Proceedings of CSCWD 2006
Table of Contents

CSCWD Working Group and Workshops/Conferences: Review and Perspective 1
Zongkai Lin, Jean-Paul Barthès, Weiming Shen

Keynote Papers

ASP Platform and Its Federation Integration Based on INTERNET Used in Networked Collaborative Designing and Manufacturing 9
Cheng Wu, Tianyuan Xiao

A Decentralized Approach for Controlled Sharing of Resources in Virtual Communities 14
Elisa Bertino, Anna C. Squicciarini

Collaborative Product Development in Ill-Structured Problem Domains 15
Tetsuo Tomiyama

Collaboration and Coordination Methods

Using Isolation Spheres for Cooperative Processes Correctness 21
Adnene Guabtni, François Charoy, Claude Godart

Collaboration upon Heterogeneous Platforms – from Desktop PC to Handheld Device 27
Feng Liu, Ling Chen, Gencai Chen

A Generic Application Sharing Architecture Based on Message-Oriented Middleware Platform 33
Hui-Chieh Lu, Yen-Ping Chu, Ruey-Kai Sheu, Win-Tsung Lo

A Willing-to-Share Based Incentive Mechanism for File Sharing P2P Networks 38
Liang Sun, Shiduan Cheng, Yu Lin, Wendong Wang

Modeling and Analysis of the Concurrent Design Process 44
Yanhai Chen, Wenjian Liu, Gaoliang Peng

Program Detection with Context Dependency for Collaborative Services
Xinguang Peng, Junfeng Zhang

Liang Liu, Huadong Ma, Dan Tao, Dongmei Zhang

Specify Properties in Synchronous CSCW Systems with Extended Temporal Logical Method 89
Zicong Chen, Yong Tang, Gaofeng Ji

A Fuzzy Critical Path Method based Scheduling Approach for Collaboration Process 95
Feng Tian, Renhou Li

Influence of Context on Group Work Collaboration Level 101
Márcio G.P. Rosa, Flávia Maria Santoro, Marcos R.S. Borges

Heuristics for Permutation Flow Shops to Minimize Total Flowtime 107
Xiaoping Li, Qian Wang

Towards Model-Driven Methodology: a Novel Testing Approach for Collaborative Embedded System Design 112
Yi Jiao, Kun Zhu, Qiang Yu, Baifeng Wu

Study on Constraint Information Visualization in CSCD 117
Xiaoping Liu, Hui Shi, Zhengqiang Mao, Liping Zheng

An Approach to Consistency Maintenance Based on Intention Context of Real-Time Group Editing Systems 123
Haishui Xu, Xiufen Fu, Shixian Li

A Differentiated Service Supported Bandwidth Allocation Algorithm for Multiple Points Communications 128
Qinghua Zheng

Processing Data Structures in a Peer-To-Peer Network 136
Phil Thompson, Anne James, Leonid Smalov

Multi-Model Driven Collaborative Development Platform for Service-Oriented e-Business Systems 141
Yinsheng Li, Ying Huang, Xiaohua Lu, Xingdong Shi, Weiming Shen, Hamada Ghenniwa

CSCW Techniques and Systems

Building a Personal Knowledge Recommendation System using Agents, Learning Ontologies and Web Mining 147
Juliana Lucas de Rezende, Vinícios Batista Pereira, Geraldo Xexéo, Jano Moreira de Souza

Cognitive Dust: Linking CSCW Theories to Creative Design Processes 153
Terence Blackburn, Paul Swatman, Rudi Vernik

Cooperative Multi-Versioning Technique Based on Version Replication 159
Wanfeng Dou, Ming Zhu, Qi Shen

CSCW-based JIT Purchasing Management 165
Ying Wang, Zhiyi Fang, Chao Zhang, Dan Zhang,Yingrui Zhang, Benshang Tong

A Scalable Framework for Large-Scale Distributed Collaboration 171
Shengwen Yang, Jinlei Jiang, Meilin Shi

A Hybrid Computer Supported Collaboration and Visualization System 177
H. Yu, L. Wang, J. Xu

ALMSC: An Application Layer Multicast Based SIP Conference Model 182
Deguo Yang, Yuhui Zhao, Cuirong Wang, Yuan Gao

Particle Swarm Optimization based on Dynamic Niche Technology with Applications to Conceptual Design 187
Xiyu Liu, Hong Liu, Huichuan Duan

Supporting Distributed Collaborative Work with Multi-versioning 193
Mehmet A. Orgun, Liyin Xue, Zhangang Han

A P2P Architecture for Supporting Group Communication in CSCW Systems 199
Hua Chen, Jianfei Qian, Qingming He

A Novel Approach to Convert Single-user Applications into Collaborative Applications 204
Baomin Xu, Michael Rose, Zongkai Lin

Considering Context Elements in Pre-meeting Systems 209
José Maria N. David, Marcio G.P. Rosa, Flávia Maria Santoro, Marcos R.S. Borges

