes from Antalya Airport. The cost of the Taxi is about \$25. Please take a taxi and ask them to take you to **TOPKAPI PALACE**. Almost everyone in Antalya knows enough English to understand you.

IDPT SPECIAL FEATURES

WORKSHOPS Wednesday June 6, 2007

Transdisciplinary Education Workshop

Teaching Fundamental Notions in Science and Engineering with Advanced Delivery Technologies

Wednesday June 6, 2007 3:30 pm - 5:30 pm, Room: Kanuni Sultan Suleyman

Workshop Organizers:

DR. M.M. TANIK, UAB, AL, USA; DR. T. MAXWELL, Texas Tech, TX, USA. DR. E. ORHUN and DR. M. SAHINOGLU, Troy State, AL, USA; DR. L. JOLOLIAN, New Jersey City University, NJ, USA.

NSF defines TRANSFORMATIVE RESEARCH as “research driven by ideas that stand a reasonable chance of radically changing our understanding of an important existing scientific concept or leading to the creation of a new paradigm or field of science. Such research also is characterized by its challenge to current understanding or its pathway to new frontiers. http://www.nsf.gov/nsb/documents/2007/tr_draft.pdf “. This year we wish to explore new ways of teaching our undergraduate and graduate students fundamental concepts in science and engineering so that they will be equipped with conceptual tools and mechanisms to have the potential to pursue creative and transformative research in their future careers.

A Brief History of Transdisciplinary Education Workshops at SDPS-IDPT

During June-2000 SDPS-IDPT conference at Dallas Texas, we held the first transdisciplinary education workshop titled “Integrating Internet into Interdisciplinary Education and Research.” The ideas emerged in this workshop, lead to the organization of a three-day long exclusive workshop during September 4-6, 2000 at Pine Bay Izmir, Turkey. The theme of the workshop in Pine Bay was “Global Transdisciplinary Education and Research.” A number of key topics emerged in this workshop such as “Virtual university, “alternative scheduling,” and “modular courseware.” This three-day long brainstorming by many senior participants, lead to the organization of the next transdisciplinary education workshop during June 2001 at Pasadena, CA. where we had numerous excellent presentations and a lively general discussion session. Presenters such as D. Smith, S. Nelson, D. Gibson, T. E. Kollman, S. Watanabe, F. Sobrinho, B. Kraemer, R. Paul, O. Tanir, T. Kozik, and V. Rainey exposed many important notions pertinent to education and critical thinking. Many important ideas emerged in this workshop, such as “educational module development by experts,” “clarification of the idea of transdiscipline,” “the role of language,” and “resistance to change.” Since the original workshops during 2000-2001 conferences, transdisciplinary education workshops and themes have been a tradition in IDPT conferences. We cannot list the names of literally hundreds of major contributors to these workshops and discussions. We will probably be correct if we say almost all the founding members of SDPS in addition to a quarter of SDPS members had major contributions to these workshops. We thank them all one more time and invite them to continue to be involved. This year’s keynote speech is about: The increasing deployment of wireless networks on university campuses provides both opportunities and challenges for use in classrooms and laboratories. Evolutionary hardware change, IT administration and support, and student experience pose practical challenges for the educator who wants

to design and implement software for enhancing traditional course content. A case study of critical issues encountered during the ongoing development of a software simulation system designed for an undergraduate geoscience laboratory will be presented.

Workshop Keynote Speaker



Dr. Scott Brande
Professor
UAB, AL

Wireless Delivery of Web Content and Simulation Software to an Undergraduate Geoscience Laboratory: Considerations of Clients, Networks, and Pedagogy

