# The Fifth International Conference

on

# AUTONOMOUS AGENTS (Agents 2001) Montreal, Canada

Monday 28th May - Friday 1st June 2001

Autonomous agents are software and robotic entities that are capable of independent action in open, unpredictable environments. Agents are also one of the most important and exciting areas of research and development in computer science today. Agents are currently being applied in domains as diverse as computer games, interactive cinema, information retrieval and filtering, user interface design, electronic commerce, autonomous vehicles and spacecraft, and industrial process control. The aims of the Agents 2001 conference is to bring together researchers and developers from industry and academia to report on the latest scientific and technical advances, to discuss and debate the major issues, and to showcase the latest systems. Agents 2001 will build on the enormous success of its predecessors.

The conference welcomes submissions of original, high quality papers concerning autonomous agents in a variety of embodiments and playing a variety of roles in their environments. Agents 2001, like its predecessors, will focus primarily on systems that have been or are being implemented; theory papers are welcome provided that they clearly relate to such systems, for example by helping us to predict their behavior, explain, or understand them. The submission of pure, abstract theory papers is not encouraged: there are other, more appropriate forums for such work. Papers that address isolated agent capabilities (such as planning or learning) are similarly discouraged, unless they are placed in the overall context of autonomous agents. Evaluation of agents or multi-agent systems will be considered a desirable component of each submission.

In addition to conventional conference papers, we strongly encourage the submission of papers that focus on implemented systems or software prototypes. These papers require a demonstration of the software prototype at the conference and should include a detailed project/system description specifying hw/sw features and requirements. A clear description of the application domain(s) and other implementational/system oriented attributes should be included in the paper. Accepted software prototype papers will be presented within a special track at the conference along with the implemented system. The papers will also be reviewed specifically for the special track.

Exciting robot demos will also be presented as part of the Agents 2001 Robot Program, providing an exceptional opportunity to demonstrate state-of-the-art research, to share ideas and technology from the very broad research perspectives addressed by the Agents scientific community, and to increase awareness of the key challenges in designing autonomous robotic agents. We encourage teams from universities and other research laboratories to participate. Information about the Robot Program and associated travel assistance is found on the Autonomous Agents web page.

Furthermore the conference will include internationally known invited speakers and an exhibits session. More generally, the conference will strive towards an informal atmosphere with plenty of time for presentations, questions, and discussions. Accepted papers and posters will be formally published in a Conference Proceedings. A limited number of student scholarships will be available.

# Web Page

The web page for the conference, which will give full submission information, can be found at: http://www.csc.liv.ac.uk/~agents2001/.

# Important Dates

October 9, 2000 Deadline for electronic title pages
October 16, 2000 Deadline for paper submission
December 20, 2000 Paper notifications mailed

## **Conference Officials**

General Chair: Jörg P. Müller (Siemens, Germany)
Technical Program Co-Chairs: Elisabeth Andre (DFKI, Germany)

Sandip Sen (University of Tulsa, USA)

Local Organisation Chair: Treasurer:

Claude Frasson (University of Montreal, Canada) Lewis Johnson (University of Southern California, USA)

## Conference Themes

Technical issues to be addressed by submitted papers include, but are not restricted to the following topics:

- action selection and planning
- adaptation and learning
- agent architectures
- agent-based software engineering
- agent communication languages
- artificial market systems and electronic commerce
- autonomous robots
- believability
- communication, collaboration, and interaction of humans and agents
- conversational agents
- coordinating multiple agents
- designing agent systems methodologies & software engineering
- expert assistants
- evolution of agents
- human-like qualities of synthetic agents
- information agents
- instructability
- integration and coordination of multiple activities
- $\bullet\,$  knowledge acquisition and management

- lessons learned from deployed agents
- lifelike qualities
- meta-modeling and meta-reasoning
- middle-agents (e.g. matchmakers, brokers, routers)
- mobile agents
- modeling the behavior of other agents
- models of emotion, motivation, or personality
- multi-agent teams
- multi-agent communication, coordination, and collaboration
- multi-agent simulation, verification, and validation
- network agents
- organization of agent societies
- privacy and agents
- real-time performance
- standards for agents
- synthetic agents
- system support for the implementation of agents
- user modeling

#### Senior Program Committee

Justine Cassell, MIT Media Laboratory, USA
Tim Finin, University of Maryland-Baltimore County, USA
Maria Gini, University of Minnesota, USA
Toru Ishida, Kyoto University, Japan
Nick Jennings, University of Southampton, UK
Sarit Kraus, Bar-Ilan University, Israel
James Lester, North Carolina State University, USA
Matthias Klusch, DFKI GmbH, Germany
Daniela Rus, Dartmouth College, USA
Carles Sierra, IIIA-CSIC, Spain
Milind Tambe, USC/ISI, USA
Manuela Veloso, Carnegie Mellon University, USA
Mike Wooldridge, University of Liverpool, UK