Recommender Systems for Knowledge Teams 215
Vanessa Almeida, Claudia Motta, Sueli Mendes

A User Perspective of QoS for Ubiquitous Collaborating Systems 219
Rahat Iqbal, Nazaraf Hussain Shah, Anne James, Muhammad Younas, Kuo-Ming Chao

Supporting Student-Supervisor Scientific Collaboration 224
Juliana Lucas de Rezende, Geraldo Xexéo, Ricardo Tadeu da Silva, Margarete Silva Araújo, Jano Moreira de Souza

Developing an automated design modification system for aluminum disk wheels 230
Yeh-Liang Hsu, Chia-Chieh Yu, Shang-Chieh Wu

A Transformation-Based Method for Name Converge in Quiescent Context of Replicated Solid Modeling Systems 236
Bin Liao, Fazhi He, Shuxu Jing. Yue Wu

COTS-based System's Obsolescence Risk Evaluation 240
Minghui Wu, Honglun Hou, Chang Liu, Jing Ying

Analysis and Modeling of Wireless LAN 245
Youjip Won, Dashdorj Yamkhin

Collaborative Design

A Face-to-Face System for Supporting Mobile Collaborative Design using Sketches and Pen-based Gestures 250
Gustavo Zurita, Nelson Baloian, Felipe Baytelman

A Generic Multi-domain Integrated Product Modeling Framework 256
Wenlei Zhang, Yushun Fan

Service-Oriented Infrastructure for Collaborative Product Design in ETO Enterprises 261
Zhongjie Wang, Dechen Zhan, Xiaofei Xu

HUST-CDMS: A Test-bed for Collaborative Design and Manufacturing 267
Yunqing Rao, Xinyu Shao, Peigen Li

Research on Technology of Rough Set-Based Conflict Solution Case Reasoning in Collaborative Design 273
Lin Wang Lin, Buyun Sheng, Zhijun Lin, Yufeng Ding

Research on Automobile Sketch Cooperative Design Based on Image Cognition Model 279
Zhengyu Tan, Shouqian Sun, Qi Huang

Modeling and Implementation of Parts Library Based on Standard Technology and XML for Networked Collaborative Design 284
Jun Ma, Guoning Qi, Xinjian Gu, Jianfeng Guo, BaoLi Dong, Shengfa Wang

Constraint-based Collaborative Design 290
Zhijun Rong, Peigen Li, Xinyu Shao, Kuisheng Chen

Research on Version Storage Control Strategy in Collaborative Design System Based on STEP 296
Jiaxin Chen, Ximei Fu

An Approach Based on Question Answering Mechanism for Handling Unexpected Exceptions in Collaborative Design 301
Feng Tian, Renhou Li, Bo Chen, Qinghua Zheng

A Collaborative Framework for Designers and Developers of Software-Intensive Systems 306
Jun Kong, Guang-Lei Song, Kang Zhang, Mao Lin Huang

A Hybrid P2P-Based Architecture for Collaborative Engineering Design 312
Yanjun Shi, Yishou Wang, Hongfei Teng

Towards Web Services-based Collaborative Design 318
Hui Xu, Debao Xiao

AGOM: A Novel Method of Embedded System Communication Architecture Design in System Level Design 324
Yawen Niu, Jinian Bian, Haili Wang, Kun Tong, Liang Zhu

Research on Task Planning for Collaborative Development of Stamping Die 330
Caimao Su

Scenario-based Design Knowledge Acquiring and Application in Collaborative Product Design 336
Hao Tan, Jianghong Zhao, Jun Zhang

On Key Issues in Information System for Collaborative Product Development Process 342
Weigang Li, Wenbin Wang, Junyi Shen

COSINE: A Sketch-Based Interactive Environment for Cooperative Design 348
Wei Jiang, Zhengxing Sun, Wentao Zheng

Uncertainty Management in the Concurrent and Collaborative Design based on Generalized Dynamic Constraints Network (GDCN) 354
Weiming Wang, Jie Hu, Jilong Yin, Yinghong Peng

Co-CreativePen Toolkit: A Pen-based 3D Toolkit for Children Cooperatively Designing Virtual Environment 360
Feng Tian, Hongan Wang, Fengjun Zhang, Guozhong Dai

An Ubicomp-Based Model of Cooperative Design System for Architectural Engineering 365
Weiyu Wu, Hao Chen

Parameter Coordination for Multidisciplinary Collaborative Design 369
Jie Hu, Guangleng Xiong, Yinghong Peng, Weiming Wang

A Framework to Support Self-Governing Software Design Groups 375
Adriana S. Vivacqua, Jean-Paul Barthès, Jano Moreira de Souza

Supporting Collaboration in Software Development Activities 381
Arnaud Lewandowski, Grégory Bourguin

