

**Proceedings of the 36th Annual
Hawaii International Conference on
System Sciences**

HICSS-36

**ABSTRACTS
and
CD-ROM of Full Papers**

**Proceedings of the 36th Annual
Hawaii International Conference on
System Sciences**

**6-9 January 2003
Big Island, Hawaii**

**ABSTRACTS
and
CD-ROM of Full Papers**

**Edited by
Ralph H. Sprague, Jr.**



Los Alamitos, California

Washington • Brussels • Tokyo

Copyright © 2003 by The Institute of Electrical and Electronics Engineers, Inc.
All rights reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries may photocopy beyond the limits of US copyright law, for private use of patrons, those articles in this volume that carry a code at the bottom of the first page, provided that the per-copy fee indicated in the code is paid through the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

Other copying, reprint, or republication requests should be addressed to: IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331.

The papers in this book comprise the proceedings of the meeting mentioned on the cover and title page. They reflect the authors' opinions and, in the interests of timely dissemination, are published as presented and without change. Their inclusion in this publication does not necessarily constitute endorsement by the editors, the IEEE Computer Society, or the Institute of Electrical and Electronics Engineers, Inc.

IEEE Computer Society Order Number PR01874
ISBN 0-7695-1874-5
Library of Congress Control Number 2002115204

Additional copies may be ordered from:

IEEE Computer Society
Customer Service Center
10662 Los Vaqueros Circle
P.O. Box 3014
Los Alamitos, CA 90720-1314
Tel: + 1 714 821 8380
Fax: + 1 714 821 4641
[http://computer.org/
csbooks@computer.org](http://computer.org/csbooks@computer.org)

IEEE Service Center
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331
Tel: + 1 732 981 0060
Fax: + 1 732 981 9667
[http://shop.ieee.org/store/
customer-service@ieee.org](http://shop.ieee.org/store/customer-service@ieee.org)

IEEE Computer Society
Asia/Pacific Office
Watanabe Bldg., 1-4-2
Minami-Aoyama
Minato-ku, Tokyo 107-0062
JAPAN
Tel: + 81 3 3408 3118
Fax: + 81 3 3408 3553
tokyo.ofc@computer.org


HICSS Production Editor: Eileen Dennis, CMP

Editorial production by Danielle C. Martin, Lorretta Palagi, and Randy Bilof

Cover art production by Joe Daigle/Studio Productions

Printed in the United States of America by The Printing House

CD-ROM produced by InControl Productions, Inc.

IEEE

COMPUTER
SOCIETY

 **IEEE**

Table of Contents

36th Annual Hawaii International Conference on System Sciences (HICSS-36)

Preface	v
Proceedings Overview	vi
Conference Administration.....	1
Reviewers.....	ix

Collaboration Systems and Technology Track

Track Introduction	1
Asynchronous Learning Networks (CLALN)	
Minitrack Introduction	2
A Content Analytic Comparison of FTF and ALN Case-Study Discussions (CLALN01)	3
<i>R. Heckman and H. Annabi</i>	
Knowledge Negotiation in Asynchronous Learning Networks (CLALN02)	3
<i>G. Stahl and the BSCW Development Group</i>	
Computer Supported Collaborative Learning Requiring Immersive Presence (CLCSC)	
Minitrack Introduction	4
An Overview of Systems Enabling Computer Supported Collaborative Learning Requiring Immersive Presence (CSCLIP) (CLCSC01)	5
<i>J. Lucca, N.C. Romano, Jr., and R. Sharda</i>	
Facilitating Collaborative Knowledge Construction (CLCSC02)	5
<i>C.E. Hmelo-Silver</i>	
Facilitator's Invisible Expertise and Supra-situational Activities in a Telelearning Environment (CLCSC03)	5
<i>U. Hedestig and V. Kaptelinin</i>	
To Have or Have Not: An Examination of Feedback, Learner Control and Knowledge Type in Online Learning (CLCSC04)	6
<i>L. Chai</i>	
Community Building and Virtual Teamwork in an Online Learning Environment (CLCSC05)	6
<i>M. Beer, F. Slack, and G. Armitt</i>	
Leveraging Mobile Technology for m-Learning: 3 rd Generation Threaded Discussions (CLCSC06)	6
<i>T.R. Hill</i>	

Collaborative Environments for Value Creation (CLCEV)

Minitrack Introduction	7
Revising the Intellectual Bandwidth Model and Exploring Its Use by a Corporate Management Team (CLCEV01)..... <i>S. Qureshi and R.O. Briggs</i>	8
Increase of Potential Intellectual Bandwidth in a Scientific Community through Implementation of an End-User Information System (CLCEV02)	8
<i>C. Bach, S. Belardo, and J. Zhang</i>	
Towards a Cultural Ontology for Interorganizational Knowledge Processes (CLCEV03)	8
<i>E.-S. Abou-Zeid</i>	
Fifteen Years of GSS in the Field: A Comparison across Time and National Boundaries (CLCEV04)	9
<i>G.-J. de Vreede, D. Vogel, G. Kolfshoten, and J. Wien</i>	
Managing Concurrent Engineering across Company Borders: A Case Study (CLCEV05)	9
<i>K. Rouibah</i>	
What Causes Value to Be Created When It Did Not Exist Before? A Research Model for Value Creation (CLCEV06).....	10
<i>V. Hlupic and S. Qureshi</i>	
Business Intelligence Explorer: A Knowledge Map Framework for Discovering Business Intelligence on the Web (CLCEV07)	10
<i>W. Chung, H. Chen, and J.F. Nunamaker, Jr.</i>	
Collaborative Vision Development (CLCVP)	
Minitrack Introduction	11
Vision Support Studios: A Framework for Research (CLCVP01)	12
<i>M. den Hengst and G.-J. de Vreede</i>	
Supporting the Design of an Inland Container Terminal through Visualization, Simulation and Gaming (CLCVP02).....	12
<i>W. Bockstael-Blok, I. Mayer, and E. Valentin</i>	
Developing a Community Vision: The Case of a Regional United Way (CLCVP03)	13
<i>B.C. Hayes</i>	
Distributed Collaborative Project Management (CLDCP)	
Minitrack Introduction	14
A Collaborative Project Management Architecture (CLDCP01)	15
<i>F. Chen, N.C. Romano, Jr., J.F. Nunamaker, Jr., and R.O. Briggs</i>	

Knowledge Management in Non-located Environments: A Look at Centralized vs. Distributed Design Approaches (CLDCP02).....	15
<i>K.C. Desouza, A. Jayaraman, and J.R. Evaristo</i>	
Virtual Meetings and Tasks: From GSS to DGSS to Project Management (CLDCP03)	15
<i>C. Beise, R. Evaristo, and F. Niederman</i>	
Distributed Group Support Systems (CLDGS)	
Minitrack Introduction	16
The Impacts of Delphi Communication Structure on Small and Medium Sized Asynchronous Groups: Preliminary Results (CLDGS01)	17
<i>H.-K. Cho, M. Tuoff, and S.R. Hiltz</i>	
Politeness Theory and Computer-Mediated Communication: A Sociolinguistic Approach to Analyzing Relational Messages (CLDGS02).....	17
<i>D.A. Morand and R.J. Ocker</i>	
Adoption of Collaboration Information Technologies in Australian and US Organizations: A Comparative Study (CLDGS03).....	17
<i>D.S. Bajwa, L.F. Lewis, and G. Pervan</i>	
Global Virtual Collaboration (CLGVC)	
Minitrack Introduction	18
Studying Teamwork in Global IT Support (CLGVC01)	19
<i>E.J. Davidson and A.S.M. Tay</i>	
Analysis of the Effectiveness of Global Virtual Teams in Software Engineering Projects (CLGVC02)	19
<i>H.K. Edwards and V. Sridhar</i>	
An Insight into the Interplay between Culture, Conflict and Distance in Globally Distributed Requirements Negotiations (CLGVC03).....	19
<i>D.E. Damian and D. Zowghi</i>	
Group Support Systems Patterns: ThinkLets and Methodologies (CLGTM)	
Minitrack Introduction	20
Creating a Scenariologic – Design and Application of a Repeatable Methodology (CLGTM01).....	21
<i>B. Enserink</i>	
A Group Support System for Military Mission Analysis (CLGTM02).....	21
<i>R.J. Harder and H. Higley</i>	
Addressing Productivity Concerns in Risk Management through Repeatable Distributed Collaboration Processes (CLGTM03)	22
<i>J. van Grinsven and G.-J. de Vreede</i>	

A Framework for Argumentation of Decision Task Generation and Identification (CLGTM04).....	22
<i>S. Jingle, Z. Pengzhu, and C. Shaochuan</i>	
Token Dispensers for GSS Race Conditions: Locking Things That Don't Exist (CLGTM05).....	22
<i>R.O. Briggs and T.P. Gregory</i>	
Repeatable Quality Assurance Techniques for Requirements Negotiations (CLGTM06)	23
<i>P. Grünbacher, M. Halling, S. Biffl, H. Kitapci, and B.W. Boehm</i>	
Measuring the Effectiveness of Collaboration Technology (CLMEC)	
Minitrack Introduction	24
Modeling the User Acceptance of E-Mail (CLMEC01).....	25
<i>G.S. Hubona and A. Burton-Jones</i>	
Groupware Effectiveness in Large Latin American Corporations (CLMEC02)	25
<i>M. Alanis and J. Diaz-Padilla</i>	
A Theory and Measurement of Meeting Satisfaction (CLMEC03).....	25
<i>R.O. Briggs, G.-J. de Vreede, and B.A. Reinig</i>	
Negotiation Support Systems (CLNSS)	
Minitrack Introduction	26
The Science and Engineering of E-Negotiation: An Introduction (CLNSS01)	27
<i>G.E. Kersten</i>	
Individual and Team Contexts in a Design Process (CLNSS02).....	27
<i>P. Brézillon</i>	
Strategic Bidding for Multiple Units in Simultaneous and Sequential Auctions (CLNSS03).....	28
<i>S. Airiau, S. Sen, and G. Richard</i>	
M-Computing for Real-Time Negotiation Support (CLNSS04)	28
<i>T. Bui and J. Ondrus</i>	
A Primitive Study of Logrolling in e-Negotiation (CLNSS05).....	29
<i>P.C.K. Hung</i>	
On the e-Negotiation of Unmatched Logrolling Views (CLNSS06).....	29
<i>S.C. Cheung, P.C.K. Hung, and D.K.W. Chiu</i>	
Next Generation of Learning Platforms (CLNGL)	
Minitrack Introduction	30
Supporting JIGSAW-type Collaborative Learning (CLNGL01).....	31
<i>T. Gallardo, L.A. Guerrero, C. Collazos, J.A. Pino, and S. Ochoa</i>	
Supporting Collaborative Exercises for Distance Education (CLNGL02)	31
<i>J.M. Haake, T. Schümmer, and A. Haake</i>	

