

From the journals. . . .

AI communications

Vol. 4 Nos. 2/3

Articles

Letter to the editor

Facilitating the development of knowledge based systems: A critical review of acquisition tools and techniques

Hyacinth S. Nwana, Ray C. Paton, Trevor J. M. Bench-Capon, Michael J. R. Shave

A conceptual modelling framework for knowledge-level reflection

Martin Reinders, Erik Vinkhuyzen, Angi Voß, Hans Akkermans, John Balder, Brigitte Bartsch-Spörl, Bert Bredeweg, Uwe Drouven, Frank van Harmelen, Werner Karbach, Zeeger Karssen, Guus Schreiber, Bob Wielinga

Focusing abductive diagnosis

Luca Console, Luigi Portinale, Daniele Theseider Dupré

Task level frameworks for cooperative expert systems design

Markus Stolze

Clancey on situated cognition: Throw out the baby, but keep the bathwater

Philip Swann

Situated cognition: Stepping out of representational flatland: A reply

William J. Clancey

Report on the European Workshop on Planning

Josef Schneeberger

ECCAI member organisations

Conference calendar

Colophon

Applied artificial intelligence

Vol. 5 No. 3

Articles

Knowledge acquisition techniques and second-generation expert systems

Marie-Odile Cordier, Chantal Reynaud

Extending the proof plan methodology to computer configuration problems

Helen Lowe

Knowledge-based system for assessment of potential entrepreneurs

Warren T. Jones, Warren S. Martin, Mary Evan McWilliams, M. Vernon Nabors

An expert system for academic counseling

Murat Taner, Yasemin Aksoy, A. Antonio Arroyo

Amperes: A real-time fault monitoring and diagnosis knowledge-based system for space power systems

S. C. Lee, Michelle Ratliff, Craig Peterson, Louis F. Lollar

Applied artificial intelligence calendar

Artificial intelligence

Vol. 50 No. 3

Articles

A general framework for reason maintenance

D. McDermott

Maintaining mental models of agents who have existential misconceptions

A. S. Maida

Generalizing the notion of schema in genetic algorithms (Research note)

M. D. Vose

Forthcoming papers

Author index

Artificial intelligence in medicine

Vol. 3 No. 4

Articles

The role of essential explanation in abduction

O. Fischer, A. Goel, J. R. Svirbely, J. W. Smith

DIAGAID: A connectionist approach to determine the diagnostic value of clinical data

J. Forsström, P. Eklund, H. Virtanen, J. Waxlax, J. Lähdevirta

Teaching medicine using hypertexts: Three years of experience at the Ancona Medical School

A. Corvetta, G. Pomponio, A. Salvi, M. M. Luchetti

Classification of electrocardiographic signals: A fuzzy pattern matching approach

W. Pedrycz, G. Bortolan, R. Degani

Book reviews

Calendar

Vol. 3 No. 5

Articles

A model of differential diagnosis in histopathology using the theory of hypergraphs and social choice

H. Heathfield, D. Bose, N. Kirkham

A Bayesian expert system for the analysis of an adverse drug reaction

R. G. Cowell, A. P. Dawid, T. Hutchinson, D. J. Spiegelhalter

An expert system for the interpretation of full blood counts and blood smears in a hematology laboratory

