

From the journals. . . .

Ai communications

Vol. 7 Nos. 3/4

Articles

Software secretary kernel: an extendable architecture for learning and negotiating personal assistants

S. Bocionek

Artificial intelligence through logic?

R. Omar

Temporal reasoning in REAKT: an environment for real-time knowledge-based systems

F. Barber, V. Botti, E. Onaindia and A. Crespo

Computing and information compression: a reply

J. G. Wolff

Conference reports

EWCBR'93: 1st European Workshop on Case-Based Reasoning

D. Allemang

ECSQURA'93: 2nd European Conference on Symbolic and Quantitative Approaches to Reasoning and Uncertainty

W. Liu

KB&KS'93: 1st Conference and Workshop on Building and Sharing of Very Large-Scale Knowledge Bases

N. J. I. Mars

Report on the 1993 Bolzano International School in Philosophy and Artificial Intelligence: NLP and Multilingualism

S. Geldof

Book reviews

Theses

Letters to the Editor

News

Acknowledgements

Calendar

Colophon

Ai magazine

Vol. 15 No. 1

Articles

A reply to the paradoxical success of fuzzy-logic

H. R. Berenji, P. P. Bonissone, J. C. Bezdek, D.

Dubois, R. Kruse, H. Prade, P. Smets and R. R.

Yager

The theorem in my paper is correct

C. Elkan

The 1st international conference on intelligent systems for molecular biology

D. Searls, J. Shavlik and L. Hunter

Aaai 1993 fall symposium reports

T1 Mind, evolution, and computers

J. R. Abrahamson

Walker, Donald, E. – A remembrance

B. Grosz and J. R. Hobbs

The intelligent hand – an experimental approach to human object recognition and implications for robotics and AI

S. J. Lederman and R. L. Klatzky

Pi-in-a-box – a knowledge-based system for space science experimentation

R. Frainier, N. Groleau, L. Hazelton, S. Colombano,

M. Compton, I. Stalter, P. Szolovits and L. Young

The long-term effects of secondary sensing

D. P. Miller

Designing the 1993 robot competition

K. Konolige

Aaai-93 workshops – summary reports

Intelligent path prediction for vehicular travel

J. Krozel

Vol. 15 No. 3

Articles

A report to ARPA on 21st-century intelligent systems

B. Grosz and R. Davis

Aaai 1994 spring symposium series reports

Designing conventions for automated negotiation

J. S. Rosenschein and G. Zlotkin

Frontiers in run-time prediction for the production-system paradigm

F. Barachini

Applying metrics to machine-learning tools – a knowledge engineering approach

F. Alonso, L. Mate, N. Juristo, P. L. Munoz and J.

Pazos

3rd workshop on enabling technologies – infrastructure for collaborative enterprises

K. J. Cleetus

Kdd-93 – progress and challenges in knowledge discovery in databases

G. Piatetskyshapiro, C. Matheus, P. Smyth and R.

Uthurusamy

The 4th international workshop on nonmonotonic reasoning

D. W. Etherington and H. A. Kautz

Vol. 15 No. 4

Articles

Some highlights of the AAAI-94 and IAAI-94 conference—AIS accomplishments and challenges

S. Hedberg

On babies and bathwater—a cautionary tale

P. J. Hayes, K. M. Ford and N. Agnew

An introduction to least commitment planning

D. S. Weld

Research issues in qualitative and abstract probability

M. Goldszmidt

Expertise in context—report on the 3rd International Workshop on Human and Machine Cognition

R. R. Hoffman and E. Dietrich

Comparative-analysis of AI planning systems—a report on the AAAI workshop

D. E. Wilkins

AI in business-process reengineering

W. Hamscher

The 1993 International Logic Programming Symposium.

V. Dahl

The 1994 Florida AI Research Symposium

R. R. Hoffman

Ai applications

Vol. 8 No. 3

Articles

Special issue on AI and the natural world

Artificial intelligence and the natural world

B. McKay and R. Davis

Australian expert-systems for natural systems

W. D. Wilde

Pestman – a decision-support system for pest-management in the Australian central grain-handling system

B. C. Longstaff and P. Cornish

Texture-discrimination by neural networks and global optimization

K. K. Benke and D. R. Skinner

Knowledgepro gold for windows (\$359), kpin++ (\$598) and kpin sqlkmit (\$264)

W. Lanier

Intelligent retrieval of historical meteorological data

E. K. Jones and A. Roydhouse

Object orientation in a spatial decision-support system for grazing land management

D. Lowes and J. A. Bellamy

An expert-system for estimating nutrient generation rates

R. Davis

Machine learning of geospatial relations

B. McKay

Knowledge-based decision-support system for crop-rotation

S. B. Tennakoon and C. J. Bell

Decision tree models of bushfire activity

D. L. Dowe and N. Krusel

Applied intelligence

Vol 4 No. 3

Articles

Special issue on applications of machine learning to complex problems – introduction

S. M. Weiss and N. Indurkha

Prototype-based minimum error training for speech recognition

E. McDermott and S. Katagiri

Learning relational structures – applications in computer vision

A. R. Pearce, T. Caelli, W. F. Bischof

Case-studies in high-dimensional classification

C. Apte, R. Sasisekharanm, V. Seshadri and S. M. Weiss

Classification trees with bivariate splits

D. Lubinsky

Graph-based induction as a unified learning framework

K. Yoshida, H. Motoda and N. Indurkha

Vol. 4 No. 4

Articles

Hybrid intelligent packing system (HIPS) through integration of artificial neural networks, artificial-intelligence, and mathematical-programming

A. Bahrami and C. H. Dagli

A self-organized model for the control, planning and learning of nonlinear multidimensional systems using a sensory feedback

S. Gibet and P. F. Marteau

Reinforcement learning of iterative behavior with multiple sensors

P. Piggott and A. Sattar

On a system of understanding assembly illustrations in an assembly manual

S. J. He, N. Abe and T. Kitahashi

Applied artificial intelligence

Vol. 8 No. 3

Articles

Qualitatively modeling photosynthesis

J. E. Hunt and D. E. Cooke

Mrg – building planners for real-world complex applications

P. Traverso, A. Cimatti, L. Spalazzi, A. Armando and E. Giunchiglia

Case-based reasoning in environmental monitoring applications

G. P. Lekkas, N. M. Avouris and L. G. Viras

Artificial-intelligence in scheduling and instruction selection for digital signal processors

K. H. Yu and Y. H. Hu

Designing complex-systems within distributed architectures – an intelligent tutoring systems perspective

