Call for Workshop Submissions/Participation

W7 - Binding Environmental Sciences and Artificial Intelligence

August 24, 1998

A workshop held in conjunction with the
the 13th biennial European Conference on Artificial Intelligence ECAI'98
August 23-28, 1998, Brighton, UK.

kindly supported by: BESAI ACIA

Workshop Information

- What the Workshop is About
- Instructions for Participants
- Instruction for Submissions
- Workshop Committee
- Important Dates
- Address for Submisssions and Further Information

What the Workshop is About

There is a growing environmental concern either in industries (e.g. the coming ISO 14000, etc.) or in politics (Kyoto's summit or Rio do Janeiro's declaration). Therefore new tools for solving old problems is a new, performant, way that are more and more welcome. The workshop (ECAI98-BESAI) creates a discussion platform for AI researchers involved in the development of applications in the current and sensitive area of Environmental Sciences.

ECAI98-BESAI aspires to be an open forum for exposing and discussing the advances of international funded projects in the area, and bring together a growing interdisciplinary community of researchers with common interests in both Artificial Intelligence and Environmental Sciences.

Environmental Studies and Artificial Intelligence are of strategic interest. Both areas can provide society with solutions for many real world applications, in order to protect the environment. The encounter of these fields is a new challenge for many researchers of both communities.

The technical issues to be presented in ECAI98-BESAI may come from all Environmental fields, and should show how AI approaches can be useful to environmental systems management. New or improved techniques or methods, as well as innovative applications are welcome. We encourage presentations of the current state of ongoing research projects or applications, and contributions emphasizing integration of various technologies or paradigms are especially welcome.

Basic Environmental issues:

- Aquatic Environmental Sciences
  - Marine Pollution
  - Water Management
- Atmospheric Environmental Sciences
  - Air Pollution
  - Weather and Metheorological Prediction
- Biodiversity and Ecosystems
- Complex Environmental Processes Supervision
- Ecological Industrial & Engineering Design
- Ecological Systems Modelling and Simulation
- Environmental Crime Detection
- Environmental Data Bases Management
- Environmental Impact Assessment
- Global Climate Change
- Natural Resources Management
- Remote Sensing
- System Ecology
- Terrestrial Environmental Sciences
  - Forest Management
  - Waste Management

Artificial Intelligence approaches:

- Autonomous Agents
- Belief, Bayessian and Possibilistic Networks
- Case-Based Reasoning
- Constraint-Based Reasoning
- Distributed Problem Solving
- Genetic Algorithms
- Heuristic Search
- Image Processing
- Internet-Based Information Systems
- Knowledge-Based Systems
- Knowledge Discovery and Data Mining
- Machine Learning
- Neural Networks
- Optimization in Engineering Design
- Robotics

- Signal Processing

Applications and Prototypes

Instructions for Participants

All ECAI98-BESAI workshop participants must register both for the main ECAI98 conference and the workshop itself.

We expect the number of participants will be under 40, and attendance should be limited to active participants.

Instructions for Submissions

Interested authors may submit papers (max. 12 pages) addressing issues that are clearly relevant to the workshop theme, including an additional brief (max. 1 page) description of their ongoing research projects as well as applications in the area.

Also, authors planning to submit a contribution must contact as soon as possible to the Workshop Organizing Committee by e-mail. A provisional title must be provided.

Authors should send a copy of their original manuscript to Workshop Organizing Committee by April 1, 1998. The length of each manuscript including figures should be limited to 12 pages typed double-spaced using font size 12. Each manuscript should start with an abstract of no more than 150 words and should include a list of five keywords.

Submissions will be peer reviewed by at least two referees. Following the recommendations by the reviewers, authors of accepted papers will prepare a presentation. Presentations will be grouped into sections to foster focused discussions. The workshop schedule will provide time for specific discussions directly after each presentation as well as for extended more general exchange of ideas between presentations and sessions. Some of the attendees will be asked to serve as session commentators who summarize and critically reflect on the presentations of a session.

In addition to the camera ready paper for the Workshop Notes that will be distributed at the workshop, authors must prepare electronic versions of their papers to be made available prior to the workshop.

We plan to publish the Workshop Proceedings in a book format, or as a special issue of a specialized journal after the conference. In this case, authors will have the opportunity to revise and extend their contributions.

Workshop Committee

Organizing Committee:

René Bañares-Alcántara, Chemical Engineering Dept., University of Edinburgh (Scotland, U.K.).
Ulises Cortés, Artificial Intelligence Section, Technical University of Catalonia (Catalonia, Spain).
Javier Lafuente, Chemical Engineering Dept., Autonomous University of Barcelona (Catalonia, Spain).
Manel Poch, Chemical and Environmental Engineering Laboratory, University of Girona (Catalonia, Spain).
Yoram Reich, Solids, Mechanic and Infrastructure Dept., Tel-Aviv University (Israel).
Miquel Sànchez-Marrè, Artificial Intelligence Section, Technical University of Catalonia (Catalonia, Spain).

Program Committee:

René Bañares-Alcántara, Chemical Engineering Dept.,University of Edinburgh (Scotland, U.K.).
Javier Béjar, Artificial Intelligence Section, Technical University of Catalonia (Catalonia, Spain).
Ulises Cortés, Artificial Intelligence Section, Technical University of Catalonia (Catalonia, Spain).
Javier Lafuente, Chemical Engineering Dept., Autonomous University of Barcelona (Catalonia, Spain).
Ramon López de Mántaras, Artificial Intelligence Research Institute (IIIA), CSIC (Catalonia, Spain).
Gary A. Montague, Chemical & Process Engineering Dept., University of Newcastle (England, U.K.).
Manel Poch, Chemical and Environmental Engineering Laboratory, University of Girona (Catalonia, Spain).
Yoram Reich, Solid Mechanics, Materials and Structures Dept., Tel-Aviv University (Israel).
Antonio Sánchez-Aguilar, Computer Science Dept., University of Las Americas (Mexico).
Miquel Sànchez-Marrè, Artificial Intelligence Section, Technical University of Catalonia (Catalonia, Spain).
Ramon Sangüesa, Artificial Intelligence Section, Technical University of Catalonia (Catalonia, Spain).
Jean Philippe Steyer, Laboratory of Environmental Biotechnology (LBE), INRA (France).

Important Dates

- **April 1, 1998** Deadline for submission of papers
- May 8, 1998 Authors notification of acceptance/rejection
- May 15, 1998 Publication of final workshop program
- June 8, 1998 Final revised camera-ready papers
- August 24, 1998 Workshop at ECAI 98

Address for Submissions and Further Information

Proposals should be submitted via surface mail or electronically (in UNIX compatible postscript, html, or RTF) to Ulises Cortés, at following address:

Ulises Cortés
Dept. of Software
Technical University of Catalonia
Campus Nord-Edifici C5
C. Jordi Girona 1-3
08034 Barcelona
Catalonia, Spain
Tel.: + 34 3 401 70 16
Fax: + 34 3 401 70 14
e-mail: ia@lsi.upc.es

Further information on ECAI '98 is available at the ECAI98 Homepage:
http://www.cogs.susx.ac.uk/ecai98/index.html
The URL of this Workshop Homepage is: http://www.lsi.upc.es/~webia/besai.html
This call is also available in ASCII and Postscript.

Ulises Cortés