C. J. Tolmie, J. P. du Plessis, P. N. Badenhorst

Calendar

Artificial intelligence review

Vol. 5 No. 3

Articles

Connectionist representation techniques

N. E. Sharkey

The blackboard model: A survey and its application

M. Reddy, G. M. P. O'Hare

Gödel, Penrose and the possibility of AI

T. Dodd

Ethical AI

B. Whitby

Book reviews

Artificial intelligence and education

H. Nwana, T. Drapkin

Artificial intelligence and its applications

T. Dodd, L. Bolc, A. Smeaton

Artificial intelligence programming languages

T. Dodd

Artificial intelligence and philosophy

A. Narayanan

Theoretical artificial intelligence

T. Dodd

Cognitive and computing architectures

L. Bolc

Computational intelligence

Vol. 7 No. 2

Articles

The role of the user's domain knowledge in generation

Cécile L. Paris

Logic, probability theory, and artificial intelligence—

Part I: The probabilistic foundations of logic

Charles G. Morgan

Determining intended evidence relations in natural language arguments

Mark A. Young, Robin Cohen

Decision support systems

Vol. 7 No. 3

Articles

Knowledge based approach to productivity management in the rayon industry

S. Arunkumar, N. Janakiram

Multiobjective linear programming: Another DSS

M. Dror, P. Shoval, A. Yellin

Implementation of heuristic search in an expert database system

O. Günther

A modelling environment for decision support systems

K. M. van Hee, L. J. Somers, M. Voorhoeve

Syntactic and semantic postprocessing for speech recognition

H. Krallmann, R. Marzi

Knowledge acquisition for intelligent decision systems

J. McGovern, D. Samson, A. Wirth

A decision support system for robot selection

M.-J. J. Wang, H. P. Singh, W. V. Huang

Arithmetic for vector and parallel computers

J. Wolff von Gudenberg

Calendar

Call for papers

Engineering applications of artificial intelligence

Vol. 4 No. 1

Articles

Integrating quantitative and qualitative computations in a functional framework

Jon Sticklen, Ahmed Kamel, W. E. Bond

An expert system for transformer impulse test diagnosis

K. Handreck, K. P. Dabke, M. F. Conlon

StanisLAX: An artificial laboratory for the development of cooperative speech processing algorithms

Jean-Claude Junqua, Hisashi Wakita

A co-operative application of expert systems for photoelastic fringe pattern analysis

A. C. Gillies

A coupled expert system for flexible risers design and applications

Jose Antonio B. Geymayr, Nelson F. F. Ebecken

Neural network simulation of an automotive shock absorber

Joseph Giacomini

A diagnostic expert system for weld defects

C. S. Wu, J. Xu, L. Wu

Book reviews

Supercomputing

Andri Aristé

Group theoretical methods in image understanding

Yuan Bao-Zong

Artificial intelligence in process engineering

Vernon Lun

Conference calendar Call for papers Announcements

Vol. 4 No. 2

Articles

Blackboard consultation in solid mechanics

Jacek R. Ambroziak, Michal Kleiber

An algorithm for planning "sensible" routes

Ian Pratt

Modelling co-operative knowledge systems in design

R. Sadananda, N. Mani

Simulated intelligent flexible cell for the assembly of multi-component systems

Gideon Cohen

Application of multiple-valued logic in the description of the propagation of uncertain information in expert systems

Julius Csonto

A methodology for designing parallel systems in control

P. K. Sharpe, R. G. Miles

PHIIS: a parallel hierarchical integrated intelligent system for engineering design automation

Ming Rao, Jian-Zhong Cha, Ji Zhou

Fault diagnosis in ASPEX: An expert system for the control of the Activated Sludge Process

P. Watts, B. Knight

Book reviews

10th International conference on automated deduction

Tanel Tammet

Foundations of robotics: Analysis and control

Francis N.-Nagy

Local and global interpretation of moving images

Yuan Bao-Zong

Communications for manufacturing proceedings of the open congress

Guo Feng Zhao

Conference calendar Call for papers Announcement

Vol. 4 No. 3

Articles

An assessment of the negotiation metaphor for flexible manufacturing system control

I. M. MacLeod, V. Lun

An analytical framework for knowledge-based tuning of servo controllers

Clarence W. de Silva

OCR techniques for the design of non-conventional typed text reading systems

N. G. Bourbakis, M. Burton

BESMED: A blackboard knowledge-based approach to integrate mechanical design

Kar Tshon Leong, Siang Kok Sim, Yiu Wing Chan

Extended Petri nets: A constraint-based model of computation

Gurdeep S. Hura

Design for testability of digital combinational circuits:

