The Eighth International Symposium on Computer and Information Sciences

ISCIS VIII

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PROCEEDINGS

Edited by

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and E. GELENBE (DUKE UNIVERSITY)

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PROGRAM FOR ISCIS VIII

MONDAY, NOV. 1
9:00 - 10:30
Opening Session
Co-Chaired by Professors A. Dogac (ODTU-Ankara), A. E. Harmanci (ITU-Istanbul) and A. R. Kaylan (Bogazici University - Istanbul), former program chairs of ISCIS conferences.

Erol Gelenbe (Duke University): Introduction to the ISCIS Series
Levent Gun and Raif O. Onvural: Introduction to ISCIS VIII
Professors A.E. Harmanci and A.R. Kaylan: “Computing at Bogazici University and Istanbul Technical University”

Keynote Presentation by Drs L. Gun and R. O. Onvural, IBM, USA: “An Architectural Solution to the Challenges in High-Speed Networks.”

MONDAY, NOV. 1 (11:00 - 12:00)
3a. ARTIFICIAL INTELLIGENCE I
0637- “Knowledge Architecture for environment representation in autonomous agents”, D. Maio, S. Rizzi, D.E.I.S. Univ. of Bologna, ITALY
0714- “Pattern of Reasoning with Inheritance Networks”, N. Obeid, University of Essex, ENGLAND

2c. NUMERICAL ANALYSIS
0613- “Block iterative method of Cimmino-type for sparse systems of linear equations on a transputer network”, G. Zilli, Universita di Padova, ITALY
0629- “Parallel Algorithm for Solving Sine Gordan Equation”, A. S. Roomi, Amman University, JORDAN
0741- “Efficient Secondary Memory Processing of Window Queries on Spartial Data”, E. Nardelli, G. Proietti, IASI, ITALY
0781- “Construction of Convex and Star Shapes with Yontsal Functions”, E. Akleman, Yildiz Technical University, TURKIYE

MONDAY, NOV. 1 (13:30 - 17:00)
1c. NETWORKS AND COMMUNICATIONS I
0611- “The Open Multimedia System Architecture: An Overview”, S. Baydere, S.M.V. Hailes, University College London, UK
0718- “Virtual Lines, a deadlock free and real-time routing mechanism for ATM networks”, G. J. M. Smit, P. J. M. Havings, W. H. Tibboel, University of Twente, THE NETHERLANDS
0736- “Protocol Verification Using Deductive Machine”, R. Lai, La Trobe University, AUSTRALIA
0640- “A Recovery-Based Stabilization Procedure for Communication Protocols”, K. Saleh, I. Ahmad, K. Al-Saqabi, Kuwait University, KUWAIT
0720- “A Combinatorial Formula to enumerate Rewriting chains using Rules of type ab-\rightarrow ba and its Application to Communicating Systems”, H. Mountassir, UFR des Sciences et Techniques, FRANCE
0750- “Mapping Communication System Components to Objects”, X. Castellani, Laboratoire CEDRIC, IIE-CNAM, FRANCE

1c.l DATABASE I
0786- “Unchained Transaction in the Peer-to-Peer Chained Environment of SNA’s LU 6.2”, G. Samaras, A. Citron, IBM, USA
0748- “A Pre-condition and Post-Condition Mecanism to Enforce Integrity in an Object-Oriented DBMS”, B. Defude, Institut National des Telecommunications, H. Martin, Laboratoire de Genie Informatique, FRANCE
0753- “A Concept of Type Derivation for Object-Oriented Database Systems”, J. Eder, M. Dobrovnik, Universitat Klagenfurt, AUSTRIA
0749- “Efficient Ordering of Path Traverals in Object-Oriented Query Optimization”, C. Ozkan, A. Dogac, C. Evrendilek, T. Gesli, METU, TURKEY
0742-"Effecient Optimization of Large Join Queries Using Tabu Search", M. Matysiak, Technical University of Poznan, POLAND
0619-"Incremental clustering for very large databases initial MARIAN experience", F. Can, Bilkent University, TURKIYE
0708-"Nested Transactions: Reviewing the Coherency Contract", R. Guerraoui, IN, SUISSE

1c. ALGORITHMS, LANGUAGE AND PROGRAMMING

page 161
0702-"Towards O.O. Algebraic Specification of (non-concurrent) Reactive Systems", N. Habra, Institut d'Informatique, BELGIUM
0731-"Parametric Analysis of Stochastic Automata Networks", F. Quessette, Universite de Paris Sud Orsay, FRANCE
0734-"Parsing Constituents with Categorial Grammers", H. C. Bozsaahin, METU, TURKIYE
0755-"Symbolic Proof of CTL Formulae over Petri Nets", P. Racloz, D. Buchs, Universite de Geneve, SWITZERLAND
0632-"A Parallel Sorting Algorithm based on Quick Sort using a 2-D Grid", G-H Ong, S-C Tay, K-P Tan, National University of Singapore Republic of Singapore
0634-"Improved Speedup of Parallel Branch-and-Bound for 0-1 Integer Programming Problems", R. M. Wiegers, Delft University of Technology, The NETHERLANDS
0728-"SBOTGA- An SDL Behavior Optimisation Tool using Generic Algorithms", B. Rasheed, University of Strathclyde, UK
0727-"Optimization of Behaviors of Single and MultiProcess SDL Systems by Generic Algorithms", B. Rasheed, University of Strathclyde, UK

