

From the journals. . . .

Acta cybernetica

Vol. 9 No. 3

Articles

Towards languages that support program derivation, or control modularity considered harmful

R. Kurki-Suonio

Techniques for modular language implementation

K. Koskimies

An error-recovering form of DCGs

J. Paakki and K. Toppola

Uniform approach to parameter transmission mechanisms, coercions, optional parameters and patterns

M. Jokinen

Generation of test cases for simple Prolog programs

P. Kilpeläinen and H. Mannila

A natural language interface based on attribute grammars

Z. Alexin, J. Dombi, K. Fábri, T. Gyimóthy and T. Horváth

Data pictures on the desktop

A. Hernádi, A. Heppes and E. Knuth

YYY – a database design tool

H. Laine

Frames for protocol description

S. Wagner-Dibuz

A programming environment for a transputer-based multiprocessor system

J. Aspanäs and R. J. R. Back

PICA – a graphical program development tool

A. A. Törn

MICROTEST – a testing tool on PC

I. Forgacs, A. Horváth and E. Somos

AI Communications

Vol. 3 No. 3

Articles

Competence assessment in configuration tasks

Angi Voß, Werner Karbach, Uwe Drouven and

Darius Lorek

IJCAI policy on publication of papers revisited

Alan Bundy

An approach to integrating expert systems with connectionist networks

Matthias Gutknecht and Rolf Pfeifer

Using terminological reasoning in hybrid systems

Francesco M. Donini, Maurizio Lenzerini and

Daniele Nardi

Conference reports

EKA'90

Marc Linster and Werner Karbach

ECAI '90: The invited speakers

Jacobijn Sandberg

ECCAI News

Conferences

Colophon

AI magazine

Vol. 11 No. 4

Articles

Design prototypes: a knowledge representation schema for design

John S. Gero

Modeling design processes

Hideaki Takeda, Paul Veerkamp, Tetsuo Tomiyama

and Hiroyuki Yoshikawa

Process models for design synthesis

Mary Lou Maher

Design problem solving: a task analysis

B. Chandrasekaran

Design reasoning without explanations

Richard Coyne

Advertiser index

AAAI news

Books received

Book reviews

Dissertation abstract

Events calendar

Guest editorial

Letters

New products

Workshop report: Creating a scientific community at the interface between engineering design and AI

David Steier

Applied artificial intelligence

Vol. 4 No. 4

Articles

Predicting bank failures: a neural network approach

Kar Yan Tam and Melody Kiang

Building tools for software engineering with artificial intelligence techniques

Daniele Nardi and Marco Tucci

Analysis and representation of neuroanatomical knowledge

Jörg Niggemann

Reasoning for automated model integration

Ting-Peng Liang

Applied artificial intelligence calendar

Title Page to Volume 4

Contents to Volume 4

Index to Volume 4

Artificial intelligence

Vol. 46 Nos. 1-2

Special issue on Connectionist Symbol Processing

Articles

Preface to the special issue on connectionist symbol processing

G. E. Hinton

BoltzCONS: dynamic symbol structures in a connectionist network

D. S. Touretzky

Mapping part-whole hierarchies into connectionist networks

G. E. Hinton

Recursive distributed representations

J. B. Pollack

Mundane reasoning by settling on a plausible model

M. Derthick

Tensor product variable binding and the representation of symbolic structures in connectionist systems

P. Smolensky

Learning and applying contextual constraints in sentence comprehension

M. F. St. John and J. L. McClelland

Vol. 46 No. 3

Articles

Analog retrieval by constraint satisfaction

P. Thagard, K. J. Holyoak, G. Nelson and D. Gochfeld

An analysis of first-order logics of probability

J. Y. Halpern

Gibbs sampling in Bayesian networks (research note)

T. Hrycej

Frames in the space of situations (research note)

V. Lifschitz

Announcements

Forthcoming papers

Author index – Volume 46, 1990

Contents – Volume 46, 1990

Artificial intelligence in medicine

Vol. 2 No. 6

Articles

Guides for hypertext: an overview

M. E. Frisse and S. B. Cousins

The construction of knowledge in neurology: implications for hypermedia system development