A Lisp approach

Fadi N. Sibai

Optimization under modeling uncertainty

Arie Ben-David

Book reviews

Dictionary of artificial intelligence

Laurence Moseley

Computers for artificial intelligence processing

Goh Wee Leng

Database systems of the 90s

John A. Mariani

Catalogue of artificial intelligence techniques

S. Parthasarathy

Conference calendar Call for papers Announcement

Expert systems

Vol. 8 No. 2

Articles

Multi-domain expert systems

Chiang-Choon Danny Poo, Hongjun Lu

A shell for cooperating expert systems

E. Oliveira, R. Camacho

The evolution of PAMELA

Franz Barachini

Artificial intelligence and economic modelling

Hans W. Gottinger

A suggested descriptive framework for the comparison of knowledge-based systems methodologies

D. K. Hilal, H. Soltan

Interview

Ray Shaw

Kenneth Owen

Software review

Evaluation of ProKappa

A. T. Joseph

News

Applications

Application-oriented tools

Development tools

Prolog and Lisp

Conference report

Eleventh International Exhibition and Conference

Expert Systems and their Applications

Manufacturing Intelligence Awards 1991

Manufacturing intelligence—the fable and the fact

Book reviews

Diary

Expert systems with applications

Vol. 3 No. 2

Articles

Special Issue: Expert Systems in Scandinavia

Guest Editors' Note

Bernt A. Bremdal, Roar Fjellheim

The pragmatic and the academic view on expert systems

Erik Hollnagel

Knowledge systems and management decision support

Staffan Löf, Björn Möller

Integration of a real time expert system and a modern graphic display system in a Swedish nuclear power plant control room

Fridtjov Øvre, Svein Nilsen

FAKS—An on-line expert system based on hyperobjects

Ilkka Priha

Automatic generation of technical documentation

Asbjørn Andersen, Klaus Heje Munch

AI approaches to production management

Stig Arff, Geir Hasle, Gisle Stokke, Jan C. Gjerløw

Matias: Development and maintenance of a large but well-defined application

Jyrki Kontio

Possible low-priced, robust expert systems using neural networks and minimal entropy coding

Christian Liisberg

Meeting the requirements of knowledge management

Kristian Sandahl, Henrik Eriksson, Thomas Padron-McCarthy, Tomas Sokolnicki, Bengt Österlund

METAKREK: Knowledge acquisition as modeling

Inge Nordbø, Mette Vestli, Ingeborg Sølvberg

Knowledge-based CAD

Matti Katajamaki

Validation and evaluation of a system for thyroid disorders

Pirkko Nykänen, Pirjo Nuutila

NTIS section

Software survey section

New patents

Human-computer interaction

Vol. 6 No. 2

Articles

How decisions happen in organizations

James G. March

The equalization phenomenon: Status effects in computer-mediated and face-to-face decision-making groups

Vitaly J. Dubrovsky, Sara Kiesler, Beheruz N.

Sethna

Systematic sources of suboptimal interface design in large product development organizations

Jonathan Grudin

IEEE Expert

Vol. 6 No. 4

Articles

An unpredictable-dynamics approach to neural intelligence

Michail Zak

Computer vision: An overview

Robert L. Simpson, Jr.