A. Gisolfi and V. Loia

Improving the scope of intelligent tutoring by adapting a case-based methodology through a distributed architecture

J. E. Vargas and C. J. Kee

Semantic analysis and in-depth understanding of technical texts

M. Cavazza and P. Zweigenbaum

Vol. 8 No. 4

Articles

Explanation-based natural-language acquisition using universal linguistic principles as innate domain theory

R. L. Liu and V. W. Soo

Reinforcement learning or tracking of input-output maps

M. Heiss

Industrial expert-system acquired by machine learning

M. Elattar and X. Hamery

Fielded machine learning-system for vocational counseling

H. Kjellin and M. Boman

Analyzing French justice with a genetic-based inductive algorithm

G. Venturini

Knowledgeable learning using mobal—a medical case-study

K. Morik, G. Potamias, V. S. Moustakis and

G. Charissis

Machine learning goes to the bank

C. Nedellec, J. Correia, J. L. Ferreira and E. Costa

Xplans—case-based reasoning for plan recognition

M. Bares, D. Canamero, J. F. Delannoy and

Y. Kodratoff

Optimizing an air defense evaluation model using inductive learning

Y. J. Lee and C. Y. Lo

Artificial intelligence

Vol. 68 No. 1

Articles

Computational theory for interpreting handwritten text in constrained domains

E. Cohen

Unifying default reasoning and belief revision in a modal framework

C. Boutilier

Conditional logics of normality – a modal approach

C. Boutilier

Investigating production system representations for non-combinatorial match

M. Tambe and P. S. Rosenbloom

Vol. 68 No. 2

Articles

Experimental evaluation of preprocessing algorithms for constraint satisfaction problems

R. Dechter and I. Meiri

Automatically generating abstractions for planning

C. A. Knoblock

Grammatically biased learning – learning logic programs using an explicit antecedent description language

W. W. Cohen

An empirical-analysis of terminological representation systems

J. Heinssohn, D. Kudenko, B. Nebel and H. J. Profitlich

Finding maps for belief networks is NP-hard

S. E. Shimony

What does a conditional knowledge-base entail (vol 555, pg 1, 1992)

D. Lehmann and M. Magidor

Vol. 69 Nos. 1/2

Articles

A high-performance explanation-based learning algorithm

A. Segre and C. Elkan

Extracting and representing qualitative behaviors of complex-systems in phase-space

F. Zhao

Anytime deduction for probabilistic logic

A. M. Frish and P. Haddawy

Bidirectional context-free grammar parsing natural-language processing

G. Satta and O. Stock

The computational-complexity of propositional strips planning

T. Bylander

Problem-solving by searching for models with a theorem prover

S. J. Lee, D. A. Plaisted

Multi-contributor causal structures for planning – a formalization and evaluation

S. Kambhampati S.

Learning Boolean concepts in the presence of many irrelevant features

H. Almuallim and T. G. Dietterich

Local consistency in parallel constraint satisfaction networks

S. Kasif and A. L. Delcher

Cumulative default logic – finite characterization, algorithms, and complexity

G. Gottlob and M. Y. Zhang

Default theories that always have extensions

C. H. Papadimitriou and M. Sideri

The hardest constraint problems – a double-phase transition

T. Hogg and C. P. Williams

2 counterexamples related to Baker's approach to the frame problem

G. N. Kartha

Iterative versionspaces

G. Sablon, L. Deraedt, E. Bruynooghe

Vol. 70 Nos. 1/2

Articles

The refinement of probabilistic rule sets: sociopathic interactions

D. C. Wilkins and Y. Ma

Inferences in probability logic

G. Geria

Minimal belief and negation as failure

V. Lifschitz

Exploiting the deep structure of constraint problems

C. P. Williams and T. Hogg

Knowledge-based artificial neural networks

G. G. Towell and J. W. Shavlik

Alternative approaches to default logic

J. P. Delgrande, T. Schaub and W. K. Jackson

On the complexity of labeling perspective projections of polyhedral scenes

P. Parodi and V. Torre

Causal approximations

P. P. Nayak

Easy problems are sometimes hard (Research Note)

I. P. Gent and T. Walsh

On point-based temporal disjointness (Research Note)

A. Gerevini and L. Schubert

A non-minimal but very weak axiomatization of common belief (Research Note)

L. Lismont and P. Mongin

First-order *jk*-clausal theories are PAC-learnable (Research Note)

L. De Raedt and S. Džeroski

Announcements

Forthcoming papers

Author index

Master index – Volumes 61–70

Vol. 71 No. 1

Articles

Motivated action theory: a formal theory of causal reasoning

L. A. Stein and L. Morgenstern

Downward refinement and the efficiency of hierarchical problem solving

F. Bacchus and Q. Yang

On proving the termination of algorithms by machine

C. Walther

An optimal backtrack algorithm for tree-structured constraint satisfaction problems

R. J. Bayardo Jr and D. P. Miranker

On Stein's paper: resolving ambiguity in nonmonotonic inheritance hierarchies (Research Note)

G. Simonet and R. Ducournau

Agent searching in a tree and the optimality of iterative deepening (Research Note)

D. Dasgupta, P. P. Chakrabarti and S. C. DeSarka

Forthcoming papers

Vol. 71 No. 1

Articles

Motivated action theory—formal theory of causal reasoning

L. A. Stein and L. Morgenstern

Downward refinement and the efficiency of hierarchical problem-solving

F. Bacchus and Q. Yang

On proving the termination of algorithms by machine

C. Walther

An optimal backtrack algorithm for tree-structured constraint satisfaction problems

R. J. Bayardo and D. P. Miranker

On Stein's paper—resolving ambiguity in nonmonotonic inheritance hierarchies

G. Simonet and R. Ducournau

Agent searching in a tree and the optimality of iterative deepening

P. Dasgupta, P. P. Chakrabarti and S. C. Desarkar

Vol. 71 No. 2

Articles

Limited reasoning in 1st-order knowledge bases

G. Lakemeyer

Knowledge caching for sensor-based systems

Y. Roth and R. Jain

Possible world semantics and autoepistemic reasoning

L. W. Li

Robot shaping—developing autonomous agents through learning

M. Dorigo and M. Colombetti

Geometric reasoning about mechanical assembly

R. H. Wilson and J. C. Latcombe

Time-efficient state-space search

A. Reinefeld and P. Ridinger

Artificial intelligence in engineering

Vol. 8 No. 4

Articles

An imperative language for task-level planning – definition in temporal logic

E. Rutten and L. Marce

Temporal logic programming for assembly sequence planning

K. T. Seow and R. Devanathan

Large engineering knowledge bases

E. Tyugu

Approximate methods of structural-analysis and design in a knowledge-based system environment