Decision Support Models for Composing and Navigating through e-Learning Objects (CLNGL03).....	31
<i>G.F. Knolmayer</i>	
Supporting Collaborative Learning by Matching Human Actors (CLNGL04)	32
<i>A. Becks, T. Reichling, and V. Wulf</i>	
Automated Coaching of Collaboration Based on Workspace Analysis: Evaluation and Implications for Future Learning Environments (CLNGL05).....	32
<i>M. de los Angeles Constantino-González and D.D. Suthers</i>	
Evolution of a Knowledge Focused Computer Supported Learning System by Ensuring Extensibility through Generalization and Replication (CLNGL06).....	32
<i>D. White, L.A. Gardner, and D. Sheridan</i>	
Integration of Communication, Coordination and Learning Material – A Guide for the Functionality of Collaborative Learning Environments (CLNGL07)	33
<i>A. Kienle and T. Herrmann</i>	
Technology Supported Learning (CLTSL)	
Minitrack Introduction	34
Science Investigation System for Telescopes in Education Research (CLTSL01).....	35
<i>S. Hoban, J. Keating, J. Sachs, D. Laughlin, and Y. Yesha</i>	
An Exploratory Comparison of the Roles of Representations in Face to Face and Online Collaborative Learning (CLTSL02).....	35
<i>D.D. Suthers, C.D. Hundhausen, and L.E. Girardeau</i>	
A Field Study of Use of Synchronous Chat in Online Courses (CLTSL03)	36
<i>D.H. Spencer and S.R. Hiltz</i>	
User Experience: Collaboration and Knowledge Management (CLUSR)	
Minitrack Introduction	37
Building a Knowledge Sharing Company— Evidence from the Finnish Insurance Industry (CLUSR01).....	38
<i>G. Widén-Wulff and R. Suomi</i>	
An Epistemological Taxonomy for Knowledge Management System Analysis (CLUSR02).....	38
<i>B. Jayatilaka and J. Lee</i>	
The Reality of Team-Based Knowledge Sharing and Creation in Professional Cyber Community (CLUSR03).....	39
<i>S.-C. Lin, F.-R. Lin, T.-P. Huang, and M.-C. Yeh</i>	
Modeling and Analyzing Communications Infrastructure A Case Study of an International Organization (CLUSR04).....	39
<i>M.M. Mann and E. Hansen Bryant</i>	
The Collaborative Conflict Management Style and Cultural Diversity in DGSS Supported Fuzzy Tasks: An Experimental Investigation (CLUSR05)	40
<i>I. Samarah, S. Paul, P. Mykytyn, Jr., and P. Seetharaman</i>	

Collaborative Software Development: Experimental Results (CLUSR06)	40
<i>J. DeFranco-Tommarello, F.P. Deek, S.R. Hiltz, J.P. Keenan, and C. Perez</i>	
Using Familiar Single-User Editors for Collaborative Editing (CLUSR07)	40
<i>D. Li, R. Li, Y. Yu, and Y. Yang</i>	
Cognitive Fit and an Intelligent Agent for a Word Processor: Should Users Take All That Advice? (CLUSR08).....	41
<i>D.F. Galletta, A. Durcikova, A. Everard, and B. Jones</i>	
A Study of the Impacts of Verbal Interaction in Proximate GSS Sessions (CLUSR09)	41
<i>T. Mukahi and G. Corbitt</i>	
An Investigation of the Influence of National Culture and Group Support Systems on Group Processes and Outcomes (CLUSR10)	42
<i>B.A. Reinig and R.J. Mejias</i>	
Information Technology Augmentation of the Skilled Facilitator Approach (CLUSR11).....	42
<i>M. Adkins, R. Younger, and J. Schwarz</i>	
A Comparison of Distributed Groupware Implementation Environments (CLUSR12).....	42
<i>C.C. Albrecht</i>	
Tailoring an Electronic Meeting System to Military Planning and Operations, A Case Study (CLUSR13).....	43
<i>H.C. Higley and R.J. Harder</i>	
On a Text-Processing Approach to Facilitating Autonomous Deception Detection (CLUSR14)	43
<i>T. Madhusudan</i>	
Trust and Deception in Mediated Communication (CLUSR15).....	44
<i>J.K. Burgoon, G.M. Stoner, J.A. Bonito, and N.E. Dunbar</i>	
An Exploratory Study into Deception Detection in Text-Based Computer-Mediated Communication (CLUSR16)	44
<i>L. Zhou, D.P. Twitchell, T. Qin, J.K. Burgoon, and J.F. Nunamaker, Jr.</i>	
Wireless Mobile Collaboration (CLWMC)	
Minitrack Introduction	45
The DISCIPLINE System for Collaboration over the Heterogeneous Web (CLWMC01)	46
<i>A.M. Krebs, M. Ionescu, B. Dorohonceanu, and I. Marsic</i>	
Understanding Hybrid Wireless Device Use and Adoption: An Integrative Framework Based on an Exploratory Study (CLWMC02)	46
<i>S. Sarker, A. Urbaczewski, and J.D. Wells</i>	
Wireless Brainstorming: Overcoming Status Effects in Small Group Decisions (CLWMC03).....	46
<i>J. Davis, M. Zaner, S. Farnham, C. Marcjan, and B.P. McCarthy</i>	

Complex Systems Track

Track Introduction	47
Information Management and Visualization (CSIMV)	
Minitrack Introduction	48
Visualization for Shipboard Power Systems (CSIMV01)	49
<i>K.L. Butler-Purpy and N.D.R. Sarma</i>	
Animation and Visualization of Spot Prices via Quadratized Power Flow Analysis (CSIMV02)	49
<i>A.P.S. Meliopoulos, S.W. Dang, G.J. Cokkinides, and R. Dougal</i>	
Displaying Aggregate Data, Interrelated Quantities, and Data Trends in Electric Power Systems (CSIMV03)	50
<i>R. Klump, W. Wu, and G. Dooley</i>	
Data Integration and Information Exchange for Enhanced Control and Protection of Power Systems (CSIMV04)	50
<i>M. Kezunovic</i>	
Markets and Regulation (CSMAR)	
Minitrack Introduction	51
Supply Function Equilibrium: Theory and Applications (CSMAR02)	52
<i>A. Rudkevich</i>	
Estimating the Actual Cost of Transmission System Congestion (CSMAR03)	52
<i>T.J. Overbye</i>	
Markets for Reliability and Financial Options in Electricity: Theory to Support the Practice (CSMAR04)	53
<i>T. Mount, W. Schulze, and R.E. Schuler</i>	
Is System Control Entirely by Price Feasible? (CSMAR05)	53
<i>F.L. Alvarado</i>	
Designs for Ramp-Constrained Day-Ahead Auctions (CSMAR06)	53
<i>S.S. Oren and A.M. Ross</i>	
Locational Pricing and Scheduling for an Integrated Energy-Reserve Market (CSMAR07)	54
<i>J. Chen, J.S. Thorp, R.J. Thomas, and T.D. Mount</i>	
Electric Market Design: The Good, the Bad, and the Ugly (CSMAR08)	54
<i>P. Cramton</i>	
Comparing the Behavior of Agents to Human Subjects in a Uniform Price Auction (CSMAR10)	54
<i>H.-S. Oh, R.J. Thomas, B. Lesieutre, and T.D. Mount</i>	
Ex Ante and Ex Post Designs for Electric Market Mitigation: Past and Present Experience and Lessons from California (CSMAR11)	55
<i>R.D. Tabors and J.B. Cardell</i>	

Robust and Resilient Critical Infrastructure Systems (CSRRC)

Minitrack Introduction	56
Effective Intrusion Detection Using Multiple Sensors in Wireless Ad Hoc Networks (CSRRC02)	57
<i>O. Kachirski and R. Guha</i>	
Identifying Transformer Incipient Events for Maintaining Distribution System Reliability (CSRRC03)	57
<i>K.L. Butler-Purry and M. Bagriyanik</i>	
Decision Making for Robust Resilient Systems (CSRRC04)	57
<i>R. Aló, A. de Korvin, and F. Modave</i>	
Toward More Robust Infrastructure: Observations on Improving the Resilience and Reliability of Critical Systems (CSRRC05)	58
<i>R.G. Little</i>	
Modeling of Information Dominance in Complex Systems: A System Partitioning and Hybrid Control Framework (CSRRC06)	58
<i>J.R. James</i>	
A Model for the Emergence and Diffusion of Software Standards (CSRRC07)	59
<i>T. Stocheim, M. Schwind, and W. König</i>	

Security and Reliability (CSSAR)

Minitrack Introduction	60
Bluenet II – A Detailed Realization of the Algorithm and Performance Analysis (CSSAR01)	61
<i>Z. Wang, Z.J. Haas, and R.J. Thomas</i>	
A MultiPhase Power Flow Model for μ Grid Analysis (CSSAR02)	61
<i>A.P.S. Meliopoulos, G.J. Cokkinides, and R. Lasseter</i>	
Experimental Studies and Modeling of an Information Embedded Power System (CSSAR03)	62
<i>S.P. Carullo and C.O. Nwankpa</i>	
The Effect of External Safeguards on Human–Information System Trust in an Information Warfare Environment (CSSAR04)	62
<i>D.P. Biro, G. Fields, and G. Gunsch</i>	
Wide-Area Trans-regional Northeast Reliability Assessment (CSSAR05)	63
<i>P.A. Fedora and K. Patten</i>	
On Optimization of Reliability of Distributed Generation-Enhanced Feeders (CSSAR06)	63
<i>A. Pregelj, M. Begovic, A. Rohatgi, and D. Novosel</i>	
Sensor Fusion and Complex Data Analysis for Predictive Maintenance (CSSAR07)	63
<i>R. Shoureshi, T. Norick, D. Linder, J. Work, and P. Kaptain</i>	

Self-Organized Criticality (CSSOC)

Minitrack Introduction 64

A Probabilistic Loading-Dependent Model of Cascading Failure and Possible
Implications for Blackouts (CSSOC01) 65
I. Dobson, B.A. Carreras, and D.E. Newman

Blackout Mitigation Assessment in Power Transmission Systems (CSSOC03) 65
B.A. Carreras, V.E. Lynch, D.E. Newman, and I. Dobson

Decision Technologies for Management Track

Track Introduction	66
Data Mining and Information Retrieval (DTDMI)	
Minitrack Introduction	67
An Alternative View of Knowledge Discovery (DTDMI01)	68
<i>C. Beierle and G. Kern-Isberner</i>	
Improving the Efficiency of Interactive Sequential Pattern Mining by Incremental Pattern Discovery (DTDMI02)	68
<i>M.-Y. Lin and S.-Y. Lee</i>	
Knowledge Map Creation and Maintenance for Virtual Communities of Practice (DTDMI03)	69
<i>F.-R. Lin and C.-M. Hsueh</i>	
DELI: An Interactive New Product Development and Targeting Tool (DTDMI04)	69
<i>M. Natter and A. Mild</i>	
MiTAP: A Case Study of Integrated Knowledge Discovery Tools (DTDMI05)	69
<i>L. Damianos, S. Wohlever, R. Kozierok, and J. Ponte</i>	
Prototype-Matching System for Allocating Conference Papers (DTDMI06)	70
<i>K. Antonina, B. Barbro, V. Hannu, T. Jarmo, and V. Ari</i>	
Enterprise Systems: Architecture, Implementation and Infrastructure Management (DTEAI)	
Minitrack Introduction	71
Modeling Growth of Cellular Services in India: A Systems Dynamics Approach (DTEAI02)	72
<i>A. Dutta and V. Sridhar</i>	
A UML-Driven Enterprise Architecture Case Study (DTEAI03)	72
<i>F. Armour, S. Kaisler, J. Getter, and D. Pippin</i>	
A Hop Constrained Min-Sum Aborecence with Outage Costs (DTEAI04)	72
<i>R. Kawatra</i>	
E-Services (DTESS)	
Minitrack Introduction	73
A Three-Layer Architecture for E-Contract Enforcement in an E-Service Environment (DTESS01)	74
<i>D.K.W. Chiu, S.C. Cheung, and S. Till</i>	
Modular Service Architectures: A Concept and Method for Engineering IT Services (DTESS02)	74
<i>T. Böhmman, M. Junginger, and H. Krcmar</i>	