Integrated Design Decision-making in the Cladding Supply Chain 388
Qiang Du, Stephen Ledbetter

Mobile phone's cooperative design based on Product Identity 392
Tian Lei, Ying Yang, Jiaying Xu, Yunhe Pan

Research on Product Co-operative Design Based on User Experience 398
Yanhe Zhang, Ying Yang, Ligang Zhou，Yunhe Pan

A Case Study on Scenario Approach in Taipei-Beijing Collaborative Design through Computer-Mediated Communication 403
Lai-Chung Lee, Whei-Jane Wei

Visualization Models and Technologies for Collaborative Product Development: Status and Promise 408
W.D. Li, L. Ding, C.A. McMahon

A Cooperative – Oriented Computer-Aided Design System 414
Jiang Guo, Bin Feng, Xichun Pei, Sosuke Tokunaga

Collaborative Multidisciplinary Design in Virtual Environments 420
Toan Nguyen, Vittorio Selmin

Design Management

An Architecture of Process-centered Context-aware Software Development Environment 426
Tao Jiang, Jing Ying, Minghui Wu, Min Fang

Research and Implementation of Parts Library Application Level Model 431
Yong Lu, Yingguang Li, Wenhe Liao

A Template Engineering Based Framework for Automated Software Development 437
Min Fang, Jing Ying, Minghui Wu

Multi-Domain Collaborative Simulation Platform: An Integrative Framework for Complex Products Design 443
Wenhui Fan, Keming Wang, Guangleng Xiong

A Composition-Oriented Approach for Business Process Formal Design 449
Jing Zhang, Hai-Yang Wang

Evaluation for Result-Chain Models based on Fuzzy Evaluation Matrix 455
Xiaozhen Mi, Changgang Yan, Li Jin, Qin Si

Facilitating Cooperation in Global Software Design via Micro-Estimation 459
Bin Xu, Hua Hu, Yun Ling, Xiaohu Yang, Zhijun He, Albert Ma

Evaluating Expertise in Collaborative Educational Environments 464
Jaime Wojciechowski, Bráulio C. Ávila, Fabrício Enembreck, Edson E. Scalabrin

A Process Traceability Methodology to Support Conflict Management 471
Mohamed-Zied Ouertani, Lilia Gzara-Yesilbas, Gabriel Ris

Ontology Based Design for Similarity Discovery in SYMBAD Project 477
Daniel Pinho, Adriana S. Vivacqua, Sergio Medeiros, Jano M. de Souza

An Index Scheme for XML Documents Based on Relationship Joins 483
Chengwen Wu, Jinxiang Dong, Gang Chen, Lihua Yu

Design Methods and Tools

Semi-Online Task Allocation Algorithm among Cooperative Agents 488
Bo Liu, Junzhou Luo, Wei Li

A Design Method of Distributed Workflow Engine 494
Qiuyu Zhang, Peng Huang, Yue Yang

A New Task Assignment Approach in Concurrent Engineering 499
Bo Yang, Xiangbo Ze, Luning Liu

An Extended CSCW Architecture Using Wearable Personal Station-Based Korean Sign Language Recognizer 505
Jung-Hyun Kim and Kwang-Seok Hong

An Automatic Generation Algorithm for Business Process in Workflow Management System 511
Qi Sui, Xiao-guang Hong

Scoring Mechanisms to Encourage Participation in Communities of Practice 516
Maria Teresa A. Gouvêa, Claudia L. R. Motta, Flávia M. Santoro

Cooperative Bounded Model Checking Using STE and Hybrid Three-Valued SAT Solving 522
Shujun Deng, Weimin Wu, Jinian Bian

Telepointer Motion Prediction in Real-Time Internet-Based Collaborative Graphics Editing Systems 529
Jiajun Bu, Bo Jiang, Jianxv Yang, Chun Chen

Automatic Identification of Teams based on Textual Information Retrieval 534
Fabrício Enembreck, Edson E. Scalabrin, Cesar A. Tacla, Bráulio C. Ávila

On Demand Consistency Maintenance in Heterogeneous Collaborative Graphics Editing Systems 539
Jiajun Bu, Bo Jiang, Chun Chen, Jianxv Yang

Capture Dynamic Aspects of Software Architecture for Distributed Self-Adaptive Environments 544
Weiping Luo, Hamada Ghenniwa, Weiming Shen, Zhaohua Rao

Building Tools for Emergent Design with COPPEER 550
Mutaleci Miranda, Geraldo Xexeo, Jano Moreira de Souza

Hierarchical Reachability Analysis for Workflow-Nets 556
Yongsun Choi, Xinlei Zhao, Kwanhee Han

A Contingent Searching for Improvement of Evolutions 562
Chen-Fang Tsai, Kuo-Ming Chao