Scott Brande received a Bachelor of Science for a dual biology-geology degree in 1972 from the University of Rochester, a Master of Science in geology from the California Institute of Technology in 1974, and a doctorate in Paleontology in 1979 from the State University of New York at Stony Brook. Brande joined the faculty at UAB in 1979, and since then he has taught courses in undergraduate geology, geology for archaeologists, and critical thinking for conditionally admitted students. Brande is now an associate professor of natural sciences and mathematics, an adjunct faculty member of UAB’s department of sociology and anthropology, and an adjunct member of the geology department at the University of Alabama. Brande has always enjoyed cross-disciplinary research with colleagues and students. Brande has contributed to statistical studies of moon rocks, the isotopic body temperature of Tyrannosaurus rex, and the identification of sex of a fresh water gastropod in Israel. During a sabbatical in Israel, Brande worked with archaeologists on molluscan faunas, and he has modeled the geometric shapes of Acheulian handaxes from a Pleistocene deposit in the Hula valley. Brande has done grant supported research in the recent geological history of Mobile Bay, Alabama USA. Recently, Brande has received an educational grant from the National Science Foundation for the development of innovative wireless technologies for use in an undergraduate geoscience laboratory. Brande has long worked to guard the integrity of evolution in the K-12 Alabama public school classroom against the intrusion of creationism. In 2006, Brande was awarded the Outstanding Educator Award from the Gulf Coast Association of Geological Societies.

Supporters of Workshop

Dr. David B. Allison, Dept. of Biostatistics, Section on Statistical Genetics, UAB; Dr. Gypsy Abbott, School of Education, UAB; Dr. J. Barry Andrews, Materials Science and Engineering, UAB; Dr.

Stephen Barnes, Nutrient-Gene Interaction Center, UAB; Dr. Atila Ertas, Dept. of Mechanical Engineering, Texas Tech University; Dr. Gary J. Grimes, Electrical and Computer Engineering, UAB; Dr. John L. Hartman, Dept. of Genetics, UAB; Rajani Sadasivam, Continuing Medical Education, UAB; Dr. M. Sahinoglu, Troy State Uni-

versity; Dr. L. Trevino, 2L Research; Dr. Murat N. Tanju, Dept. of Accounting and Information Systems, UAB; Dr. U. J. Tanik, Dept. of Accounting and Information Systems, UAB, E.M. Burlingame, Strategic Development, CA, USA, O. Aktunc, Vision Science, Research Center, UAB. Dr. F. Kocan, SMU, TX, USA.

Workshop on Reconfigurable Computing

Thursday June 7, 2007 1:30 pm - 3:15 pm

Room: Kanuni Sultan Suleyman

Workshop Organizer:

DR. REINER W. HARTENSTEIN, Professor, Kaiserslautern, University of Technology, GERMANY

Invited Presenters:



Dr. Koen Bertels
Delft University of Technology
NETHERLANDS

Professor Koen Bertels received his PhD in 1991 from the University of Antwerp (Belgium) and taught at the universities of Louvain, Antwerp and Namur. He was a visiting scholar at the university of Illinois, University of Cambridge and the Royal Institute of Technology in Sweden. In June 2001, he joined the Computer Engineering Laboratory of Delft University of Technology (Netherlands). His main research interests are distributed and reconfigurable computing.



Gilbert Edelin
Thales Research & Technology
embedded systems department
FRANCE

Gilbert EDELIN manages the Embedded Systems Lab (20 p) in the Corporate Research Group on Information Science and Technology at THALES Research & Technologies. This Lab studies and prepares the disruptive solutions in computing platforms and tools for the embedded applications of the Group. Prior his current activities, he co-ordinated the corporate activities in computing

architectures and tools for Signal Processing applications. He previously managed the Digital Department of Thales Communications France involved in a wide range of Embedded platforms including FPGA based, system on chip, ASIC, and producing versatile embedded communication platforms. Prior to Thales he was responsible for safety critical systems in Automotive and Aerospace Companies where, in the 80's he introduced ASIC and EDA technologies and lead advanced studies in Integrated Modular Avionics. He has worked in or managed several R&T cooperative Industrial and Academic projects in different National or European frameworks. He is currently the co-ordinator for the IST / IP project MORPHEUS which develops a Reconfigurable platform (partners : Thomson, ST, CEA, Lucent, Universities of Karlsruhe, Bologna, Delft, etc.) and for the Ter@ops project (frame: french National Cluster) on a massively parallel "machine on chip". His main areas of interests are in parallel architectures, critical embedded systems, system level design tools, MPSoCs, formal methods.