Ontology-Based Support for Variability Management in Product and Service Families (DTESS03).....	75
<i>K. Mohan and B. Ramesh</i>	
E-Services in the Internet Job Market (DTESS04).....	75
<i>G.A. Dafoulas, A.N. Nikolaou, and M. Turega</i>	
Matching Needs – Application Service Providing for Asynchronous Learning Networks (DTESS05).....	76
<i>W.-G. Bleek, I. Jackewitz, and B. Pape</i>	
Intelligent Decision Support for e-Logistics and Supply Chain Management (DTEESC)	
Minitrack Introduction	77
Adjusting Safety Stock Requirements with an AHP-Based Risk Analysis (DTEESC01).....	78
<i>J. Korpela, A. Lehmusvaara, K. Kyläheiko, and M. Tuominen</i>	
Web Community of Agents for the Integrated Logistics of Industrial Districts (DTEESC02).....	78
<i>M. Dell’Orco and R. Giordano</i>	
Runway Operations Planning: A Two-Stage Solution Methodology (DTEESC03).....	79
<i>I. Anagnostakis and J.-P. Clarke</i>	
Interactive Multi-attribute Electronic Negotiations in the Supply Chain: Design Issues and an Application Prototype (DTEESC04).....	79
<i>M. Rebstock and P. Thun</i>	
A Single Buyer-Single Supplier Bargaining Problem with Asymmetric Information – Theoretical Approach and Software Implementation (DTEESC05).....	80
<i>E. Sucky</i>	
Application Service Providing as Part of Intelligent Decision Support for Supply Chain Management (DTEESC06).....	80
<i>T. Falkowski and S. Voß</i>	
Scheduling the Supply Chain by Teams of Agents (DTEESC07)	81
<i>J. Sauer and H.-J. Appelrath</i>	
Management of Material Flows in Closed-Loop Supply Chains Decision Support System for Electronic Scrap Recycling Companies (DTEESC08).....	81
<i>T. Spengler</i>	
Intelligent Systems and Soft Computing (DTISS)	
Minitrack Introduction	82
Context-Based Intelligent Assistant Systems: A Discussion Based on the Analysis of Two Projects (DTISS01).....	83
<i>P. Brézillon</i>	
Multi-Agent Systems and Microeconomic Theory: A Negotiation Approach to Solve Scheduling Problems in High Dynamic Environments (DTISS02).....	83
<i>H. Czap and M. Becker</i>	

Issues in Rational Planning in Multi-Agent Settings (DTISS03)	84
<i>P.J. Gmytrasiewicz</i>	
Financial Model-Base Construction for Flexible Model Manipulation of Models and Solvers (DTISS04).....	84
<i>K.-W. Lee and S.-Y. Huh</i>	
A Two-Level Approach to Making Class Predictions (DTISS05)	84
<i>A. Costea and T. Eklund</i>	
Strategic Investment Planning by Using Dynamic Decision Trees (DTISS06).....	85
<i>P. Majlender</i>	
A Framework for Case-Based Fuzzy Multicriteria Decision Support for Tropical Cyclone Forecasting (DTISS07).....	85
<i>J. San Pedro and F. Burstein</i>	
From Computer Networks to Agent Networks (DTISS08)	85
<i>G. Zhong, K. Takahashi, S. Amamiya, D. Matsuno, T. Mine, and M. Amamiya</i>	
Two-Dimensional Packing for Irregular Shaped Objects (DTISS09)	86
<i>P. Chen, Z. Fu, A. Lim, and B. Rodrigues</i>	
Mobile Commerce (DTMCC)	
Minitrack Introduction	87
The German Mobile Standards Battle (DTMCC01).....	88
<i>R. Beck, D. Beimborn, and T. Weitzel</i>	
Understanding the Foundation of Mobile Content Quality A Presentation of a New Research Field (DTMCC02).....	88
<i>P. Landor</i>	
Transaction Management for M-Commerce at a Mobile Terminal (DTMCC03)	89
<i>J. Veijalainen, V. Terziyan, and H. Tirri</i>	
A Marketing Model for Mobile Wireless Services (DTMCC04)	89
<i>A.L. Gilbert and J.D. Kendall</i>	
Modifying Adoption Research for Mobile Internet Service Adoption: Cross-Disciplinary Interactions (DTMCC05).....	90
<i>P.E. Pedersen and R. Ling</i>	
Foundations of SMS Commerce Success: Lessons from SMS Messaging and Co-opetition (DTMCC06)	90
<i>H. Xu, H.H. Teo, and H. Wang</i>	
Modeling Nonlinear Natural and Human Systems (DTMNN)	
Minitrack Introduction	91
Modeling Instrumental Conditioning – The Behavioral Regulation Approach (DTMNN01).....	92
<i>J.J. Gonzalez and A. Sawicka</i>	

Testing Design of a Social Innovation – The Environmental Mitigation Banking System (DTMNN02)	92
<i>K. Saeed and A. Fukuda</i>	
A Dynamic Theory of Collaboration: A Structural Approach to Facilitating Intergovernmental Use of Information Technology (DTMNN03)	92
<i>L.J. Black, A.M. Cresswell, T.A. Pardo, F. Thompson, D.S. Canestraro, M. Cook, L.F. Luna, I.J. Martinez, D.F. Andersen, and G.P. Richardson</i>	
Investigating the Causes of Seed Returns in the Agribusiness Industry (DTMNN04).....	93
<i>P. Gonçalves and J. Rice</i>	
Assessment of Water Resources through System Dynamics Simulation: From Global Issues to Regional Solutions (DTMNN05)	93
<i>S.P. Simonovic</i>	
The BASP Agent-Based Modeling Framework: Applications, Scenarios and Lessons Learned (DTMNN06).....	93
<i>D.S. Dixon and W.N. Reynolds</i>	
Emergent Structures in Supply Chains – A Study Integrating Agent-Based and System Dynamics Modeling (DTMNN07).....	94
<i>N. Schieritz and A. Größler</i>	
On the Limits of Bottom-Up Computer Simulation: Towards a Nonlinear Modeling Culture (DTMNN08).....	94
<i>K.A. Richardson</i>	
Modeling Knowledge-Intensive Processes (DTMKI)	
Minitrack Introduction	95
Requirements Elicitation and Elicitation Technique Selection: A Model for Two Knowledge-Intensive Software Development Processes (DTMKI01)	96
<i>A.M. Hickey and A.M. Davis</i>	
An Activity-Based Model of Collective Knowledge (DTMKI02)	96
<i>H. Hasan</i>	
A Tool for the Capture and Use of Process Knowledge in Process Tailoring (DTMKI03)	96
<i>P. Xu and B. Ramesh</i>	
A Cognitive Framework for Reengineering Knowledge-Intensive Processes (DTMKI04)	97
<i>H. van Leijen and W.R.J. Baets</i>	
Structuring Business Models in a Web Representation (DTMKI05)	97
<i>H. Kaindl</i>	

Digital Documents and Media Track

Track Introduction	98
Creating the Experience of Media – From Media Design to Media (DDCEM)	
Minitrack Introduction	99
The Influence of the Meaning of Pictures and Words on Web Page Recognition Performance (DDCEM01).....	100
<i>E. Mu and D.F. Galletta</i>	
Needs and Gratifications for Interactive TV Applications: Implications for Designers (DDCEM03).....	100
<i>J. Livaditi, K. Vassilopoulou, C. Lougos, and K. Chorianopoulos</i>	
Synthesizing Evocative Imagery through Design Patterns (DDCEM04)	101
<i>D.M. Russell and A. Dieberger</i>	
The Gender Factor in Virtual Reality Navigation and Wayfinding (DDCEM05).....	101
<i>J. Vila, B. Beccue, and S. Anandikar</i>	
Digital Libraries (DDDLS)	
Minitrack Introduction	102
The Online News Genre through the User Perspective (DDDLS01).....	103
<i>C. Ihlström and J. Lundberg</i>	
A Hybrid Approach for User Profiling (DDDLS02)	103
<i>D. Poo, B. Chng, and J.-M. Goh</i>	
Support Vector Machines for Text Categorization (DDDLS03)	103
<i>A. Basu, C. Watters, and M. Shepherd</i>	
Enterprise Content Management (DDECM)	
Minitrack Introduction	104
PDA Access to Internet Content: Focus on Forms (DDECM01)	105
<i>C. Watters and R. Zhang</i>	
A Watermarking Infrastructure for Enterprise Document Management (DDECM02)	105
<i>S.C. Cheung and D.K.W. Chiu</i>	
Developing Video Services for Mobile Users (DDECM03)	106
<i>M. Ahmed, R. Impey, and A. Karmouch</i>	
Information Retrieval and Applications (DDIRA)	
Minitrack Introduction	107
Subword-Based Text Retrieval (DDIRA01).....	108
<i>U. Hahn, M. Honeck, and S. Schulz</i>	

The Effect of Bilingual Term List Size on Dictionary-Based Cross-Language Information Retrieval (DDIRA02)	108
<i>D. Demner-Fushman and D.W. Oard</i>	
A General Method for Statistical Performance Evaluation (DDIRA03)	108
<i>L. Li, Y. Shang, W. Zhang, and H. Shi</i>	
Knowledge Management, Organizational Memory, and Organizational Learning (DDOML)	
Minitrack Introduction	109
A Meta-analysis of Methodologies for Research in Knowledge Management, Organizational Learning and Organizational Memory: Five Years at HICSS (DDOML01)	110
<i>D.T. Croasdell, M. Jennex, Z. Yu, T. Christianson, M. Chakradeo, and W. Makhdum</i>	
Exploring the Impacts of Knowledge (Re)Use and Organizational Memory on the Effectiveness of Strategic Decisions: A Longitudinal Case Study (DDOML02)	110
<i>A. Hatami, R.D. Galliers, and J. Huang</i>	
Developing a Value-Based Decision-Making Model for Inquiring Organizations (DDOML03)	111
<i>D. Hall, Y. Guo, and R.A. Davis</i>	
A Performance Environment Perspective of Knowledge Management (DDOML04)	111
<i>A.P. Massey and M. Montoya-Weiss</i>	
Supporting the Knowledge Life Cycle with a Knowledge Network Management System (DDOML05).....	112
<i>S. Uelpenich and F. Bodendorf</i>	
The Power of a Question: A Case Study of Two Organizational Knowledge Capture Systems (DDOML06)	112
<i>L.P. Cooper</i>	
Divergent Approaches and Converging Views: Drawing Sensible Linkages between Knowledge Management and Organizational Learning (DDOML07)	113
<i>J. Zhang and S.R. Faerman</i>	
“Yeah, the Rush Ain’t Here Yet – Take a Break”: Creation and Use of an Artifact as Organizational Memory (DDOML08)	113
<i>C.A. Halverson and M.S. Ackerman</i>	
Organizational Learning and Innovation in High-Tech Small Firms (DDOML09)	114
<i>F. Thérin</i>	
Playing the Dilemma: Dilemmas as an Instrument in System Development and Use (DDOML10).....	114
<i>K. Bjørkeng and R.K. Rolfsen</i>	
Role of Commitment and Motivation in Knowledge Management Systems Implementation: Theory, Conceptualization, and Measurement of Antecedents of Success (DDOML11)	115
<i>Y. Malhotra and D.F. Galletta</i>	
The Generative Dance in Pursuit of Generative Knowledge (DDOML12).....	115
<i>C. Haythornthwaite, K.J. Lunsford, M.M. Kazmer, J. Robins, and M. Nazarova</i>	

Discovering Group Interaction Patterns in a Teachers Professional Community (DDOML13).....	116
<i>F.-R. Lin, C.-H. Chen, and K.-L. Tsai</i>	
Knowledge Management Technology for Revealing Cognitive Diversity within a Management Team (DDOML14).....	116
<i>D.P. Tegarden, L.F. Tegarden, and S.D. Sheetz</i>	
The Need for an Organizational Knowledge Management Strategy (DDOML15).....	117
<i>M.E. Jennex, L. Olfman, and T.B.A. Addo</i>	
A Framework for Strategic Balancing of Knowledge Management Initiatives (DDOML16).....	117
<i>J. Aidemark and H. Sterner</i>	
A Case Study of Integrating Knowledge Management into the Supply Chain Management Process (DDOML17).....	118
<i>N.C. Shaw, M.J. Meixell, and F.D. Tuggle</i>	
What Leads Us to Share Valuable Knowledge? An Experimental Study of the Effects of Managerial Control, Group Identification, and Social Value Orientation on Knowledge-Sharing Behavior (DDOML18).....	118
<i>D.F. Galletta, P.V. Marks, S. McCoy, and P. Polak</i>	
Knowledge Transfer in Virtual Information Systems Development Teams: An Empirical Examination of Key Enablers (DDOML19).....	119
<i>S. Sarker, S. Sarker, D. Nicholson, and K. Joshi</i>	
Making Sense of the Organisation’s Knowledge: Does Systematisation of the Knowledge Base Have a Positive or Negative Effect on Organizational Culture? (DDOML20).....	119
<i>I. Perry</i>	
An Investigation of Organizational Culture Factors That May Influence Knowledge Transfer (DDOML21).....	120
<i>D.A. Ladd and A.R. Heminger</i>	
Frameworks for Sharing Knowledge: Toward a Professional Language for Teaching Practices (DDOML22).....	120
<i>J.M. Carroll, M.B. Rosson, D. Dunlap, and P. Isenhour</i>	
Advanced Technology and Knowledge Transfer (DDOML23).....	120
<i>G. Tandon and S.T. Sonka</i>	
XML and the Semantic Web: Implications and Applications (DDXML)	
Minitrack Introduction	121
Balanced Scorecard Driven Business Process Definition Using XML (DDXML01).....	122
<i>C. McGregor</i>	
XML Security Using XSLT (DDXML02).....	122
<i>R.G. Bartlett and M.W. Cook</i>	
XML Based Robust Client-Server Communication for a Distributed Telecommunication Management System (DDXML03).....	122
<i>K.M. Goeschka, H. Reis, and R. Smeikal</i>	