Agents and Multi-Agent Systems

Agent-based System for Collaborative Stamping Part Design 568
Dunbing Tang

Intelligent Group Decision Support System for Cooperative Works Based on Multi-Agent System 574
Lizhen Liu, Li Qian, Hantao Song

Study on Scheduling System Based on Multi-Agent of Container Terminal 579
Meng Yu, Shaomei Wang

A New Communication Mechanism Based on Virtual Agent for Mobile Agent 585
Jianmin Zhao, Xinzhong Zhu, Huiying Xu, Xinpeng Zhuang

Towards a Multi-Agent System Application to Support Communities of Practice 590
Gilson Yukio Sato, Jean-Paul A. Barthès

Study on Agent-Based Parts Resource Application System for Commercial Design 596
Yan-tao Wang, Jia-guang Liu, Bin Liu, Yi-fei Xing

Dynamic Capability Delegation Model for MAS, Architecture and Protocols in CSCW Environment 602
Zhiyong Zhang, Jiexin Pu, Shaozhong Zhang

Interactive Mechanism for Cooperative Design in Web Environment Based on Multi-Agent Technology 608
Hongming Cai, Lihong Jiang, Yiqiong Zhu

A Cooperative Creative Conceptual Design System 614
Xiangwei Zheng, Hong Liu

Using Honey Bee Teamwork Strategy in Software Agents 620
Sarmad Sadik, Arshad Ali, Farooq Ahmad, Hiroki Suguri

Enabling Virtual Organizations with an Agent-Mediated Service Framework 626
Baohua Shan, Yanbo Han, Hongcui Wang

A Cooperative Multi-Agent-Based Plant Design System 632
Nianfeng Shi, Weiqing Tang, Shicai Li, Tao He, Zhengduo Pang

A Research of Collaborative CAD System Based on Multi-Agent 638
Xinzhong Zhu, Jianmin Zhao, Huiying Xu, Rong Long

A Multi-Agent Based Model of Workflow Management 642
Youtian Qu, Xianliang Sheng, Wenping Jiao

Artificial Immune System based Agent in Workflow Management Systems 647
Kun Fang, Qianping Wang, Tingzhao Guan, Jin Liu, Xiaoyi Wang

Recipe, Policy and Self-Organizing: A Hybrid Collaboration Approach for Agent-Based Cooperative Design 653
Hang Guo, Ji Gao, Zhiqiang Zeng, Bin Hu

An Efficient Trust Model for Multi-Agent Systems 659
Akbar S. Namin, Ruizhong Wei, Weiming Shen, Hamada Ghenniwa

A Cooperative Game Model for Agent Negotiation in Network Service 665

Zheng-Ai Bian, Junzhou Luo

Web Services and Semantic Web

Approach to Indefinite Semantic Conflicts of Words in Collaborative Editing of Design Documents 671
Ning Gu, Jun Xu, Wei Ye

A Semantic Web-based Architecture for Collaborative Multi-Agent Functional Modeling in Design 677
Li Zhang, Wenyu Zhang, Gang Chen, Yuzhu Wang, Jinxiang Dong

The Web-based Manufacturing Resource Sharing Technologies and Application Services in Collaborative Product Development 683
Baoli Dong, Xiuting Wei, Guoning Qi, Yadong Qian, Xinjian Gu, Xuejian Jiao, Jun Ma

Complex Information Resources Interoperability in Semantic Web Services 689
Wei Liu, Keqing He, Xiuhong Chen, Kui Zhang

Collaborative Simulation Environment based on HLA and Web Service 694
Hongwei Wang, Heming Zhang

On Semantic-based cooperation among Web Services 700
Junwu Zhu, Jiandong Wang, Li Bin, Jiang Yi

Realization of A Web-based Remote Service Platform 704
Yong Yin, Zude Zhou, Youping Chen, Quan Liu, Yihong Long

Automatic Template Detection for Structured Web Pages 708
Lawrence Lo, Vincent To-Yee Ng, Patrick Ng, Stephen CF Chan

WS-SLA: A Framework for Web Services Oriented Service Level Agreements 714
Wenhui Sun, Jinyu Zhang, Feng Liu

Task Planning for Top-down Collaborative Assembly Design 718
Youdong Yang, Shuting Zhang, Zhihua Li, Shuming Gao

A Task-oriented Semantic Representation Model for Web Services Process Integration 724
Kangkang Zhang, Qingzhong Li

Web Services-Based Wide-Area Protection System Design and Simulation 728
Qizhi Chen, Hamada Ghenniwa, Weiming Shen

An Approach for Composing Web Services on Demand 734
Tiezheng Nie, Ge Yu, Derong Shen, Yue Kou, Jie Song

TDWF: A Workflow Model Based on Cooperation of Web Services 740
Yuliang Shi, Liang Zhang, Baile Shi

Describing and Verifying Web Service Using Type Theory 746
Zhiwei Chen, Jian Wu, Shuiguang Deng, Ying Li, Zhaohui Wu

