



SOCIETY FOR DESIGN AND
PROCESS SCIENCE



CHINESE MECHANICAL
ENGINEERING SOCIETY



SOFTWARE ENGINEERING
SOCIETY

FINAL PROGRAM
THE SEVENTH
WORLD CONFERENCE ON

INTEGRATED DESIGN & PROCESS TECHNOLOGY

Conference Theme:
Revolutionizing Engineering
through Cyberinfrastructure

DEDICATED
TO THE MEMORY OF
Dr. George Kozmetsky

*Chairman of the Board (1995-2003)
Society for Design & Process Science
(SDPS)*

“Dr. George Kozmetsky was an exceptional man - loved, admired, and respected by many. He will truly be missed by SDPS members, but never forgotten.”

Marriott - AT THE CAPITAL
Austin, Texas

December 3-6, 2003

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IDPT SPECIAL FEATURES

THE SEVENTH BIENNIAL WORLD CONFERENCE ON INTEGRATED DESIGN & PROCESS TECHNOLOGY

December 3-6, Marriott - AT THE CAPITAL, Austin, Texas

OPENING RECEPTION

Speaker: Dr. John S. Butler
Director- IC², Institute
The University of Texas
Austin, Texas

Wednesday, December 3, 2003 6:00 pm - 7:00 pm
Room: Capitol View Terrace

OPENING ADDRESS SPEAKERS

Dr. John S. Butler, IC² Institute, The University of Texas
Dr. Atila Ertas, Texas Tech University
Dr. David Gibson, IC² Institute The University of Texas
Dr. Bernd J. Kramer, Fernuniversitaet, Germany
Dr. C. V. Ramamoorthy, University of California, Berkeley
Dr. J. Smith, Texas Tech University
Dr. Murat M. Tanik, University of Alabama at Birmingham
Dr. Raymond T. Yeh, Zero Time Foundation

Thursday, December 4, 2003 8:15 am - 9:15 am
Room: Capitol View Terrace

KEYNOTE SPEAKER

Dr. Helmut Hoyer
Vice Chancellor
FernUniversitaet in Hagen, Germany

Thursday, December 4, 2003 9:15 am - 10:00 am
Room: Capitol View Terrace

A Distance Teaching University in Transition to eLearning - The FernUniversitaet's Hagen Strategic and Educational Framework

Dr. Helmut Hoyer is Rector (Vice Chancellor) at the FernUniversitaet in Hagen, Germany, since 1997 and since 2001 he is the Chairman of Rectors Conference of the state of North Rhine-Westphalia, Germany. He also acted as the Dean of the Faculty of Electrical Engineering and Information Engineering and the Pro-Rector (Pro-Vice Chancellor) of Planning and Finances from 1993 - 1997. Dr. Hoyer attains the rank a Full professor and is the head of the Chair of Control Systems Engineering. Prior to joining the FernUniversitaet, Dr. Hoyer was a group manager and senior researcher in the field of "Robot Control and Multi-Robots Systems" in the Institute of Robotics Research (IRF) at the University of Dortmund. In his research Dr. Hoyer was focusing on robotics and assistive technologies for elderly people and people with disabilities. The focal points of his interest and activities during his term of office as a Rector were the introduction of New Media in Higher Education and the transition of the FernUniversitaet into a Virtual University.

LUNCHEON SPEAKER

Dr. Raymond T. Yeh
Co-author Zero Time
Austin, Texas

Thursday, December 4, 2003 12:00 - 1:00 pm
Room: Capitol View Terrace

The Art of Business

Dr. 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 to 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), Hatachi (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.

PLENARY SESSION- I

Dr. Kunio Goto
Professor Emeritus
St. Andrew's University
Osaka, Japan

Thursday, December 4, 2003 1:00 pm - 1:30 pm
Room: Capitol View Terrace

**Trends of Science and Technology Studies: Dr.
Kozmetsky's Genuine Insight**

Professor Goto has worked at St. Andrew's University since the 1960's. He recently developed a new Ph.D. program (Studies in Comparative Culture) and was Director of the Research Institute. He also served as Chair of General Education and Chair of Undergraduate Education. He is Executive Fellow of the General and Liberal Education Society of Japan and of the Institute of Osaka. Since 1978, he has been a member of the Kansai Science City Project and is now the Vice Chair of the Academic Advisory Committee of the KRI, the promotion organization of that Science City. In 1984 he became a co-founder of the Japan Society for the History of Industrial Technology and is now serving as President. After the Oil Crisis of 1973, he worked for the Industrial R&D Strategy and Planning of the Industry and Technology Agency. He has published more than 20 books and many articles which cover the foundation of physics, history, philosophy of science, and social studies of science and technology. Recently, he co-authored and co-edited the six-volume work, *The Social History of Science and Technology of Contemporary Japan*. He is editor of the special issue of *Historia Scientiarum*, the *International Journal of History of Science*, which was published to celebrate the centennial of the birth of quantum theory. In June 2000, he presented *History of Twentieth Century Physics, A Personal Retrospect*, at the annual meeting of the History of Science Society of Japan. Professor Goto's research interests cover fundamental problems of modern physics in a historical perspective, philosophy of science, and social studies of science and technology, which includes practical issues such as technology transfer in a high-tech complex.

PLENARY SESSION- II

Dr. S. S. Iyengar

Roy Paul Daniel Professor
L.S.U. Baton Rouge, LA

Thursday, December 4, 2003 1:30 pm - 2:00 pm
Room: Capitol View Terrace

Distributed Sensor Networks: An Emerging Technology

Dr.S.S.Iyengar a Distinguished Professor and Chairman of the Department of Computer Science at Louisiana State University, USA has been awarded the most prestigious "Distinguished Alumni Award" for the year 2001 at the Indian Institute of Science, Bangalore recently.

Professor Iyengar an eminent Computer Scientist has been at Louisiana State University for the last 23 years. He has received number of awards including the IEEE Computer Society Technical Award for outstanding Contributions in Algorithms and Data Structures. He has written over 350 research papers in IEEE, ACM and other journals and referred proceedings. His best results are in the area of Distributed Sensor Networks, Data Mining, and Networking Techniques. He has published over 13 books published by Prentice Hall, John Wiley and Sons, CRC press, IEEE Computer Society press. His books have been used in many best Universities in United States and around the world. His research has been funded by various agencies including NASA, ONR, DARPA, DOE, Jet Propulsion Laboratory, Oakridge National Laboratory, US Army Research Office and various State agencies. He has generated over 8 million dollars in the last 10 years. He has given over 50 invited Lectures / Plenary Talks at various Institutions across the world. He has been a visiting Professor in University of Paris, University of Bonn, Indian Institute of Science etc. He has been the program Chairman for many National and International conferences.

His Paper titled "Virtual Quad tress" solves an important problem of image representation. Prof. Iyengar discovered a new data structure called Translation Invariant data structure for storing two and three dimensional images. His work on balancing algorithm has also become a bench mark for evaluating other algorithms in time and space complexity.

Professor Iyengar is a member of the New York Academy of Science, A fellow of the Association for Computing Machinery (ACM), Fellow of the Institute of Electrical and Electronics Engineers (IEEE), Fellow of the American Association of Advancement of Science (AAAS), member of the National Research Council review committee, NASA Summer faculty fellow, SIAM Distinguished Lecturer, ACM National Institute of Health (NIH-NLM) and Fellow of various other organizations. He has been on the Computer Science

Accreditation Board for ACM and IEEE. He has been a reviewer of Computer Science Programs in US and Asia. In Karnataka, He was a member of the Information Technology Board established by the Karnataka Government.

PLENARY SESSION- III

Dr. Jeffrey Tsai

Department of Electrical Engineering and Computer
Science University of Illinois at Chicago, Chicago

Thursday, December 4, 2003 2:00 pm - 2:30 pm
Room: Capitol View Terrace

The Application of A.I. Research in Bioinformatics

Jeffrey J.P. Tsai received his Ph.D. degree in Computer Science from the Northwestern University, Evanston, Illinois. He is a Professor in the Department of Electrical Engineering and Computer Science at the University of Illinois at Chicago, where he is also the Director of Distributed Real-Time Intelligent Systems Laboratory. He co-authored *Knowledge-Based Software Development for Real-Time Distributed Systems* (World Scientific, 1993), *Distributed Real-Time Systems: Monitoring, Visualization, Debugging, and Analysis* (John Wiley and Sons, Inc., 1996), *Compositional Verification of Concurrent and Real-Time systems* (Kluwer, 2002), co-edited *Monitoring and Debugging Distributed Real-Time Systems* (IEEE/CS Press, 1995), and has published over 160 papers in the areas of knowledge-based software engineering, software architecture, requirements engineering, formal methods, agent-based systems, and distributed real-time systems.

Dr. Tsai was the recipient of a University Scholar Award from the University of Illinois in 1994 and was presented a Technical Achievement Award from the IEEE Computer Society in 1997. He is the Co-Editor-in-Chief of *International Journal of Artificial Intelligence Tools* and on the editorial board of the *International Journal of Software Engineering and Knowledge Engineering*, and chairs the IEEE/CS Technical Committee on Multimedia. He is a Fellow of the IEEE, the AAAS, and the SDPS.

DINNER SPEAKER

Professor C. V. Ramamoorthy
Professor Emeritus

University of California, Berkeley, California

Thursday, December 4, 2003 7:00 pm - 9:30 pm
Room: Capitol View Terrace

Kozmetsky Vision: The Mind of the Internet

Professor Ramamoorthy's distinguished career traces back to the 1960s. In 1961, while working as a scientist for Honeywell, Ramamoorthy developed the entire microcode to handle instruction 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. He developed, with his students, the FACES System for automated test generation and evaluation techniques. These test techniques were successfully applied to discover programming errors in Bell laboratories' Safeguard Missile Defense System for the US Army and were intended to defend Minuteman silos located around the US from enemy attack. In 1971, these techniques were modified for reuse at NASA's Space Shuttle Structural Test Facility in Huntsville, Alabama.