M. Ravi and C. Bedard

An algorithm for automatic rule induction

D. T. Pham and M. S. Aksoy

Expert-MM – a knowledge-based system for maintenance management

D. Batanov, N. Nagarur and P. Nitikhunkasem

Qualitatively modeling the effects of electrical circuit faults

M. H. Lee, A. R. T. Ormsby

Decopan design – a knowledge-based system for industrial controlgear panels design

S. A. Manesis

Safety-critical neural computing – explanation and verification in knowledge augmented neural networks

J. H. Johnson, P. D. Picton and N. J. Hallam

Vol. 9 No. 1

Articles

A constraint-system shell to support concurrent engineering approaches to design

S. M. Fohn, A. R. Greef, R. E. Young and P. J. Ogrady

A knowledge-base for finite-element mesh design

B. Dolsak, A. Jezernik and I. Bratko

Rule-based control of a telecommunications network using the blackboard model

A. A. Hopgood

Multiagent collaboration in time-constrained domains

N. V. Findler and U. K. Sengupta

A comparison of design and nondesign problem spaces

V. Goel

Artificial intelligence and law

Vol. 2 No. 4

Articles

The pleadings game: An exercise in computational dialectics

Thomas F. Gordon

Coupling Hypertext and knowledge-based systems: Two applications in the legal domain

Paul Soper and Trevor Bench-Capon

Book Review

Mind, Machine and Metaphor: An Essay on Artificial Intelligence and Legal Reasoning

Alexander E. Silverman

Reviewed by J. C. Hage

Index of key words

Contents of volume 2

Artificial intelligence in medicine

Vol. 6 No. 4

Editorial

Virtual reality in medicine

S. Weghorst

Articles

Emerging medical applications of virtual reality: A surgeon's perspective

R. M. Satava

Augmenting reality in rehabilitation medicine

W. J. Greenleaf and M. A. Tovar

Methods in the Virtual Wetlab I: Rule-based reasoning driven by nearest-neighbor lattice dynamics

H. B. Siebung

Dynamic force feedback in a virtual knee palpation

N. A. Langrana, G. Burdea, K. Lange, D. Gomez and S. Deshpande

A resource guide to VR in medicine

T. Emerson, J. Prothero and S. Weghorst

Events

Vol. 6 No. 5

Editorial

Neural computing in medicine

N. Ezquerra and A. Pazos

Articles

On the quality of neural net classifiers

M. Egmont-Petersen, J. L. Talmon, J. Brender and P. McNair

A neural model of cortical map reorganization following a focal lesion

S. L. Armentrout, J. A. Reggia and M. Weinrich

Identifying the measurement noise in glaucomatous testing: An artificial neural network approach

X. Liu, G. Cheng and J. X. Wu

On using feedforward neural networks for clinical diagnostic tasks

G. Dorffner and G. Porenta

Removing the assumption of conditional independence from Bayesian decision models by using artificial neural networks: Some practical techniques and a case study

Y. C. Wu and D. H. Gustafson

Events

Artificial intelligence review

Vol. 8 No. 1

Articles

Operational concepts of non-monotonic logics. Part 1: Default logic

G. Antoniou and V. Sperschneider

An historical overview of natural language processing systems that learn

Robin Collier

A framework for integrating artificial intelligence and simulation

Georgios I. Doukidis and Marios C. Angelides

Book reviews

Planning English Sentences

Douglas E. Appelt

Reviewed by Leonard Bolc

Linguistic Instruments in Knowledge Engineering

R. P. van de Riet and R. A. Meersman

Reviewed by Leonard Bolc

Computational Linguistics and Formal Semantics

M. Rosner and R. Johnson

Reviewed by Leonard Bolc

Vol. 8 Nos. 2-3

Articles

Integration of natural-language and vision processing—computational models and systems

P. McKeivitt

The real-world computing program

R. Oka

An investigation into the common semantics of language and vision

S. Onuallain and A. G. Smith

Hierarchical labeling for integrating images and words

R. Oka

Quantitative perceptual representation of prepositional semantics

P. Olivier and J. I. Tsujii

From vision to multimodal communication—incremental route descriptions

W. Maass

Visual translator—linking perceptions and natural-language descriptions

G. Herzog and P. Wazinski

A vision of vision and language comprises action—an example from road traffic

H. H. Nagel

What you say is what you see—interactive generation, manipulation and modification of 3-d shapes based on verbal descriptions

Y. A. Tijerino, S. Abe, T. Miyasato and F. Kishino

Towards an American sign language interface

B. Dörner and E. Hagen

Integrating natural-language understanding with document structure-analysis

S. L. Taylor, D. A. Dahl, M. Lipshutz, C. Weir,

L. M. Norton, R. W. Nilson and M. C. Linebarger

Computer

Vol. 27 No. 7

Articles

Guest editor's introduction: Visualization

Arie E. Kaufman

Visualizing features and tracking their evolution

Ravi Samtaney, Deborah Silver, Norman Zabusky and Jim Cao

Volume models for volumetric data

Vishwa Ranjan and Alain Fournier

Distributed and collaborative visualization

Vinod Anupam, Chandrajit Bajaj, Daniel Schikore and Matthew Schikore

Parallel visualization algorithms: Performance and architectural implications

Jaswinder Pal Singh, Anoop Gupta and Marc Levoy

Glyphmaker: Creating customized visualizations of complex data

William Ribarsky, Eric Ayers, John Eble and Sougata Mukherjea

Interactive visualization of earth and space science computations

William L. Hibbard, Brian E. Paul, David A. Santek, Charles R. Dyer, André L. Battaiola and Marie-Françoise Voidrot-Martinez

Interactive methods for visualizable geometry

Andrew J. Hanson, Tamara Munzner and George Francis

Fourteen ways to say nothing with scientific visualization

Al Globus and Eric Raible

Vol. 27 No. 8

Articles

COOL: An object-based language for parallel programming

Rohit Chandra, Anoop Gupta and John L. Hennessy

Dataflow architectures and multithreading

Ben Lee and A. R. Hurson

The status of parallel processing education

Russ Miller

Using metrics to evaluate software system maintainability

Don Coleman, Dan Ash, Bruce Lowther and Paul Oman

Validating metrics for ensuring space shuttle flight software quality

Norman F. Schneidewind

Where is computing headed?

