Electronic Forums and Other EC-Related Activities

The evolutionary computation community maintains a number of electronic mailing lists that provide timely interactions, exchange of information, and sharing of software. Participants submit articles on research issues, recent results, notices on new technical reports, workshop announcements, and calls for papers. A brief description of the more active ones follows.

Comp.AI.Genetic is a newsgroup intended for anyone interested in the general area of evolutionary computation. See your local systems administrator to obtain this news feed. A substantial FAQ sheet (frequently asked questions) on EC is maintained and is quite helpful.

EP-List is an electronic mailing focusing on Evolutionary Programming (EP) as defined by Fogel. To subscribe, send mail to EP-List-Request@magenta.me.fau.edu.

Genetic-Programming is an electronic mailing list focusing on genetic programming (GP) as defined by Koza. To subscribe, send mail to Genetic-Programming-Request@cs.stanford. edu.

GA-List is a moderated electronic digest for the interchange of information relating to genetic algorithms (GAs) as defined by Holland and general issues of evolutionary computation. Submissions are put into digest form and sent to subscribers approximately once a week. To subscribe, send mail to GA-List-Request@aic. nrl.navy.mil.

An ftp archive site is maintained with back issues of GA-List and other useful information, including source code for genetic algorithm and other evolutionary algorithm packages. The ftp site can be accessed using anonymous ftp to ftp.aic.nrl.navy.mil. Use a username of "anonymous" and use your own e-mail address as your password.

In addition to the ftp site, the archive is now available on the World Wide Web. This also contains links to other GA and evolutionary computation information sources and links to the home pages of other research groups working in evolutionary computation. The URL is http://www.aic.nrl.navy.mil/galist.

The GA-List digest also includes a calendar of recent and upcoming EC-related events. The following listing of events is excerpted from a recent issue of GA-List. The volume/number designation refers to the GA-List issue where the full announcement can be found.

17 – 19 February, 1996

11th Annual ACM Symposium on Applied Computing (SAC '96) Genetic Algorithms and Optimization Track, Marriott Hotel, Philadelphia, Pennsylvania (v9n33)

Applications using genetic algorithms, genetic programming, and other optimization techniques is one of the major tracks in SAC'96. This particular track has had enormous success in past years, and we anticipate another set of excellent papers for this conference.

The purpose of this track is to provide a forum for the interchange of ideas, research, development activities, and applications among academicians and practitioners in the areas related to genetic algorithms and other optimization techniques in applications.

WWW page:
http://www.acm.org/conferences/computing_week/SAC96/

Contact:

Roger L. Wainwright

Track Editor SAC'96, Genetic Algorithms

Department of Mathematical and Computer Sciences

University of Tulsa

600 South College Ave.

Tulsa, OK 74104-3189

Tel: (918) 631-3143

Fax: (918) 631-3077

e-mail: rogerw@penguin.mcs.utulsa.edu

29 February – 3 March, 1996

The Fifth Annual Conference on Evolutionary Programming Sponsored by the Evolutionary Programming Society, San Diego, California

General Chairman:

Lawrence J. Fogel, Natural Selection, Inc.

Technical Program Co-Chairs:

Peter J. Angeline, Loral Federal Systems

Thomas Bäck, Informatik Centrum Dortmund

Thomas M. English, Texas Tech University

The Fifth Annual Conference on Evolutionary Programming will serve as a forum for researchers investigating applications and theory of evolutionary programming and other related areas in evolutionary and natural computation. Authors are invited to submit papers that describe original unpublished research in evolutionary programming, evolution strategies, genetic algorithms and genetic programming, artificial life, cultural algorithms, and other models that rely on evolutionary principles. Specific topics include but are not limited to the use of evolutionary simulations in optimization, neural network training and design, automatic control, image processing, and other applications, as well as mathematical theory or empirical analysis providing insight into the behavior of such algorithms. Of particular interest are applications of simulated evolution to problems in biology.