Semantic Matching of Web Services Based on Choreographies 751
Lihui Lei, Zhenhua Duan, Bin Yu

Towards Autonomous Service Level Agreement Negotiation for Adaptive Service Composition 757
Jun Yan, Jianying Zhang, Jian Lin, Mohan B. Chhetri, Suk K. Goh, Ryszard Kowalczyk

A Survey on Semantic Web Services and a Case Study 763
Jiehan Zhou, Juha-Pekka Koivisto, Eila Niemelä

A Method for User Behavior Modeling Based on Web Page Metadata 770
Jun Liu, Qinghua Zheng, Franky Chan

Interfacing Heterogeneous PDM Systems by PLM Services for Design Collaboration 776
Erkan Gunpinar, Hanmin Lee, Soonhung Han

Selecting Useful Images from the Web for Mobile Services 782
DaeHyuck Park, Euisun Kang, ByongHee Lee, JongKeun Kim, Kunjung Sim, Meehwa Cho, YoungHwan Lim

Ontology and Knowledge Management

Meaning Negotiation for Consensus Formation in Ontology Integration 787
Jonice Oliveira, Jairo de Souza, Melise Paula, Jano Moreira de Souza

Context in Knowledge-Intensive Collaborative Work 793
Vanessa Tavares Nunes, Flávia Maria Santoro, Marcos R.S. Borges

An Ontology Definition Metamodel based Ripple-Effect Analysis Method for Ontology Evolution 799
Longfei Jin, Lei Liu

A System Architecture Design for Knowledge Management (KM) in Medical Genetic Testing (MGT) Laboratories 805
Yulong Gu, James Warren, Jan Stanek, Graeme Suthers

A Dynamic Anomaly Detection Model for Web User Behavior Based on HsMM 811
Yi Xie, Shun-Zheng Yu

Study on Active Push of Knowledge for CSCWD Based on Knowledge Management 817
Shengfa Wang, Xinjian Gu, Liangping Cui, Jianfeng Guo, Jun Ma, Hongfei Zhan

Knowledge Discovery from Multidisciplinary Simulation to Support Concurrent and Collaborative Design 822
Jie Hu, Jilong Yin, Yinghong Peng, Dayong Li

Methodology of Integrated History Knowledge Management for Concurrent Engineering in Lifecycle of Product Development Process 828
Peisi Zhong, Dazhi Liu, Hongmei Cheng, Mei Liu

Service Classification Using Adaptive Back-Propagation Neural Network and Semantic Similarity 834
Li Kuang, Jian Wu, Shuiguang Deng, Ying Li, Zhaohui Wu

A Method of Automatically Acquiring Concepts in Domain Ontology from Chinese Corpus 839
Yajun Liu, Ling Zhai, Lisha Gao

Ontology as a Mechanism for Application Integration and Knowledge Sharing in Collaborative Design: A Review 843
Helen Xie and Weiming Shen

ConAnnotator: Ontology-aided Collaborative Annotation System 850
He Hu, Xiaoyong Du

Grid Computing

GridSM: a Norm-driven State Machine Model of Grid Workflow 856
Shichao Zhang, Jiangming Yang, Ning Gu

A Version-enabled Peer-to-peer Content Distribution System based on DHT 861
Yi Jiang, Guangtao Xue, Jinyuan You

A Domain Model-Driven Approach for Telecom Network Object Platform 867
Qingguo Lan, Shufen Liu, Mingsong Gao, Shichun Pang, Shuying Zhang

Time-Cost Tradeoff Dynamic Scheduling Algorithm for Workflows in Grids 872
Yingchun Yuan, Xiaoping Li, Qian Wang

Grid Resource Model Based on Hyper Topology Space 878
Bin Lu

Design and Implementation of Integrated Information System for Monitoring Resources in Grid Computing 883
Do-Hyeon Kim, Kyung-Woo Kang

An Efficient Method to Mesh Point Cloud 889
Guiping Qian, Ruofeng Tong, Wen Peng, Jinxiang Dong

Cooperative Grid Computation System for CSCW 894
QingKui Chen, LiChun Na

Application of Grid Technology in Multi-Objective Aircraft Optimization System 900
Yan Chang, Wenyuan Cheng, Xu Liu, Xianghui Xie

Extended Resource Information Services Based-on Directory Service Technology 905
Liang Hu, Kuo Tang, Kuo Zhao, Dong Guo, Bing Liang

Web Services Based on Grid Technology 910
Huiying Xu, Jianmin Zhao, Xinzhong Zhu, Zhiyong Li

The Measurement Model of Grid QoS 914
Zhiang Wu, Junzhou Luo

Security in CSCW Systems

Security Analysis of Routing Protocol for MANET 920
Ying-Long Wang, Ji-Zhi Wang, Mei-Qin Wang