Ted G. Lewis

Vol. 27 No. 9

Articles

Guest editors' introduction: Software metrics

Taghi M. Khoshgoftaar and Paul Oman

Successfully applying software metrics

Robert B. Grady

Using metrics to manage software projects

Edward F. Weller

Modeling the relationship between source code complexity and maintenance difficulty

David L. Lanning and Taghi M. Khoshgoftaar

Using metrics in management decision making

George Stark, Robert C. Durst and C. W. Vowell

Case studies of software-process-improvement measurement

Daniel J. Paulish and Anita D. Carleton

Achieving software quality with testing coverage measures

Joseph R. Horgan, Saul London, and Michael R. Lyu

Evaluating software engineering standards

Shari Lawrence Pfleeger, Norman Fenton and Stella Page

Vol. 27 No. 10

Articles

Cache profiling and the SPEC benchmarks: A case study

Alvin R. Lebeck and David A. Wood

3D optical interconnects for high-speed interchip and interboard communications

Ahmed Louri and Hongki Sung

Displaying 3D images: Algorithms for single-image random-dot stereograms
Harold W. Thimbleby, Stuart Inglis and Ian H. Witten
 Mosaic and the world-wide web
Ronald J. Vetter, Chris Spell and Charles Ward

Porting Ada: A report from the field
Joseph G. Skazinski
 High-pressure steam engines and computer software
Nancy G. Leveson

Computers and artificial intelligence

Vol. 12 No. 1

Articles

Distributed AI, decentralized AI, and multiagent systems – foreword

J. Kelemen

The generation and execution of plans for multiple agents

M. J. Katz and J. S. Rosenschein

A communication architecture for cooperating agents

S. Bussmann and J. Muller

Distribution of strategies in a formalism of multiagent systems

H. D. Burkhard

Cooperating/distributed grammar systems with regular components

J. Dassow and G. Paun

Hybrid cooperating/distributed grammar systems

V. Mitran

Cooperating distributed grammar systems with registers – the regular case

S. Vicolov

A note on cooperating grammars with terminal productions

E. Csuhanjvarju and J. Dassow

Vol. 12 No. 2

Articles

The extent of cooperation in state-oriented domains – negotiation among tidy agents

G. Zlotkin and J. S. Rosenschein

On the size of a neighborhood of the 1st rank

E. Toman

Modifications of objects in a self-referencing systems

P. Tino and J. Sajda

Parallel optimization of join queries using a technique of exhaustive nature

M. Spiliopoulou, M. Hatzopoulos and C. Vassilakis

A parallel recognition of lines in binary images

V. Palko and M. Vajtersic

Optical-flow computation on a transputer-based architecture – the use of a parallel object-oriented programming environment

A. Ciampolini, A. Corradi, L. Leonardi and A. Venturini

Linear qualitative models – solution, application and engineering interpretation. 2. methodology, case-study

P. Popela, A. Siller and M. Dohnal

Vol. 12 No. 3

Articles

Exploiting small clauses in automatic theorem-proving

S. J. Lee

Serialization as a paradigm for the engineering of parallel programs

G. R. R. Justo and P. H. Welch

A graph-based approach to action scheduling in a parallel database system

P. W. P. J. Grefen and P. M. G. Apers

Major issues on PSEE – process software engineering environments

N. Belkhatir and M. Ahmednacer

Distinction of shapes

V. Kohout

Vol. 12 No. 6

Articles

Mb-Prolog – message brokered communication between Prolog processes

M. J. Wise

Semper – a programming environment for parallel object-oriented applications

A. Ciampolini, A. Corradi and L. Leonardi

Data-compression using the fast object-based transform with adaptive structure

M. Morhac and V. Matousek

Simulation approach to design of data-flow computer

R. Blasko, C. Benacka, P. Bognar

Relation between membership functions in fuzzy-sets theory and masses in Dempster-Shafer and operator-theory in logical inference systems

V. Olej, M. Lehotsky and J. Chmurny

Computational linguistics

Vol. 20 No. 3

Special issue on computational phonology

Introduction to computational phonology

Steven Bird

Articles

Regular models of phonological rule systems

Ronald M. Kaplan and Martin Kay

Commentary on Kaplan and Kay

Mark Liberman

Commentary on Kaplan and Kay

Graeme Ritchie

The Reconstruction Engine: A computer implementation of the comparative method

John B. Lowe and Martine Mazaudon

Commentary on Lowe and Mazaudon

Steven Lee Hartman

Commentary on Lowe and Mazaudon

John Hewson

The acquisition of stress: A data-oriented approach

Walter Daelemans, Steven Gillis and Gert Durieux

Commentary on Daelemans, Gillis, and Durieux

Prahlad Gupta

Commentary on Daelemans, Gillis, and Durieux

Jonathan Kaye

Phonological analysis in typed feature systems

Steven Bird and Ewan Klein

Commentary on Bird and Klein

John Coleman

Commentary on Bird and Klein

Richard Sproat

Book reviews

English Verb Classes and Alternations: A Preliminary Investigation

Beth Levin

Reviewed by Harold Somers

Statistically-Driven Computer Grammars of English: The IBM/Lancaster Approach

Ezra Black, Roger Garside and Geoffrey Leech

(editors)

Reviewed by Dekai Wu

Intelligent Multimedia Interfaces

Mark T. Maybury (editor)

Reviewed by Kent Wittenburg

Data & knowledge engineering

Vol. 13 No. 2

articles

Explaining incompatibilities in data dictionary design through abduction

F. Pirri and C. Pizzuti

Reasoning with individuals in concept languages

A. Schaerf

A new fragmentation scheme for recursive query processing

X. Zhou, Y. Zhang and M. E. Orłowska

Vol. 14 No. 2

Articles

The E/S knowledge representation system

S. Bergamaschi, S. Lodi and C. Sartori

Rule allocation in distributed deductive database systems

M. K. Mohania and N. L. Sarda

Monitoring temporal preconditions in a behaviour oriented object model

S. Schwiderski, T. Hartmann and G. Saake

Calendar of forthcoming conferences

Decision support systems

Vol. 12 No. 2

Articles

A group decision support system for multicultural and multilingual communication

M. Aiken, J. Martin, A. Shirani and T. Singleton

Process-based reconstructive approach to model building

M. Binbasioglu

Problems of decision rule elicitation in a classification task

A. I. Mechtov, H. M. Moshkovich and D. L. Olson

A computer-aided system for linear production designs

Y. Shi, P. L. Yu, C. Zhang and D. Zhang

An integrated DSS for financing firms by an industrial development bank in Greece