Emerging Technologies Track

Track Introduction	123
Augmented Cognition and Human-Robot Interaction (ETACH)	
Minitrack Introduction	124
Theory and Evaluation of Human Robot Interactions (ETACH01)	125
<i>J. Scholtz</i>	
World Embedded Interfaces for Human-Robot Interaction (ETACH02).....	125
<i>M. Daily, Y. Cho, K. Martin, and D. Payton</i>	
Human-Robot Interaction for Intelligent Assisted Viewing during Teleoperation (ETACH03).....	125
<i>G.T. McKee, B.G. Brooks, and P.S. Schenker</i>	
Linking Perception and Action in a Control Architecture for Human-Robot Domains (ETACH04).....	126
<i>M.N. Nicolescu and M.J. Mataric</i>	
An Agent-Based Architecture for an Adaptive Human-Robot Interface (ETACH05).....	126
<i>K. Kawamura, P. Nilas, K. Muguruma, J.A. Adams, and C. Zhou</i>	
Mixed-Initiative Control for Remote Characterization of Hazardous Environments (ETACH06).....	127
<i>D.J. Bruemmer, J.L. Marble, D.D. Dudenhoeffler, M.O. Anderson, and M.D. McKay</i>	
Wireless Sensor Placement for Reliable and Efficient Data Collection (ETACH07)	127
<i>E.S. Biagioni and G. Sasaki</i>	
Using Context for Supporting Users Efficiently (ETACH08).....	127
<i>P. Brézillon</i>	
Augmented Cognition: Allocation of Attention (ETACH09).....	128
<i>M. Pavel, G. Wang, and K. Li</i>	
An Integrated Multimedia Environment for Speech Recognition Using Handwriting and Written Gestures (ETACH10)	128
<i>W.-C. Feng</i>	
Speech “Re-Cognition”? Investigating Speech as a Cognition-Augmenting Modality (ETACH11).....	128
<i>D. Loehr, L. Damianos, C. Burke, S. Hansen, and M. Vizmeg</i>	
Methodological Issues of Real Time Data Acquisition from Multiple Sources of Physiological Data (ETACH12).....	129
<i>R.M. Vick and C.S. Ikehara</i>	
NIR Spectroscopy Measurements of Cognitive Load Elicited by GKT and Target Categorization (ETACH13)	129
<i>K. Izzetoglu, G. Yurtsever, A. Bozkurt, B. Yazici, S. Bunce, K. Pourrezaei, and B. Onaral</i>	
User Identification Based on the Analysis of the Forces Applied by a User to a Computer Mouse (ETACH14)	130
<i>C.S. Ikehara and M.E. Crosby</i>	

Integrating Psychophysiological Measures of Cognitive Workload and Eye Movements to Detect Strategy Shifts (ETACH15)	130
<i>S.P. Marshall, C.W. Pleydell-Pearce, and B.T. Dickson</i>	
Multivariate Analysis of EEG: Predicting Cognition on the Basis of Frequency Decomposition, Inter-electrode Correlation, Coherence, Cross Phase and Cross Power (ETACH16).....	131
<i>C.W. Pleydell-Pearce, S.E. Whitecross, and B.T. Dickson</i>	
Measuring Cognitive Load with EventStream Software Framework (ETACH17)	131
<i>C. Aschwanden and J. Stelovsky</i>	
Research on Task Complexity as a Function for Augmented Cognition (ETACH18).....	132
<i>M.E. Crosby, M.K. Iding, and D.N. Chin</i>	
IT-Enabled Management of Government (e-Gov-Management) (ETEGM)	
Minitrack Introduction	133
Can IT Help Government to Restore Public Trust?: Declining Public Trust and Potential Prospects of IT in the Public Sector (ETEGM01)	134
<i>M.J. Moon</i>	
“SMART” Government in a Less-Advantaged Community: Meeting the Challenges in Imperial County (ETEGM02).....	134
<i>B.E. Coates</i>	
Electronic Government at the Grass Roots: Contemporary Evidence and Future Trends (ETEGM03).....	134
<i>S.H. Holden, D.F. Norris, and P.D. Fletcher</i>	
Assessing the Quality of a Cross-National e-Government Web Site: A Case Study of the Forum on Strategic Management Knowledge Exchange (ETEGM04)	135
<i>S.J. Barnes and R.T. Vidgen</i>	
The Importance of Articulation Work to Agency Content Management: Balancing Publication and Control (ETEGM05).....	135
<i>K.R. Eschenfelder</i>	
Towards an Ontology for e-Document Management in Public Administration – The Case of Schleswig-Holstein (ETEGM06)	136
<i>R. Klischewki</i>	
E-Government: A Special Case of ICT-Enabled Business Process Change (ETEGM07)	136
<i>H.J. Scholl</i>	
Managerial Capacity and Digital Government in the States: Examining the Link between Self-Efficacy and Perceived Impacts of IT in Public Organizations (ETEGM08).....	137
<i>C.C. Hinnant and E.W. Welch</i>	
Policy for IT-Enabled Public Administration (e-Policy) (ETEPO)	
Minitrack Introduction	138
Public Attitudes towards a National Identity “Smart Card:” Privacy and Security Concerns (ETEPO01).....	139
<i>S.R. Hiltz, H.-J. Han, and V. Briller</i>	

Electronic Government: Perspectives and Pitfalls of Online Administrative Procedure (ETEPO02).....	139
<i>G. Jakob</i>	
The Research on the Policy Information System: A Case Study of National Health Insurance Policy in Taiwan (ETEPO03)	139
<i>Y.-Y. Kuo</i>	
Applying the Normative Aspect of Stakeholder Analysis to Electronic Commerce Diffusion: Stakeholder Consideration for the Elimination of the Digital Divide (ETEPO04).....	140
<i>A. Papazafeiropoulou and A. Pouloudi</i>	
Bridging the Digital Divide: The Story of the Free Internet Initiative in LaGrange, Georgia (ETEPO05)	140
<i>M. Keil, G.W. Meader, and L. Kvasny</i>	
Avoiding Information Overload – A Study on Individual’s Use of Communication Tools (ETEPO06)	140
<i>M. Raoufi</i>	
IT-Enabled Democracy (e-Democracy) (ETEDE)	
Minitrack Introduction	141
Electronic Voting: Algorithmic and Implementation Issues (ETEDE01)	142
<i>R. Kofler, R. Krimmer, and A. Prosser</i>	
Democracy Functions of Information Technology (ETEDE02).....	142
<i>G. Lidén and A. Avdic</i>	
Expanding Citizen Access and Public Official Accountability through Knowledge Creation Technology: One Recent Development in e-Democracy (ETEDE03).....	143
<i>M.A. Shires and M.S. Craig</i>	
The Web of Governance and Democratic Accountability (ETEDE04).....	143
<i>T.A. Northrup and S.J. Thorson</i>	
Internet Use, Transparency, and Interactivity Effects on Trust in Government (ETEDE05).....	144
<i>E.W. Welch and C.C. Hinnant</i>	
Using Mobile Technology to Support eDemocracy (ETEDE06)	144
<i>H. Brücher and P. Baumberger</i>	
IT-Enabled Government Services (e-Gov-Services) (ETEGS)	
Minitrack Introduction	145
Designing Government Information Access Programs: A Holistic Approach (ETEGS01)	146
<i>S.S. Dawes, T.A. Pardo, and A.M. Cresswell</i>	
The Future of E Government: A Project of Potential Trends and Issues (ETEGS02).....	146
<i>S. Cohen and W. Eimicke</i>	
Making e-Government Happen – Everyday Co-development of Services, Citizenship and Technology (ETEGS03)	147
<i>Y. Dittrich, A. Ekelin, P. Elovaara, S. Eriksén, and C. Hansson</i>	

New Software Development Paradigms and Possible Adoption for Security (ETEGS04)	147
<i>M. Günter, M. Gisler, and B. von Bredow</i>	
Usability of E-Government Web-Sites for People with Disabilities (ETEGS05).....	147
<i>C.J. Huang</i>	
Towards a Flexible ICT-Architecture for Multi-Channel E-Government Service Provisioning (ETEGS06).....	148
<i>M. Janssen, R. Wagenaar, and J. Beerens</i>	
Telecommunication and Network Convergence: Theory and Practice (ETTNC)	
Minitrack Introduction	149
The Architecture of a Mobile Internet (ETTNC01).....	150
<i>D. Schefström</i>	
Convergence Through Solution Interoperability: Case Study of Integrated Telecommunication Design and Incremental Deployment (ETTNC02)	150
<i>T.A. Horan and B. Schooley</i>	
Applying a Layered Policy Model to IP Based Voice Services (ETTNC03)	151
<i>D.C. Sicker</i>	
A First Person IP over HDSL Case Study (ETTNC04).....	152
<i>W. Smith</i>	
Simulation Analysis of QoS Enabled Internet Pricing Strategies: Flat Rate vs. Two-Part Tariff (ETTNC05)	152
<i>S-J. Shin and M.B.H. Weiss</i>	
Network Convergence and the NAT/Firewall Problems (ETTNC06).....	152
<i>V. Paulsamy and S. Chatterjee</i>	
Web-Based Education (Wbe) Diffussion across Disciplines and Global Boundaries (ETWBE)	
Minitrack Introduction	153
A Model for Evaluating Potential WBE Innovations (ETWBE01).....	154
<i>D. Jones, K. Jamieson, and D. Clark</i>	
Institutionalizing Web Based Education: A Case Study (ETWBE02)	154
<i>A.K. Aggarwal and R. Legon</i>	
Evaluating On-Line Learning Platforms: A Case Study (ETWBE03)	154
<i>F. Colace, M. De Santo, and M. Vento</i>	
Is Web-Based Seminar an Effective Way of Learning in Adult Education? (ETWBE04).....	155
<i>P. Makkonen</i>	
Effectiveness and Applicability of Internet-Based Training in the Corporation – Case of Egypt (ETWBE05)	155
<i>M. Ibrahim and S. Kamel</i>	

Developing Analytic, Cognitive and Linguistic Skills with an Electronic Negotiation System (ETWBE06)	156
<i>M.J. Kersten, M. Haley, and G.E. Kersten</i>	
Virtual Science Centers: A New Genre of Learning in Web-Based Promotion of Science Education (ETWBE07)	156
<i>L.T.W. Hin, R. Subramaniam, and A.K. Aggarwal</i>	
Online Assignment Management: An Evolutionary Tale (ETWBE08).....	156
<i>D. Jones and S. Behrens</i>	