Neighbourhood-Trust Dependency Access Control for WFMS 924
Jianming Yong

MatchMaker - A Flexible Synchronizing Mechanism for Distributed Applications through Firewalls 929
Jansen N. Baloian, José A. Pino

A Distributed Domain Administration of RBAC Model in Collaborative Environments 935
Yahui Lu, Li Zhang, Yinbo Liu, Jiaguang Sun

A CA-Based Security e-Government System 941
Shiquan Cong, Zhiyi Fang, Chao Zhang, Xiaonan Liu, Yingrui Zhang

Supporting Security in Dynamic Cooperation of Cross-Enterprise Services 946

Jingfan Tang, Zhijun He

Tracing the Source of Net-Virus within a Subnet 952
Lansheng Han, Varney Washington, Yuanbo Wang, Shuxia Han

Securely Sharing Data in Encrypted Databases 957
Lihua Yu, Gang Chen, Ke Chen, Jinxiang Dong

An Intelligent Risk Assessment System for AEC 963
Huiping Shang, Chimay J. Anumba, Dino M. Bouchlaghem

Remote Fault Diagnosis Based on Virtual Instrument Technology 969
Yunfeng Liu, Dong Miao, Yunhui Peng, Fei Meng

Temporal Role Hierarchies 974
Wei Dao, Yong Tang, Na Tang, Gaofeng Ji

Design of User Authentication System based on WPKI 979
Cheol-seung Lee, Hyeong-gyun Kim, Joon Lee

Awareness and Privacy in Groupware Systems 984
Min Kyung Kim, Hee-Cheol Kim

A Model to Incorporate Privacy in Organizational Memory Systems 989
Valeria Herskovic, Sergio F. Ochoa, José A. Pino

A Database Encryption Scheme for Enhanced Security and Easy Sharing 995
Gang Chen, Ke Chen, Jinxiang Dong

Intelligent Agents in Intrusion Detection of CSCW Systems 1001
Zhimin Yang, Hai Cao, Wei Tang

RTFW: An Access Control Model for Workflow Environment 1005
Shengye Lu, Hao Jiang

A Network Access Control Architecture Using State-Transfer-Based Dynamic Policy 1010
Cheng Zang, Zhongdong Huang, Gang Chen, Jinxiang Dong

Resilient Rights Protection for Product Data 1015
Ke Chen, Gang Chen, Tian-lei Hu, Jin-xiang Dong

A Trust Model for SEUGrid: a Grid Platform for Monte Carlo Simulation 1021
Yaobin Xu, Junzhou Luo, Liang Ge

Analysis and Countermeasure of Selfish Node Problem in Mobile Ad Hoc Network 1027
Li Xu, Zhiwei Lin, Ayong Ye

Data and Information Management

Automated Patent Document Summarization for R&D Intellectual Property Management 1031
Amy J.C. Trappey, Charles V. Trappey, Burgess H. S. Kao

Universal Data Model Platform: The Data-Centric Evolution for System Level Co-design 1037
Kun Tong, Jinian Bian, Haili Wang

Ontology Definition Metamodel based Consistency Checking of UML Models 1043

Shengjun Wang, Longfei Jin, Chengzhi Jin

Research on P2P Hybrid Information Retrieval Based on Ant Colony Algorithm 1048
Yang Cao, Shaozi Li

Integration of Distributed Geographical Information Based on Mediation and GML 1053
Yang An, Bo Zhao

Collaborative Agents Supported Automatic Physical Database Design Based on Description Logics Reasoning 1059
Tian-Lei Hu, Gang Chen, Yin-Jie Hong, Xiao-Long Zhang, Jin-Xiang Dong

Quantitative Evaluation of Workspace Collaboration 1065
Antonio Ferreira, Pedro Antunes

Research of the Access and Integration of Grid Database 1071
Xiufen Fu, Haishui Xu , Wenguo Hou, Yansheng Lu , Boxing Chen

Semi-Structure Data Management by Bi-Directional Integration between XML and RDB 1077
Jingtao Zhou, Mingwei Wang, Shusheng Zhang, and Hongwei Sun

An Architecture of Semantic Desktop Data Grid 1082
Mingwei Wang, Shusheng Zhang, Jingtao Zhou, Han Zhao

~~RDLM: A Resilient Mechanism for Data Location in Distributed Collaborative Environment~~ ~~1088~~
~~*Wei Ye, Ning Gu*~~

Statistical Evaluation of Information Distribution Algorithms in a Mobile Agent-Based Dynamic Information System 1094
Iftikhar Ahmed, M. J Sadeq

Virtual Reality and CAD

A Local Registration Approach of Medical Images with Niche Genetic Algorithm 1099
Wen Peng, Ruofeng Tong, Guiping Qian, Jinxiang Dong

Partner Selection and Evaluation in Agile Virtual Enterprise Based upon TFN-AHP Model 1105
Jian Cao, Gengui Zhou