WELCOME COCKTAIL 18:00

TUESDAY, NOV 2 (9:00 - 12:00)

2a. NEURAL NETWORKS, ARTIFICIAL INTELLIGENCE, AND FUZZY SYSTEMS

page 217
"A Global Review of Fuzzy Dynamic System & Fuzzy Linguistic Controller".
Invited Speaker Professor Paul P. Wang, Duke University.
0766-"Using Genetic Algorithms to improve Stochastic Optimization Methods", M. Krueger, ENST, FRANCE
0771-"Collective Learning Generally Overcomes Local Optima and Converges to the Global Optimum", R. Salomon, ICSI, USA
0769-"A Connectionist Rule-based Shell", T-S Quah, C-L Tan, National U. of Singapore, REPUBLIC OF SINGAPORE
0643-"A Neural Network Using Kirsh Masks for OCR" T. Bircan, U. Halici, METU, TURKIYE
0638-"Approximate Reasoning using Linguistic Valuations", F. Khoukhi, FRANCE
0751-"Qualitative variable selection for similarity calculation", Z. Issa, G. Khalil, CNAM, FRANCE
0765-"Learning Feature-based Semantics of a Subset of Turkish Sentences", S. Tin, METU, TURKIYE

2b. ALGORITHMS AND THEORY

page 282
0609-"String Editing With Substitution, Insertion, Squashing and Expansion Operations", B. J. Oommen, Carleton University, CANADA
0739-"On the Polygon Retrieval Problem", V. Bistiolias, D. Sofotassios, A. Tsakalidis, Computer Technology Institute, GREECE
0780-"Approximate classification with a new interpretation for decision trees", S. M. Mohiddin, La Trobe University, AUSTRALIA
0631-"A Data Compression Scheme for Chinese Text Files using Huffman Coding and a Two-Level Dictionary", G-H Ong, S-Y Haung, National University of Singapore, Republic of Singapore
0732-"Parallel lossless Image Compression Algorithm: Towards Better Compression", Z. A. Bakar, University of Malaya, MALAYSIA
0628-"Transformations as Proofs", M. C. Henson, University of Essex, UK
2c. SOFTWARE ENGINEERING

0772-“Control Intergration Over a Software Engineering Platform”, K. Foughali, B. Folliot, UPMC-MASI, FRANCE
0709-“An Object-based Approach to Software Engineering Environments”, L. Bendix, Universitat-GH-Siegen, GERMANY
0620-“Tolerating Latency with Dagger”, A. Gursoy, L.V. Kale, U. of Illinois at Urbana-Champaign, USA
0701-“Logic Program Synthesis from Incomplete Specifications”, P. Flener, Bilkent University, TURKIYE
0776-“Use of an Entity-Relationship Approach to Represent a Linguistic Model”, L. Bouzidi, I. A. E. - Universite Jean Moulin, FRANCE
0770-“The Implementation Model of Configuration Management”, T. Koszlajda, Technical University of Poznan, POLAND
0719-“Users’ Reactions to a Quality Assurance Tool”, J. B. Thompson, University of Sunderland, UK

TUESDAY, NOV 2 (13:30 - 17:00)

2d. DISTRIBUTED SYSTEMS

0713-“Dealing with Abstract Data Types and Recoverability in the Recovery Processing”, M. D. Billard, Universite de Montpellier II, FRANCE
0724-“Decentralized Dynamic Load Balancing: The Particles Approach”, H-U Heiss, M. Schmitz, University of Karlsruhe, GERMANY
0636-“DLisp: a Distributed Lisp System: Design Criteria and Preliminary Results”, M. M. Fumari, C. Di Napoli, Istituto di Cibermetica, CNR, ITALY
0762-“Information Propagation Relation for Efficient Debugging of Distributed Systems”, O. Basbugoglu, I. Aybay, METU, TURKIYE
0774-“Integration of Hectrogeneous Real-Time Components in Distributed Industrial Applications”, V. Bacvanski, Aachen University of Technology D. Gruska, MFF Comenius University, GERMANY V. V. Keere, University of Gent, BELGIUM