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, co-edited 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.

PLENARY SESSION- IV

**Dr. George Kozmetsky
(1917-2003)**

Chairman of the Board
Society for Design and Process Science

Piyu Yue

IC2 Institute Fellow, University of Texas, Austin

**Friday, December 5, 2003 8:30 am - 9:00 am
Room: Capitol View Terrace**

New Constructs for the 21st Century

During the month of August, IC2 compiled comments and memories related to George Kozmetsky from friends and fellows of IC2 and published them titled "In Celebration of George Kozmetsky (1917-2003)." The list below represents a small sample of comments from that document which is available from IC2 in electronic form.

"...When visiting him I always saw dozens of periodicals covering his desk. My degree is in aircraft design, so I was amazed to see among them aeronautical material as well. He wanted to be up-to-date in everything and succeeded in this effort."

Les Belady

"... Dr. Kozmetsky visions of worldwide prosperity based on technology- and innovation-led wealth creation. I believe this is what Dr. Kozmetsky would wish we would do. "

Pedro Conceição

"... Long before anyone had heard of Dell, George befriended me and provided invaluable assistance that helped our company evolve and prosper in those very formative years. He was one of Dell's first directors, joining the board in 1987 and spending the next 10 years helping build Dell into the company it is today..."

Micheal Dell

"...While keeping the teachings of Dr. Kozmetsky in mind, I will also teach my students to have creative and innovative spirits..."

Hiroshi Domoto

He was truly one of the giants of the last half of the 20th century.

Mary Anne Fox

"...There are more "unstructured problems" than ever and our society needs institutions to help sort them out. Doing this, in the community he created, will be one way to repay George for the gift of his remarkable life..."

Mark Eaton

"...The Institute its Fellows and friends – the people George has touched - will continue his proud and important legacy..."

David Gibson

"...I pledge to carry on George's ever cheerful and entrepreneurial esprit/action; I will continue to advise and assist promising entrepreneurs in Japan and in the world..."

Mark T. Kawai

Like George Kozmetsky, only after being explorers, archaeologists and treasure hunters can people turn to the real task — learning to build for ourselves, our companies and our societies a new, durable wealth pyramid

Laura Kilcrease

"...What always impressed me was how well Dr. Kozmetsky understood the close relations between industry, technology and science. Dr. Kozmetsky was a man of unique ideas. In our field, he was both a specialist and a generalist. I learned a lot thanks to my contacts with this outstanding man..."

Ilya Prigogine

He did educate me — and totally enlighten me — about the transformative role of technology in business and society. As he summed it up: "Society is driven by two forces: ideology and technology."

Ken Walters

"..Since 1995 SDPS has expanded the number of "students" of George from two to two thousand across the globe. We consider that, the real legacy of George is his "students" around the world studying and implementing his vision through the "university" called SDPS. Wouldn't you call this transdisciplinary? We would :-)"

M.M.Tanik and A. Ertas

PLENARY SESSION- V

Dr. J.K. Aggarwal

Cullen Professor

The University of Texas, Austin, Texas

**Friday, December 5, 2003 9:00 am - 9:30 am
Room: Capitol View Terrace**

Content Based Retrieval In Digital Image Databases: An Overview And Recent Trends

J.K. Aggarwal has served on the faculty of The University of Texas at Austin College of Engineering in the Department of Electrical and Computer Engineering since 1964. He is currently one of the Cullen Professors of Electrical and Computer Engineering and the Director of the Computer and Vision Research Center. His research interests include computer vision and pattern recognition.

A fellow of IEEE (1976) and IAPR (1998), Prof. Aggarwal received the Senior Research Award of the American Society of Engineering Education in 1992. In 1996 he received the IEEE Computer Society Technical Achievement Award for "pioneering contributions towards establishing fundamentals of structure extraction and computational motion from image sequences." He is the author or editor of 7 books and 52 book chapters; author of over 200 journal papers, as well as numerous proceeding papers and technical reports.

He has served as the Chairman of the IEEE Computer Society Technical Committee on Pattern Analysis and Machine Intelligence (1987-1989); Director of the NATO Advanced Research Workshop on Multisensor Fusion for Computer Vision, Grenoble, France (1989); Chairman of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition (1993), and the President of the International Association for Pattern Recognition (1992-1994). He is a life fellow of IEEE and Golden Core Member of IEEE Computer Society.

At the University of Texas at Austin, Prof. Aggarwal's has focused his teaching and research on signal processing and pattern recognition. In recognition of his teaching accomplishments, Prof. Aggarwal has received numerous College of Engineering Meritorious Faculty Awards, the 1986 Billy and Claude

Hocott Distinguished Centennial Engineering Research Award, and was named Outstanding Graduate Teacher in 1992. Professor Aggarwal has graduated 38 Ph.D. and 53 Masters students and served on numerous other graduate student committees. Many of his students have received best paper awards and have gone on to successful careers in industry, academia and national research agencies.

Professor Aggarwal's current research interests focus upon the development and application of computer vision techniques for the automatic recognition of human actions and interactions in video sequences, and on the use of computer vision techniques such as perceptual grouping for the automatic recognition and retrieval of images from databases.

PLENARY SESSION- VI

Dr. Peter Chen

Foster Distinguished Chair Professor
L.S.U. Baton Rouge, LA

Friday, December 5, 2003 9:30 am - 10:00 am

Room: Capitol View Terrace

Dr. Peter Chen at Louisiana State University where he holds the position of M. J. Foster Distinguished Chair Professor of Computer Science since 1983. Dr. Chen is the originator of the Entity-Relationship Model (ER Model), which serves as the foundation of many systems analysis and design methodologies, computer-aided software engineering (CASE) tools, and repository systems including IBM's Repository Manager/MVS and DEC's CDD/Plus.

Dr. Chen's work is a cornerstone of software engineering, in particular Computer-Aided Software Engineering (CASE). In the late 80's and early 90's, IBM's Application Development Cycle (AD/Cycle) framework and DB2 repository (RM/MVS) were based on the ER model. Other vendors' repository systems such as Digital's CDD+ were also based on the ER model. Dr. Chen has made significant impact on the CASE industry by his research work and by his lecturing around the world on structured system development methodologies. Most of the major CASE tools including Computer Associates' ERWIN, Oracle's Designer/2000, and Sybase's PowerDesigner (and even a general drawing tool like Microsoft's VISIO) are influenced by the ER model.

Dr. Peter Chen is also the Editor-in-Chief of Data & Knowledge Engineering, the Associate Editor for the Journal of Intelligent Robotic Systems and other journals. In the past, he was the Associate Editor for IEEE Computer, Information Sciences and other journals. Dr. Chen is a Fellow of the IEEE, the ACM, and the AAAS.

PLENARY SESSION- VII

Dr. Oscar N. Garcia

Founding Dean of the new College of Engineering at
the University of North Texas

Friday, December 5, 2003 10:30 am-11:00 am

Room: Capitol View Terrace

An Innovative Approach to Engineering Education: Project-Oriented in a Learning-to-Learn Environment

Oscar N. Garcia is the Founding Dean of the new College of Engineering at the University of North Texas. He is initiating an Electrical Engineering planning effort with others under NSF sponsorship that includes innovative approaches satisfying most of the industrial complaints and the life long learning needs of the students in Engineering. He was previous NCR Distinguished Professor and Chair of the Computer Science and Engineering Department at Wright State University. He has held professorships also at George Washington University, the University of South Florida and Old Dominion University. He is a Fellow of the IEEE and the AAAS and past President of the IEEE Computer Society.

PLENARY SESSION- VIII

Dr. Ken Walters

Professor, the University of
Washington, Bothell Business Program

Friday, December 5, 2003 11:00 am - 11:30 am

Room: Capitol View Terrace

Technology and Enterprise for the 21st Century: George Kozmetsky's Vision

Ken Walters is Professor of Business at the University of Washington's Bothell Business Program. He is the author of numerous articles in The Harvard Business Review, California Management Review, Columbia Journal of World Business, Ecology Law Quarterly, Industrial Relations, and the Academy of Management Review.

His books include Nationalized Companies (McGraw-Hill) and Entrepreneurial Management: New Technologies and New Markets (Ballinger), and Ventures (University of Washington Office of Research).

A graduate of Stanford Law School and member of the California Bar Association, he also holds a Ph.D. from the Haas School of Business at the University of California, Berkeley.

For many years he served as Dean of the School of Business at California Polytechnic State University, and as Dean of the Robert O. Anderson Graduate School of Management at the University of New Mexico.

A fellow of the IC² Institute at The University of Texas at Austin, his current work is on university-based entrepreneurship and university-related startup companies. He has written widely about the impact of university research on community economic development, including Engine of the Knowledge-based Economy and University of Washington Startup Companies: Creating the Future.

PLENARY SESSION- IX

Dr. Jean-Claude Laprie

Directeur de Recherche at CNRS, the French National Organization for Scientific Research, France

Friday, December 5, 2003 11:30 am - 12:00

Room: Capitol View Terrace

Dependability in the Information Society

Jean-Claude Laprie is "Directeur de Recherche" at CNRS, the French National Organization for Scientific Research. He joined LAAS-CNRS in 1968, where he founded the research group on Fault Tolerance and Dependable Computing in 1975 and directed until he became Director of LAAS, in 1997. His research has focused on dependable computing since 1973, and especially on fault tolerance and on dependability evaluation, subjects on which he has authored and coauthored more than 100 papers, as well as coauthored or edited several books. He has also been very active in the formulation of the basic concepts of dependability, and the associated terminology; the views developed being widely adopted by the scientific community. His activities have included a large number of collaborations with industry, culminating in the foundation of LIS in 1992, the Laboratory for Dependability Engineering, a joint academia-industry laboratory, that he directed until 1996.