Information Technology in Health Care Track

Track Introduction	157
Data & Knowledge Management in Health Care (HCDMG)	
Minitrack Introduction	158
Data Mining in Healthcare Information Systems: Case Study of a Veterans’ Administration Spinal Cord Injury Population (HCDMG01).....	159
<i>M.R. Kraft, K.C. Desouza, and I. Androwich</i>	
Storage Model for CDA Documents (HCDMG02)	159
<i>Z. Liang, P. Bodorik, and M. Shepherd</i>	
Measuring Healthcare Inequities Using the Gini Index (HCDMG03)	159
<i>D.J. Berndt, J.W. Fisher, R.V. Rajendrababu, and J. Studnicki</i>	
Does the Extended Technology Acceptance Model Apply to Physicians (HCDMG04).....	160
<i>W.G. Chismar and S. Wiley-Patton</i>	
Development of a Hand-held Real-time Decision Support Aid for Critical Care Nursing (HCDMG05).....	160
<i>P. Fortier, S. Jagannathan, H. Michel, N. Dluhy, and E. Oneill</i>	
An Interactive Software-Agent Smoking Cessation Program (HCDMG06).....	161
<i>T. Shimoda</i>	
A Self-Disclosure Model for Personal Health Information (HCDMG07).....	161
<i>L.E. Kam and W.G. Chismar</i>	
E-Health Strategies (HCEHS)	
Minitrack Introduction	162
The Role of Organizational Culture in the Management of Clinical e-Health Systems (HCEHS01)	163
<i>D. Bangert and R. Doktor</i>	
21 st Century Healthcare – The Wireless Panacea (HCEHS02).....	163
<i>S. Goldberg and N. Wickramasinghe</i>	
Lessons Learned from the Introduction of a Laboratory Information System in a State Hospital of Athens, Greece (HCEHS04)	163
<i>A. Vagelatos and J. Sarivougioukas</i>	
Information in Health Care Process – Evaluation Toolkit Development (HCEHS05).....	164
<i>H. Häkkinan, P. Turunen, and T. Spil</i>	
IT and Institutional Constraints: Effects of Legal and Administrative Constraints to Use IT in Production of Health Care Services – Focus on Finland (HCEHS06).....	164
<i>V. Harkke, D. Alessi, and M. Collan</i>	

Healthcare Chain Workflow Management by Use of IT (HCHCW)

Minitrack Introduction 165

Strategies for the Successful Implementation of Workflow Systems within Healthcare:
A Cross Case Comparison (HCHCW01)..... 166

M. Murray

Establishing a Contact Centre for Public Health Care (HCHCW02) 166

R. Suomi and J. Tähkäpää

Workflow by the Back Door? Using XML Systems in Health Service
Processes, and Changing the System (HCHCW03) 167

I. Perry

IT-Enabled Governance Structures in Health Care (HCIEG)

Minitrack Introduction 168

‘Pay-Per-Use’ Concept in Healthcare: A Grounded Theory Perspective (HCIEG01) 169

A.A. Akbar

Adopting New IT by Learning in Groups: Results of Discourse Analysis (HCIEG02) 169

T.V. Bondarouk and H.J.M. Ruël

Impact of Technology Sustainability on Healthcare Governance (HCIEG03)..... 170

T.L. Rodgers, E.E. Anderson, M. Yuan, and T. Manning

Telemedicine (HCTMD)

Minitrack Introduction 171

Telemedicine in Sub-Saharan Africa: A Proposed Delphi Study (HCTMD01) 172

V.W.A. Mbarika and C. Okoli

The Evolving Face of TeleMedicine & E-Health: Opening Doors and Closing
Gaps in E-Health Services Opportunities & Challenges (HCTMD02)..... 172

H.J. Wen and J. Tan

Trust, Trait Theory, and Collaboration in Telemedicine:
A Circumplex Perspective (HCTMD03)..... 173

H.G. Brown, M.S. Poole, T.L. Rodgers, and K. Van Walsum

Learning through Telemedicine Networks (HCTMD04) 174

L. Deng and M.S. Poole

Evaluating Telemedicine Systems Success: A Revised Model (HCTMD05) 174

P.J.-H. Hu

Efficacy and Sustainability of a Telerehabilitation Program (HCTMD06)..... 175

C. Scheideman-Miller, P.G. Clark, A. Moorad, M.L. Post, B.G. Hodge, and S. Smeltzer

Internet and the Digital Economy Track

Track Introduction	176
Business-to-Business Electronic Commerce (INBTB)	
Minitrack Introduction	177
Participation in Collaboration Electronic Marketplaces (INBTB01).....	178
<i>E. Christiaanse and M.L. Markus</i>	
An Empirical Investigation of the Impact of Electronic Collaboration Tools on the Performance of a Supply Chain (INBTB02).....	178
<i>É. Lefebvre, L. Cassivi, L.A. Lefebvre, and P.-M. Léger</i>	
An Individual View on Cooperation Networks (INBTB03).....	178
<i>T. Weitzel, D. Beimborn, and W. König</i>	
The Efficacy of Mobile e-Procurement: A Pilot Study (INBTB04).....	179
<i>J. Gebauer, M.J. Shaw, and K. Zhao</i>	
Are There First-Mover Advantages in B2B eCommerce Technologies? (INBTB05).....	179
<i>G.J. Hidding and J.R. Williams</i>	
SME E-Procurement Adoption in Hong Kong – The Roles of Power, Trust and Value (INBTB06)	179
<i>J.K.Y. Chan and M.K.O. Lee</i>	
Electronic Customer Relationship Management (INCRM)	
Minitrack Introduction	180
Assessing the Readiness of Firms for CRM: A Literature Review and Research Model (INCRM01)	181
<i>R.J. Ocker and S. Mudambi</i>	
Impact of Electronic Commerce Customer Relationship Management on Corporate Success – Results from an Empirical Investigation (INCRM02)	181
<i>N. Madeja and D. Schoder</i>	
An Event Driven Approach to Customer Relationship Management in e-Brokerage Industry (INCRM03).....	182
<i>D.K.W. Chiu, W.C.W. Chan, G.K.W. Lam, S.C. Cheung, and F.T. Luk</i>	
Whoops...Did I Use the Wrong Concept to Predict E-Commerce Trust? Modeling the Risk-Related Effects of Trust versus Distrust Concepts (INCRM04).....	182
<i>H. McKnight, C. Kacmar, and V. Choudhury</i>	
An Integration Implementation Framework for Electronic Customer Relationship Management: Revisiting the General Principles of Usability and Resistance (INCRM05)	183
<i>J. Fjermestad and N.C. Romano, Jr.</i>	
Message Sense Maker: Engineering a Tool Set for Customer Relationship Management (INCRM06).....	183
<i>D. Roussinov and J.L. Zhao</i>	

E-Commerce Systems Development Methodologies (INSDM)

Minitrack Introduction	184
The Birth of an E-Business Architecture: Conflicts, Compromises and Gaps in Methods (INSDM01).....	185
<i>K. Smolander</i>	
Does e-Business Modeling Really Help? (INSDM02).....	185
<i>J. Gordijn and H. Akkermans</i>	
Business Process Engineering versus E-Business Engineering: A Summary of Case Experiences (INSDM03).....	185
<i>W. Janssen, M.W.A. Steen, and H. Franken</i>	
Relationship Analysis: A Research Plan for Enhancing Systems Analysis for Web Development (INSDM04).....	186
<i>J. Catanio, A. Ghoda, A. Pal, J. Yoo, M. Bieber, I. Im, R. Paul, and F. Yetim</i>	
Software Business Models and Contexts for Software Innovation: Key Areas for Software Business Research (INSDM05).....	186
<i>T. Käkölä</i>	

Economics and Electronic Commerce (INEEC)

Minitrack Introduction	187
Perceived Strategic Value and Adoption of Electronic Commerce: An Empirical Study of Small and Medium Sized Businesses (INEEC01).....	188
<i>E.E. Grandon and J.M. Pearson</i>	
Roles of Formal/Informal Networks and Perceived Compatibility in the Diffusion of World Wide Web: The Case of Indonesian Banks (INEEC02).....	188
<i>D. Achjari and M. Quaddus</i>	
Designed for Success – Empirical Evidence on Features of Corporate Web Pages (INEEC03).....	188
<i>N. Madeja and D. Schoder</i>	
Market Entry Strategies of Application Service Providers: Identifying Strategic Differentiation (INEEC04).....	189
<i>B. Desai, V. Weerakkody, W. Currie, D.E.S. Tebboune, and N. Khan</i>	
Codifiability, Relationship-Specific IT Investment, and Optimal Contracting (INEEC05)	189
<i>M. Levi, P.R. Kleindorfer, and D.J. Wu</i>	

Electronic Marketing (INEMG)

Minitrack Introduction	190
Applying TAM to E-Services Adoption: The Moderating Role of Perceived Risk (INEMG01).....	191
<i>M. Featherman and M. Fuller</i>	
A Retail Investor’s Perspective on the Acceptance of Internet Stock Trading (INEMG02)	191
<i>J.E. Lee-Partridge and P.S. Ho</i>	

Studying Customer Evaluations of Electronic Commerce Applications: A Review and Adaptation of the Task-Technology Fit Perspective (INEMG03)	192
<i>J.D. Wells, S. Sarker, A. Urbaczewski, and S. Sarker</i>	
The Conceptualization of Trust, Risk and Their Relationship in Electronic Commerce: The Need for Clarifications (INEMG04).....	192
<i>D. Gefen, V.S. Rao, and N. Tractinsky</i>	
A Preliminary Assessment of Different Trust Formation Models: The Effect of Third Party Endorsements on Online Shopping (INEMG05).....	193
<i>S.P.W. Shek, C.-L. Sia, and K.H. Lim</i>	
Strategies for Successfully Deploying e-Markets: Lessons from the China Context (INEMG06).....	193
<i>M. Khalifa, P. Banerjee, and L. Ma</i>	
Financial Industry in the Digital Economy (INFIN)	
Minitrack Introduction	194
Formalization of Financial Problems and Solutions under Risk as an Essential Requirement for IT-Based Financial Planning (INFIN01).....	195
<i>D. Kundisch and J. Dzienziol</i>	
Deriving Product Specifications for Investment Advisory Services as a First Step Towards Pricing (INFIN02)	195
<i>D.D. Mommsen-Ghosh</i>	
Value Positions for Financial Institutions in Electronic Bill Presentment and Payment (EBPP) (INFIN03).....	196
<i>A.M. Fairchild</i>	
Individual Differences in Private Banking: Empirical Evidence from Finland (INFIN04).....	196
<i>H. Karjaluoto, T. Koivumäki, and J. Salo</i>	
System Architecture for Cross Border Payment: A Case Study for the Financial Services Industry (INFIN05)	197
<i>N. Ayad and A. Verbraeck</i>	
Beyond Mobile: Research Topics for Upcoming Technologies in the Insurance Industry (INFIN06)	197
<i>C.D. Müller and H.-D. Zimmermann</i>	
Intellectual Property Rights in the Digital Economy: Issues, Economics, Law and Ethics (INIPR)	
Minitrack Introduction	198
Economics of Technology Standards: Implications for Offline Movie Piracy in a Global Context (INIPR01).....	199
<i>R.K. Chellappa and S. Shivendu</i>	
Reaching for the Site: Meta Tag Litigation and Access to Internet-Based Information (INIPR02).....	199
<i>B. de Vuyt and K. Bodard</i>	

No More Shadow Boxing with Online Music Piracy: Strategic Business Models to Enhance Revenues (INIPR03).....	200
<i>S. Bhattacharjee, R.D. Gopal, K. Lertwachara, and J.R. Marsden</i>	
Internet and Workflow Automation: Technical and Managerial Issues (INIWA)	
Minitrack Introduction	201
Data-Driven Methodology to Extending Workflows to E-Services over the Internet (INIWA01)	202
<i>S.C. Cheung, D.K.W. Chiu, and S. Till</i>	
Multi-Criteria Task Assignment in Workflow Management Systems (INIWA02).....	202
<i>M. Shen, G.-H. Tzeng, and D.-R. Liu</i>	
Event-Based Workflow and the Management Interface (INIWA03)	202
<i>J.V. Nickerson</i>	
Internet Security Issues in E-Commerce (INISI)	
Minitrack Introduction	203
CANDI: A System for Classifying the Security Risks in Network Appliances (INISI01).....	204
<i>J.G. Tront and R.C. Marchany</i>	
The Development and Proliferation of Consensus Security Configuration Benchmarks for Systems Connected to the Internet (INISI02)	204
<i>C. Kreitner</i>	
Supporting Parameterised Roles with Object-Based Access Control (INISI03)	204
<i>M. Evered</i>	
An Efficient Protocol for Yao’s Millionaires’ Problem (INISI04).....	205
<i>I. Ioannidis and A. Grama</i>	
Balancing Safety against Performance: Tradeoffs in Internet Security (INISI05)	205
<i>V.A. Ha and D.J. Musliner</i>	
Revisiting the Firewall Abolition Act (INISI06).....	206
<i>P. Robinson and J. Haller</i>	
Adding Value to Online Privacy for Consumers: Remedying Deficiencies in Online Privacy Policies with an Holistic Approach (INISI07).....	206
<i>S. Lichtenstein, P.M.C. Swatman, and K. Babu</i>	
Managing Information on the Web (INMIW)	
Minitrack Introduction	207
Context-Driven Assessment of Commercial Web Sites (INMIW01).....	208
<i>A. Basu</i>	
Design and Evaluation of Improvement Method on the Web Information Navigation – A Stochastic Search Approach (INMIW02).....	208
<i>B.P.-C. Yen and Y.-W. Wan</i>	