Y. Siskos, C. Zopounidis and A. Pouliezios

Vol. 12 No. 3

Articles

A hypermedia expert system for advanced cardiac life support management

M. M. Wang, J.-G. Chen, H.-S. Yoon, S. Vasudevan and L. Webster

A natural language processing based group decision support system

S. P. Conlon, B. J. Reithel, M. W. Aiken and A. I. Shirani

Formal specification and decision support

P. J. Krause, P. J. Byers and S. Hajnal

Interacting effects of GDSS and leadership

L.-H. Lim, K. S. Raman and K. K. Wei

Fractional piecewise linear optimization of the business process including investments

I. Meško and T. Meško

Hierarchical scaling of marketing decision support systems

B. Wierenga, P. A. M. Oude Ophuis, E. K. R. Huizingh and P. A. F. M. van Campen

Using multi-criteria analysis for tenant selection

C. Yau and T. Davis

Calls for papers

Vol. 12 Nos. 4/5

Special issue with selected papers from the IFORS-SPCI

Conference on Decision Support Systems

Preface

T. Jelassi and J.-P. Brans

The 1990s research program: Implications for management and the emerging organization

M. S. S. Morton

Decision support systems: Scope and potential

F. J. Radermacher

DSS research and practice in perspective

A. A. Angehrn and T. Jelassi

A cognitivist model for decision support: COGITA project, a problem formulation assistant

B. Espinasse

A qualitative approach to face uncertainty in decision models

A. Tsoukiàs

The PROMCALC & GAIA decision support system for multicriteria aid

J.-P. Brans and B. Mareschal

ELECCALC – an interactive software for modelling the decision maker's preferences

L. N. Kiss, J.-M. Martel and R. Nadeau

A decision support system dedicated to discrete multiple criteria problems

C. H. Antunes, L. A. Almeida, V. Lopes and J. N. Climaco

Decision support for planning

S. Dutta

Decision support systems: Learning from visual interactive modelling

V. Belton and M. D. Elder

Organizational activity support systems

D. Čeček-Kecmanović

Issues in computer and non-computer supported GDSSs

F. Ackermann and C. Eden

JUDGES: A descriptive group decision support system for the ranking of items

G. Colson and B. Mareschal

A behavioral approach of the dynamics of financial markets

M. Sanglier, M. Romain and F. Flament

Erratum

Author index to volume 12

Subject index to volume 12

Engineering applications of artificial intelligence

Vol. 6 No. 3

Articles

Comparison of belief networks and rule-based expert-systems for fault-diagnosis of chemical processes

C. Rojasguzman and M. A. Kramer

Symbolic reasoning and quantitative-analysis for fault-detection and isolation in-process plants

Z. Fathi, W. F. Ramirez, A. P. Tavares and G. Gilliland

Representation of process system knowledge through component constraint descriptions

A. J. Gonzalez, H. R. Myler and F. D. McKenzie

A program for handling multiple phases of the design cycle in-process control-system design

A. L. Stevens, G. B. Grobelaar, J. N. Ridley and I. M. MacLeod

Recovery planning in ASPEX – a state transition model

- for planning and control of the activated-sludge process
B. Knight and P. J. Watts
- Knowledge acquisition for an envisioned system (cellular CDMA)
J. Ulloa, W. F. S. Poehlman and D. P. Taylor
- Using inductive learning to determine fuzzy rules for dynamic-systems
A. Srinivasan, C. Batur, C. C. Chan
- Techniques for the minimization of multilayer perceptrons
A. R. Mirzai, A. Higgins and D. Tsapsinos
- Associative memory neural networks – adaptive modeling theory, software implementations and graphical user-interface
P. E. An, M. Brown, C. J. Harris, A. J. Lawrence and C. G. Moore
- Depur – a knowledge-based tool for waste-water treatment plants
P. Serra, M. Sanchez, J. Lafuente, U. Cortes and M. Poch
- Knowledge-based inspection of electric lamp caps
A. D. H. Thomas and M. G. Rodd
- Adaptive fuzzy control of a water bath process with neural networks
M. Khalid, S. Omatu and R. Yusof
- A comparative-study of artificial neural networks and rule-based techniques in the development of a computer-aided control-system
R. G. Miles, P. K. Sharpe, W. Pan and T. C. Fogarty
- A framework for knowledge representation in safety-critical systems
S. Parthasarathy
- Intelligent vision system to control flexible assembly cell feeding processes
G. Cohen
- A parallel monotonic classification machine
A. Bendavid
- Building temporal constraints into knowledge bases for process-control (vol 7, pg 59, 1994)
S. Parthasarathy
- Vol. 7 No. 3**
- Articles**
- Single-layer networks for nonlinear-system identification
G. G. Brouwn, A. J. Krijgsman, H. B. Verbruggen, P. M. Bruijn
- Criteria for successful applications of fuzzy control
B. M. Pfeiffer and R. Isermann
- A temporal blackboard for real-time process-control
A. Crespo, V. Botti, F. Barber, D. Gallardo and E. Onaindia
- Fast collision-free path planning of tightly coordinated 2 planar robots
Q. Xue and Y. P. Chien
- A learning-by-example method for improving performance of network topologies
S. Pierre
- Verification of real-time programs by a knowledge-based strategy
W. I. Zhang, J. R. Liu and H. T. Li
- Comparison of local vs global approaches to 2d object condition
D. Z. Badal and U. J. Steck
- Distributed intelligent railway traffic control – a fuzzy-decision-making-based approach
L. M. Jia and X. D. Zhang
- Job-shop scheduling based on modified tank-hopfield linear-programming networks
S. Y. Foo, Y. Takefuji, H. Szu
- Application of pattern-recognition to ethylene production optimization
S. N. Huang and H. H. Shao
- Intelligent system for safe process startup
 ?. ??????
- Vol. 7 No. 4**
- Articles**
- Feature-extraction for real-time expert-systems
A. Stothert and I. M. MacLeod
- A framework for engineering intelligent control-systems
S. Vranes, M. Stanojevic, P. Subasic
- Neural networks for the classification of image texture
A. K. Muhamad and F. Deravi
- Rule-based deep-drawing process planning for complex circular shells
X. D. Fang and M. Toloueirad
- An object-oriented knowledge-based system for automating the routing process in a manufacturing environment
E. D. Robe, E. C. Chung, C. A. Vassiliadis, R. Klingensmith and J. Armstrong
- Knowledge-base management-system for mine design and evaluation
H. Xin, F. Hassani and V. S. Lakshmanan
- Applications of logic programming in language analysis – document reconstruction from existing code
M. R. A. Eltantawi and P. Maresca
- Optimal probe path generation and new guide point selection methods
J. W. Lee, M. K. Kim and K. Kim
- Structuring and evaluation of VP-expert based knowledge bases
K. W. Chau and W. W. Yang
- An expert-system for identifying steels and cast irons
J. L. P. Delacruz, M. J. Marti, R. Conejo, R. Moralesbueno and T. Fernandez
- Vol. 7 No. 5**
- Articles**
- Automation intelligence
C. W. Desilva
- Neuro-fuzzy controller for control and robotics applications
D. H. Rao and M. M. Gupta
- Improvement of mold-level control using fuzzy-logic
N. Kiupel, P. M. Frank and J. Wochnik
- Model-reference adaptive fuzzy control of high-order systems
Z. Kovacic and S. Bogdan
- Fuzzy control of a hovercraft platform
E. Tunstel, S. Hockemeier and M. Jamshidi
- Fuzzy-logic-based reactive behavior control of an autonomous mobile system in unknown environments
W. Li
- Implementation of an online adaptive fuzzy controller in low-end hardware
S. Sheno, K. Ashenayi and M. Timmerman
- Optimization of fuzzy controllers as real-time power-system stabilizers
J. Shi, L. H. Herron and A. Kalam
- Fuzzy PID control with accelerated reasoning for DC servo motors
S. K. Nam and W. S. Yoo
- An intelligent system for dynamic sharing of workcell components in-process automation
C. W. Desilva and J. Gu