He has also been very active in the international community, including the chairmanship of the IEEE Computer Society Technical Committee on Fault-Tolerant Computing in 1984-1985, of the IFIP (International Federation for Information Processing) WG 10.4 on Dependable Computing and Fault Tolerance from 1986 to 1995, of IFIP TC 10 on Computer System Technology from 1997 to 2001. He is currently a vice-president of IFIP.

He received in 1992 the IFIP Silver Core, in 1993 the Silver Medal of the French Scientific Research, and in December 2002 the National Merit Medal.

PLENARY SESSION- X

Dr. Vason Srin
BWRC of UC Berkeley, California

Friday, December 5, 2003 1:00 pm - 1:30
Room: Capitol View Terrace

Configurable Computing System for High End Computing

Dr. Srin is currently involved in designing high performance systems for solving important problems in bio-science, material research, wireless communication, radar, and threat tracking from weather conditions such as hurricanes and cyclones. He has more than three decades of experience in computer architecture and implementation. He is a Research Collaborator at the BWRC of UC Berkeley.

WORKSHOP-I

Thursday, December 4, 2003 3:00 pm - 5:30 pm
Room: Capitol View Terrace

Celebrating the Memory of Dr. George Kozmetsky: His Impact and Influence in Our Lives and Businesses

Workshop Organizer: MARGO DOVER, President Business Connection Catalyst, a company that is a legacy to the lessons learned from Dr. George Kozmetsky. BCC, building a global safety network of civic entrepreneurs supporting small business entrepreneurs in developing nations.

Friends of Dr. Kozmetsky sharing memories.

Carol Thompson, President, The Thompson Group

Pike Powers, Partner in Charge, Fulbright & Jaworski

Dr. Sayed Shariq, Director, The Kozmetsky Collaboratory, Stanford University

Dr. Raymond Yeh, Co-author Zero Time

Dr. C.V. Ramamoorthy, Professor Emeritus, University of California, Berkeley

Dr. Murat Tanik, Professor, University of Alabama at Birmingham, AL

Dr. Atila Ertas, Professor and Director, IDEATE, Texas Tech University

Tonia McDonald, SBC Global

Morton Topfer (invited), Managing Director, Castletop Capital

WORKSHOP-II

Friday, December 5, 2003 3:30 pm - 6:00 pm
Room: Bonnell (Level 4)

Future of the Software and Service Industries

Workshop Organizer: F.J. Kurfess, A. Dogru, and H. Yamaguchi

Participants: K.H. Kim, B. Kraemer, S. Mills, C.V. Ramamoorthy, M.M. Tanik, R.T. Yeh, M. Sahinoglu, L. Jololian, C. Bayrak, and R. Seker

This workshop will provide an opportunity to discuss the exciting implications of the evolving software and Internet service technologies. SDPS encourages regional as well as international organizations to present their specific experience and share opinions with the academicians and industry experts. Previous SDPS meetings set forth the advantages of exposing process and abstract design concepts to the businesses and in particular, the electronic enterprise world. Building on these foundations, recent experience gained in the component, Internet services, and agent technologies linked with the fundamental research in the utilization of computing and infor-

mation theory have been the motivations behind organizing this workshop. Based on the organization/project specifics, the utilization principles for the new technologies as well as the strategic orientation for the organizations are the practical topics for discussion.

Furthermore, NCIIA's fostering of invention, innovation, and entrepreneurship will be discussed in the context of an application to a prototype software-based internet service organization.

WORKSHOP-III

Saturday, December 6, 2003 8:30 am - 10:00 am
Room: Bonnell (Level 4)

Cyberinfrastructure Development for Engineering Research and Education through Transdisciplinary Paradigm

Workshop Organizers: M. M. Tanik and G. Grimes, University of Alabama at Birmingham, Alabama Birmingham, AL; A. Ertas and T. T. Maxwell, Texas Tech University, Lubbock, Texas

Participating Countries: China, Turkey, USA, Brazil, Germany, UK, Japan, Korea, Taiwan, Canada, France, Belgium, Australia, and The Netherlands

NSF published a Blue-Ribbon Report on "Revolutionizing Science and Engineering through Cyberinfrastructure" on February 3, 2003. During June 5-6, 2003 NSF organized a workshop on Cyberinfrastructure for Engineering Research and Education. This SDPS workshop on Cyberinfrastructure is a follow up to these important organizational efforts in revolutionizing Engineering Research and Education, which has been one of the primary efforts of SDPS from its inception. In fact, this is a key development towards the George Kozmetsky's vision.

Consistent with the general vision of NSF, the Engineering Directorate calls for engineers to build and strengthen a national capacity for innovation that will lead to the creation of new shared wealth and a better quality of life. In this context, we will discuss cyberinfrastructure requirements to enable wider applications, training student-entrepreneurs who will transfer the applications to private sector, among other topics.

Additional topics of interest are: innovations including the use of increasingly powerful distributed computing resources, collaboration across distance and time (telework), human intelligence amplification through real time interactions with simulations and data, transdisciplinary collaboration between domain and computer experts, and the development of Open Source Software to enable additional applications.

The envisioned Cyberinfrastructure will "ensure broader participation without respect to field boundaries, institutional wealth, personal origin or bodily ability, and maximize international collaboration and resource-sharing through standardization and networking."

TUTORIAL

Saturday, December 6, 2003 10:20 am - 3:00 pm
Room: Bonnell (Level 4)

Quality Assurance for UML-based Projects: Process and Techniques

By Dr. BHUVAN UNHELKAR

This is a "practical" tutorial that discusses in detail the "Quality" aspect of the UML, as applied in practical projects. While the IT literature is replete with "UML" material, it seems there is a scarcity of overall discussion on quality, as related to the UML. This tutorial argues for the need for formal quality assurance in UML-based projects, how it can be applied in practice, and what is different in terms of quality in UML-based projects as compared with standard IT projects. This tutorial is based on a book authored by the presenter, and published by Addison Wesley, Boston, late 2001.

IC² FELLOWS MEETING

Saturday, December 6, 2003 1:00 pm - 6:00 pm
Room: Capitol View Terrace



TECHNICAL PAPER SESSIONS

SESSION-1 Room: Salon F (Level 3)
Thursday, December 4, 10:20 am - 12:00

SYSTEM LEVEL TEST

Session Organizer and Chair: TIZIANA MARGARIA, Universität Dortmund and METAFrame Technologies GmbH, Dortmund, Germany

System-Level Tests with TTCN-3 by I. SCHIEFERDECKER, Fraunhofer FOKUS, Berlin, Germany

Distributed Testing: A Solution for Conformance Testing of Complex Network Systems by C. VIHO and S. BARBIN, IRISA/IFSIC-Université de Rennes, Rennes, France

High-Availability Middleware - Design Principles, Quality Requirements and Test Methods by B. KELLERER, M. REITENSPIESS, Fujitsu Siemens Computers, Munich, Germany

Integration of the Code Generation Approach in the Model-Based Development Process by Means of Tool Certification by I. STUERMER, DaimlerChrysler AG, Berlin, Germany

SESSION-2 Room: Salon G (Level 3)
Thursday, December 4, 10:20 am - 12:00

MODEL-BASED SOFTWARE EVOLUTION

Session Organizers: JULIA PADBERG, Universität Bremen Bibliothekstr.1, Bremen; REIKO HECKEL, Universität GH Paderborn, Germany; TOM MENS, Programming Technology Lab, Brussel, Belgium

Session Chair: JULIA PADBERG, Universität Bremen Bibliothekstr.1, Bremen

Model-Based Software Evolution Using a Tool Based Architectural Styles by A. RAMDANE-CHERIF, S. BENARIF and N. LEVY PRISM, Université de Versailles St.-Quentin, Versailles Cedex, France

Coevolution of Models of an Adaptive Hypermedia System by N. MEDINA-MEDINA, F. MOLINA-ORTIZ, L. GARCÍA-CABRERA, and M. JOSÉ RODRÍGUEZ-FÓRTIZ, GEDES group. Dpto. LSI. E.T.S.I.I. University of Granada, Granada, SPAIN

Empirical Research on Similarity Metrics for Software Component Interfaces by B. KRATYZ, University of Tilburg The Netherlands; R. REUSSNER Carl von Ossietzky Universität Oldenburg, Germany; and W-J VAN DEN HEUVEL University of Tilburg, The Netherlands

Deriving Evolutionary Software Systems for Realtime Embedded Networks by M. ANLAUFF and A. SUENBUL, Kestrel Institute 3260 Hillview Avenue, Palo Alto, CA

Software Evolution-Some Background, Theory and Practice by, MEIR M. LEHMAN, School of Computing, Middlesex University, Bounds Green Road, London, U.K; JUAN F RAMIL, Computing Dept., Faculty of Maths and Computing, The Open University, Walton Hall, Milton Keynes, U.K.