Enhanced Knowledge Management with eXtensible Rule Markup Language (INMIW03)	209
<i>J.K. Lee and M.M. Sohn</i>	
Customer Choice between Electronic and Traditional Markets: An Economic Analysis (INMIW04)	209
<i>J.-S. Huang</i>	
Continuous Audit: The Motivations, Benefits, Problems, and Challenges Identified by Partners of a Big 4 Accounting Firm (INMIW05)	210
<i>D.-W. Searcy, J. Woodroof, and B. Behn</i>	
Measuring and Theorizing about Net-Enabled Organizations (INMTO)	
Minitrack Introduction	211
Identifying the Organizational Routines in NEBIC Theory's Choosing Capability (INMTO01)	212
<i>M.L. Williams</i>	
Applying the Task-Technology Fit Model to WWW-Based Procurement: Conceptualization and Measurement (INMTO02)	212
<i>Y. Benslimane, M. Plaisent, and P. Bernard</i>	
The Alignment of Internet Commercial Operations with Information Technology with Organisational Operations (INMTO03)	212
<i>S.I. Lubbe</i>	
Online Communities in the Digital Economy (INOCD)	
Minitrack Introduction	213
Collaboration Platforms for Virtual Student Communities (INOCD01)	214
<i>P. Schubert and M. Koch</i>	
Towards M-Communities: The Case of COSMOS Healthcare (INOCD02)	214
<i>J.M. Leimeister, M. Daum, and H. Krcmar</i>	
Customer Integration in Virtual Communities – Case Study: The Online Community of the Largest Regional Newspaper in Austria (INOCD03)	214
<i>R. Franz and T. Wolkingner</i>	
The Transitional Role of Institutional Trust in Online Interorganizational Relationships (INOCD04)	215
<i>P.A. Pavlou, Y.-H. Tan, and D. Gefen</i>	
Identifying a Company's Non-Customer Online Communities: a Proto-typology (INOCD05)	215
<i>E.O.F. Reid</i>	
Online Communities: A Longitudinal Analysis of Communication Activities (INOCD06)	216
<i>T. Schoberth, J. Preece, and A. Heinzl</i>	
Consumers Cognition towards Communities: Customer-Centred Community Design Using the Means-End Chain Perspective (INOCD07)	216
<i>P. Aschmoneit and M. Heitmann</i>	

Peer-to-Peer (P2P) Computing (INPTP)

Minitrack Introduction	217
Constructing Electronic Marketplaces Using Peer-to-Peer Technology (INPTP01)..... <i>N. Gehrke and M. Schumann</i>	218
IRTL (Information Resource Transaction Layer) Middleware Design for P2P and Open GRID Services (INPTP02)..... <i>J. Hwang, P. Aravamudham, E. Liddy, J. Stanton, and I. MacInnes</i>	218
Earning a Living among Peers – The Quest for Viable P2P Revenue Models (INPTP03)..... <i>T. Hummel, Ø. Strømme, and R.M. La Salle</i>	219
Personalization through Mask Marketing (INPTP04)	219
<i>M. Strasser and A. Zugenmaier</i>	
Free Riding: A New Challenge to Peer-to-Peer File Sharing Systems (INPTP05)..... <i>L. Ramaswamy and L. Liu</i>	220

Personalization Management Systems (INPMS)

Minitrack Introduction	221
Community Collective Efficacy: Structure and Consequences of Perceived Capacities in the Blacksburg Electronic Village (INPMS01)..... <i>J.M. Carroll and D.D. Reese</i>	222
A Framework for Classifying Personalization Scheme Used on e-Commerce Websites (INPMS02)..... <i>D. Wu, I. Im, M. Tremaine, K. Instone, and M. Turoff</i>	222
Are Personalization Systems Really Personal? – Effects of Conformity in Reducing Information Overload (INPMS03)..... <i>J.-C. Wang and J.-P. Lin</i>	222

Organizational Systems and Technologies Track

Track Introduction	223
Competitive Strategy and Information Systems (OSSCI)	
Minitrack Introduction	224
Managing Quality Uncertainty through Contingency Pricing (OSSCI01)	225
<i>H.K. Bhargava and S. Sundaresan</i>	
Hyper-differentiation Strategies: Delivering Value, Retaining Profits (OSSCI02)	225
<i>E.K. Clemons, B. Gu, and R. Spitler</i>	
Justifying Information Technology Investments: Balancing the Need for Speed of Action with Certainty before Action (OSSCI03)	226
<i>E.K. Clemons and B. Gu</i>	
Does Bundling Add-Ins Help Consumers? (OSSCI04)	226
<i>R. Dewan and M. Freimer</i>	
Information Technology Investment and Adoption: A Rational Expectations Perspective (OSSCI05)	226
<i>Y.A. Au and R.J. Kauffman</i>	
Duration in the Digital Economy (OSSCI06)	227
<i>R.J. Kauffman and B. Wang</i>	
Creativity in Information Systems (OSCIS)	
Minitrack Introduction	228
The Impact of Stimulus Diversity on Creative Solution Generation: An Evaluation of the Cognitive Network Model of Creativity (OSCIS01)	229
<i>E.L. Santanen, R.O. Briggs, and G.-J. de Vreede</i>	
Evaluating Support for Improvisation in Simulated Emergency Scenarios (OSCIS02)	229
<i>D. Mendonça, G.E.G. Beroggi, and W.A. Wallace</i>	
Data Warehousing (OSDWH)	
Minitrack Introduction	230
A Method for Demand-driven Information Requirements Analysis in Data Warehousing Projects (OSDWH01)	231
<i>R. Winter and B. Strauch</i>	
Institutional Metrics for the United States Marine Corps (OSDWH02)	231
<i>S.R. Haynes</i>	
The Customer-Centric Data Warehouse – An Architectural Approach to Meet the Challenges of Customer Orientation (OSDWH03)	231
<i>H.-G. Kemper and P.-L. Lee</i>	

Ad-Hoc Association-Rule Mining within the Data Warehouse (OSDWH04)	232
<i>S. Nestorov and N. Jukić</i>	
Managing Virtual Data Marts with Metapointer Tables (OSDWH05).....	232
<i>L.K. Hodge and C. Milligan</i>	
ERP/ERP II System Issues and Answers (OSERP)	
Minitrack Introduction	233
Towards a Novel Framework for the Assessment of Enterprise Application Integration Packages (OSERP01).....	234
<i>M. Themistocleous and Z. Irani</i>	
An ERP Maintenance Model (OSERP02).....	234
<i>C.S.P. Ng, G. Gable, and T. Chan</i>	
Enterprise Resource Planning Experience in Taiwan: An Empirical Study and Comparative Analysis (OSERP03).....	235
<i>J.-H. Wu and Y.-M. Wang</i>	
Learning to Use ERP Technology: A Causal Model (OSERP04).....	235
<i>M.-C. Boudreau</i>	
E-Skills: The Next Hurdle for ERP Implementations (OSERP05).....	235
<i>P. Hawking and A. Stein</i>	
Critical Success Factors of Enterprise Resource Planning Systems Implementation Success in China (OSERP06).....	236
<i>L. Zhang, M.K.O. Lee, Z. Zhang, and P. Banerjee</i>	
Information Systems in Global Business (OSGLO)	
Minitrack Introduction	237
Spillover Effects of Production of IT on Use of IT (OSGLO01)	238
<i>D. Ganley, K.L. Kraemer, and P.-K. Wong</i>	
Productivity Breakdown of the Information Technology Industries across Countries (OSGLO02)	238
<i>B.B.M. Shao and W.S. Shu</i>	
Evaluating Offshore IT Outsourcing in India: Supplier and Customer Scenarios (OSGLO03).....	239
<i>N. Khan, W.L. Currie, V. Weerakkody, and B. Desai</i>	
Developing Sustainable B2B E-Commerce Scenarios in the Chinese Context A Research Proposal (OSGLO04).....	239
<i>K. Reimers</i>	
Business-to-Business Value Drivers and eBusiness Infrastructures in Financial Services: Collaborative Commerce across Global Markets and Networks (OSGLO05).....	239
<i>A.M. Fairchild and R.R. Peterson</i>	
B2B E-Commerce Adoption Decisions in Taiwan: The Interaction of Organizational, Industrial, Governmental and Cultural Factors (OSGLO06).....	240
<i>S.M.B. Thatcher and W. Foster</i>	

Planning for ‘Drift’?: Implementation Process of Enterprise Resource Planning Systems (OSGLO07).....	240
<i>J. Nandhakumar, M. Rossi, and J. Talvinen</i>	
Performance of Integrated Supply Chain – An International Case Study in High Tech Manufacturing (OSGLO08).....	241
<i>D.C.L. Kuo and M. Smits</i>	
IT Governance and Its Mechanisms (OSITG)	
Minitrack Introduction	242
Exploring the Impact of Electronic Business Readiness on Leadership Capabilities in Information Technology Governance (OSITG01).....	243
<i>R.R. Peterson and A.M. Fairchild</i>	
Automating Land Management: An Interpretive Analysis of Information Technology Management within the Bureau of Land Management (OSITG02)	243
<i>J.C. Beachboard</i>	
Health Informatics Governance: Researching Deferred IS/IT Mechanisms (OSITG03)	244
<i>N.V. Patel</i>	
Development of an Instrument to Evaluate the Quality of Delivered Information Systems (OSITG04)	244
<i>C. Wilkin and T. Castleman</i>	
Aligning Strategies: Organizational, Project, Individual (OSITG05).....	244
<i>R. Hefner</i>	
Measuring IT Value (OSMIV)	
Minitrack Introduction	245
IT: What’s It Good For? (OSMIV01).....	246
<i>H.J. Nelson and K.M. Nelson</i>	
Reviewing Event Studies in MIS: An Application of the Firm Value Framework (OSMIV02)	246
<i>B. Dehning, V.J. Richardson, and T. Stratopoulos</i>	
Telecommunication Infrastructure Investments and Firm Performance (OSMIV05)	247
<i>H.S. Hsu and S.K. Balasubramanian</i>	
Do Managers and IT Professionals View the Business Value of Information Technology Differently? (OSMIV06)	247
<i>J.A. Senn</i>	
Project Management (OSPRM)	
Minitrack Introduction	248
Virtual (3D) Collaborative Environments: An Improved Environment for Integrated Product Team Interaction? (OSPRM01)	249
<i>G.M. Bochenek and J.M. Ragusa</i>	