Hardcopies of manuscripts must be received by one of the technical program cochairs by September 26, 1995. Electronic submissions cannot be accepted. Papers should be clear, concise, and written in English. Papers received after the deadline will be handled on a time- and space-available basis. The notification of the program committee's review decision will be mailed by November 30, 1995. Papers eligible for the student award must be marked appropriately for consideration (see below). Camera-ready papers are due at the conference, and will be published shortly after its

completion. Submissions should be single-spaced, 12 pt. font and should not exceed 15 pages including figures and references. Send five (5) copies of the complete paper to:

In Europe:

Thomas Bäck

Informatik Centrum Dortmund

Joseph-von-Fraunhofer-Str. 20

D-44227 Dortmund

Germany

e-mail:
baeck@home.informatik.uni-dortmund.de

In the United States:

Peter J. Angeline

Loral Federal Systems

1801 State Route 17C

Mail Drop 0210

Oswego, NY 13827

e-mail: pja@lfs.loral.com

-or-

Thomas M. English

Computer Science Department

Texas Tech University

Lubbock, TX 79409-3104

e-mail: english@cs.ttu.edu

Authors outside Europe or the United States may send their paper to any of the above technical chairmen at their convenience.

Summary of Important Dates:

26 Sept. 1995   Submissions of papers

30 Nov. 1995   Notification sent to authors

29 Feb. 1996   Conference begins

25 – 27 March, 1996

AAAI-96 Spring Symposium Series Adaptation, Co-evolution and Learning in Multiagent Systems, Stanford University, California (v9n44)

Coordination of multiple agents is essential for the viability of systems in which these agents share resources. Most of the research in Distributed Artificial Intelligence have

concentrated on developing coordination strategies off-line. These pre-fabricated strategies can quickly become inadequate if the system designer's world model is incomplete/incorrect or if the environment can change dynamically. Learning and adaptation are invaluable mechanisms by which agents can evolve coordination strategies that meet the demands of the environments and the requirements of individual agents.

The goal of this symposium is to focus on research that will address unique requirements for agents learning and adapting to work with other agents. Recognizing the applicability and limitations of current machine learning research as applied to multiagent problems as well as developing new learning and adaptation mechanisms particularly targeted to this class of problems will be of particular relevance to this symposium. We would particularly welcome new insights into this class of problems from other related disciplines, and thus would like to emphasize the inter-disciplinary nature of the symposium.

WWW:
http://euler.mcs.utulsa.edu/ sandip/ss.html.

Contact:

Sandip Sen (Chair)

University of Tulsa

e-mail: sandip@kolkata.mcs.utulsa.edu

26 – 28 March, 1996

Second International Conference on Adaptive Computing in Engineering Design and Control '96, University of Plymouth, United Kingdom

There is a worldwide upsurge of interest from both industry and academia in exciting novel computer technologies that are inspired by biological principles and other natural processes. The genetic algorithm, neural computing, and cellular automata are examples of emergent computational techniques that exploit cooperating elements to solve complex problems previously considered to be beyond the capabilities of conventional numerical computation. A number of specialized conferences are held annually where

fundamental issues in these fields are described and discussed.

ACEDC '96 is the second in what is expected to be a biennial series of meetings aimed at addressing the rapidly developing integration of these emerging computing technologies with engineering applications, particularly in the areas of design and control. The primary objective of the ACEDC '96 Conference is to create a stimulating environment in which participants can assess the state of the art, discuss feasible future directions for research and applications, and develop long-term targets. The ultimate aim of this conference series is to ensure that design engineers can take full advantage of these powerful computing technologies and of their implementation upon high-performance computing platforms, as they both become increasingly available and dominant over the next 10 years and into the early part of the twenty-first century.

Important Dates:

Immediately	Expression of interest
15 May 1995	Deadline for receipt of abstracts
30 Aug. 1995	Notification of acceptance
23 Oct. 1995	Deadline for receipt of full papers
26–28 Mar. 1996	Conference

Contact Address:

Ms. J. Levers

Plymouth Engineering Design Centre

University of Plymouth

Charles Cross Centre

Drake Circus

Plymouth

Devon, PL4 8DE

United Kingdom

Tel: +44 (0)1752-233508

Fax: +44 (0)1752-233505

e-mail: ian@cis.plym.ac.uk

26 - 28 March, 1996

ICSC - International Computer Science Conventions IIA'96 / SOCO'96 Intelligent Industrial Automation (IIA'96) and Soft