Satnam Singh
Microsoft's Cambridge
research laboratory, UK

Satnam Singh works on high level programming techniques for reconfigurable systems at Microsoft's Cambridge research laboratory. Before joining Microsoft Satnam worked at Xilinx's research laboratory on languages and tools for the design and verification of circuits for FPGAs. Before joining Xilinx Satnam was a faculty member at the University of Glasgow where he lead several research projects in the area of reconfigurable computing.

Workshop on Social Networking Software

Thursday June 7, 2007 3:30 pm - 6:30 pm

Room: Kanuni Sultan Suleyman

Workshop Organizers:

DR. JOERN ALTMANN, Seoul National University, KOREA
DR. BERND KRAEMER, FernUniversitaet in Hagen, GERMANY

Description:

As the Internet evolves from a medium for information exposure to a ubiquitous medium for social communication and collaboration, the traditional distinction between authors and readers, local and remote, private and public becomes fuzzy. Combining proper technologies including social networking software, wikis, weblogs, content management systems, portlets, podcasts, tagging or recommender components, periodically interacting communities like SDPS can be turned into continuously collaborating learning and research communities particularly promoting the idea of transdisciplinary design and process. This workshop will introduce

into the subject through a block of presentations illustrating core technologies and pilot application. In a second block it aims to involve all participants to develop an initial agenda for transforming the SDPS society into a lively community of practice that exploits the best breed of social software.

Invited Presenters:

MyTiesTo - A Novel Social Networking Software by J. Altmann, Seoul National Univ., KOREA

Mining Peer Profiles from Research Papers by G. Heyer, Leipzig Univ., GERMANY

User Generated Content through Web 2.0 Applications by B. Krämer, FernUniv., GERMANY

Social Networking of the Grid Community by O. Ardaiz, Navara Univ., SPAIN

2007 AWARDS RECIPIENTS

Award ceremony will be during the Conference Dinner of the 2007-IDPT Conference on June 4, 2007

Academy Gold Medal of Honor

The Academy of Transdisciplinary Learning and Advanced Studies (The ATLAS) is pleased to present an award "the Academy Gold Medal of Honor" for distinguished contribution to the advancement of Transdisciplinary Foundational ideas and activities. The award comes with Honorary lifetime Membership in the Academy. The Academy Gold Medal of Honor recognizes unusual accomplishment in transdisciplinary education and research, public service, and other allied pursuits beneficial to design and process science.

2007 Academy Gold Medal of Honor Recipient Professor Oktay Sinanoglu



Professor Oktay Sinanoglu is a Turkish scientist of theoretical chemistry and molecular biology. At age 28, he became the youngest person in 20th century at Yale University to attain status as a full professor. Sinanoglu was born in 1935 in Bari, Italy where his father served as a consul general. The family returned to Turkey at the start of World War II in 1939. In 1953, he attended TED Yenisehir Lisesi high school in Ankara, and after graduating won a scholarship for education of chemistry in the United States. In 1956, he graduated from the University of California, Berkeley in chemical engineering with the highest rank. In only eight months, he graduated from MIT in 1957 with the highest degree. In two years, he finished his doctorate at UC Berkeley. In 1960, Sinanoglu started working as associate professor at Yale University. He theorized the "Many-Electron Theory of Atoms and Molecules" in 1962 by solving a mathematical theorem that had been unsolved for 50 years. The same year, he earned the Alfred P. Sloan prize. He was appointed full professor in 1961. He got his second life-long chair in Yale in Molecular Biology.