Project Management Model for Physically Distributed Software Development Environment (OSPRM02)	249
<i>R. Zanoni and J.L.N. Audy</i>	
CIOs and IT Professionals as Change Agents, Risk and Stakeholder Managers: A Field Study (OSPRM03).....	249
<i>J.W. Weiss and D. Anderson, Jr.</i>	
The Impact of Project Management Heuristics to IS Projects (OSPRM04)	250
<i>R.L. Purvis, G.E. McCray, and T.L. Roberts</i>	
Increasing Understanding of the Modern Testing Perspective in Software Product Development Projects (OSPRM05).....	250
<i>M. Pyhäjärvi, K. Rautiainen, and J. Itkonen</i>	
Allocating Time and Resources in Project Management under Uncertainty (OSPRM06)	250
<i>M.A. Turnquist and L.K. Nozick</i>	
Research Methods and Approaches in Organizational Systems Research (OSRMA)	
Minitrack Introduction	251
Pervasive Real-Time IT as a Disruptive Technology for the IS Field (OSRMA01)	252
<i>S. Alter</i>	
On the Rhetoric and Relevance of IS Research Paradigms: A Conceptual Framework and Some Propositions (OSRMA02)	252
<i>D. Khazanchi and B.E. Munkvold</i>	
Using Narrative Inquiry in a Study of Information Systems Professionals (OSRMA03)	253
<i>F.B. Tan and M.G. Hunter</i>	
Towards a Strategy for Sense-Making of Empirical Knowledge Management Perceptions – The TFL Methodology (OSRMA04)	253
<i>D.Y.F. Law and J.E. Lee-Partridge</i>	
Development of the Information Systems Implementation Research Method (OSRMA05).....	253
<i>K.R.T. Larsen</i>	
Rationalizing, Probing, Understanding: The Evolution of the Inter-organizational Systems Adoption Field (OSRMA06)	254
<i>S. Ramanathan and J. Rose</i>	
Social Issues in Organizations (OSSIO)	
Minitrack Introduction	255
The Effects of Time and Personality on the Productivity of Management Information Systems (OSSIO01).....	256
<i>V. Kvassov</i>	
The Career of the Technical Professional: A Look at the Career Path and Reward System in Technical Polish Companies (OSSIO02)	256
<i>T.L. Roberts, M. Wermus, M. Gibson, and W. Gober</i>	

Enterprise Wide Development – A Survey of Critical Factors for Co-ordinated Development in Complex Organizations: What Development Managers Consider (OSSIO03).....	257
<i>M. Holmqvist and H. Enquist</i>	
Successful Penetration into the e-Business Environment: An Empirical Study (OSSIO04).....	257
<i>D.L. Amoroso</i>	
Towards a Structural Theory of Information Systems: A Substantive Case Analysis (OSSIO05).....	258
<i>J. Rose and R. Hackney</i>	
Technology Management in the Knowledge Based Economy (OSKBE)	
Minitrack Introduction	259
A Quasi-experimental Approach to Determining Success Criteria for ICT Projects (OSKBE01).....	260
<i>K. Milis, M. Meulders, and R. Mercken</i>	
The ‘Vanishing’ IT Productivity: A Simple Theory (OSKBE02).....	260
<i>E. Oz</i>	
Facilitating Knowledge Management with Information Management and Organizational Mechanisms (OSKBE03).....	260
<i>S.-W. Chou, S.-J. Wang, and H.-P. Chen</i>	
Topics in Organizational Systems and Technology (OSOST)	
Minitrack Introduction	261
Is the Applicability of Web-Based Surveys for Academic Research Limited to the Field of Information Technology? (OSOST01).....	262
<i>N. Roztocki and N.A. Lahri</i>	
Internet/Web Systems Development: What Can Be Learned from Hi-Tech New Product Strategic Planning (OSOST02).....	262
<i>G. Scott</i>	
Organizational Impact of Information Technology (IT) in the Context of E-Business: Development of a General Framework for Balancing the Tensions between Opportunities and Risks (OSOST03).....	263
<i>H.F.O. VonKortzfleisch</i>	
Application Generator: A Framework and Methodology for IS Construction (OSOST04).....	263
<i>J.-H. Wu, T.-C. Hsia, I.-C. Chang, and S.-J. Tsai</i>	
Adoption Process of Upgrading Software: An Empirical Study of Windows XP (OSOST05).....	264
<i>M.C.L. Lai, S.S.Y. Ho, and W.W.Y. Hui</i>	
IT Businesses and Franchising: A Research Proposal (OSOST06).....	264
<i>Y.-S. Chen, C. Okoli, and P.P. Chong</i>	
Information Technology Fashions: Lifecycle Phase Analysis (OSOST07).....	265
<i>J. Lee and E. Collar, Jr.</i>	

4 Perspectives on Web Information Systems (OSOST08)	265
<i>J. Holck</i>	
The Illusion of Effective Management Information: A Critical Perspective (OSOST09).....	266
<i>F.A.B. Lohman, H.G. Sol, and G.-J. de Vreede</i>	
Trends in Outsourcing of Information Systems (OSISO)	
Minitrack Introduction	267
IT Outsourcing Contracts: Practical Implications of the Incomplete Contract Theory (OSISO01)	268
<i>E. Beulen and P. Ribbers</i>	
Exploring a Causal Model for the Understanding of Outsourcing Partnership (OSISO04)	268
<i>J.-N. Lee and Y.-G. Kim</i>	
Vendor Strategies for Business Process and Applications Outsourcing: Recent Findings from Field Research (OSISO05).....	268
<i>W.L. Currie, B. Desai, N. Khan, X. Wang, and V. Weerakkody</i>	
A Validation of Measures Associated with the Risk Factors in Information Technology Outsourcing (OSISO06)	269
<i>B. Bahli and S. Rivard</i>	
Characteristics of IT Outsourcing Contracts (OSISO07)	269
<i>B. Aubert, J.-F. Houde, M. Patry, and S. Rivard</i>	
Virtuality in Organizations and Communities (OSVOC)	
Minitrack Introduction	270
Effects of Team Size on Participation, Awareness, and Technology Choice in Geographically Distributed Teams (OSVOC01).....	271
<i>E. Bradner, G. Mark, and T.D. Hertel</i>	
Virtual Organizing: Using Threads to Coordinate Distributed Work (OSVOC02).....	271
<i>J. Yates, W.J. Orlikowsk, and S.L. Woerner</i>	
Measuring the Degree of Virtualization – An Empirical Analysis in Two Austrian Industries (OSVOC03).....	271
<i>R. Bauer, S.T. Köszegi, and M. Wolkerstorfer</i>	

Software Technology Track

Track Introduction	272
<u>Cluster I: Emerging Fields</u>	
Computational Issues in Bioinformatics (STCIB)	
Minitrack Introduction	274
Comparative Genome Annotation for Mapping, Prediction and Discovery of Genes (STCIB01)..... <i>C. Kappen and J.M. Salbaum</i>	275
A Prototype for Multiple Whole Genome Alignment (STCIB02)..... <i>J.S. Deogun, F. Ma, J. Yang, and A. Benson</i>	275
Integrating Biomolecular Analysis and Visual Programming: Flexibility and Interactivity in the Design of Bioinformatics Tools (STCIB03)	275
<i>D. Stoffler, S.I. Coon, R. Huey, A.J. Olson, and M.F. Sanner</i>	
Grid-Layout Visualization Method in the Microarray Data Analysis Interactive Graphics Toolkit (STCIB04)	276
<i>L. Xiao, O. Shats, and S. Sherman</i>	
Classifications of Neural Dendritic and Synaptic Damage Resulting from HIV-1-Associated Dementia: A Multiple Criteria Linear Programming Approach (STCIB05)	276
<i>J. Zheng, D. Erichsen, C. Williams, H. Peng, G. Kou, C. Shi, and Y. Shi</i>	
Formal Methods for Engineering Special-Purpose Parallel Systems (STFME)	
Minitrack Introduction	277
Formal Behavioural Synthesis of Handel-C Parallel Hardware Implementations from Functional Specifications (STFME01)	278
<i>A.E. Abdallah and J. Hawkins</i>	
Stream Processing Hardware from Functional Language Specifications (STFME02).....	278
<i>S. Frankau and A. Mycroft</i>	
Field Modifiable Architecture with FPGAs and Its Design/Verification/Debugging Methodologies (STFME03).....	279
<i>M. Fujita, S. Komatsu, H. Saito, K. Seto, T. Sakunkonchak, and Y. Kojima</i>	
An Approach to the Introduction of Formal Validation in an Asynchronous Circuit Design Flow (STFME04)	279
<i>D. Borriane, M. Boubekour, E. Dumitrescu, M. Renaudin, J.-B. Rigaud, and A. Sirianni</i>	
Towards Verifying Parametrised Hardware Libraries with Relative Placement Information (STFME05).....	279
<i>S. McKeever, W. Luk, and A. Derbyshire</i>	
Combining Imperative and Declarative Hardware Descriptions (STFME06).....	280
<i>T. Todman and W. Luk</i>	

Peer-to-Peer E-Commerce Systems and Applications (STPTP)

Minitrack Introduction	281
Java Mobile Agents on Project JXTA Peer-to-Peer Platform (STPTP01).....	282
<i>R.Y. Chen and B. Yeager</i>	
Project JXTA-C: Enabling a Web of Things (STPTP02)	282
<i>B. Traversat, M. Abdelaziz, D. Doolin, M. Duigou, J.-C. Hugly, and E. Pouyoul</i>	
Peer-to-Peer Networks for Virtual Home Environments (STPTP03).....	282
<i>C. Loeser, W. Mueller, F. Berger, and H.-J. Eikerling</i>	
A Contract and Rights Management Framework Design for Interacting Brokers (STPTP04).....	283
<i>S. Guth, B. Simon, and U. Zdun</i>	
A Model for a Better Understanding of the Digital Distribution of Music in a Peer-to-Peer Environment (STPTP05)	283
<i>P. Rupp and T. Estier</i>	

Quality of Service in the Internet (STQSI)

Minitrack Introduction	284
Managing Multimedia Traffic in IP Integrated over Differentiated Services: SIP Dynamic Signaling Inter-working (STQSI01).....	285
<i>S. Giordano, M. Mancino, A. Martucci, and S. Niccolini</i>	
CRMA: A Cycle-Breaking Multicast Routing Algorithm for Supporting QoS over the Internet (STQSI02)	285
<i>J. Zhao, H. Hassanein, J. Wu, and J. Luo</i>	

Web-Based Information Sharing: Technologies, Strategies and Approaches (STWIS)

Minitrack Introduction	286
Semantic Interoperability in the Fixed Income Securities Industry: A Knowledge Representation Architecture for Dynamic Integration of Web-Based Information (STWIS01)	287
<i>A. Moulton, S.E. Madnick, and M.D. Siegel</i>	
An Architecture to Support Communities of Interest Using Directory Services Capabilities (STWIS02)	287
<i>D. Kuechler, V. Vaishnavi, and A. Vandenberg</i>	
Deferred Systems Software Model for Semantic Information Sharing in Context on the Web (STWIS03)	288
<i>N.V. Patel</i>	
XML Access Control for Semantically Related XML Documents (STWIS04).....	288
<i>V. Parmar, H. Shi, and S.-S. Chen</i>	
Heritage and the Role of Data Management Systems: A Prototype Model for New Zealand (STWIS05)	288
<i>L.A. Gardner, S.J. Holdaway, D.C. Whitehead, J. Kleine, H.D. Bader, and R. Gibbs</i>	

Cluster II: Mobile Computing and Wireless Networks

Mobile Distributed Information Systems (STMDI)

Minitrack Introduction	290
Ambient Computing Applications: An Experience with the SPREAD Approach (STMDI01)	291
<i>P. Couderc and M. Banâtre</i>	
Context-Awareness on Mobile Devices – The Hydrogen Approach (STMDI02).....	292
<i>T. Hofer, W. Schwinger, M. Pichler, G. Leonhartsberger, J. Altmann, and W. Retschitzegger</i>	
A Situation-aware Mobile Traffic Information System (STMDI03).....	292
<i>W.-T. Balke, W. Kießling, and C. Unbehend</i>	
User Centred Opportunities for Supporting Consumer Behaviour through Handheld and Ubiquitous Computing (STMDI04)	293
<i>K. O’Hara and M. Perry</i>	
A Dynamic Assignment Problem in a Mobile System with Limited Bandwidth (STMDI05)	293
<i>Y. Wang and T. Kunz</i>	
On Routing Web and Multimedia Traffic in Mobile Ad Hoc Networks (STMDI06)	294
<i>T.D. Dyer and R.V. Boppana</i>	
Applying Multiple Query Optimization in Mobile Databases (STMDI07).....	294
<i>R. Malladi and K.C. Davis</i>	
Harnessing the Potential of Mobile Personal Data Repositories (STMDI08)	294
<i>A. Karypidis and S. Lalis</i>	
Estimating Applicability of New Mobile Content Formats to Organizational Use (STMDI09).....	295
<i>P. Tyrväinen</i>	
Omnisphere: A Personal Communication Environment (STMDI10).....	295
<i>F. Rousseau, J. Oprescu, L.-S. Paun, and A. Duda</i>	
ServiceDesigner: A Tool to Help End-Users Become Individual Service Providers (STMDI11).....	296
<i>F. Espinoza and O. Hamfors</i>	
Evolution of Planning for Wireless Communication Systems (STMDI12).....	296
<i>R.M. Whitaker and S. Hurley</i>	
XyberScout: A Platform for the Efficient Construction of Mobile Location Aware Information Systems (STMDI13).....	297
<i>G. Bieber and R. Ide</i>	
Location Privacy in the Alipes Platform (STMDI14).....	297
<i>K. Synnes, J. Nord, and P. Parnes</i>	
MOBICHARTS: A Notation to Specify Mobile Computing Applications (STMCI15).....	298
<i>S. Acharya, H. Mohanty, and R.K. Shyamasundar</i>	