3b. ARTIFICIAL INTELLIGENCE

0729-“HYPERSOLVER: A Graphical Tool for Commonsense Set Theory”, V. Akman, M. Pakkan, Bilkent University, TURKEY
0730-“Inscriptors: Knowledge representation for Cognition”, D. Davenport, Bilkent University, TURKEY
0733-“A New Technique to Handle Multicriteria Fuzzy Decision-Making Problems”, Shyi-Ming Chen, Taiwan, R.O.C
0746-“Criteria for Evaluating Fuzzy OODB Models”, A. Yazici, D. Aksoy, METU, TURKIYE
0623-“A Speech Synthesis System for Turkish Language Based on the Concatenation of Phonemes Taken from a Speaker”, M. M. Bulut, I. Y. Ozum, METU, TURKIYE
0630-“Computing with Situations”, E. Tin, V. Akman, Bilkent University, TURKIYE
0726-“A Crossword Puzzle Generator for Turkish”, A. C. Cem Say, I. Berker, Bogazici University, TURKIYE
0763-“A Many-valued Logic for Default Reasoning”, M. Baaz, C. G. Fermuller, Technische Universitat Wien G. Quirchmayr, Johannes Kepler Universitat Linz, AUSTRIA
0777-“A Logic Based Production Model”, A. Mashour, A. Jazza, Yarmouk University, JORDAN

2b. NETWORK AND COMMUNICATIONS

0607-“Symbolic channel modeling for noisy channels which may permit arbitrary noise distributions”, B. J. Oommen, Carleton University, CANADA
0747-“Estimating the Signal Quality of a Satellite Link Using Soft-Quanitized Bits”, D. Kreuer, Lehrstuhl Informatik IV, GERMANY
0608-“Weak processes and laws of nondeterminism and divergence”, M. Ferguson, R. Johnson, INRS-Telecommunications, CANADA
0603-“Secure Key Management in a Global Network”, D. Trcek, Jozef Stefan Institute, SLOVENIA
0633-“Deriving Protocols for Mobile Service Users”, M. Kapus-Kolar, Jozef Stefan Institute, SLOVENIA
0625-“Incremental redundancy ARQ system using sequential decoding and code combining technique for point-to-multipoint communications”, N. Taspinar, Erciyes University, TURKIYE

CONFERENCE DINNER - 8:00 PM
WEDNESDAY, NOV. 3 (9:00 - 12:00)

POSTER SESSION


“Feasibility Study of a Product Design with Finite Element Analysis in Computer Integrated Manufacturing Systems”, S. Onut, F. Guney, Yildiz Technical University, TURKIYE

“Distributed Dynamic Load Balancing on a Network of Transputers”, N. Aktas, Ege University, TURKIYE

“A Parallel Fast Fourier Transform Algorithm for a Distributed Memory Computer System”, O. Ozkasap, Ege University, TURKIYE

“A Parallel Prolog Debugger”, A. Mirasoglu, I. Aybay, METU, TURKIYE


“A Software Change Model for Multi-Agent Environment”, S. Ying, Universita degli Studi di Milano, ITALY

“A Queuing Network Model for Performance Analysis of Cache-Based Multiprocessor Systems”, G. Prina, ITALY


“A Simulation Approach to the Measure of Internal Performance in Total Quality Management”, H. Baraci, B. Gulsun, A.F. Guneri, Yildiz Technical University, TURKIYE

“The Computer Assisted Modeling of the Piping Defect in Direct Extrusion Processes with Conical Dies”, G. Erdem, ERDEMIR, TURKIYE

“An Optical Associative Data/Knowledge Base Machine Based on Symbolic Substitution Logic”, S. Akyokus, Yildiz Teknik Universitesi, TURKIYE

“GEOF: A Transition Tree Semantic Grammar Parser”, S. S. Salim, University Malaya, MALAYSIA

3b. APPLICATIONS

“Structured Hypertext creation using templates: auto template tool for HypAS”, F. Can, R. S. Sequeira, Miami University, USA

“Recognition of circular shapes on a SIMD-parallel machine”, R. Cucchiara, Universita’ di Ferrara, FRANCE

“Recognition of Musical Tonality with Finite State Automata”, O. Izmirli, S. Bilgen, METU, TURKIYE

“The Use of Chaos Observation in Forward Plant Dynamics”, N. B. Beser, ELIMCO, Turkiye

“A Consultant Expert System for Postoperative Cardiac Surgery Intensive Care Unit”, H. Sirin, Izmir State Hospital, B. Alakent, Ege Universitesi, TURKIYE

“A Microkernel Platform For Shop-Floor Automation”, E. Damiani, O. D’Antona, Universita di Milano, ITALY

1d. SOFTWARE ENGINEERING AND DISTRIBUTED SYSTEMS

“Re-Engineering Towards Object-/oriented Environments: The Troop Approach”, O. Signore, M. Loffredo, CNUCE-Institute of CNR, ITALY


“Extending A Single Resolution System Towards A Distributed Society”, K. Urzelai, Universitat Politecnica de Catalunya, SPAIN

“Consistent Cuts Lattice and Sub-Lattices”, R. Medina, LIRMM-CNRS, FRANCE

“A Dataflow Model for Datalog Parallel Evaluation”, J. F. Aldana, J. M. Troya, Universidad de Malaga, SPAIN

“Specification and Verification of Parametrized Parallel Programs”, I. Vernier, Universite Paris 6, FRANCE

“Providing Relevant Additional Information to Users Asking Queries Using a Galois Lattice Structure”, N. Belkhiter, J. Desharnais, T. Moukam, Laval University, CANADA A. Jaoua, Faculte des Sciences de Tunis, TUNISIE