SESSION-3 Room: Salon H (Level 3)
Thursday, December 4, 10:20 pm - 12:00

VIEWS MODELING AND DEVELOPING PROCESS-CENTRIC VIRTUAL ENTERPRISES WITH WEB-SERVICES-I

Session Organizers and Chairs: WILLEM-JAN VAN DEN HEUVEL, and *MARCO AIELLO, InfoLab, Tilburg University Tilburg, The Netherlands, *DIT, Univ. of Trento

Modeling Web Services: Toward System Integration in Uniframe by FEI CAO, BARRETT R. BRYANT, JEFFREY G. GRAY, CAROL C. BURT, Department of Computer and Information Sciences, University of Alabama at Birmingham Birmingham, AL; RAJEEV R. RAJE, ANDREW M. OLSON Department of Computer and Information Science Indiana University Purdue University at Indianapolis; MIKHAILAUGUSTON, Computer Science Department Naval Postgraduate School, CA

The process library: Enabler of cross-SME collaboration by ROBERT LAUBACHER JOHN QUIMBY, MIT Sloan School of Management THIERRY BOURON, WILSON LAU, YANMING LI, SIHAM SINACEUR, France Telecom R&D

The Estimation of Invocation Costs for Composite Services, MOE by THANDAR WYNN, DAVID EDMOND AND STEPHEN MILLINER, Research Centre for IT Innovation, Queensland University of Technology, Brisbane QLD 4001, Australia

A Framework for Understanding The Vision, Goals, Instruments and Uses of Software Services by MARTIN HENKEL, Department of Computer and Systems Sciences Stockholm University and Royal Institute of Technology Forum 100, Kista, Sweden

SESSION-4 Room: Tannehill (Level 4)
Thursday, December 4, 10:20 am - 12:00 pm

FORMAL REASONING ON SOFTWARE COMPONENTS AND COMPONENT BASED SOFTWARE ARCHITECTURES-I

Session Organizer and Chair: R. REUSSNER, Pty Ltd, Monash University, Caulfield East, Australia

Component Interoperability Analysis in Raic by C. LIU and D. J. RICHARDSON, Information & Computer Science, University of California, Irvine, CA

Cost-Based System Design Using Software Architectural Styles by SORANA CÎMPAN, HERVÉ VERJUS, FLAVIO OQUENDO, LISTIC - ESIALab., University of Savoie, Annecy Cedex - France

Mapping OCL-Constrained Models to JML Specifications by A. HAMIE, School of Computing, Mathematical and Information Sciences, University of Brighton, Brighton, UK

Getting "Whole Picture" Behavior in a Use Case Model by F. PLASIL and V. MENCL Charles University, Faculty of Mathematics and Physics, Department of Software Engineering, Prague 1, Czech Republic

A Component-based Approach to Modelling Interaction Protocols for Multiagent Systems by S. LING and S. W. LOKE, School of Computer Science and Software Engineering, Monash University, Victoria, Australia

SESSION-5 Room: Salon F (Level 3)
Thursday, December 4, 3:00 pm - 5:30 pm

INTERNET BASED SOFTWARE ENGINEERING

Session Organizer and Chair: JIM-MIN LIN, Department of Information Management, Taichung Healthcare and Management University, Taichung, TAIWAN

A Multiple-tier Distributed Data Integration Architecture by H. ZHOU, Q. DUAN and Z. LIANG Information & Technology Research Institute, Yunnan University Kunming, Yunnan, 650091, China; Shaoyun Li and Hongji Yang School of Computing, De Montfort University Leicester, UK

An Object-Extracting Approach Based on Fuzzy Clustering by J. LU * B. XU * Y. ZHOU * * Department of Computer Science and Engineering,

Southeast University, Nanjing 210096, China, "State Key Laboratory of Software, Wuhan University, Wuhan 430072, China

Extended Elementary Object System Model for Mobile Agent Security by LU MA¹, JEFFREY J.P. TSAI¹, YI DENG², and TAD MURATA¹, ¹Department of Computer Science, University of Illinois at Chicago, Chicago, Illinois, ²School of Computer Science, Florida International University, Miami, Florida

Reengineering Cots Based Products as WEB Service Applications by JIUN-TING WU¹, CUO-MING FANG¹, ZENG-WEI HONG¹, JIM-MIN LIN¹, ¹Department of Information Engineering, Feng Chia University, Taichung City, Taiwan, ²Department of Information Management, Taichung Healthcare and Management University, Taichung, Taiwan

Visual Representation for Communication by Bin ZHANG BAOWEN XU ZHENQIANG CHEN JIE GUAN HONG LU, Department of Computer Science & Engineering, Southeast University, Nanjing, State Key Laboratory of Software Engineering, Wuhan University, Wuhan

System Quality Propagation in Reverse Architecturing by SHAOYUN LI, BING QIAO and HONGJI YANG, School of Computing, De Montfort University, Leicester, UK, and HONGZHI LIAO and HUA ZHOU, Information & Technology Research Institute., Yunnan University, Kunming, Yunnan, China

SESSION-6 Room: Salon G (Level 3)

Thursday, December 4, 3:00 pm - 5:30 pm

SOFTWARE ENGINEERING

Session Organizer and Chair: F. KURFESS,

Department of Computer Science, California Polytechnic State University, San Luis Obispo, CA

Data, Function, and Control as Elements of Component Integration by L.K. JOLOLIAN, *F.J. KURFESS, **M.M. TANI, Department of Computer Science, New Jersey City University, Jersey City, New Jersey, * Department of Computer Science, California Polytechnic State University, San Luis Obispo, California, **Department of Electrical and Computer Engineering, University of Alabama at Birmingham Birmingham, AL

Requirement Traceability for Risk Management by MAHESH MADUGUNDU, ANAND KONNURU, and PRATIBHA GOPALAM, Philips Research India-Bangalore, Philips Software Center, #1, Murphy Road, Ulsoor, Bangalore-560008, Karnataka, INDIA

Content-Based Framework for Component Libraries by F. KURFESS, CK. CHENG, *Z. Y. WANG¹, **L. JOLOLIAN, Department of Computer Science, California Polytechnic State University San Luis Obispo, CA; **Department of Computer Science, New Jersey City University, Jersey City, New Jersey,

The Design of New Service System Based on the Interdisciplinary Research by HIROSHI YAMAGUCHI, YUKIO HOSHINO, NEC Soft, Ltd., Tokyo Japan; KENJI SUZUKI, Department of Applied Physics, Waseda University, Tokyo, Japan; CHITTOOR V. RAMAMOORTHY, Department of Electrical Engineering and Computer Science, University of California, Berkeley, CA

Solution Modeling and Software Modeling Based on Object-Oriented Technology by TAKEO HAYASE, Systems Integration Technology Center, e-Solutions Company, Toshiba Corporation, 3-22, Katamachi, Fuchu-shi, Tokyo, Japan

Supporting Run-time Evolution in SEESCOA by YVES VANDEWOUDE, DAVID URTING, and YOLANDE BERBERS Department of Computers Science, KU, Leuven, Belgium

SESSION-7 Room: Salon H (Level 3)

Thursday, December 4, 3:00 pm - 5:30 pm

VIEWS MODELING AND DEVELOPING PROCESS-CENTRIC VIRTUAL ENTERPRISES WITH WEB-SERVICES-II

Session Organizers and Chairs: *MARCO AIELLO and WILLEM-JAN VAN DEN HEUVEL, and, InfoLab, Tilburg University Tilburg, The Netherlands, *DIT, Univ. of Trento

Finite State Automata as Conceptual Model For E-Services by DANIELA BERARDI, FABIO DE ROSA, LUCA DE SANTIS AND MASSIMO MECELLA, Dipartimento di Informatica e Sistemistica, Universita di Roma "La Sapienza", Roma, Italy

Object-Process Diagrams as Explicit Graphic Tool for Web Service Composition by LIU YIN¹, LIU WENYIN², JIANG CHANGJUN¹, (1)Tongji Cen-

ter of National Engineering Research Center for High Performance Computer, Department of Computer Science, Tongji University, Shanghai, P.R. of China, (2)Department of Computer Science, City University of Hong Kong, 83 Tat Chee Avenue, Hong Kong SAR, P.R. of China

Service component: A Mechanism for Web Service Composition Reuse and Specialization by BART ORRIËNS, JIAN YANG and MIKE P. PAPAOGLOU, Tilburg University, Infolab PO Box 90153, 5000 LIE, Tilburg Netherlands

An Object Oriented Metamodel for Inter-enterprises Cooperative Processes based on Web Services by SAMI BHIRI, OLIVIER PERRIN, WALID GAALOU AND CLAUDE GODART, LORIA - INRIA - CNRS - (UMR 7503), Campus Scientifique, BP 239, 54506 Vandoeuvre-l'es-Nancy Cedex-France

UML Specialization for Fault Tolerant Component Based Architectures by JANE JAYAPUTERA, IMAN POERNOMO AND HEINZ SCHMIDT, School of Computer Science and Software Engineering Monash University, Melbourne, Australia

SESSION-8 Room: Tannehill (Level 4)

Thursday, December 4, 3:00 pm - 5:30 pm

FORMAL REASONING ON SOFTWARE COMPONENTS AND COMPONENT BASED SOFTWARE ARCHITECTURES-II

Session Organizer and Chair: I. HAFIZ POERNOMO, DSTC Pty Ltd, Monash University, Caulfield East, Australia

Formal Methods for Quality of Service Analysis in Component-Based Distributed Computing by C. YANG, B. R. BRYANT, and C. C. BURT, Department of Computer and Information Sciences, The University of Alabama at Birmingham, Birmingham, AL; R. R. RAJE, and A. M. OLSON, Department of Computer and Information Science, Indiana University Purdue University Indianapolis, Indianapolis, IN; M. AUGUSTON, Department of Computer Science, Naval Postgraduate School, Monterey, CA

Safety Properties in Petri Net Modules by J. PADBERG, Dep. of Computer Science, University Bremen, Germany

The B method and the component-based approach by D. PETIT*, V. POIRRIEZ*, and G. MARIANO**, *Universit e de Valenciennes et du Hainaut Cambr esis, LAMIH/ROI, Valenciennes Cedex 9, France, **Institut National de REcherche sur les Transport et leur S ecuri e, ESTAS, 20, rue Elis ee Reclus, F-59650 VILLENEUVE D'ASCQ - France

Managed Assertaions for Component Contracts by N. TRAN, C. MINGINS, and D. ABRAMSON, School of Computer, Science and Software Engineering, Monash University, Australia

SESSION-9 Room: Barton (Level 4)

Friday, December 5, 1:30 pm - 3:00 pm

GENERAL DESIGN AND APPLICATIONS-IA

Session Organizer and Chair: S. EKWARO-OSIRE, Texas Tech University, Mechanical Engineering Dept., Lubbock, TX