Routing in Wireless and Internet Networks (STRWI)

Minitrack Introduction	299
Increasing Packet Delivery Ratio in DSR by Link Prediction (STRWI01)..... <i>L. Qin and T. Kunz</i>	300
Quality of Service Routing in Ad-Hoc Networks Using OLSR (STRWI02)..... <i>Y. Ge, T. Kunz, and L. Lamont</i>	300
On Selection of Optimal Transmission Power for Ad hoc Networks (STRWI03)..... <i>Y. Chen, E.G. Siner, and S.B. Wicker</i>	300
Formalizing Multi-agent POMDP's in the Context of Network Routing (STRWI04)..... <i>B. Rathnasabapathy and P. Gmytrasiewicz</i>	301
Distributed Energy-Conserving Routing Protocols (STRWI05)..... <i>Q. Li, J. Aslam, and D. Rus</i>	301
An Adaptive QoS Routing Protocol with Dispersity for Ad-Hoc Networks (STRWI06)..... <i>Y. Hwang and P. Varshney</i>	302
A Two-Cell-Lookahead Call Admission and Handoff Management Scheme for Multimedia LEO Satellite Networks (STRWI07)..... <i>P. Todorova, S. Olariu, and H.N. Nguyen</i>	302
Border Node Retransmission Based Probabilistic Broadcast Protocols in Ad-Hoc Networks (STRWI09)..... <i>J. Cartigny and D. Simplot</i>	303

Quality of Service in Mobile and Wireless Networks (STQSM)

Minitrack Introduction	304
Balancing Energy Saving and QoS in the Mobile Internet: An Application-Independent Approach (STQSM01)..... <i>G. Anastasi, M. Conti, E. Gregori, and A. Passarella</i>	305
On Reducing Broadcast Redundancy in Ad Hoc Wireless Networks (STQSM02)..... <i>W. Lou and J. Wu</i>	305
A Fault-Tolerant Dynamic Channel Allocation Scheme for Enhancing QoS in Cellular Networks (STQSM03)..... <i>J. Yang, D. Manivannan, and M. Singhal</i>	306
UMAV: A Simple Enhancement to the IEEE 802.11 DCF (STQSM04)..... <i>D. Qiao and K.G. Shin</i>	306
Approaches of Wireless TCP Enhancement and a New Proposal Based on Congestion Coherence (STQSM05)..... <i>C. Liu and R. Jain</i>	307
Adaptive Location Management Strategy Combining Distance-Based Update and Sectional Paging Techniques (STQSM06)..... <i>T. Tung and A. Jamalipour</i>	307

A Kalman-Filter Based Paging Strategy for Cellular Networks (STQSM07)	308
<i>T. Tung and A. Jamalipour</i>	
Benchmarking Mobile Network QoS (STQSM08)	308
<i>J.C. Francis and M. Abu El-Ata</i>	
Multilevel Fault-Tolerance for Designing Dependable Wireless Networks (STQSM09)	308
<i>U. Varshney and A.D. Malloy</i>	
Maintaining Handoff QoS in TD-CDMA Networks (STQSM10)	309
<i>J. Mišić, Y.-K. Tang, and V.B. Mišić</i>	
PYLON: An Architectural Framework for Ad Hoc QoS Interconnectivity with Access Domains (STQSM11)	309
<i>Y.L. Morgan and T. Kunz</i>	
Quality-of-Service-Oriented Media Access Control for Advanced Mobile Multimedia Satellite Systems (STQSM12)	309
<i>P. Todorova and A. Markhasin</i>	
Wireless LANs and PANs (STWLP)	
Minitrack Introduction	
	310
ASP: An Adaptive Energy-Efficient Polling Algorithm for Bluetooth Piconets (STWLP01)	311
<i>M. Perillo and W.B. Heinzelman</i>	
Performance of Bluetooth Bridges in Scatternets with Exhaustive Service Scheduling (STWLP02)	311
<i>V.B. Mišić and J. Mišić</i>	
An Efficient Link Polling Policy by Pattern Matching for Bluetooth Piconets (STWLP03)	312
<i>T.-Y. Lin, Y.-C. Tseng, and Y.-T. Lu</i>	
Scatternet Formation of Bluetooth Ad Hoc Networks (STWLP04)	312
<i>B. Zhen, J. Park, and Y. Kim</i>	
Formation, Routing, and Maintenance Protocols for the BlueRing Scatternet of Bluetooths (STWLP05)	313
<i>T.-Y. Lin, Y.-C. Tseng, K.-M. Chang, and C.-L. Tu</i>	
Towards Feasible Topology Formation Algorithms for Bluetooth-based WPANs (STWLP06)	313
<i>C.F. Chiasserini, M.A. Marsan, E. Baralis, and P. Garza</i>	
Bluetooth-based Ad-Hoc Networks for Voice Transmission (STWLP07)	314
<i>F. Kargl, S. Ribhegge, S. Schlott, and M. Weber</i>	
Secure Connections in Bluetooth Scatternets (STWLP08)	314
<i>K.E. Persson and D. Manivannan</i>	
Dynamic Network Interface Selection in Multihomed Mobile Hosts (STWLP09)	315
<i>J. Ylitalo, T. Jokikyyny, T. Kauppinen, A.J. Tuominen, and J. Laine</i>	

Cluster III: Software Development

Distributed Object and Component-Based Software Systems (STDOC)

Minitrack Introduction	317
A QoS Metamodel and Its Realization in a CORBA Component Infrastructure (STDOC01)..... <i>T. Ritter, M. Born, T. Unterschütz, and T. Weis</i>	318
Design and Implementation of a Bridge between CORBA's Notification Service and the Java Message Service (STDOC02)..... <i>M. Aleksy, M. Schader, and A. Schnell</i>	318
Development of Reusable Components through the Use of Adapters (STDOC03)	319
<i>C.-C. Chiang</i>	
GriT: A CORBA-Based GRID Middleware Architecture (STDOC04)	319
<i>A.S. Gokhale and B. Natarajan</i>	
Design and Performance of a Dynamically Configurable, Messaging Protocols Framework for Real-time CORBA (STDOC05)	320
<i>R. Klefstad, S. Rao, and D.C. Schmidt</i>	
Automatic Mediation between Incompatible Component Interaction Styles (STDOC06).....	320
<i>K.-P. Löhr</i>	
Domain-Specific Metamodels for Heterogeneous Information Systems (STDOC07)	321
<i>J. Tan, A. Zaslavsky, C.A. Ewald, and A. Bond</i>	
Generating OCL Specifications and Class Diagrams from Use Cases: A Newtonian Approach (STDOC08)	321
<i>B. Roussev</i>	
Modeling Web Applications Using Java and XML Related Technologies (STDOC09).....	322
<i>S. Chung and Y.-S. Lee</i>	
Domain-Specific Languages (STDSL)	
Minitrack Introduction	323
Embedding Domain Specific Languages in the Attribute Grammar Formalism (STDSL01)	324
<i>J. Saraiva and S. Schneider</i>	
Phobos: A Front-End Approach to Extensible Compilers (STDSL02)	324
<i>A. Granicz and J. Hickey</i>	
Experience with ANSI C Markup Language for a Cross-Referencer (STDSL03)	324
<i>H. Kawashima and K. Gondow</i>	
An Examination of DSLs for Concisely Representing Model Traversals and Transformations (STDSL04)	325
<i>J. Gray and G. Karsai</i>	
Lessons Learned from Real DSL Experiments (STDSL05).....	325
<i>D. Wile</i>	

Experimental Software Engineering (STESE)

Minitrack Introduction	326
An Evaluation of Applying Use Cases to Construct Design versus Validate Design (STESE01)	327
<i>E. Syversen, B. Anda, and D.I.K. Sjøberg</i>	
Experimental Validation of Multidimensional Data Models Metrics (STESE02).....	327
<i>M. Serrano, C. Calero, and M. Piattini</i>	
How Performance and Self-Efficacy Influence the Ease of Use of Object-Orientation: The Moderating Effect of Prior Training (STESE03)	327
<i>L. Liu and E.E. Grandon</i>	
Assessments of Usability Engineering Processes: Experiences from Experiments (STESE04).....	328
<i>T. Jokela</i>	
Making SPI Happen: The IDEAL Distribution of Effort (STESE05)	328
<i>A. Börjesson and L. Mathiassen</i>	
CAMELOT: Technology Focused Testing of CSCW Applications (STESE06)	328
<i>R.F. Dugan, Jr., E.P. Glinert, and E.H. Rogers</i>	

Cluster IV: Trustworthy Computing

Frameworks and Methods for the Study and Analysis of Trust in Information Systems (STFMS)

Minitrack Introduction	330
Trust in Electronic Environments (STFMS01).....	331
<i>K. Chopra and W.A. Wallace</i>	
Dissecting Trust and the Assurance-Violation Dynamics (STFMS02)	331
<i>S.T. Redwine, Jr.</i>	
Information Assurance Measures and Metrics – State of Practice and Proposed Taxonomy (STFMS03).....	331
<i>R.B. Vaughn, Jr., R. Henning, and A. Siraj</i>	
Content Based File Type Detection Algorithms (STFMS04).....	332
<i>M. McDaniel and M. Heydari</i>	
Combinatorial Optimization of Multicast Key Management (STFMS05)	332
<i>L. Morales, I.H. Sudborough, M. Eltoweissy, and M.H. Heydari</i>	

Secure and Survivable Software Systems (STSSS)

Minitrack Introduction	333
A Simple GSPN for Modeling Common Mode Failures in Critical Infrastructures (STSSS02)	334
<i>A. Krings and P. Oman</i>	

Applications of Hidden Markov Models to Detecting Multi-stage Network Attacks (STSSS03).....	334
<i>D. Ourston, S. Matzner, W. Stump, and B. Hopkins</i>	
Information Flow Control among Objects: Taking Foreign Objects into Control (STSSS04).....	335
<i>S.-C. Chou</i>	
On-Line Intrusion Detection and Attack Prevention Using Diversity, Generate-and-Test, and Generalization (STSSS05).....	335
<i>J.C. Reynolds, J. Just, L. Clough, and R. Maglich</i>	
Attack Recognition for System Survivability: A Low-Level Approach (STSSS06).....	335
<i>C. Taylor and J. Alves-Foss</i>	
Testing and Certification of Trustworthy Systems (STTCT)	
Minitrack Introduction	336
Certification Support for Automatically Generated Programs (STTCT01).....	337
<i>J. Shumann, B. Fischer, M. Whalen, and J. Whittle</i>	
Verifying Trustworthiness Requirements in Distributed Systems with Formal Log-file Analysis (STTCT02)	337
<i>A. Ulrich, H. Hallal, A. Petrenko, and S. Boroday</i>	
JUMBL: A Tool for Model-Based Statistical Testing (STTCT03)	337
<i>S.J. Prowell</i>	
Breeding Software Test Cases with Genetic Algorithms (STTCT04).....	338
<i>D. Berndt, J. Fisher, L. Johnson, J. Pinglikar, and A. Watkins</i>	
Trusted Software's Holy Grail (STTCT05).....	338
<i>J. Voas</i>	
Author Index	339
CD-ROM User Instructions	350