Expert systems with applications

Vol. 7 No. 2

Articles

State-of-the-art in automated validation of knowledge-based systems

N. Zlatareva and A. Preece

A probability of fuzzy events approach to validating expert-systems in a multiple agent environment

D. E. O'Leary

Validation of an accounting expert-system for business combinations

R. S. McDuffie, L. M. Smith, S. M. Flory

Knowledge-base graph recovery using sparse-matrix techniques

N. L. Sizemore

A tree-based approach for verifying completeness and consistency in rule-based systems

Y. H. Suh and T. J. Murray

Medical expert-systems for developing-countries – evaluation in practice

G. I. Doukidis, T. Cornford and D. Forster

An expert-system for police investigators of economic crimes

J. E. Bowen

Assessing the impact of expert-systems – the experiences of a small firm

R. Agarwal, S. Brown and M. Tanniru

An integrated methodology for knowledge-based system-development

R. T. Plant and P. Tsoumpas

Identifying long-term success issues of expert-systems

R. P. Will, M. K. McQuaig and D. E. Hardaway

Fuzzy knowledge representation and reasoning using Petri nets

D. S. Yeung and E. C. C. Tsang

An expert-system for feasibility assessment of product development

J. Akoka, B. Leune and A. Koster

The development and validation of a campus recruiting expert-system using expert opinions and historical data

M. Tavana, P. Lee and P. Joglekar

A knowledge-based system for selecting proportions for normal concrete

G. Akhras and H. C. Foo

Acef – a knowledge-based framework for apparel enterprise evaluation

S. Narayanan, L. H. Olson and S. Jayaraman

A constructive synthesis approach to a knowledge-based internal control evaluation system-design

J. U. Choi

Toward building an expert-system for weather forecasting operations

V. R. Kumar, C. Y. C. Chung and C. A. Lindley

Vol. 7 No. 4

Articles

Measuring the complexity of rule-based expert-systems

Z. S. Chen and C. Y. Suen

Expert-system to control and to design closed-loop conveyor systems

G. Cohen

Automating manufacturability evaluation in CAD systems through expert-systems approaches

A. R. Venkatachalam

A bi-level concise modular structured knowledge representation scheme

H. S. Shakir, M. Harayama and T. Ojika

A test of the usefulness of surveys in identifying potential expert-systems applications in tax planning

R. H. Michaelsen and K. M. Swigger

An experimental investigation of the predictive accuracy of induction and regression

B. Arinze and P. N. S. Narasimha

Expert-systems in marketing – an application for pricing new products

C. Casey and C. Murphy

Integrating expert-systems and neural computing for decision-support

L. Medsker and E. Turban

Integrating intelligent systems into a cooperating community for electricity distribution management

L. Z. Varga, N. R. Jennings and D. Cockburn

The academic quality of ai journals and the role of ai in the mis curriculum – perspectives of business faculty

U. G. Gupta

Critical factors for emergency vehicle-routing expert-systems

Goldberg R. and P. Listowsky

Vol. 8 No. 1

Articles

CMS – an intelligent knowledge-based tool for organizational procedure modeling and execution

R. Bose

Building expert critics for ethical issue testing

J. J. Tridle, Z. Chen and M. K. Zand

Expert-system for solvent selection of CO₂ separation processes

C. W. Chan and P. Tontiwachwuthikul

A prototype rule-based front-end expert-system for integrity enforcement in relational data-bases – an application to the naval aircraft flight records data-base

M. N. Kamel

Rules – a simple rule extraction system

D. T. Pham and M. S. Aksoy

Prode – a shell for industrial diagnosis

G. Gini and P. Sassoroli

Evaluation of automatic rule induction systems

M. Vrtacnik and D. Dolnicar

An expert-system for homeopathic glaucoma treatment (SEHO)

F. Alonsoamo, A. G. Perez, G. L. Gomez and C. Montes

Learning techniques for an expert vehicle dispatching system

J. Y. Potvin, Y. Shen, G. Dufour and J. M. Rousseau

The impact of knowledge and technology complexity on information-systems development

M. H. Mayer and K. F. Curley

Fuzzy indexing and retrieval in case-based systems

B. C. Jeng and T. P. Liang

An empirical-model for the evaluation and selection of expert-system shells

A. C. Stylianou, R. D. Smith and G. R. Madey

A framework for expert-system implementation

J. H. Bradley and R. D. Hauser

Knowledge elicitation and knowledge representation in a large domain with multiple experts

A. R. Barrett and J. S. Edwards

An object-oriented knowledge-base for multidomain expert-systems

L. M. L. Chew, C. L. Tan and D. H. Murphy

Development of a machine troubleshooting expert-system via fuzzy multiattribute decisionmaking approach

S. Y. Liu and J. G. Chen

The role of rules and examples in the process of knowledge acquisition in direct classification tasks