Sinanoglu was the first to earn the Alexander von Humboldt's Science Prize in 1973. In 1975, he won the award of Japan's International Outstanding Scientist. In the 1980s, he theorized a new method from 180 theories concerning mathematics and physics, considered revolutionary, which enables chemists to predict the ways in which chemicals combine in the laboratory and to solve other complex problems in chemistry using simple pictures and periodic tables. Also, he took his place in the Academy of Arts & Sciences. In 1993, he moved to Turkey to teach at the Yildiz Teknik Universitesi, and officially retired at the age of 67. Yet his scientific researches have not ceased.

He received several international and local awards concerning his scientific and social contributions and efforts. He has been to many places including Asia and Latin America. He tried to establish strong communications between Japan, India and Turkey. Because of his efforts, he was given the title "Special Emissary" of Japan-Turkey. He worked for better education, purified language in Turkey most of his life and strived to form a conscious generation.

2007 Academy Gold Medal of Honor Recipient Professor Carl Adam Petri



Prof. Dr Roman Herzog (Past President of Germany, left) Prof. Dr. Carl Adam Petri (right)

With his seminal dissertation entitled "Kommunikation mit Automaten" (Communication with Automata), Dr. Carl Adam Petri created a completely new scientific method and theory which transcends a range of disciplines including mathematics, computer science, engineering, chemistry, manufacturing, medicine, economy and many more. This new branch of science, which initiated a myriad of research projects, PhD dissertations, books, research and experience papers, is widely known under the name Petri nets. The theory behind Petri nets supports fundamental investigation of the laws of information flow in distributed systems, be they technical, organizational, social or economic systems. Petri nets and its concepts have been extended and developed, both in theory and applications.

Petri nets have been used to model, visualize and analyze process and design abstractions in many technical and organizational disciplines. There are even ISO standards, used in the process industry, which require models based on Petri nets.

The milestones Dr. Petri set and the impact he had on industry and academia are further emphasized by more than 20 members of the research institute he headed at GMD – the former German National Research Institute in Computer Science, now part of the system of Fraunhofer Institutes – who have become professors at renowned international universities. Dr. Petri's personality and scientific work have also been honored by an illustrious number of awards including:

- o The Bundesverdienstkreuz I. Klasse der Bundesrepublik Deutschland (Order of Merit, 1988),
- o Honorary Professor at University of Hamburg (1988)
- o Elected Member of Academia Europaea (London, 1989),
- o Konrad-Zuse-Medal for outstanding contributions to the development of Informatics (1993)
- o Member of New York Academy of Sciences (1997)
- o Werner-von-Siemens-Ring for outstanding merits in Natural Sciences and Technology (1997)
- o First grant of the Carl Adam Petri Distinguished Technical Achievement Award by the Society for Design and Process Science (1998)
- o Doctor Honoris Causa awarded by the University of Zaragoza (1999)
- o Commandeur in de orde van de Nederlandse Leeuw (2003)

SDPS Fellow

A Fellow, a membership grade of distinction in SDPS related professions, is elected by the Board of Directors based upon a candidate who has demonstrated significant achievements or truly outstanding contributions in at least one of the following categories:

1. Integration of disciplines, theories and methodologies, 2. Development scientific principles and methods for design and process science as applied to traditional disciplines of engineering, 3. Industrial leadership and innovation, 4. Educational leadership and creativity.

2007 SDPS Fellowship Recipients



Professor Mehmet Aksit
University of Twente
The Netherlands



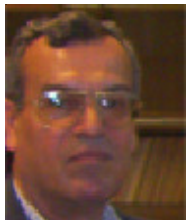
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Sophia University
JAPAN



Professor Vedat Karadag
Professor, Istanbul Teknik
University, Istanbul, Turkey



Professor Allam Appa Rao
The Andhra University, India

C. V. Ramamoorthy Distinguished Scholar Award

In 1995, the Society for Design and Process Science established the C. V. Ramamoorthy Distinguished Scholar Award to be awarded annually during the SDPS IDPT Conference to individuals who have demonstrated significant academic achievement through research in the field of design and process science.