J. M. Nyce and W. Graves III

Logic engineering for knowledge engineering: design and implementation of the Oxford System of Medicine

J. Fox, A. Glowinski, C. Gordon, S. Hajnal and M. O'Neil

Expertext for medical care and literature retrieval

R. Rada, J. Barlow, P. Zanstra, P. de Vries Robbe, D. Bijstra and J. Potharst

Calendar

Author index to Volume 2

Cognitive science

Volume 14 No. 3

Articles

Cognitive science news

Race-based parsing and syntactic disambiguation

Susan Weber McRoy and Graeme Hirst

Compositionality: a connectionist variation on a classical theme

Tim van Gelder

Case-based planning: a framework for planning from experience

Kristian J. Hammond

Algebra mal-rules and cognitive accounts of error

Stephen J. Payne and Helen R. Squibb

Computational intelligence

Vol. 6 No. 4

Articles

Modeling the user's conceptual knowledge in BGP-MS, a user modeling shell system

Alfred Kobsa

Lp, a logic for representing and reasoning with statistical knowledge

Fahiem Bacchus

Can AI planners solve practical problems?

David E. Wilkins

Learning hard concepts through constructive induction: framework and rationale

Larry Rendell and Raj Seshu

Expert systems

Vol. 7 No. 4

Articles

The paint advisor

Rob van der Spek, Huub van der Wouden and Chris

Ysbrandy

Evaluating expert systems

Dianne C. Berry and Anna E. Hart

The traffic information collator

R. Evans and A. F. Hartley

Towards a methodology for evaluating expert systems

Alun D. Preece

Development of the knowledge base of an expert system for civil rights investigation

Nancy Botten and Tzvi Raz

Interview

Conference report

AAAI: AI and its applications

Software reviews

News

Book reviews

Diary

Index to Volume 7

Human-computer interaction

Vol. 5 Nos. 2-3

Articles

Introduction to special issue on Foundations of Human-Computer Interaction

Stuart K. Card and Peter G. Polson

A research agenda for the nineties in human-computer interaction

Clayton H. Lewis

A semantic analysis of the design space of input devices

Jock Mackinlay, Stuart K. Card, and George G. Robertson

Theory-based design for easily learned interfaces

Peter G. Polson and Clayton H. Lewis

The growth of cognitive modeling in human-computer interaction since GOMS

Judith Reitman Olson and Gary M. Olson

Expertise in a computer operating system: conceptualization and performance

Stephenie M. Doane, James W. Pellegrino, and Roberta L. Klatzky

Designing the design process: exploiting opportunistic thoughts

Raymonde Guindon

IEEE Expert

Vol. 5 No. 6

Articles

Guest editors' introduction: object-oriented programming in AI

Sherman R. Alpert, Scott W. Woyak, Howard J. Shrobe and Lloyd F. Arrowood

Imbedding rule inferencing in applications

David W. Franke

Modeling concurrency in rule-based development environments

Naser S. Barghouti and Gail E. Kaiser

SAPS: a production system with active data structures

John W. Benoit

DAIS: a distributed AI programming shell

R. Kannan and W. H. Dodrill

A methodology for evaluating potential KBS applications

Steven C. Laufmann, D. Michael DeVaney and Mark A. Whiting

Pattern analysis and machine intelligence

Vol. 12 No. 11

Articles

Computer vision and image analysis

Multiple interpretations of the shape and motion of objects from two perspective images