D. L. Olson, A. I. Mechtov and H. M. Moshkovich

Toward a framework for developing knowledge-based decision-support systems for customer satisfaction assessment – an application in new product development

M. J. Liberatore and A. C. Stylianou

The 2nd world congress on expert-systems – a review

J. Liebowitz

Vol. 8 No. 2**Articles**

Expert-systems in manufacturing

D. Specht

Development and design with knowledge-based software tools—an overview

F. L. Krause and J. Schlingheider

Espanda—for solving problems by applying the principle of similarity

A. Garben, M. Furnsinn and B. Ruschkowski

Production planning systems with AI philosophy

J. Lazansky, Z. Kouba, V. Marik and T. Vlcek

An integrated scheduling planning environment for petrochemical production processes

M. Numao

Fault-tolerance in automated manufacturing systems

*J. Mendigutxia, P. Zubizarreta, J. M. Goenaga,**L. Berasategui and L. Manero*

Discovering expert-system rules in data sets

T. Koch and B. Fehsenfeld

Knowledge acquisition and synthesis in a multiple source multiple domain process context

W. A. Taylor, D. H. Weimann and P. J. Martin

Integrating engineering applications via loosely-coupled techniques—a knowledge-based approach

*D. Karagiannis and L. Marinos***Human-computer interaction****Vol. 9 No. 1****Editorial**

Introduction to special issue on context in design

*Thomas P. Moran***Articles**

Borderline issues: Social and material aspects of design

John Seely Brown and Paul Guguid

Commentary on borderline issues

Robert J. Anderson, John L. Bennett, Bill Buxton, John M. Carroll, Gillian Crampton Smith and Philip Tabor, Stephen W. Draper, Gerhard Fischer, William W. Gaver, Jonathan Grudin, Edwin Hutchins, John Leslie King, Rob Kling, Robert E. Kraut, Susan E. Newman, Geoffrey Nunberg, Vicki L. O'Day, Gary M. Olson, John Rheinfrank and Katherine Welkler. Michael Schrage, John Thackara, Arnold S. Wasserman, Mark Weiser, Terry Winograd, and JoAnne Yates and Wanda J. Orlikowski; Thomas P. Moran (Editor)

Patrolling the Border: A reply

*John Seely Brown and Paul Duguid***Vol. 9 No. 2****Articles**

Representations and requirements: The value of ethnography in system design

R. J. Anderson

The role of visual fidelity in computer-based instruction

Michael G. Christel

What does pseudo-code do? A psychological analysis of the use of pseudo-code by experienced programmers

*Rachel K. E. Bellamy***Vol. 9 Nos. 3-4****Special issue on exploratory sequential data analysis****Articles**

Exploratory sequential data analysis: foundations

Penelope M. Sanderson and Carolanne Fisher

Sequences of actions for individual and teams of air traffic controllers

O. U. Vortac, Mark B. Edwards and Carol A. Manning

Developing process models as summaries of HCI action sequences

Frank E. Ritter and Jill H. Larkin

Management of repair in human-computer interaction

David Frohlich, Paul Drew and Andrew Monk

Characterizing the sequential structure of interactive behaviors through statistical and grammatical techniques

*Gary M. Olson, James D. Herbsleb and Henry H. Rueter***Acknowledgment to reviewers****Author index for volume 9, 1994****IEEE Expert****Vol. 9 No. 4****Articles**

Guest editor's introduction

Lokendra Shastri

The paradoxical success of fuzzy logic

Charles Elkan

Responses to Elkan

Hamid R. Berenji, B. Chandrasekaran, Christopher J. S. deSilva and Yann Attikiouzel, Didier Dubois, Henri Prade and Philippe Smets, Christian Freksa, Oscar N. Garcia, George J. Klir and Bo Yuan, E. H. Mamdani, Francis Jeffry Pelletier, Enrique H. Ruspini, Burham Türksen, Nader Vadiee and Mohammad Jamshidi, Pei-Zhuang Wang, Sie-Keng Tan and Shaohua Tan, Ronald R. Yager and Lotfi A. Zadeh

Elkan's reply: The paradoxical controversy over fuzzy logic

Smarter computer-aided design

Kenneth F. Reinschmidt and Gavin A. Finn

An expert system shell for aerospace applications

Bandreddi E. Prasada, Tolety Siva Perraju, Garimella Uma and Pasuparthi Umarani

A hybrid algorithm for determining protein structure

*Xiru Zhang***Vol. 2 No. 3****Articles**

Guest editor's introduction

Fred Highland

Real-time knowledge-based support for air traffic management

Urs R. Schlatter

Using functional maintenance to improve fault tolerance

Yasushi Umeda, Tetsuo Tomiyama, Hiroyuki Yoshikawa and Yoshiki Shimomura

An intelligent symbol usage assistant for CAD systems

DerShung Yang, James H. Garrett, Jr., Doris S. Shaw and Larry A. Rendell

Embedding neural nets and expert systems in diagnostic microbiology laboratories

Victor Ciesielski and John Spicer

Validating an embedded intelligent sensor control system

Patrick R. Harrison and P. Ann Harrison

The role of explanatory relationships in strategies for abduction

Michael C. Tanner and John R. Josephson

Using analogical reasoning for mechanism design

Ghassan Issa, Stewart Shen and Meng Sang Chew

Vol. 9 No. 5**Articles**

Guest editor's introduction

Peter Selfridge

Using background knowledge to improve inductive learning: a case study in molecular biology

Haym Hirsh and Michiel Noordewier

Finding the shortest route using cases, knowledge, and Dijkstra's algorithm

Bing Liu, Siew-Hwee Choo, Shee-Ling Lok, Sing-Meng Leong, Soo-Chee Lee, Foong-Ping Poon and Hwee-Har Tan

Using AI for counternarcotics: the predictive analysis system

Myriam Abramson, Scott Bennett, William Brooks, Emily Hofmann, Paul Krause and Aaron Temin

Automating workflows for service order processing: integrating AI and database technologies

Munindar P. Singh and Michael N. Huhns

Combining case-based reasoning and task-specific architectures

Dean Allemang

Automated design for concurrent engineering

Timothy P. Darr and William P. Birmingham

Toward a competence theory of diagnosis

Richard Benjamins and Wouter Jansweijer

Modeling domain knowledge using explicit conceptualization

*Ameen Abu-Hanna and Wouter Jansweijer***IEEE transactions on knowledge and data engineering****Vol. 6 No. 4****Articles**