2007 C. V. Ramamoorthy Distinguished Scholar Award Recipient: Dr. Sunil R. Das

Dr. Das is a Professor of Electrical and Computer Engineering at the School of Information Technology and Engineering, University of Ottawa, Ottawa, ON, Canada. He previously held academic and research positions with University of California, Berkeley, Stanford University, National Chiao Tung University. He has published extensively in the areas of switching and automata theory, digital logic design, threshold logic, faulttolerant computing, microprogramming and microarchitecture, microcode optimization, applied theory of graphs, and combinatorics.



Emblem



I was thus led to infer that the ground of our opinions is far more custom and example than any certain knowledge. ... the infinity of experiments I require, and which it is impossible for me to make without the assistance of others...

Descartes, Discourse on Methods,
Original 1637, Open Court Pub., p.17, p.79.

There seems to be an evolving consensus that we need to have a permanent organization for the colleagues who have a genuine interest in interdisciplinary phenomena. This would lead to the establishment of a critical mass "to significantly improve our interdisciplinary collaboration and to develop an exacting technique in dealing with interdisciplinary phenomena."

The fundamental notions of a design and process science incorporate the disciplines of mathematics, engineering, and science. As such, the design and process science constitutes the primary element for the integration of knowledge generated in the various segments of human society. To be able to deal effectively with interdisciplinary product development and technology integration, a common language must be established among the various disciplines. An effective way to achieve this common language is to gather the various disciplines under an umbrella organization: the Society for Design and Process Science.

To overcome the shortcomings of classical Cartesian mechanistic foundations and methods of traditional engineering, we must facilitate process-centered integration among the disciplines. Engineers, in this framework of integration, develop functional artifacts and services by taking into consideration the economical, environmental, and ethical aspects of human awareness. The corners of the triangle in the Emblem of the Society might be viewed as representing these three E's of process-centered integration. The star-shaped polygon can be viewed as connections among various disciplines. The symbol "&" in the middle of the polygon can be viewed as the sign of the process-centered integration of these disciplines.

A brief review of history from the standpoint of ideas on "new knowledge generation" reveals three milestones. The first comes Plato, who suggests that new knowledge is generated mainly through deductive reasoning. The second is Aristotle's idea that new knowledge is generated by observation as well as by deductive reasoning. As for the third, Descartes in establishing the modern philosophy of scientific method recognizes that experimentation, in addition to observation and deductive reasoning, is a means of generation of new knowledge. Since Descartes said "... the infinity of experiments I require, and which it is impossible for me to make without the assistance of others . . . , " others have offered their assistance during the last 300 or more years by applying the scientific method and mechanistic philosophy to form disciplines which in turn were enormously successful in generating new knowledge in their respective domains. The success of these disciplines is so great that they now produce "great mountains of information" which humans cannot keep up with. The systematic and implicit influence of the mechanistic philosophy brought us to the current information explosion and to a compartmentalization of knowledge which in turn put us into a position to have great difficulty connecting results even in closely related fields. This is exactly where the Cartesian-mechanistic worldview exhausted its effectiveness and its methods began to fail.

An additional philosophical overloading of meaning incorporated in the Emblem could therefore be that the three corners of the triangle represent the three means of scientific method as outlined by Descartes and practiced since: deductive reasoning, observation, and experimentation. The polygon and the embedded "&" sign in the middle represents a new method of knowledge generation and storage by taking into account process-centered integration among the disciplines.

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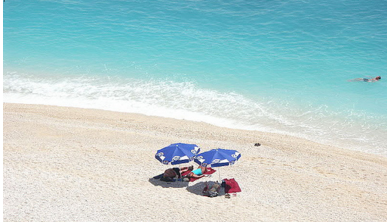
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COME AND SEE THE HEAVEN ON EARTH

ANTALYA: Washed by the sparkling crystal waters of the Mediterranean, these luxuriant shores are covered with lush pine forests, orange groves and banana plantations, splashed here and there with the vibrant pink of wild oleanders. Set against the often snowcapped peaks of the Taurus Mountains are seemingly endless stretches of dazzling white sand along the irregular coastline of rocky headlands and secluded coves.