Heterogeneous CAD Hybrid Data Exchange Based on Feature Semantics and Geometry Representation 1111
Lei Chen, Wei Peng, Xiuzi Ye

Feeling the Softness of Virtual Objects with a Continuous and Passive Haptic Device 1116
Juan Wu, Aiguo Song, Jianqing Li

An approach of Multidisciplinary Collaborative Design for Virtual Prototyping in Distributed Network Environment 1121
Heming Zhang, David Chen

3D Fractal Tree Based on Growth Simulation System 1127
J. Chen , H. Liu

Realization of Multilayer Occlusion between Real and Virtual Scenes in Augmented Reality 1132
Yan Feng, Wenjie Du, Xiaoqi Guan, Fei Gao, Yimin Chen

Research and Development of Distributed VR Driving System Based on Virtools 1137

Xunxiang Li, Dingfang Chen, Le Wang, Anding Li

A Service Driven Coordination Model in Virtual Enterprise 1142
Wei Liu, Wei Du

Retained-Mode Parallel Graphics Rendering For Cooperative Design Environments 1148
Zhefan Jin

Simulations and Animations for CAD/CAE Software 1154
R. Robert Gajewski

An Adaptive-Filtering Policy for Distributed Virtual Environments 1158
Ling Chen, Wei Liu, Gencai Chen

Research on Interactive Mice System and the Key Technologies 1164
Yu Song, Shiwei Cheng, Shouqian Sun

Approach of Interactive Operation of VRML Model in Virtual Collaborative Design 1168
Wei Zhao, Lianguan Shen, Mujun Li, Jinjin Zheng

Workflow Management

Formal Model of Workflow Integration and its Application in STISAG 1173
Zhijun Ding, Zhaohui Zhang, Changjun Jiang, Meiqin Pan

The Specification of Workflow Activity Multiple Instances 1179
Ruizhi Sun, Guangli Liu, Meilin Shi

Implementation of a YAWL Work-List Handler based on the Resource Patterns 1184
Huixin Tan, Wil M.P. van der Aalst

Optimal Allocation of Workflow Resources with Cost Constraint 1190
Zhijiao Xiao, Huiyou Chang, Yang Yi

Integrate Policy based Management and Process based Management - A New Approach for Workflow Management System 1196
Song Ouyang

Design of an Automatic Workflow Modeling Method in Cooperative WFMS 1202
Yan Li, Yuqiang Feng

Analysis of Workflow Schedulability Based on Time Constraint Petri Nets 1208
Lin Feng, Hao Jiang

Workflow Modeling for Virtual Enterprise: a Petri Net Based Process-View Approach 1213
Xinyu Shao, Ping Jiang, Haobo Qiu, Liang Gao

Upper Bound Estimation of Turnaround Time Based on Fuzzy Temporal Workflow Net 1219
Hui Ma, Yong Tang, Yan Pan

Time Performance Evaluation for Workflow Based on Extended FTWF-nets 1224
Yan Pan, Yong Tang, Ji'an Xu, Kaishun Wu

Increasing Flexibility in Process Deployment with the Process Beans Composer 1229
Andrea M. Magdaleno, Vanessa T. Nunes, Renata M. Araujo, Marcos R.S. Borges

Research of Workflow Modeling Based on Concurrent Transaction Logic 1235
Zhilin Feng, Jianwei Yin, Zhaoyang He

Cooperative Workflow Research Based on the Knowledge Library 1239
Junfeng Hu, Xiufen Fu, Shaohua Teng, Shiling Li, Baixing Chen

A Workflow System Based on Ontology 1244
Zhilin Yao, Shufen Liu, Shichun Pang, Zhaoqing Zheng

E-Commerce and E-Business

Co-assembler - Supporting Collaborative Product Configuration for Customer-oriented e-Commerce 1249
Sophia M K Soo, Stephen C F Chan, Vincent T Y Ng

A Component-Driven Development Framework for e-Business Systems 1254
Hwa Gyoo Park

Effects on Sales by Virtual Community Interactions: A Social Network Analysis 1258
Sushil K Sharma, Huinan Xu

Research on Virtual Logistic Enterprises Partners Selection Method Based on CLIQUE 1263
Song Xu, Lixin Shen, Jun Zhai,Zan Yang,Yongxian Li

An Evolutionary Approach to Enterprise Process Collaborative Modeling Using Intelligent Software Agents 1268
WenAn Tan, Weiming Shen, Jianming Zhao, Qi Hao

A Dynamic Evaluation Methodology for Enterprise Business Process 1274
WenAn Tan, Song Li, Weiming Shen

Application of Business Rule in CSCW System 1280
Jinjiao Lin, Chengxiang Song, Haiyang Wang

Synergic Production Process Controlling in Supply Chain Management 1285
Tianyang Dong, Ling Zhang, Ruofeng Tong, Jinxiang Dong