Robotic Track Design & Spray Process in Rapid Plasma Spray Tooling by Haiou ZHANG, Shaobo WEN, Guilan WANG, State Key Lab. of Plastic Forming Simulation and Die & Mould Technology, Huazhong University of Science and Technology, Wuhan City, P.R.China

Multi-Objective Penalty Function Based Spur Gear Design Optimization by SHUMIN ZHANG¹ AND GANG QI^{2,3}, (1) School of Mechanical Engineering, China Agricultural University Beijing, China, (2) Department of Mechanical Engineering, The University of Memphis, (3) Joint Program in Biomedical Engineering, the University of Memphis and the University of Tennessee Health Science Center Memphis, TN

Experimental Investigations on the Characteristics and Augmentation of melting Processes of Stearic Acid in an Annulus by LIU ZHONGLIANG, College of Environmental & Energy Engineering, Beijing University of Technology, China

Gyroscopic Beam Element Matrix Derivation and Results by SIMON JONES, IBRAHIM ESAT, Department of Mechanical Engineering, Brunel University, Uxbridge, UK

Connect Effects and Control Effects in conceptual design by TAN RUNHUA, Hebei University of Technology, China

SESSION-10 Room: Bickler (Level 4)

Friday, December 5, 1:30 pm - 3:00 pm

MANUFACTURING**Session Organizer and Chair:** HONG C. ZHANG, Department of Industrial Engineering, Texas Tech University, Lubbock, TX**Collaboration Engineering Framework for Manufacturing System Analysis, Modeling and Simulation- Efficient Manufacturing System****by Collaborative Integration of Principal and Auxiliary Tasks** by AKIKO HASEGAWA, KIYOSHI ITOH Laboratory of Information and Systems Engineering, Sophia University, Tokyo, Japan; SATOSHI KUMAGAI Research and Development Headquarters, Yamatake Corporation, Kanagawa, Japan**Information System Engineering and Process: Design of General Manufacturing Equipment** by WANG AILING, North China University of Science and Technology, China**Edge Management in Design and Manufacturing: Experience in Beoing-777** by WANG QIANG, Xian Engineering School of Air Force Engineering University, China**Optimum Selection of Cutting Parameters in Machining: A Review** by MAHDI ALAJMI, I.I. ESAT, Department of Mechanical Engineering, University of Brunel, Uxbridge, Middlesex, UK**Design-For-Environment: Methodologies, Tools, and Implementation** by J. Sun*, B. Han†, S. Ekwaro-Osire*, and H.-C. Zhang‡, *Texas Tech University Mechanical Engineering Department, Lubbock, Texas, †Texas Tech University, Industrial Engineering Department, Lubbock, Texas**SESSION-11 Room: Bonnell (Level 4)**

Saturday, December 6, 1:30 pm - 3:00 pm

KNOWLEDGE DISCOVERY AND MAINTENANCE**Session Organizer and Chair:** C. BAYRAK, Department of Computer Science, University of Arkansas at Little Rock, AR**Design Effort Estimation Using Complexity Metrics** by NAEL SALMAN* and ALI. H. DOGRU**, *Cankaya University, Balgat, Ankara, Turkey, **Middle East Technical University, Computer Engineering Department, Ankara, Turkey**A Network Teaching Tool for Visualizing and Analyzing Routing Protocols** by HAO WU and CHIA-CHU CHIANG, Department of Computer Science, University of Arkansas at Little Rock, Little Rock, AR**Comparison of Three Architecture Description Languages Based on a Case Study** by AYSEGÜL TUNÇ, HALIT OGUZTÜZÜN, ALI DOGRU, Department of Computer Engineering, Middle East Technical University, Ankara, Turkey**FBG Sensor and WDM Sensor Network** by HUANG JUNBIN, Research Institute of Intelligent Manufacture and Control, Wuhan University of Technology, China**Information Structuring Using XML** by Coskun Bayrak* and Umit Topaloglu** *Department of Computer Science, **Department of Applied Science, University of Arkansas at Little Rock, AR**SESSION-12 Room: Tannehill (Level 4)**

Friday, December 5, 1:30 pm - 3:00 pm

SOFTWARE AND APPLICATIONS-I**Session Organizer and Chair:** F. KURFESS, Department of Computer Science, California Polytechnic State University, San Luis Obispo, CA**Calculation, Control, Measure and Efficiency Increasing for Compressors Accomplished by Software Techniques** by JIANG XIAOLUO F, College of Information Science and Engineering, Wenzhou University, China**Validity of Pervasive Shannon Metrics**, by REMZI SEKER*, MURAT M. TANIK**, AND RAYMOND A. PAUL***, Department of Computer and Software Engineering, Embry-Riddle Aeronautical University, Daytona Beach, FL, **Department of Electrical and Computer Engineering University of Alabama at Birmingham, Birmingham, AL, ***Department of Defense, OASD/C3I, Washington, DC**Method for Ontology Elicitation in Reactive System Domain** by RYO

KAWABATA, TAKEHIRO YAMAMIYA, KIYOSHI ITOH, Laboratory of Information and Systems Engineering, Sophia University 7-1, Kioi-cho, Chiyoda-ku, Tokyo, 102-8554, Japan

Conceptual Data Modeling Based on Use Cases, by TOYOHIKO HIROTA¹, SATOSHI KUMAGAI², KENTARO INENAGA¹, (1) Faculty of Information Science, Kyushu Sangyo University 2-3-1 Matsukadai, Higashi-ku, Fukuoka, Japan. (2) Department of Systems Information Engineering, Musashi Institute of Technology, 1-28-1 Tamazutsumi, Setagaya-ku, Tokyo, Japan**A New Insight Into Prediction Modeling System** by SANG C. SUH, SAM I. SAFFER, DAN LI, JINGMIAO GAO Department of Computer Science Texas A&M University-Commerce Commerce, TX**Tinydb by Remote** by Kevin Mayer Dr Ken Taylor, The Australian National University, Acton, ACT 0200, Australia, and Ken Taylor, CSIRO Mathematical and Information Sciences, ANU Campus, Acton, ACT 2601, Australia**Study of the Consistency of Online Ratings of E-Tailers on Shopping Agent Web Sites** by MING WANG, California State University, Los Angeles, Los Angeles, CA USA**SESSION-13 Room: Barton (Level 4)**

Friday, December 5, 3:30 pm - 5:30 pm

GENERAL DESIGN AND APPLICATIONS-IB**Session Organizer and Chair:** S. EKWARO-OSIRE, Texas Tech University, Mechanical Engineering Dept., Lubbock, TX**Pacemaker of delegation** by WANG RUIGANG, Chinese Mechanical Engineering Society, Deputy Secretary-general, China**Genetic Algorithm Based Vibration Design** by M. DABESTANI*, I. I. ESAT**, *Signal Research Ltd. 16 Brookside Crescent, HERTS EN6 4QN, UK, **Department of Mechanical Engineering, Brunel University, Uxbridge, Middlesex, UK**Design Optimization of Kinesthetic Imaging Device** by MIKHAIL YU. GOLOUBEV¹, SHUMIN ZHANG², AND GANG QI^{1,3}, (1) Department of Mechanical Engineering, The University of Memphis, (2) School of Mechanical Engineering, China Agricultural University Beijing, China (3) Joint Program in Biomedical Engineering, the University of Memphis and the University of Tennessee Health Science Center Memphis, TN**A Computational Model to Calculate the Flow-Induced Pressure Fluctuations on a Bluff Body** by S. SENTHOORAN AND S. PARAMESWARAN, Department of Mechanical Engineering Texas Tech University Lubbock, TX**Supporting the Early Stages of Product Development with 3D-Sketching** by LINDEMANN, UDO; DIEHL, HOLGER; MÜLLER, FRANZ; SCHNEIDER, SEBASTIAN, Insitute for Product Development, TU Munich, Germany**A Unified Approach for Modelling and Animation of Thin Flexible materials** by LIHUA YOU and JIAN J ZHANG, National Centre for Computer Animation, Bournemouth University, Poole, UK**A Vibration Monitoring Method Using Infrared Diodes** by M. DOGANLI and A. ERTAS Department of Mechanical Engineering, Texas Tech University, Lubbock, TX and A. YILDIRIM, University of Alabama, Vision Science Research Center, Birmingham, AL 35294, U.S.A**SESSION-14 Room: Bickler (Level 4)**

Friday, December 5, 3:30 pm - 5:30 pm

SYSTEMS AND COLLABORATIONS**Session Organizer:** RYO. KAWABATA, Laboratory of Information and Systems Engineering, Sophia University, Tokyo, Japan
Session Chair: Toyohiko Hirota (Kyushu SanGyo University, Fukuoka Japan)**Affective Analysis Method by Reusing MCM for Collaboration Task** by RYO. KAWABATA, AKIKO. HASEGAWA, KIYOSHI, ITOH, Laboratory of Information and Systems Engineering, Sophia University, Tokyo, Japan**Development of Computer Mediated Collaboration System (CMCS)** by ATSUO OHSONE, RYO KAWABATA, KIYOSHI ITOH, Faculty of Science and Technology, Sophia University, Chiyoda-ku, Tokyo, Japan**System Analysis by Extended State Transactions Diagram Based on Lifecycle and Various Attributes of Object** by SANAE SAKURAI, RYO KAWABATA, KIYOSHI ITOH Faculty of Science and Technology, Sophia University, Chiyoda-ku, Tokyo, Japan; NARU OKUBO, Sophia Education and

Research Center for Information Science, Sophia University, Tokyo, Japan

Domain Model and its Analysis Navigator for Reactive Systems on STD Triad by TAKEHIRO YAMAMIYA, SHINICHI AIZAWA, YUJI SENUMA, RYO KAWABATA, KIYOSHI ITOH, Faculty of Science and Technology, Sophia University, Chiyoda-ku, Tokyo, Japan; SHUZO KISHIMA, Yamatake Corporation, Japan

