ERLARS 2010
Evolutionary and Reinforcement Learning for Autonomous Robot Systems

Organising Committee	Call for Papers

Workshop Chairs

Nils T Siebel
Building Automation Lab
Department of Engineering 1
HTW University of Applied Sciences Berlin
Berlin, Germany

Josef Pauli
Intelligent Systems Group
Department of Computer Science
University of Duisburg-Essen
Duisburg, Germany

Yohannes Kassahun
Research Group Robotics
DFKI Lab Bremen
University of Bremen
Bremen, Germany

Programme Committee

Andrew Barto
University of Massachusetts Amherst, USA

Peter Dürr
EPFL Lausanne, Switzerland

Christian Igel
Ruhr-Universität Bochum, Germany

Takanori Koga
Yamaguchi University, Japan

Tim Kovacs
University of Bristol, UK

Jun Ota
University of Tokyo, Japan

Jan Peters
MPI Tübingen, Germany

Daniel Polani
University of Hertfordshire, Hatfield, UK

Marcello Restelli
Politecnico di Milano, Italy

Stefan Schiffer
RWTH Aachen University, Germany

Juergen Schmidhuber
Swiss AI Lab IDSIA, Lugano, Switzerland

Sergiu-Dan Stan
Technical U. of Cluj-Napoca, Romania

Marc Toussaint
TU Berlin, Germany

Jeremy Wyatt
University of Birmingham, UK

3rd International Workshop on Evolutionary and Reinforcement Learning for Autonomous Robot Systems, ERLARS 2010

held in conjunction with the

19th European Conference on Artificial Intelligence (**ECAI 2010**)

in Lisbon, Portugal, on August 16 2010

Objectives

Learning is essential for an autonomous robot system. The range of unexpected situations it can handle while performing its task depends on its ability to adapt. Recent developments have taken autonomous robots beyond industrial settings, for example at home as toys and cleaners. However, production models usually interact with their environment following a fixed control strategy, which limits their range of application. More adaptable robots require control strategies that learn more and better from interactions with their environment.

The ERLARS workshop addresses the challenge to develop efficient and versatile learning architectures for autonomous robot systems, with the main focus on adequate evolutionary and reinforcement learning algorithms.

Relevant Topics

Papers are invited on all aspects of learning methods for the control of autonomous robot systems, including, but not limited to:

- Model-free visual servoing
- Mobile robot navigation by means of reinforcement learning
- Combining offline- and online learning methods for robot control
- Reinforcement learning by evolutionary algorithms of neural network-based and other robot controllers
- Hybrid systems that combine modelling and parameter estimation by reinforcement learning
- Learning from scratch and cascaded learning architectures
- Balancing exploration and exploitation of acquired knowledge
- Simulated environments for autonomous robot learning scenarios

Important Dates

- May 16 2010: Paper submissions due
- June 7 2010: Notification of paper acceptance
- June 24 2010: Camera ready paper submission
- August 16 2010: Workshop takes place

Information for authors and submission on the website http://www.erlars.org/

Information/Contact: E-Mail: erlars2010@erlars.org – Website: http://www.erlars.org/