Computing (SOCO'96), International Symposia including Workshops/Tutorials at the University of Reading, England (v9n35)

Topics (IIA'96) Robotics and Computer Integrated Manufacturing (Analysis, Fault Diagnosis, Optimization, Simulation), Industrial Inspection, Design Automation and Rapid Prototyping, Scheduling, Process Control and Automation, Autonomous Systems, Intelligent Control Systems, Reliability and Maintainability, Production, System Modelling

Topics (SOCO'96) Artificial Neural Networks, Fuzzy Logic, Fuzzy Control, Genetic Algorithms, AI and Expert Systems, Probabilistic Reasoning, Machine Learning, Distributed Intelligence, Learning Algorithms and Intelligent Control, Self-Organizing Systems

Submission of manuscripts: Abstracts should be submitted until July 31, 1995. Calls for papers and full information are available from

ICSC Canada

P.O. Box 279

Millet, Alberta T0C 1Z0

Canada

Tel: +1-403-398-3546

Fax: +1-403-387-4329

e-mail: icsc@freenet.edmonton.ab.ca

Contact:

Dr. George D. Smith

Computing Science Sector

School of Information Systems

University of East Anglia

Norwich NR4 7TJ, UK

Tel: + 44 (0)603 593260

Fax: + 44 (0)603 507720

E-mail: gds@sys.uea.ac.uk

14 - 16 April, 1996

AI Techniques in Engineering and Mechanics: A Special Session of the Eighteenth Southeastern Conference on Theoretical and Applied Mechanics, Tuscaloosa, Alabama (v9n46)

Artificial Intelligence (AI) techniques are now being used by the practicing engineer to solve a

whole range of heretofore intractable problems. This session will consist of paper presentations describing the practical application of AI in all branches of engineering and mechanics, and thus will serve as a forum for the transfer of knowledge in this rapidly developing field. Papers are welcome from individuals and research groups on the subject of applications of AI including, but not limited to, the following topics:

Systems and techniques such as:

Expert systems, knowledge acquisition, knowledge-based systems, interactive knowledge-based systems, intelligent CAD/CAM systems, signal processing, sensor and data fusion, adaptive learning systems, neural networks, performance analysis, machine-vision systems, deductive databases, knowledge representation, modelling, learning heuristics, intelligent control systems, fuzzy logic, and genetic algorithms.

Engineering applications including:

Manufacturing, industrial engineering, production engineering, chemical engineering, civil engineering, electrical engineering, mechanical engineering, process control, robotics, autonomous vehicles, and communication.

Contact:

Robert E. Smith

Tel: (205) 348-1618

e-mail: rob@comec4.mh.ua.edu

and

Charles L. Karr

Tel: (205) 348-0066

e-mail: ckarr@buster.eng.ua.edu

Department of Engineering Science and Mechanics

University of Alabama

Box 870278

Tuscaloosa, AL 35487

Fax: (205) 348-7240

16 – 18 May, 1996

First Call for Papers - Artificial Life V: An

Interdisciplinary Workshop on the Synthesis and Simulation of Living Systems, Nara-Ken New Public Hall, Nara, near Kyoto, Japan (v9n45)

AlifeV will take a retrospective and prospective look at the field of Artificial Life. Besides the usual presentations of the latest work in the field, we will have special presentations and workshops reviewing the past and present, and previewing the future, of both Artificial and Natural life.

Important Dates

Submission deadline	November 30, 1995
Notification of acceptance	January 8, 1996
Camera-ready	February 1, 1996

Contact:

ALife V Program Secretary

ATR Human Information Processing Research Labs.

2-2 Hikari-dai, Seika-cho, Soraku-gun

Kyoto 619-02 Japan

e-mail: alife@hip.atr.co.jp

20 - 22 May, 1996

IEEE International Conference on Evolutionary Computation (ICEC'96), Nagoya, Japan (v9n18).