Effective use of Chart Representations of Model in Evolutional System Analysis by YUJI SENUMA, RYO KAWABATA, KIYOSHI ITOH, Faculty of Science and Technology, Sophia University, Chiyoda-ku, Tokyo, Japan

SESSION-15 Room: Tannehill (Level 4)

Friday, December 5, 3:30 pm - 5:30 pm

GENERAL DESIGN AND APPLICATIONS-IIA

Session Organizer and Chair: F. I. ESAT, Department of Mechanical Engineering, Brunel University, Uxbridge, Middlesex, UK

Objective Penalty Function Based bevel Gear Design Optimization by ZHANG SHUMIN, China Agricultural University, China

Formulation of a Two Way Relationship Between Cutting Tool and Worm Gear Geometries by CHRIS DAWSON, I.I. ESAT, Department of Mechanical Engineering, Brunel University, Uxbridge, Middlesex, UK

Topological Expression of Kinematic Structure of Satellite Gear Mechanism with Graph Mode Based Suppositional Design by YANG PING, Research Center of Advanced Design & Manufacturing, Dept. of Electronic Machinery, Guilin University of Electronic Technology, China

A Study on Cycloid Tooth Profile and Characteristics in a Precision Reduction Drive by DAEHYUN PARK AND SEHOON OH, School of Mechanical Engineering Chung-Ang University Dongjak-ku, Seoul, Korea

Integrating Criteria on Process Design and Inspection for Modification Accuracy of Cylindrical Gear Profile by PEI LING Hubei Automotive Industry Institute, China

Stochasticity in Design and Fabrication Process of MEMS by S. EKWARO-OSIRE, M.P.H. KHANDAKER, T.-H. JANG, J. SUN, and V. CHAKKARAPAN, Texas Tech University, Mechanical Engineering Department, Lubbock, TX

SESSION-16 Room: Barton (Level 4)

Saturday, December 6, 8:30 pm - 10:00 pm

SOFTWARE AND APPLICATIONS-II

Session Organizer and Chair: M. SAHINOGLU, Computer & Information Science, Troy State University Montgomery; A. H. DOGRU, Middle East Technical University, Computer Engineering Department, Ankara, Turkey

UML-Based Definition of Integration Models for Incremental Development Processes in Chemical Engineering by SIMON M. BECKER, BERNHARD WESTFECHEL, Computer Science III, Aachen University of Technology, D-52056

Supporting Test Case Derivation in Domain Engineering by ERIK KAMSTIES, KLAUS POHL, ANDREAS REUYS, University of Duisburg-Essen, Germany

Taxonomy of Front-End Support Activities by MIRA KAJKO-MATTSSON, Software Maintenance Laboratory: Upfront Maintenance Department of Computer and Systems Sciences Stockholm University/Royal Institute of Technology/IT University Forum 100, SE-164 40, Kista, Sweden

Quality Issues in Designing Mobile Applications by BHUVAN UNHELKAR, FACS, School of Computing and Information Systems University of Western Sydney, Locked Bag 1797, Penrith South DC NSW 1797, AUSTRALIA.

JAVA 2 Enterprise Edition Implementation of a Distributed Business by R.S. SADASIVAM, M.M. TANIK, University of Alabama at Birmingham, Birmingham, Alabama, and L. JOLOLIAN, Department of Computer Science, New Jersey City University, Jersey City, New Jersey

SESSION-17 Room: Bickler (Level 4)

Saturday, December 6, 8:30 am - 10:00 am

MANAGEMENT-BUSINESS-PROCESS-IA

Session Organizer and Chair: D. GIBSON, IC² Institute, University of Texas at Austin, Austin, TX

The Competence Sharing Process Method by FUAD GATTAZ SOBRINHO, Brazil

A Management Framework for Enterprise Architecture by Con Kenney, FAA Chief Enterprise Architect

Growth of Employment in the Austin Information Sector: A Study Based on the "Kozmetsky Effects" Model by DARIUS MAHDJOUBI, The University of Texas at Austin, Austin Texas

Building Cross-Disciplinary Partnerships Through Entropy Reduction Techniques by URCUN J. TANIK, RAJANI S. SADASIVAM, RYAN GILES, AND MURAT M. TANIK Electrical and Computer Engineering Department University of Alabama at Birmingham (UAB) Birmingham, Alabama

A Science & Technology Commercialization Process by CRISTIANE CHAVES GATTAZ and, IISIS – International Institute of Systems Integration, R. Cândido de Abreu, 200 5º andar, Centro Cívico, Curitiba-PR, Brazil

A process modeling approach to requirements elicitation to incorporate e-learning as a core learning strategy by E CLOETE, A VAN DER MERWE, L PRETORIUS, School of Computing, University of South Africa, Pretoria, South Africa

A Management System for Evolving Development Processes, by MARKUS HELLER, ANSGAR SCHLEICHER, BERNHARD WESTFECHEL Computer Science III, Aachen University of Technology, D-5, Aachen, Germany

SESSION-18 Room: Tannehill (Level 4)

Saturday, December 6, 8:30 am - 10:00 am

DISTRIBUTED REAL-TIME SYSTEMS AND SOFTWARE REUSE

Session Organizer and Chair: MOON HAE KIM, Konkuk University, Korea

A Concurrent Event-Driven Simulation Techniques for the Rok Army's War Game Model using TMOs by HAN SUK SUE, JUNG-GUK KIM, University of Foreign studies, Korea; MOON HAE KIM, Konkuk University, Korea; and SHIN HEU, Hanyang University, Korea

A Global Timestamp-based Scalable Framework for Distributed Virtual Environments by SUNG-JIN KIM, FALKO KUESTER and K. H. (KANE) KIM

Design and Implementation of JAVA-based Collaborative Browsing Service for Home Server by EUN-RYUNG LEE, ETRI Dae-Jeon, Korea; JI-YOUNG KIM, and DOO-HYUN KIM, ETRI, Dae-Jeon, Korea

Deadline Handling in a Real-time Middleware on LINUX by HO-JOON PARK, and CHANG-HOON LEE, Science and Engineering Konkuk University, Seoul 143-701, Korea

Architecture Based Software Reengineering Approach Using Design Patterns by JUNG-EUN CHA, CHUL-HONG KIM, AND YOUNG-JONG YANG

Software Modernization for Legacy Systems by MOON-SOO LEE, YOUNG-JONG YANG, AND HYO-TAEG JUNG, Software-Contents Technology Department, Electronics and Telecommunications Research Institute, Yuseong-gu, Dae-jeon, KOREA

SESSION-19 Room: Barton (Level 4)

Saturday, December 6, 10:20 am - 12:00

GENERAL DESIGN AND APPLICATIONS-IIB

Session Organize and Chair: F. I. ESAT, Department of Mechanical Engineering, Brunel University, Uxbridge, Middlesex, UK

Case Study in AD and Triz: A Paper Machine by TAN RUNHUA, Hebei University of Technology, China

A Packaging Design Software for Vibrational and Impact Protection by B. WANG, Department of Mechanical Engineering, Brunel University, Uxbridge, UK

Quantum Algorithms: How Useful for Engineering Problems by

FOUZAN ALFARES, I. I. ESAT, Mechanical Engineering Department, Brunel University, Uxbridge, Middlesex, UK

Development of a Loading Mechanism for Fixed Ratio Traction Drives, by BAEJIN KIM, SUNGYEOL KIM, DAEHYUN PARK, SEHOON OH, School of Mechanical Engineering, Chung-Ang University, Seoul, Korea

Design for Reliability of Machine Tool Transmission Elements by ¹, CHENG XIAOMIN¹, JIA YAZHOU², (1) Ningbo College, Ningbo, Zhejiang, China; (2) Jilin University, Changchun, Jilin, 130025, China

Dyad Classification for Mechanisms by I. POPESCU, Faculty of Mechanics University of Craiova Craiova, Romania, D.B. MARGHITU, Department of Mechanical Engineering, Auburn University Auburn, AL

Formalization of Design Requirements by YONG ZENG, Concordia Institute for Information Systems Engineering Concordia University 1455 de Maisonneuve Blvd. W., Montreal, Canada

SESSION-20 Room: Bickler (Level 4)
Saturday, December 6, 10:20 am - 12:00

MANAGEMENT-BUSINESS-PROCESS-IB

Session Organizer and Chair: D. GIBSON, IC² Institute, University of Texas at Austin, Austin, TX

Comprehensive School Improvement Plan Using Technology: A School Improvement Framework by JERRY A. HIGGS and CEDRICK D. MOORE, BellSouth Telecommunications, IEM, UAB, Birmingham, AL

Epistemology of Design by DARIUS MAHDJOUBI, The University of Texas at Austin, Austin Texas

Employee Incentive Mechanism Design for Technology Firms, by BAHAR CELIKKOL ERBAS, CENGIZ ERBAS

A Formal Business Process Modelling Method by GUOQI FENG, CHENGWEN WANG, Shenyang Institute of Automation Chinese Academy of Sciences, Shenyang, Liaoning, P.R. China

Capital /Cash Flow Modeling for Enterprise Integration by *B. HUA, *J. YUAN, **M. L. LU, *South China University of Technology, China, **Aspen Tech. Inc. Cambridge, MA

A 6-Flow Architecture for Enterprise Integration In Chemical Industry by B. HUA and J. YUAN, South China University of Technology, China, **Aspen Tech. Inc. Cambridge, MA

Cyberinfrastructure Development: A Software Agent Based Approach by S. SADASIVAM, M. M. TANIK, JILL GEMMILL*, AND TOM JANNETT, Electrical and Computer Engineering Department, *Computer and Information Sciences University of Alabama at Birmingham (UAB) Birmingham, Alabama