S. Negahdaripour

Estimating 3-D egomotion from perspective image sequences

W. Burger and B. Bhanu

Polarization-based material classification from specular reflection

L. B. Wolff

Partial shape classification using contour matching in distance transformation

H.-C. Liu and M. D. Srinath

Text processing

Optimal correspondence of string subsequences

Y. P. Wang and T. Pavlidis

Correspondence

Vol. 12 No. 12

Editorial

List of reviewers

Articles

Computer vision and image analysis

On recognizing and positioning curved 3-D objects from image contours

D. J. Kriegman and J. Ponce

Matching aerial images to 3-D terrain maps

J. J. Rodríguez and J. K. Aggarwal

Polynomial methods for structure from motion

C. Jerian and R. Jain

Neural networks

Links between Markov models and multilayer perceptrons

H. Bourslard and C. J. Wellekens

Correspondence

Computer vision and image analysis

An error analysis for surface orientation from vanishing points

R. S. Weiss, H. Nakatani, and E. M. Riseman

On the localization performance measure and optimal edge detection

H. D. Tagare and R. J. P. deFigueiredo

Automatic representation of binary images

C. A. Cabrelli and U. M. Molter

Design of fiducials for accurate registration using machine vision

C. B. Bose and I. Amir

Stereo ranging with verging cameras

E. Krotkov, K. Henriksen, and R. Kories

Nonlinear multiresolution: a shape-from-shading example

S. Peleg and G. Ron

Text processing

A new set of constraint-free character recognition grammars

L. Stringa

1990 Index

Interactive multimedia

Vol. 1 No. 1

Articles

Aims and scope

Publisher's note

Editorial

Multimedia design for consumers – the case of

Treasures of the Smithsonian

James Hoekema

Browsing and navigation through hypertext documents

– a review of the human-computer interface issues

D. J. Osborne

Computers in medical education – the current perspective

J. A. Longstaffe, M. R. Waterfield and K. D. Whittlestone

A note on room acoustics and their application to multimedia presentations

Paul Fletcher

Abstracts in French and German

Book reviews

Multimedia diary

International journal of man-machine studies

Vol. 33 No. 6

Articles

PRED: A frame-based primitive editor

S. Xie, D. F. Dumaresq and P. H. Winne

Towards a classification of text types: a repertory grid approach

A. Dillon and C. McKnight

Display-based competence: towards user models for menu-driven interfaces

A. Howes and S. J. Payne

Integration of linguistic probabilities

D. V. Budescu, R. Zwick, T. S. Wallsten and I. Erev

Sorting-based menu categories

D. Hayhoe

Novices' debugging when programming in Pascal

C. M. Allwood and C.-G. Björhag

Vol. 34 No. 1

Articles

The Action-Modifier-Object-Attribute (AMOA) classification of user-oriented functions

J. A. Carter, J.-A. Lukey and M. F. Schweighardt

A graphical, database-querying interface for casual, naive computer users

C. G. Burgess

Learning from examples – a uniform view

M. Gams, M. Drobnič and M. Petkovsek

The NPL electronic paper project

E. R. Brocklehurst

Propositional representation for graphical knowledge

J. Geller

Journal of automated reasoning

Vol. 6 No. 4

Articles

A decidable first-order logic for knowledge representation

P. F. Patel-Schneider

A sequent-style model elimination strategy and a positive refinement

D. A. Plaisted

Transcendental functions and mechanical theorem proving in elementary geometries

X. Gao

Interest driven suppositional reasoning

J. L. Pollock

Basic research problems

The problem of choosing between predicate and function notation for problem representation

L. Wos

Problem Corner

Robbins algebra: conditions that make a near-Boolean algebra Boolean

S. Winker

Call for papers

Author index to Volume 6

Subject index to Volume 6

Journal of experimental & theoretical artificial intelligence

Vol. 2 No. 3

Articles

GENTOR II: a distributed genetic algorithm

Darrell Whitley and Timothy Strakweather

Distributed symbol formation and processing in connectionist networks

Michael G. Dyer

On learning and testing evaluation functions

Bruce Abramson

Requiem for a theory: the "story grammar" story

Sandy Andersen and Brian M. Slator

Vol. 2 No. 4

Articles

Coordination and control structures and processes: possibilities for connectionist networks (CN)

Vasant Honavar and Leonard Uhr

Intentionality and computationalism: minds, machines, Searle and Harnad

Michael G. Dyer

Lost in the hermeneutic hall of mirrors

Stevan Harnad

Finding lost minds

Michael G. Dyer

Modal queries about partially-ordered plans

D. C. Moffat and G. D. Ritchie

Improving the efficiency of rule-based expert systems by rule activation

Louis Sanzogni and Francis Suraweera

Announcements

Index of authors

Journal of intelligent and robotic systems

Vol. 3 No. 4

Articles

Parallel processing in knowledge-based diagnostic systems

M. Hussain and J. Singh Bedi

Learning algorithms for neural networks with the Kalman filters

K. Watanabe and S. G. Tzafestas

An efficient planning technique for robotic assemblies and intelligent robotic systems