Rule ordering in bottom-up fixpoint evaluation of logic programs

R. Ramakrishnan, D. Srivastava and S. Sudarshan

1st-order logic characterization of program properties

K. Wang and L. Y. Yuan

A knowledge-based fatal incident decision-model

S. Manivannan and S. Guthrie

An optimization algorithm for production systems

T. Ishida

A system for approximate tree matching

J. T. L. Wang, K. Z. Zhang, K. Jeong and D. Shasha

A graph-oriented object database model

M. Gyssens, J. Paredaens, J. Vandenbussche and D. Vangucht

Function materialization in object bases – design, realization, and evaluation

A. Kemper, C. Kilger and G. Moerkotte

Site and query scheduling policies in multicomputer database-systems

O. Frieder and C. K. Baru

An approach to designing very fast approximate string-matching algorithms

M. W. Du and S. C. Chang

Making the knowledge-base systems more efficient – a method to detect inconsistent queries

A. Illarramendi, J. M. Blanco and A. Goni

AMS – a declarative formalism for hierarchical representation of procedural knowledge

J. Z. Li, J. S. K. Ang, X. J. Tong and M. Tueni

Validation of an automated-system model generator

A. J. Gonzalez, H. R. Myler, F. D. McKenzie, M. Towhidnejad and R. R. Kladke

A new approach to the design of reinforcement schemes for learning automata – stochastic estimator learning algorithms

G. I. Papadimitriou

Hierarchical discretized pursuit nonlinear learning automata with rapid convergence and high-accuracy

*G. I. Papadimitriou***Vol. 6 No. 5****Articles**

Local search with conflict minimization – a case-study of the n-queens problem

R. Sosic and J. Gu

Complexity-measures for rule-based programs

M. B. ONeal and W. R. Edwards

RAPS – a rule-based language for specifying resource-allocation and time-tabling problems

G. Solotorevsky, E. Gudes and A. Meisels

Toward systematic construction of diagnostic systems for large industrial-plants – methods, languages, and tools

B. Elayeb

An efficient indefiniteness inference scheme in indefinite deductive databases

C. S. Ku, H. D. Kim and L. J. Henschen

A study on the structure of linear recursion

W. Y. Lu, D. L. Lee and J. W. Han

A structured approach for cooperative query answering

W. W. Chu and Q. M. Chen

Parallel hash-based join algorithms for a shared-everything environment

T. P. Martin, P. A. Larson and V. Deshpande

Performance analysis of affinity clustering on transaction processing coupling architecture

P. S. Yu and A. Dan

Explicit graphs in a functional-model for spatial databases

M. Erwig and R. H. Guting

The performance of protocols based on locks with ordered sharing

D. Agrawal, A. Elabbadi and A. E. Lang

A space-and-time-efficient coding algorithm for lattice computations

D. D. Ganguly, C. K. Mohan and S. Ranka

Order structure of symbolic assertion objects

P. Brito

Materialization

R. C. Goldstein, V. C. Storey

Efficient query-processing for a subset of linear recursive binary rules

*K. C. Guh and C. Yu***Vol. 6 No. 6****Articles**

Learning concepts in parallel based upon the strategy of version space

T. P. Hong and S. S. Tseng

A fuzzy-reasoning database question answering system

S. Vassiliadis, G. Triantafyllou and W. Kobrosly

Performance evaluation of rule grouping on a real-time expert-system architecture

I. R. Chen and B. L. Poole

Implementation of rule-based information-systems for integrated manufacturing

G. Harhalakis, C. P. Lin, L. Mark and P. Muromedrano

Conclass—a framework for real-time distributed knowledge-based processing

H. Maegawa

A methodology for integration of heterogeneous databases

M. P. Reddy, B. E. Prasad, P. G. Reddy and A. Gupta

Sort vs hash revisited

G. Graefe, A. Linville and L. D. Shapiro

Dbms support for nonmetric measurement systems

N. A. Lorentzos

Temporal specialization and generalization
C. S. Jensen and R. Snodgrass
 Optimal allocation for partially replicated database-
 systems on ring networks
A. B. Stephens, Y. Yesha and K. E. Humenik
 Prepare—a tool for knowledge-base verification
D. Zhang and D. Nguyen

New algorithms for parallelizing relational database
 joins in the presence of data skew
J. L. Wolf, D. M. Dias, P. S. Yu and J. Turek
 An improved algorithm for implication testing involving
 arithmetic inequalities
W. Sun and M. A. Weiss

Information and decision technologies

Vol. 19 No. 5

Articles

Systemic project management process for information
 systems
Nikitas A. Assimakopoulos
 Use of an AIP tool to select NTM expansive controls
Milena Buttò, Corrado Moiso and Marisa Porta
 Hierarchical resource sharing. NCP and VIP
 formulation
Anastasios A. Economides
 Optimal file management for a storage system using
 magnetic and optical disks
Bernard T. Han
 The Strategic Triangle. Why business process redesign
 is not delivering the full business benefit from IT
Hubert Tardieu
 A practical process to integrate time and logic
 dimensions for system performance evaluation
Chii-Lian Lin, Wen-Ruey Wu and Chih-Ming Liu
 Laser threat recognition based on fuzzy set theory
T. Warren Liao and X. K. Gong
 A basis for an object-oriented discrete simulation
 library
N. P. Archer, R. Ma and S. Chen
 Qualitative abduction and prediction. Regularities over
 various expert domains
E. Burattini and M. De Gregorio

Vol. 19 No. 6

**Special issue on Information Systems as Infrastructure:
 Integrating Information Technology, Systems
 Management, and Telecommunication Systems
 Concerns**

Editorial introduction

E. A. Sykes and G. Anandalingam, Guest Editors
 Evolution of America's infostructure
*Kemal Altinkemer, Alok R. Chaturvedi and Sashidhar
 Kondareddy*
 Expert systems and interactive multimedia technologies
 in telecommunications
Jay Liebowitz
 An algorithmic approach to generating network traffic
 requirements
Bill Zell and Peter C. Fetterolf
 DIRE: An approach to improving informal scientific
 communication
James C. French
 Evaluation of routing-related performance for large
 scale packet-switched networks with distributed,
 adaptive routing policies
Karen M. Sage and Edward A. Sykes
 Integrating management, communications and
 computing. An architecture of integrated information
 systems
August-Wilhelm Scheer
 Modeling and analysis of the defense information
 infrastructure
Kenneth Y. Jo, Mark P. Scher and John R. Mitchell
 An integrated knowledge-based system for
 communication network design
A. Vernekar, G. Anandalingam and C. N. Dorny
 Author index, volume 19