SESSION-21 Room: Bonnell (Level 4)
Saturday, December 6, 10:20 am - 12:00

DESIGN AND IMPLEMENTATION OF ADVANCED DISTRIBUTED COMPUTING SOFTWARE SYSTEMS

Session Organizers and Chairs: YUNMOOK NAH, Dankuk Univ., Korea

Modeling Moving Objects for Location-Based Database Applications by KWANG WOO NAM, JAI HO LEE, MIN SOO KIM, YOUNG KYU, Yang Spatial and Image Information Technology Center, ETRI, Korea

Design and Implementation of Moving Objects Server for Location Based Services by DAE-SOO CHO, KYOUNG-WOOK MIN, IN-SUNG JANG, JONG-HYUN PARK, JONG-HUN LEE GIS Team, Spatial Information Technology Center, ETRI, Korea

Distributed Adaptive Architecture for Managing Very Large Volume of Moving Objects by YUNMOOK NAH, et al., Dankuk University, Korea

An adaptable multiagent-based reservation of multiple multicast trees and its adaptability evaluation by SHINJI INOUE, MASAYUKI OZAKI and YOSHIAKI KAKUDA, Hiroshima City University, Japan

Potential Utility of UML Within Tmondem by SEOK-JOONG KANG and K. H. (KANE) KIM, Department of Electrical Engineering and Computer Science University of California, Irvine Irvine, CA 92697, USA

SESSION-22 Room: Tannehill (Level 4)
Saturday, December 6, 10:20 am - 12:00

SOFTWARE AND APPLICATIONS-III

Session Organizers and Chairs: MATTHIAS ANLAUFF AND ASUMAN SÜNBUİL, Kestrel Institute, Palo Alto, CA

Modeling Decentralized Adaptive Process Based on the Service

Cooperation Middleware by Shaohua LIU, Jun WEI, Wei XU Technology Center of Software Engineering, Institute of Software, The Chinese Academy of Sciences, Beijing 100080, P.R. China

Aliasing Free Cmpaction in Testing Core- Based Systems-on-a-Chip Using Compatibility of Response Data Outputs by Sunil R. Das^{1,2}, Fellow, SDPS, Fellow, IEEE, Mansour H. Assaf¹, Member, IEEE, Emil M. Petriu¹, Fellow, IEEE, and Mehmet Sahinoglu², Fellow, SDPS, Senior Member, IEEE, ¹School of Information Technology and Engineering, University of Ottawa, Ottawa, Ontario K1N 6N5, Canada, ²Department of Computer and Information Science, Troy State University Montgomery, Montgomery, AL 36103, U.S.A.

Matrix Manipulations Using Artificial Neural Networks by ALI AL-MUDHAF*, I. I. ESAT**, *Department of Mechanical Production, College of Technological Studies, PAAET, Kuwait, **Department of Mechanical Engineering, Brunel University, Uxbridge, Middlesex, UK

Assessing Readiness to Implement Daily Build – A Case Study by MIRAKAJKO-MATTSSON, MARCUS JONSON, SAAM KOROORIAN, Department of Computer and Systems Sciences Stockholm University/Royal Institute of Technology Electrum 230, SE-164 40 KISTA, Sweden FREDRIK WESTIN, Front End AB, Sweden

An Agent-Based Framework for Evolving Legacy Software Systems by W. S. JETT., G. J. GRIMES, M. M. TANIK, Electrical and Computer Engineering Department, University of Alabama at Birmingham Birmingham, Alabama (*Information Technology Division of Infinity Property & Casualty Corporation, Birmingham, Alabama)

SESSION-23 Room: Tannehill (Level 4)
Saturday, December 6, 1:00 pm - 3:30 pm

SOFTWARE AND APPLICATIONS-IV

Session Organizers and Chairs: MATTHIAS ANLAUFF AND ASUMAN SÜNBUİL, Kestrel Institute, Palo Alto, CA

Facilitating Agent Navigation Using DSM-High Level Designs by LEI PAN, MING KIN LAI, JAVID J. HUSEYNOV, LUBOMIR F. BIC, and MICHAEL B. DILLEN COURT School of Information & Computer Science, University of California, Irvine, Irvine, CA

CBD Work Bench by ROGER LEE, Computer Science Department, Central Michigan University, Mt

Using logic programming techniques to handle timing and priority constraints in real-time systems by JIWEN GE Department of Electrical and Computer Engineering, Ryerson University and MARCUS VINICIUS SANTOS, School of Computer Science, Ryerson University Toronto, Ontario, Canada

Knights and Dragon - Agentifying Smart Tags for Context-Aware Environments by FANO RAMPARANY, OLIVIER BOISSIER, COSMIN CARABELAE, LIONEL RIMBERT, and ALFRED CHIOIU, SMA/SIMMO/ENS Mines de Saint-Etienne, France

Solution Modeling and Software Modeling Based on Object-Oriented Technology by TAKEO HAYASE, Systems Integration Technology Center, Toshiba Corporation, Tokyo, Japan

A Software Requirement Specification and Java Based Design of a Hypotetical Command and Control System by O. AKTUNC, B. KISKAC, K. OZDALLI H. YARDIMCI, University Of Alabama at Birmingham Electrical and Computer Engineering Department Birmingham, AL

Concurrent Design Approach and its Collaborative Environment for Integrated Complex Product Development by HEMING ZHANG, WENHUI FAN, and CHENG WU, ERC-CIMS, Department of Automation, Tsinghua University, Beijing, China

Interface Engineering: A Component Oriented Approach by GUL TOKDEMIR, ALI H. DOGRU*, MURAT M. TANIK**, Atilim University, Turkey, *Middle East Technical University, Turkey, **University of Alabama at Birmingham

COFFEE BREAKS

Thursday, December 4, 10:00 - 10:20 am and 2:30 - 3:00 pm

Friday, December 5, 10:00 - 10:20 am and 3:00 - 3:30 pm

Saturday, December 6, 10:00 - 10:20

Note that, because of the SARS problem in China, 2003 IDPT Conference was relocated to Austin, Texas. 2003 IDPT Conference proceedings will include more than 100 papers of authors from China beside more than 100 papers scheduled for presentation.

OPENING RECEPTION
Wednesday, December 3, 2003
Capitol View Terrace, 6:00 pm - 7:00 pm

CONFERENCE LUNCHEON
Thursday, December 4, 2003
Capitol View Terrace, 12:00 - 1:00 pm

CONFERENCE DINNER
Thursday, December 4, 2003
Capitol View Terrace, 7:00 pm - 9:30 pm

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)

**2003 IDPT
TECHNICAL SESSIONS**

THURSDAY, DECEMBER 4, 2003

Author's Briefing, 7:30 am - 8:15 am
Room: Salon F (Level 3)

Author's Briefing, 7:30 am - 8:15 am
Room: Salon G (Level 3)

Author's Briefing, 7:30 am - 8:15 am
Room: Salon H (Level 3)

Author's Briefing, 7:30 am - 8:15 am
Room: Tannehill (Level 4)

Opening Address

Room: Capitol View Terrace, 8:15 am - 9:15 am

Keynote Speaker, Dr. Helmut Hoyer, Vice Chancellor, FernUniversitaet in Hagen, Germany

Room: Capitol View Terrace, 9:15 am - 10:00 am

SESSION-1
10:20 am - 12:00
SYSTEM LEVEL TEST

SESSION-2
10:20 am - 12:00
MODEL-BASED
SOFTWARE EVOLUTION

SESSION-3
10:20 am - 12:00
VIEWS MOD. AND DEV.
PROCESS-CENTRIC VIRTUAL
ENTERPRISES WITH WEB
SERVICES-I

SESSION-4
10:20 am - 12:00
FORMAL REASONING ON
SOFTWARE COMPONENTS AND
COMPONENT BASED SOFTWARE
ARCHITECTURES-I

Plenary Session Speaker-I, Dr. Kunio Goto, Professor Emeritus, St. Andrew's University, Osaka, Japan
Room: Capitol View Terrace, 1:00 pm - 1:30 pm

Plenary Session Speaker-II, Dr. S. S. Iyengar, Roy Paul Daniel Professor, L.S.U. Baton Rouge, LA
Room: Capitol View Terrace, 1:30 pm - 2:00 pm

Plenary Session Speaker-III, Dr. Jeffrey Tsai, University of Illinois at Chicago, Chicago
Room: Capitol View Terrace, 2:00 pm - 2:30 pm

SESSION-5
3:00 pm - 5:30 pm
INTERNET BASED
SOFTWARE ENGINEERING

SESSION-6
3:00 pm - 5:30 pm
SOFTWARE ENGINEERING

SESSION-7
3:00 pm - 5:30 pm
VIEWS MOD. AND DEV.
PROCESS-CENTRIC VIRTUAL
ENTERPRISES WITH WEB
SERVICES-II

SESSION-8
3:00 pm - 5:30 pm
FORMAL REASONING ON
SOFTWARE COMPONENTS AND
COMPONENT BASED SOFTWARE
ARCHITECTURES-II

FRIDAY, DECEMBER 5, 2003

Author's Briefing, 7:30 am - 8:15 am
Room: Barton (Level 4)

Author's Briefing, 7:30 am - 8:15 am
Room: Bickler (Level 4)

Author's Briefing, 7:30 am - 8:15 am
Room: Bonnell (Level 4)

Author's Briefing, 7:30 am - 8:15 am
Room: Tannehill (Level 4)

Plenary Session Speaker-IV, Dr. G. Kozmetsky and P. Yue, IC² Institute, The University of Texas at Austin, Austin, TX
Room: Capitol View Terrace, 8:30 am - 9:00 am

Plenary Session Speaker-V, Dr. J.K. Aggarwal, Cullen Professor, The University of Texas at Austin, Austin, TX
Room: Capitol View Terrace, 9:00 am - 9:30 am