Topics:

Theory of evolutionary computation

Applications of evolutionary computation

Efficiency/robustness comparisons with other direct search algorithms

Parallel computer implementations

Artificial life and biologically inspired evolutionary computation

Evolutionary algorithms for computational intelligence

Comparisons between difference variants of evolutionary algorithms

Machine learning applications

Genetic algorithm and selforganization

Evolutionary computation for neural networks

Fuzzy logic in evolutionary algorithms

Important Dates:

November 15, 1995	Proposal for tutorial/exhibits
December 20, 1995	Submission of Papers (except for special sessions)
February 20, 1996	Notification of acceptance
April 10, 1996	Submission of camera-ready papers

Contact:

Toshio Fukuda, General Chair

Nagoya University

Dept. of Micro System Engineering and

Dept. of Mechano-Informatics and Systems

Furo-cho, Chikusa-ku, Nagoya 464-01, Japan

Tel: +81-52-789-4478

Fax: +81-52-789-3909

e-mail: fukuda@mein.nagoya-u.ac.jp

27 – 30 May, 1996

Evolutionary Algorithms in Robotics at ISRAM '96, Sixth International Symposium on Robotics And Manufacturing, Montpellier, France (v9n46)

As part of the Sixth International Symposium on Robotics and Manufacturing, a special invited session is planned on evolutionary algorithms (GA, ES, GP, EP, etc) in robotics. Topics of interest include (but are not limited to) the use of evolutionary algorithms in:

● Robotic control

● Robotic learning, both on-line and off-line

● Path and collision planning in robot manipulators

● Coordination of multiple robots

● Perception and multi-sensor integration

● Applications

Interested researchers should send a short description of their research and an abstract of 300 to 500 words via email or land mail to the address below. These must arrive by October 20, 1995. Authors will be notified by December 1. Final papers will be due by February 15, 1996.

Session Co-Chairs:

John Grefenstette and Alan C. Schultz

Code 5514

Naval Research Laboratory

Washington D.C. 20375-5337

USA

e-mail: {gref,schultz}@aic.nrl.navy.mil

1 – 5 July, 1996

IPMU'96 Granada, Spain (v9n31)

Aims and Scope

Organized at a regular two-year interval, the IPMU International Conference deals with the difficulties existing in the acquisition, representation, management and transmission of data in knowledge-based and decision-making systems. It brings together researchers working on various methodologies for the management of uncertain information and provides a useful exchange between theorists and practitioners using these different methodologies.

Contact:

IPMU'96

Dpto. Ciencias de la Computacion e Inteligencia Artificial.

E.T.S.I. Informatica.

Avda. Andalucia, 38

Universidad de Granada.

18071 Granada. Spain.

Tel: +34.58.244019

Fax: +34.58.243317

e-mail: ipmu96@robinson.ugr.es

e-mail for submissions: ipmu96-submissions@robinson.ugr.es

URL: http://pirata.ugr.es/ipmu96.html

28 – 31 July, 1996

Genetic Programming Conference, Stanford, CA (v9n9).

This first genetic programming conference will bring together people from the academic world, industry, and government who are interested in genetic programming. The conference program will include contributed papers, tutorials, an invited speaker, and informal meetings. Topics of interest include, but are not limited to,

- new applications of genetic programming
- theory
- extensions and variations of genetic programming
- parallelization techniques
- mental models, memory, and state
- operator and representation issues
- relations to biology and cognitive systems
- implementation issues
- war stories

For more information:

e-mail: GP96@Cs.Stanford.Edu

WWW: http://www.cs.brandeis.edu/~zippy/gp-96.html

GP-96 Conference

c/o John Koza

Computer Science Department

Margaret Jacks Hall

Stanford University

Stanford, CA 94305-2140 USA

3 – 5 August, 1996

FOGA4, San Diego, California (v9n47)

The 1996 Foundations of Genetic Algorithms (FOGA4) workshop will be the fourth biennial meeting of a workshop designed to explore theoretical issues relevant to genetic algorithms (GAs) and evolutionary computation generally. FOGA4 will held Saturday, August 3, through Monday, August 5, 1996 at the University of San Diego in San Diego, California. A reception will be held Friday evening, August 2, with regular workshop activities beginning August 3.

Attendance at the workshop will be limited; the goal is to create a small forum with close interaction among all the participants. Individuals submitting papers will be given priority for attendance, and some slots will be reserved for students. All individuals interested in attending must indicate this by either submitting a paper or requesting attendance.