Autonomous cross-country navigation

Karen E. Olin, David Y. Tseng

Toward autonomous driving: The CMU Navlab

Part I—Perception

Charles Thorpe, Martial Hebert, Takeo Kanade, Steven Shafer

Toward autonomous driving: The CMU Navlab

Part II—Architecture and systems

Charles Thorpe, Martial Hebert, Takeo Kanade, Steven Shafer

Guest editors' introduction

Hiroshi Motoda, Riichiro Mizoguchi, John Boose, Brian Gaines

Learning why by being told what: Interactive acquisition of justifications

Thomas Gruber

Vol. 6 No. 5

Articles

Real-time generation of natural language

Terry Patten, Daniel S. Stoops

Parallel processing in the DARPA strategic computing vision program

Charles C. Weems, Christopher Brown, Jon A. Webb, Tomaso Poggio, John R. Kender

Knowledge compilation and refinement for fault diagnosis

Shigenobu Kobayashi, Kotaro Nakamura

Interview-based knowledge acquisition using dynamic analysis

Atsuo Kawaguchi, Hiroshi Motoda, Riichiro Mizoguchi

Using the system-model-operator metaphor for knowledge acquisition

William J. Clancey, Monique Barbanson

Interactive multimedia

Vol. 2 No. 3

Articles

Aims and scope

Editorial

From the North American editors' desk

The integrator: A prototype for flexible development of interactive digital multimedia applications

A. Suchi, E. A. Fox, D. Hix, E. E. Schwartz, A. Narasimham, W. Wake

ISDN: An overview

Li L. Lawton

Europe in the round: Theory into practice

J. Megarry

Abstracts in French and German

Book reviews

Multimedia diary

International journal of man-machine studies

Vol. 35 No. 2

Articles

A full-speed listening typewriter simulation

A. F. Newell, J. L. Arnott, R. Dye, A. Y. Cairns

Clinical assessment and computerised testing

I. Styles

The use of grounded theory for conceptual analysis in knowledge elicitation

N. F. Pidgeon, B. A. Turner, D. I. Blockley

Signal flow graphs vs fuzzy cognitive maps in application to qualitative circuit analysis

M. A. Styblinski, B. D. Meyer

Error in natural language dialogue between man and machine

J. Véronis

Emergent complexity and person-machine systems

K. B. De Greene

Informing HCI design through conversation analysis

M. A. Norman, P. J. Thomas

Cluster analysis as a technique to guide interface design

S. Lewis

European association for cognitive ergonomics, news, reviews and reports

Vol. 35 No. 3

Articles

Display-based action at the user interface

S. J. Payne

Symbolic-neural systems and the use of hints for developing complex systems

S. C. Suddarth, A. D. C. Holden

Information relationships in PROLOG programs: How do programmers comprehend functionality?

D. Bergantz, J. Hassell

Hierarchical model-based diagnosis

I. Mozetič

Effects of icon design on human-computer interaction

S. Blankenberger, K. Hahn

The influence of interface style on problem solving

G. B. Svendsen

Optimum display arrangements for presenting status information

D. Scott, J. M. Findlay

Hypothesis testing by fundamental knowledge

X. Liu

Journal of applied non-classical logics

Vol. 1 No. 1

Articles

Rough polyadic modal logics

D. Vakarelov

Two theories of time

Yunqing Lin

Results of infinite extensions

Karl Schlechta

Temporal logics of “the next” do not have the Beth property

Larissa Maksimova

A look at metrics and norms through the Lukasiewicz logic

Maciej Wygalak

Forthcoming papers

Summary of vol. 1 no. 2

Information for authors

Journal of automated reasoning

Vol. 7 No. 2

Special issue on new trends in automated reasoning

Introduction

Alfredo Ferro

Mechanical theorem proving of differential geometries and some of its applications in mechanics

Wu Wen-Tsun

Decision procedures for elementary sublanguages of set theory: X. Multilevel syllogistic extended by the singleton and powerset operators

D. Cantone

Decision procedures for elementary sublanguages of set theory: XI. Multilevel syllogistic extended by some elementary map constructs

D. Cantone, J. T. Schwartz

Decision procedures for elementary sublanguages of set theory: XII. Multilevel syllogistic extended with singleton and choice operators

A. Ferro

Decision procedures for elementary sublanguages of set theory: XIII. Model graphs, reflection and decidability

Franco Parlamento, Alberto Policriti

Basic research problems

More on the problem of finding a mapping between clause representation and natural-deduction representation