Software Leasing: A Virtual Enterprise Oriented ASP Solution to Small and Middle Enterprise Information Service 1290
Qingzhou Niu, Hengzhou Ye, Xinxiao Li, Xiaomei Tao

Networked Manufacturing

An Efficient Method for No-Wait Flow Shop Scheduling to Minimize Makespan 1296
Xiaoping Li, Qian Wang, Cheng Wu

A Scheduling Holon Modeling Method with Petri Net and its Optimization With a Novel PSO-GA Algorithm 1302
Fuqing Zhao , Qiuyu Zhang , Yahong Yang

A Novel Task Allocation Problem Solution with PSO Algorithm for Holonic Manufacturing System 1308
Fuqing Zhao, Qiuyu Zhang, Yahong Yang

CR-Oriented Research on Product Configuration Management Modeling based on PFSC for Aero Subcontract Production 1314
Zhiqiang Jiang, Xilan Feng, Xuewen Zong

Expert system for vehicle body assembly conceptual design, 1321
Yubing Li, Guanlong Chen, Xinming Lai, Cheng Zheng, Yanfeng Xing

An Implementation for Collaborative Manufacturing Platform Oriented to Distributed Environment 1327
Jian-feng Guo, Xin-jian Gu, Liang-ping Cui, Jun Ma, Sheng-fa Wang, Hong-fei Zhan

Development of an Expert System for the Trim Die Design in Automotive Industry 1333
Sang-Jun Lee, Tae-Soo Kim, Seoung-Soo Lee, Keun-Sang Park

Development of an Expert System for the Draw Die Design in Automotive Industry 1338
Tae-Soo Kim, Sang-Jun Lee, Soon-Kyu Lim, Seoung-Soo Lee

Dynamic Manufacturing Job Management in Manufacturing Grid 1344
Shuhui Zhang, Xiangxu Meng, Shijun Liu, Ruyue Ma, Lei Wu

Building a Collaborative Manufacturing System on an Extensible SOA-based Platform 1350
Qiu Chen, Jun Shen, Yongqiang Dong, Jiangpeng Dai, Weijun Xu

A Federated Integration of Networked Manufacturing Platforms 1356
Yun Xu, Tianyuan Xiao, Ce Liang, Linxuan Zhang

E-Learning

WFMS-based Data Integration for e-Learning 1361
Jianming Yong, Jun Yan, Xiaodi Huang

A Cooperative Authoring System for Teaching Chinese as a Foreign Language 1367
Shaoyong Yu, Shaozi Li

Context Modelling to Support Location Based Cooperative Mobile Learning 1372
Bin Hu, Philip Moore

An Exploration for Influencing Factors of Interaction Learning in Web-based Instruction 1377
Xiufang Sun, Wenfa Zhan

A Context Framework for Entity Identification for the Personalisation of Learning in Pedagogic Systems 1381
Philip Moore, Bin Hu

A Web-based Framework for On-line Collaborative Learning 1387
Lidan Shou, Bin Cui, Gang Chen, Jinxiang Dong

Investigating Learner Attitudes toward a Collaborative E-Learning System 1393
Shu-Sheng Liaw , Hsiu-Mei Huang

Collaborative Learning in E-Learning based on Multi-Agent Systems 1398
Zhi Liu, Hai Jin, Zhaolin Fang

A Question Answering System Approach for Collaborative Learning 1403
Chun-Chia Wang, Jason C. Hung, Che-Yu Yang, Hsuan-Pu Chang

Multi-agent Cooperative Learning Research Based on Reinforcement Learning 1408
Fei Liu, Guangzhou Zeng

An Agent-based E-Learning Assessing and Instructing System 1414
Zhi Liu, Zhang Wang, Zhaolin Fang

A Method for Learner Grouping Based on Personality Clustering 1420
Jin Du, Qinghua Zheng, Jiao Ding, Zhiyong Gong

A Speech Enhancement Approach for Live Teaching System Using a Novel Hybrid Double Talk Detector 1426
Qinghua Zheng, Weizhan Zhang, Sha Gong, Yiqin Yu, Geli Lv

Other Applications

Integrated Examination Management System Based on Computer Supported Cooperative Work 1430
Jian Liu, Xiaosu Chen, Xiangdong Feng

A Distributed GLR Scheme for 3G Cellular Networks 1435
Bin Lu, Hong Jiang

Proactive Maintenance with Variant Workload under Distributed Multimedia Application Systems 1441
Jiwen Wang, Qingmei Wang, Fengyu Liu

An OBSM Method for Real Time Embedded System 1444
Liu Fang, Ming Cai, Jinxiang Dong, Meirong Xu

Research and Design on a Web-Based System for Spatial Data Co-Edit 1450
Chaozhen Guo, Jianbin Zhuang, Jia Wu

Design a Transparent MGCP Media Switch 1454
Renjie Pi, Xiaosu Zhan, Yue Ma