K. P. Valavanis and S. J. Carelo

A contribution to the modelling and control of manipulators

C. Mladenova

Experimentation with telerobotics for use in space systems

S. R. Bounds, S. E. Schroer and B. J. Schroer

Modelling manufacturing systems: A birth-death approach

Book reviews

Calendar of events

Information for authors

Name index to Volume 3

Key word index to Volume 3

Journal of logic and computation

Vol. 1 No. 2

Articles

Editorial

A fixpoint semantics for ordered logic

E. Laenens and D. Vermeir

Logics of modal terms for systems specifications

J. Fladeiro and A. Sernadas

An axiomatization of the temporal logic with until and since over the real numbers

D. M. Gabbay and I. M. Hodkinson

A proof-theoretic approach to logic programming. 1.

Clauses as rules

L. Halinäs and P. Schroeder-Heister

Conference report

Reviews

Books received

Journal of logic programming

Vol. 9 Nos. 2-3

Articles

Editorial

G. Mints and E. Tyugu

Problem specification and program synthesis in the system spora

I. O. Babaev

Efficient program synthesis in computational models

Max I. Kanovich

Propositional logic programming and the priz system

G. E. Mints and E. H. Tyugu

Deductive synthesis of solutions for technological tasks

V. J. Mikhailov and N. K. Zamov

Models of inductive synthesis

E. B. Kinber and A. N. Brazma

Machine synthesis of mathematical theorems

S. N. Vassilyev

Refutation search for horn sets by a subgoal-extraction method

V. S. Neiman

Title index to Volume 9

Author index to Volume 9

Volume contents to Volume 9

Vol. 10 No. 1

Articles

Definite-clause set grammars: a formalism for problem solving

Takushi Tanaka

Unsolvable problems for sldnf resolution

John C. Shepherdson

Enhancing unification in Prolog through clause indexing

Robert M. Colomb

A declarative state transition system

Ian Foster

On-line algorithms for polynomially solvable satisfiability problems

Giorgio Ausiello and Giuseppe F. Italiano

Knowledge acquisition

Vol. 2 No. 4

Articles

Models, methods, roles and tasks: many labels – one idea?

W. Karbach, M. Linster and A. Voss

Improving explanations in knowledge-based systems:

RATIONALE

S. Abu-Hakima and F. Oppacher

Design knowledge capture and alternatives generation using possibility tables in Canard

D. B. Shema, J. M. Bradshaw, S. P. Covington and J. H. Boose

Indirect relevance and bias in inductive concept-learning

L. De Raedt and M. Bruynooghe

Knowledge-based systems

Vol. 3 No. 4

Articles

Editorial: frameworks for knowledge-based systems

E. Edmonds

Knowledge-support systems

B. R. Gaines

Framework of knowledge-based systems – multiple meta-level architecture for representing problems and problem-solving processes

S. Ohsuga

Advanced knowledge-base environments for large database systems

E. Laenens and D. Vermeir

An architecture for knowledge-based front ends

E. Edmonds and E. McDaid

Back-end manager: an interface between a knowledge-based front end and its application subsystems

A. Prat, J. Lores, P. Fletcher and J. M. Catot

Grouping knowledge-base data into distributable clusters

P. O. Bobbie

Goal-driven blackboard control architecture based on extending partially complete general goal trees

S. Kuru and F. Bek

Logic of design actions

R. Coyne

Calendar

1990 Index

Kybernetes

Vol. 19 No. 6

Articles

Abstracts and keywords

Contemporary systems and cybernetics

Presentation of the Norbert Wiener Memorial Gold Medal

Perturbed living organisms: a cybernetic approach founded on photon emission stochastic processes

B. Kocheł

On pattern analysis in the non-convex case

Antonio Cuevas

Minimum mutual information in image restoration

Joseph P. Noonan and James R. Marcus

Retuning the global theatre

Barrington Nevitt

Communications

A model for accurate cardiac volumetry: experimental results on the normal heart

Alejandro B. Engel, Silvio J. Bezerra and Sigüemituzo

Arie

News, conferences and technical reports

Book reviews

Announcements

Special announcements

Index