Peter B. Andrews

Problem corner

Unsolved problems in elementary number theory

Art Quaiße

Vol. 7 No. 3

Articles

A well-kept secret of history

Larry Wos

Experiments with proof plans for induction

Alan Bundy, Frank van Harmelen, Jane Hesketh, Alan Smaill

Optimizing the clausal normal form transformation

Rolf Socher

Compiling bottom-up and mixed derivations into top-down executable logic programs

Danny de Schreye, Bern Martens, Gunther Sablon, Maurice Bruynooghe

Generating relevant models

Allan Ramsay

The unification hierarchy is undecidable

Werner Nutt

Programming in temporal-nonmonotonic reasoning

Tong Gao Tang

Pattern-directed invocation with changing equations

Yishai A. Feldman, Charles Rich

Basic research problems

The problem of choosing the type of subsumption to use

Larry Wos

Problem corner

Proving Matijasevich’s lemma with a default arithmetic strategy

Matthew Wilding

Journal of experimental & theoretical artificial intelligence

Vol. 3 No. 2

Articles

An interval-based temporal relational calculus for events with gaps

Robert A. Morris, Lina Al-Khatib

Parallel implementation of a class reasoner

James Geller, Charles (Yaogui) Du

An experimental study of criteria for hypothesis plausibility

Stanley Tuhim, James Reggia, Sharon Goodall

Semantics in analogical reasoning

William T. Hunt, Mary McLeish

Announcements

Journal of intelligent and robotic systems

Vol. 4 No. 3

Articles

An action-based process model for dextrous multifinger hands

G. Wöhlke, Th. Braun

Planning of sensing tasks in an assembly environment

Gerhard Werling

Robot control: Tracking with the required settling time

Ljubomir T. Grujic, Zoran R. Novakovic

An iterative learning control scheme using the weighted least-squares method

Keigo Watanabe, Toshio Fukuda, Spyros G. Tzafestas

Model-based damping of coupled horizontal and vertical oscillations in a flexible rod

B. J. Petterson, R. D. Robinett

Calendar of events

Journal of logic and computation

Vol. 1 No. 4

Articles

A free variable version of the first-order predicate calculus

M. Davis, R. Fechter

A modal logic for chopping intervals

Y. Venema

Semantics and consistency of rule-based expert systems

M. Bezem

A logic programming language with lambda-abstraction, function variables, and simple unification

D. Miller

Some syntactical observations on linear logic

H. Schellinx

Reviews

Books received

Corrigendum

Forthcoming papers

Journal of logic programming

Vol. 11 Nos. 3/4

Articles

Magic templates: A spellbinding approach to logic programs

Raghu Ramakrishnan

Partial evaluation in logic programming

J. W. Lloyd, J. C. Shepherdson

Constraint logic programming for reasoning about discrete event processes

J. S. Ostroff

Negative subgoals with free variables

Matthew L. Ginsberg

Efficient bottom-up computation of queries on stratified databases

I. Balbin, G. S. Port, K. Ramamohanarao, K. Meenakshi

Decomposability and its role in parallel logic-program evaluation

Ouri Wolfson, Avi Silberschatz

Correct answers to allowed programs and queries are ground

J. C. Shepherdson

Title index to volume 11

Author index to volume 11

Volume contents to volume 11

Kybernetes

Vol. 20 No. 5

Articles

Contemporary systems and cybernetics

Cybernetic approaches to computer communications networks

Amitava Ghosal, Raja Ghosal

Statistical models of text in continuous speech recognition

Ye-Sho Chen

Communications

Norbert Wiener biography—some revisions to the review

Alex M. Andrew

A chance-constraint programming approach to the capital pricing model

Ralf Östermark

News, conferences and technical reports

Book reviews: neural networks and neurocybernetics

Announcements

Special announcements

Vol. 20. No. 6

Articles

Reflections of a cybernetician on the practice of planning

Stafford Beer

Perception, memorisation and multidimensional time

Robert Vallée

Philosophy, semantics and cybernetics

Frank George

Is neurocybernetics to be believed?