If it's a warm climate and calm sea that you seek, then come to the shores of the Mediterranean sea. The green Mediterranean shores with fine sandy beaches, crystal-clear water and.. your unfailing friend, the sun of Turkey.



Aspendos, Antalya



Perge street



**Stone-cut graves
from Lykia BCE 300**



Santa Claus

Saint Nicholas, who is known worldwide as Santa Claus, was born in the ancient Lycian city of Patara, an important city on the Mediterranean coast of Turkey. Around 300 AD, during a prosperous era for Patara, a rich wheat merchant had a son and named him Nicholas. His birth was accepted as a gift from the Heavens, the fruit of his parents' prayers and vows and a savior for the poor people. It is believed that he performed miracles even as a young man. According to one legend, Nicholas was trapped under the wreckage of an old church and he survived it while his mother was crying and calling out for him.



CONFERENCE REGISTRATION FEES AND POLICIES

\$395 For SDPS Members who register before May 14, 2007
\$450 For SDPS Members who register after May 14, 2007
\$450 For Non-Members who register before May 14, 2007
\$500 For Non-Members who register after May 14, 2007

Registration Fee includes: IDPT Welcome Reception --- IDPT Conference Dinner --- A volume of the conference proceedings, and ferryboat excursion along the Mediterranean coast.

AWARDS

Herbert A. Simon Gold Medal Award, George Kozmetsky Distinguished Achievement Award, Carl Adam P. Petri Distinguished Technical Achievement Award, K.T.Li Award for Outstanding Design of Economical/Social systems, C. V. Ramamoorthy Distinguished Scholar Award, Raymond T. Yeh Lifetime Achievement Award, Rudolf Christian Karl Diesel Best Paper and Best Presentation Awards, Distinguished Service Award and SDPS Fellowship will be presented at the conference.

For more information contact:

A. Ertas
Texas Tech University, Mechanical Engineering Department
Lubbock, Texas 79409-1021
Phone: (806) 742-3563, Fax: (806) 742-3540;
email: (aertas@coe.ttu.edu)

HOTEL REGISTRATION FORM

PROVIDE FOLLOWING INFORMATION TO SDPS

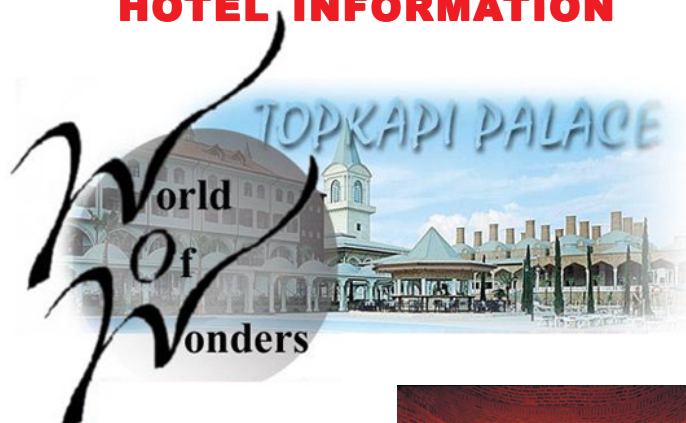
**Hotel reservation will be made through SDPS.
(CONTACT DR. A. ERTAS, aertas@coe.ttu.edu)**

Name _____
Company _____
Address _____
City _____
State _____ Zip _____
Phone _____ Fax _____

Arrival Date _____
Departure Date _____

Credit Card Name _____
Card Number _____
Expiration Date _____
Signature _____
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HOTEL INFORMATION



A replica of the famous Ottoman Palace in Istanbul, the **WOW Topkapi Palace** is situated directly on the beach of Kundu,Aksu, which is a suburb of Antalya. Antalya (Turkish Riviera) is Turkey's famous resort on the Mediterranean coast.

