CALL FOR PAPERS

4th International Symposium on Autonomous Minirobots for Research and Edutainment

October 2 - 5, 2007
Buenos Aires, Argentina

Autonomous Minirobots
Design and construction
Sensors and actuators
Information processing architectures
Simulation tools

Purposeful Autonomous Behaviours
Design and implementation
Learning and artificial evolution
Cooperation and collective behaviours

Applications

Scope and aims of the Symposium

With the beginning of the 21st century the primary applications for robotics have shifted from industrial robots to entertainment, educational and service robots. Correspondingly research is gaining a broader base by moving from a few well resourced laboratories into many small university laboratories and even the hobbyist work bench. Primary and secondary school students are participating in robot competitions in increasing numbers, indicating the high educational and entertainment value of low cost autonomous mobile robots. Small robots are also becoming increasingly useful as a test bed for animal behavioural cognitive research and for small scale prototyping of larger system.

All this has been made possible by the exponential increase of computing power per unit cost and the shrinking sizes delivered by the microelectronics industry. The AMiRE series of conferences grew out of the recognition that small and inexpensive entertainment and educational robots have overtaken industrial robots as the main driving force for advancing autonomous robot technology, reminiscent of how desktop computers, and now gaming computers, replaced the big mainframe computers as the drivers for the advancement of computer technology.

The fourth International Symposium on Autonomous Minirobots for Research and Edutainment builds on the success of its predecessors to provide a forum for autonomous robotics research and development focused on applications in research, education and entertainment.

Technical program

The technical and scientific program will include invited keynote addresses from leading researchers in the field, presentation of peer reviewed papers and posters as well as demonstrations of experiments with minirobots. Participants are encouraged to present working demonstrations of the capabilities of their minirobots.

All papers will be peer reviewed by three members of the International Programm Committee and published in book form by Springr Verlag.

Keynote speakers

Barbara Webb (UK)
Illah Nourbahksh (US)

Exhibition

An exhibition, open to the general public, of research prototypes and commercial minirobots that will be held in conjunction with the symposium. Conference participants, univer-sities and non-profit institutions that wish to exhibit their creations will receive local assistance from the conference organisers for preparing their stall.

Robot competitions

Robot soccer tournaments and other robot competitions will be staged as part of the exhibition.

Authors are invited to submit papers on the following and related topics

Minirobot construction
Computing architectures
Robot safety
Robot programming
Robot control
Robot navigation
Map building
Task planning
Robot vision
Sensor systems
Sensor fusion
Multi-robot systems
Robot communication
Collective behaviour
Simulation and modelling
Robot interfaces
Robot kinematics
Robot applications
Real time learning
Evolutionary robotics
Bio-inspired robots
Telerobotics

Important dates:

Submission of papers
1 May 2007
Notification of acceptance
22 June 2007
Final camera-ready paper
23 July 2007
Symposium 2 - 5 October 2007

Registration

Category	until 27/07/07	after 27/07/07
Full	EUR 380	EUR 460
Student *	EUR 150	EUR 200

(* excludes conference proceedings and dinner)

Authors must have registered by 27 July 2007

Information for authors

Authors are invited to submit a full paper with a maximum length of 8 pages. A detailed style sheets are available at:
http://www.amire2007.fit.qut.edu.au/

Conference Secretariat

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