Edmond Nicolau

New resources and wider horizons for cybernetics

C. Musès

Continuity and artificial intelligence

Alex M. Andrew

Cybernetics and social science: Theories and research in sociocybernetics

Felix Geyer, Johannes van der Zouwen

User modeling and user-adapted interaction

Vol. 1 No. 2

Special issue on plan recognition

Introduction

David N. Chin

Exploiting temporal and novel information from the user in plan recognition

Robin Cohen, Fei Song, Bruce Spencer, Peter van Beek

Active acquisition of user models: Implications for decision-theoretic dialog planning and plan recognition

Dekai Wu

Recognizing intentions, interactions, and causes of plan failures

Gudula Retz-Schmidt

Forthcoming articles

Pattern analysis and machine intelligence

Vol. 13 No. 7

Articles

Special issue on physical modeling in computer vision

Introduction

T. Kanade, K. Ikeuchi

Reflection models

Surface reflection: Physical and geometrical perspectives

S. K. Nayar, K. Ikeuchi, T. Kanade

Constraining object features using a polarization reflectance model

L. B. Wolff, T. E. Boult

Surface identification using the dichromatic reflection model

S. Tominaga

Shape and reflection

Reflections on shading

D. Forsyth, A. Zisserman

Estimation of illuminant direction, albedo, and shape from shading

Q. Zheng, R. Chellapa

Deformable shape models

Dynamic 3D models with local and global deformations: Deformable superquadrics

D. Terzopoulos, D. Metaxas

Closed-form solutions for physically based shape modeling and recognition

A. Pentland, S. Sclaroff

Recovery of nonrigid motion and structure

A. Pentland, B. Horowitz

Call for papers

Vol. 13 No. 8

Articles

Computer vision and image analysis

A contour-based recovery of image flow: Iterative transformation method

K. Y. Wohn, J. Wu, R. J. Brockett

Direct recovery of three-dimensional scene geometry from binocular stereo disparity

R. P. Wildes

Multidimensional orientation estimation with applications to texture analysis and optical flow

J. Bigün, G. H. Granlund, J. Wiklund

Pattern classification

Robust clustering with applications in computer vision

J.-M. Jolion, P. Meer, S. Bataouche

Automated inspection of textile fabrics using textural models

F. S. Cohen, Z. Fan, S. Atali

3-D position sensing using a passive monocular vision system

J. Cardillo, M. A. Sid-Ahmed

Grey level thresholding in badly illuminated images

J. R. Parker

Generating connected textured fractal patterns using Markov random fields

L. Onural

A simulation-based estimator for hidden Markov random fields

A. Veijanen

The revised fundamental theorem of moment invariants

T. H. Reiss

A statistical-heuristic feature selection criterion for decision tree induction

X. J. Zhou, T. S. Dillon

A validity measure for fuzzy clustering

X. L. Xie, G. Beni

A new parameterization of digital straight lines

M. Lindenbaum, J. Koplowitz

Vol. 13 No. 9

Articles

Computer vision and image analysis

Registration of multiple overlapping range images: Scenes without distinctive features

B. Kamgar-Parsi, J. L. Jones, A. Rosenfeld

Using motion from orthographic views to verify 3-D point matches

H. H. Chen, T. S. Huang

Photometric motion

A. Pentland

The design and use of steerable filters

W. T. Freeman, E. H. Adelson

3-D shape from a shaded and textural surface image

Y. Choe, R. L. Kashyap

Search techniques

The combinatorics of heuristic search termination for object recognition in cluttered environments

W. Eric L. Grimson

Speech recognition

Computation of probabilities for an island-driven parser

A. Corraza, R. De Mori, R. Gretter, G. Sata

On quantization errors in computer vision

Ping Wah Wong

A default hierarchy for pronouncing English

J. Hochberg, S. M. Mniszewski, T. Calleja, G. J.

Papcun