Plenary Session Speaker-VI, Dr. Peter Chen, Foster Distinguished Chair Professor, L.S.U. Baton Rouge, LA
Room: Capitol View Terrace, 9:30 am - 10:00 am

Plenary Session Speaker-VII, Dr. Oscar N. Garcia, Founding Dean of the new College of Engineering at
the University of North Texas
Room: Capitol View Terrace, 10:30 am - 11:00 am

Plenary Session Speaker-VIII, Dr. Ken Walter, The University of Washington, Bothell Business Program
Room: Capitol View Terrace, 11:00 am - 11:30 am

Plenary Session Speaker-IX, Dr. Jean-Claude Laprie
Directeur de Recherche at CNRS, the French National Organization for Scientific Research, France
Room: Capitol View Terrace, 11:30 am - 12:00

Plenary Session Speaker-X, Dr. Vason Sirini, BWRC of UC Berkeley, California
Room: Capitol View Terrace, 1:00 pm - 1:30 pm

SESSION-9 1:30 pm - 3:00 pm GENERAL DESIGN AND APPLICATIONS-IA	SESSION-10 1:30 pm - 3:00 pm MANUFACTURING	SESSION-11 1:00 pm - 3:30 pm KNOWLEDGE DISCOVERY AND MAINTENANCE	SESSION-12 1:30 pm - 3:00 pm SOFTWARE AND APPLICATIONS-I
SESSION-13 3:30 pm - 5:30 pm GENERAL DESIGN AND APPLICATIONS-IB	SESSION-14 3:30 pm - 5:30 pm SYSTEMS AND COLLABORATIONS	WORKSHOP-II 3:30 pm - 6:00 pm FUTURE OF THE SOFTWARE AND SERVICE INDUSTRIES	SESSION-15 3:30 pm - 5:30 pm GENERAL DESIGN AND APPLICATIONS-IIA

SATURDAY, DECEMBER 6, 2003

SESSION-16 8:30 am - 10:00 am SOFTWARE AND APPLICATIONS-II	SESSION-17 8:30 am - 10:00 am MANAGEMENT-BUSINESS- PROCESS-IA	WORKSHOP-III 8:30 pm - 10:00 pm Cyberinfrastructure Development for Engineering Research and Education through Transdisciplinary Paradigm	SESSION-18 8:30 am - 10:00 am DISTRIBUTED REAL-TIME SYS. AND SOFTWARE REUSE
SESSION-19 10:20 am - 12:00 GENERAL DESIGN AND APPLICATIONS-IIB	SESSION-20 10:20 am - 12:00 MANAGEMENT-BUSINESS- PROCESS-IB	SESSION-21 10:20 am - 12:00 DES. AND IMP. OF ADV. DISTRIBUTED COMPUTING SOFTWARE SYSTEMS	SESSION-22 10:20 am - 12:00 SOFTWARE AND APPLICATIONS-III

IC² Institute Fellows Meeting
Room: Capitol View Terrace, 1:00 pm - 6:00 pm

		TUTORIAL 1:00 pm - 3:30 pm QUALITY ASSURANCE FOR UML-BASED PROJECTS: PROCESS AND TECHNIQUES	SESSION-23 1:00 pm - 3:30 pm SOFTWARE AND APPLICATIONS-IV
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Dr. George Kozmetsky and his friends are celebrating the establishment of George Kozmetsky Endowment

FOUNDING CONTRIBUTORS TO George Kozmetsky Endowment (GKE)

Following contributions from corporations, institutions, individuals, and members of the Society for Design and Process Science, supporting the George Kozmetsky Endowment in honor of George Kozmetsky will be recognized during the George Kozmetsky dinner on Thursday, 9:00 pm.

1. Contributions from Universities

- Brunel University, Mechanical Engineering, United Kingdom
- Texas Tech University, College of Engineering, Lubbock, Texas
- Chair of Data Processing Technology at the, Fernuniversitaet, Germany
- Middle East Technical University, Turkey

2. Contributions from Companies and Institutions

- Ambiencia Information Systems, Campinas, San Paulo, Brazil
- NEC, Japan
- NEC, Software, Japan
- Raytheon, Garland, Texas
- Process Sciences Laboratory, Dallas, Texas
- JPL, Pasadena, California
- SDPS (Society for Design & Process Science)
- ASME Region X
- Chinese Mechanical Engineering Society

3. Contributions from Individuals

- Dr. Atila Ertas
- Dr. David Gibson
- Dr. T. J. Kozik
- Dr. T. T. Maxwell
- Dr. C. V. Ramamoorthy
- Dr. M. M. Tanik
- Dr. R. T. Yeh

The following delegation representing Chinese Mechanical Engineering Society will attend the 2003 IDPT conference in honor of Dr. George Kozmetsky

Ben Hua, South China University of Technology
Wang Ruigang, Deputy Sec., Chinese Mec. Eng. Society
Wang Ailing, North China Univ. of Science and Tech.
Sun Aixue, Henan Univ. of Science and Tech.
Zhang Qiansheng, Beijing Inst. of Mec. & Elec. Technology
Ouyang Jianjun, China Mac. Inter. Eng. Des. & Res. Inst.
Lu Dongyuan, Chang Chun Faw Forging Co. Ltd.
Zhang Yundian, Hangzhou Institute of Elec. Engineering
Li Peitong, Hangzhou Institute of Elec. Engineering
Zhang Shumin, China Agricultural University
Pei Ling, Hubei Automotive Ind. Institute
Liu Zhongliang, Beijing University. of Technology
Tan Runhua, Hebei University of Technology
Li Xiaogang, Xian Pen. Lishi Casting & Forging Factory
Zhang Jinli, Mach. Factory of Gen. Com. Of X.P.A.B
Wang Shuhang, Mach. Factory of Gen. Com. Of X.P.A.B
Yang Ping, Guilin Univ. of Electronic Technology
Huang Junbin, Wuhan University of Technology
Ma Wenge, H.A. Forging & Casting Industry Comp.
Feng Jianhua, Shanghai Aizhi Forging Comp.
Jiang Xiaoluo, Col. Of Inf. Science & Eng. Wenzhou Univ.
Wang Qiang, Xian Eng. School of Airforce Eng. Univ.

**LUNCHEON
In Honor of Chinese Delegation
Friday, December 5, 2003
12:00 - 1:00 pm**

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S. Jing, *System Engineering Society of China*
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M.M. Tanik, *Univ. of Alabama at Birmingham, AL, USA*
T. H. Tse, *Univ. of Hong Kong, Hong Kong, China*
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Z. Shi, *General secretary of China Computer Federation*
B. Zhou, *Software Inst., Beijing Aeronautical & Astron. Univ., China*

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GEORGE KOZMETSKY ENDOWMENT (GKE)

All proceeds generated from the 2003 IDPT conference participants will be donated to George Kozmetsky Endowment (GKE). Hence, all participants and their institutions will be recognized in the record of GKE.

HOTEL INFORMATION

Austin Marriott at the Capitol is conveniently located 10 minutes from Austin Bergstrom Airport and downtown, a few blocks from the State Capitol and 6th Street. Guests of the hotel enjoy complimentary use of the weight room, pool, whirlpool, and sauna. A full spa is located nearby, tennis courts are four miles away, and Barton Creek Resort (18 holes of golf) is eight miles away.



Each room has cable television, work desk with lamp, speakerphone with voicemail, modem connection, free coffee, iron, hairdryer, and week-day newspaper.

Hotel Registration

\$114 Single or double occupation (rate doesn't include state and local taxes). **For reservation, please call 1(800) 228-9290 or (512) 478-1111.** Reservation must be made on or before Friday, November 7, 2003. You may fax the form to: Gina Sedita, (512) 479-6458

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**The Seventh World Conference on
INTEGRATED DESIGN AND PROCESS TECHNOLOGY**

December 3 -6, 2003

AUSTIN MARRIOTT AT THE CAPITAL
701 E. 11TH STREET, AUSTIN, TEXAS 78701

IDPT REGISTRATION FORM - 1113

Name.....
 Title.....
 Organization.....
 Complete Address.....

 Phone.....
 Fax.....
 Email adress.....

WHICH EVENTS DO YOU PLAN TO ATTEND?

- Wednesday, December 3 (reception)
- Thursday, December 4 (GKE Dinner)
- Friday, December 5 (Luncheon)
- For visitors, GKE dinner is \$30 and luncheon is \$20.

If you require any special equipment please write below.

.....

PLEASE MAKE CHECK, MONEY ORDER, OR TRAVELLERS CHECK PAYABLE TO SDPS (US DOLLARS ONLY)	SDPS MEMBERS	NON-MEMBERS	STUDENT FEE
CONFERENCE REGISTRATION FEE	<input type="checkbox"/> \$395	<input type="checkbox"/> \$500	<input type="checkbox"/> \$200
LATE REGISTRATION	<input type="checkbox"/> \$450	<input type="checkbox"/> \$550	<input type="checkbox"/> \$250
CONFERENCE PROCEEDINGS FOR AUTHORS (ATTENDEES ONLY)	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE
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Please note that, participants may request one year free membership of SDPS and SES to be qualified for reduced fee of \$395 by marking X in this box....

Registration must be accompanied by payment:

Check or money order in US Dollars made payable to: **Society for Design and Process Science**

Master Card Visa Credit Card Number.....

Name on credit card:..... Expiration Date:.....

I understand that cancellations must be submitted in writing by November 25, 2003. After this date, cancellation will not be honored. There will be a \$75 processing fee if cancellations are made that will be charged to my credit card or deducted from my refund.

SIGNATURE:.....Date:.....

Please fax the registration form to Melissa McRae at (806) 742-3540 or call at (806) 742-3563. If you have any questions about the registration, please email Dr. A. Ertas (aertas@coe.ttu.edu).