Double Occupancy (\$79 per person)

Single Occupancy (\$128)

Tax is already included in the above shown hotel rates.

Note that conference participants will pay the hotel rate printed above during the Conference dates June 3-8, 2007. These rates are subsidized by the Society for Design & Process Science (SDPS).

All-Inclusive plan - The All-Inclusive hotel rate includes the following: Room accommodations; buffet breakfast, lunch and dinner; a la carte Restaurant by reservation, local and imported alcoholic drinks, soft drinks; minibar items including soft drinks, water, beer; snacks in the afternoon; use of indoor and outdoor pools, beach and pool sun loungers, deckchairs and towel service; water sports including catamaran, banana boats, wind surfing, water skiing, diving courses in the pool; land sports including squash, floodlit tennis courts, ball and racquet hire, volleyball, archery, running track, mountain bikes, games room; use of fitness centre, sauna, steam room; two kids' clubs for 4 to 16 year olds, water park, playground; daily shows, nightclub and many more!

100 % fun of Sports... At all ages ...

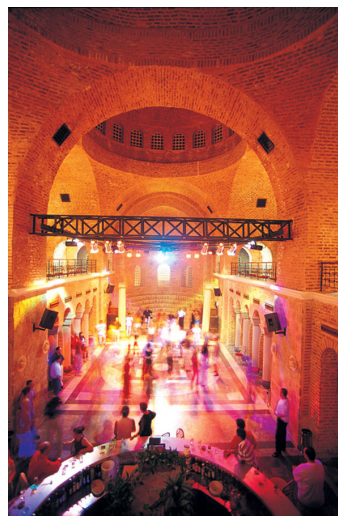
Water sports

The only difficulty is to choose what to do ... Catamaran, water ski, banana, sailing, wind surf, wakeboard, cano, jetski, diving school, beginning diving lessons in the pool, parachute, ringo, fishing, VDWS sailing school are the activities to have fun in the sea. For pool lovers, aqua-gym and water games are indispensable.

Land Sports

WOW Topkapi Palace is a paradise for sport lovers at all ages and tastes. 9 tennis courts with floodlight, tennis courses, mini football, basketball, mountain bike tours, archery, shooting, squash, table tennis, running band, dance-step-aerobic-stretching lessons, game room and electronic games, billiard, Internet hall and more provide you the ways to begin a healthy life.

The six swimming pools include a main pool, wave pool, water park with slides, and heated indoor pool. Guests can spend lazy days relaxing with a drink on loungers by the pool or at the beach (towels and umbrellas are free of charge), or take part in diving lessons, aqua classes and organised sporting activities from squash, tennis, basketball and volleyball to archery and guided mountain bike tours. Health conscious guests can work out in the gym or unwind in the sauna, steam room and spa tub, and further relaxation comes in the form of massage and beauty treatments (surcharge); guests can also get a free hair cut and wash in the salon. Children aged from 4 to 12 will be kept amused in the mini-club, and there is a teen club for 13 to 16 year olds. At the beach



windsurfing, water skiing, catamarans, sailing, banana boats and surfing are all offered free of charge. Guests can also enjoy a full programme of entertainment and activities day and night including dance classes, live music, theme days, cabarets, karaoke and the late night disco as well as four restaurants serving Italian, Turkish and Mediterranean cuisine.



SOCIETY FOR DESIGN AND
PROCESS SCIENCE



SOFTWARE ENGINEERING
SOCIETY

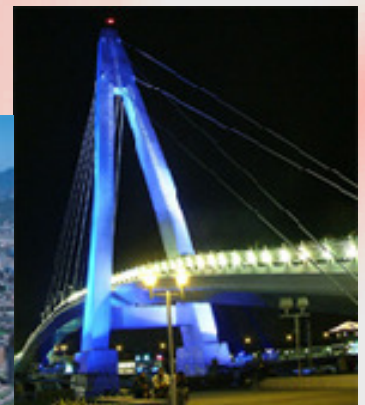
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