

TERECOP Workshop “Teaching with robotics: didactic approaches and experiences”: call for papers

Using robots and robotic technologies in their teaching and laboratorial activities is a challenging option for teachers of various levels to exploit the educational potential and emotional appeal that robots can manifest with respect to children, students and adults. Educational robotics offers lots of interesting links to curriculum subjects such as mathematics, physics, natural sciences, computer science, engineering, and even humanistic subjects. It is therefore able to support the learning of a broad range of concepts and theories in an effective, pleasant and practical way, enforcing self-estimation. The opinion that robots will pervasively enter our every-day life in the next future strengthens the idea that it is worthy to start teaching robotics at any level of schools and colleges.

Notwithstanding, new questions about the right way of using robotics in education arise in order to avoid past errors (let’s think to the application of ICTs) and to fully exploit the potential of this technology. The goal cannot be simply to add robotics to the curriculum, but to adopt effective methodologies to help teachers using robotics as a really multi-valued learning tool.

The European Comenius TERCOP (Teacher Education on Robotics-Enhanced Constructivist Pedagogical Methods) 3 years project, which is presently in its second year, addresses this problem offering a framework for teacher education courses in order to enable teachers to implement the robotics-enhanced constructivist learning in school classrooms, and to report experiences from the implementation of this framework. Piaget’s constructivist approach, and its Papert’s constructionist ‘specialization’, serve as methodological mainstreams to provide collaborative strategies, robotics-based learning environments, tested and evaluated tools, and a community of practice between educators and teachers (see www.terecop.eu).

This workshop, hosted by the SIMPAR 2008 (Simulation, Modeling and Programming for Autonomous Robots) conference, <http://www.simpar-conference.org>, is aimed to promote an exchange of experiences among the partners of the project and other researchers in the field in order to address the outstanding issues related to robotics in education. Topics include:

- Project-based teaching/learning and robotics
- Teacher training for robotics in education
- Trends in educational robotics
- Robotics-enhanced curricula
- Robotics labs at school
- Robotics in the classroom
- Robotic educational tools
- New languages/paradigms for educational robot programming

Paper submission and format

All manuscripts should be prepared according to the instructions provided by the [Authors' Area](#) at the conference website. The page limit for the final submission of all regular and invited papers is 10 pages. The papers must be uploaded via [easychair conference page](#). Papers accepted for presentation in the workshop will be published in the SIMPAR conference proceedings. At least one (1) author must register in the workshop to present a paper.

Important dates

Deadline for submission of papers: July 15, 2008

Notification of acceptance: September 10, 2008

Submission of final camera -ready papers: October 1st, 2008

Venue:

The workshop will be held on November 3, 2008 and will be co-located with SIMPAR 2008 conference at the Telecom Italia, Future Centre, Campo San Salvador - San Marco, Venice, Italy.

Chairmen

Prof. Dimitris Alimisis, Department of Education, School of Pedagogical and Technological Education, Patras, Greece, chair

Prof. Michele Moro, DEI (Dept. of Information Engineering), Univ. of Padova (Italy), local chair

Invited Talks:

Prof. Paolo Fiorini, University of Verona, Italy

Appointed for the education committee of the International Robotics and Automation Society (RAS) of the IEEE

<http://profs.sci.univr.it/~fiorini/>

Prof. Chronis Kynigos, Department of Philosophy, Education and Psychology, Director of Educational Technology Laboratory, University of Athens, Greece

Program committee:

Aravecchia Liliane, Institut Universitaire de Formation des Maîtres d'Aix-Marseille, France

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