Important dates:

1 Feb 96	Extended abstract due
15 Apr 96	Authors notified of acceptance

15 Jul 96	Drafts of full paper due
3–5 Aug 96	FOGA4, San Diego, CA

Paper submissions and inquiries may be directed to:

Richard K. Belew

Computer Science & Engr. Dept. (0114)

Univ. California – San Diego

La Jolla, CA 92093-0114

e-mail: rik@cs.ucsd.edu

Michael D. Vose

C.S. Dept., 107 Ayres Hall

The University of Tennessee

Knoxville, TN 37996

e-mail: vose@cs.utk.edu

Jun 10: Early registration deadline

Aug 8: Hotel reservations and regular registration deadline

Sep 9-13: Conference dates

Conference Chair:

Pattie Maes, Program

MIT Media Lab

20 Ames Street, Rm 305

Cambridge, MA 02139

USA

e-mail: pattie@media.mit.edu

General queries to: sab96@cs.brandeis.edu

WWW Page:
http://www.cs.brandeis.edu/conferences/sab96

9 – 13 September, 1996

From Animals to Animats: Fourth International Conference on Simulation of Adaptive Behavior (SAB96) Cape Cod, Massachusetts (v9n31)

The objective of the conference is to bring together researchers in ethology, psychology, ecology, artificial intelligence, artificial life, robotics, and related fields so as to further our understanding of the behaviors and underlying mechanisms that allow natural and artificial animals to adapt and survive in uncertain environments.

The conference will focus particularly on well-defined models, computer simulations, and robotics demonstrations, in order to help characterize and compare various organizational principles or architectures capable of inducing adaptive behavior in real animals or synthetic agents.

Authors should make every effort to suggest implications of their work for both natural and artificial animals. Papers which do not deal explicitly with adaptive behavior will be rejected.

Important Dates:

Feb 9, 1996: Submissions must be received

Apr 12: Notification of acceptance or rejection (via email)

May 10: Camera ready revised versions due

22 - 27 September, 1996

Parallel Problem Solving from Nature, Berlin, Germany (v9n17).

Natural computation is a common name for the design and theoretical and empirical understanding of algorithms gleaned from nature. Characteristic for natural computation is the metaphorical use of concepts, principles and mechanisms underlying natural systems. Examples are genetic algorithms, evolutionary programming and evolution strategies inspired by the evolutionary processes of mutation, recombination, and natural selection in biology, simulated annealing inspired by many-particle systems in physics, growth processes in nature and economics and algorithms inspired by multi-cellular systems like neural and immune networks.

Topics of particular interest include, but are not limited to: evolution strategies, evolutionary programming, genetic algorithms and classifier systems, other forms of evolutionary computation, simulated annealing, neural and immune networks, machine learning and optimization using these methods, their relations to other learning paradigms, and mathematical description of their behaviour.

Contact:

H.-M. Voigt

Conference Co-Chair

Technical University of Berlin

Ackerstr. 71-76 (ACK1)

D-13355 Berlin

Germany

Tel.: +49-30-314 72677

Fax: +49-30-314 72658

e-mail: voigt@fb10.tu-berlin.de

25 – 27 September, 1996

Third International Colloquium on Grammatical Inference (ICGI-96), Montpellier, France (v9n45)

ICGI 96 keeps aiming to provide a forum for discussion of principles, theory and applications of all those aspects of Machine Learning that explicitly focus on Grammars and Languages. Within this framework, topics of interest include, but are not limited to, the following:

• Learning Paradigms for Grammars and languages: Cognitive models, Algebraic aspects, Identification in the limit and PAC-Learning; Stochastic and Corpus-based approaches, Neural Networks, Genetic Algorithms, Fuzzy systems, etc.

• Algorithms.

• Heuristics.

• Benchmarks.

• Applications: Natural Language Processing, Language Translation; Biological Sequences and Time Series Modelization and Prediction; Image and Speech Recognition, Discrete Events Systems, etc.

Information on ICGI'96 is on the www page:

http://itkwww.kub.nl:2080/itk/Docs/Projects/Walter/icgi.html

Contact:

Laurent Miclet

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