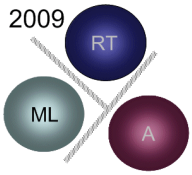
CALL FOR PAPERS – 2. CALL

KI 2009 WORKSHOP, PADERBORN | SEPTEMBER 15TH, 2009



MACHINE LEARNING IN REAL-TIME APPLICATIONS (MLRTA 09)

Workshop homepage: http://www.hs-owl.de/init/aktuelles/call-for-papers-mlrta-09.html

Important Dates:

Paper submission (**extended**):	**Jun 10, 2009**
Acceptance notification:	Jul 01, 2009
Final version due:	Jul 14, 2009
Proceedings due for printing:	Aug 10, 2009
Workshop:	Sep 15, 2009

Workshop Topics:

Cognitive systems are successfully applied in different industries, such as Automotive, Telecommunication, Robotics, Image Processing Based Automation as well as Machine and Plant Engineering. The complexity of such systems and situations very often makes manual solutions to tasks such as classification, diagnosis, and model identification more and more unrealistic. Instead, machine learning algorithms are applied.

Industrial cognitive systems deal with processing information from communication and automation systems under the criteria of process real-time, robustness, and limitation of resources. The focus of the workshop is therefore based upon the description, modelling, and the design of machine learning algorithms that can be implemented effectively into microelectronic circuits and resource-limited distributed systems. Suggested topics for contributions are:

- Practical applications and architectures for machine learning
- Knowledge representation
- Classifier design under hardware and software resource limitations
- Fast machine learning algorithms
- Concepts and strategies for distributed classifiers
- Data logging for real-time machine learning
- Diagnosis under real-time constraints
- Adaptive real-time systems
- The Future of distributed system machine learning

Unpublished contributions from the following areas are welcome, but not limited to: Automotive, Avionics, Telecommunication, Image Processing and Pattern Recognition, Machine and Plant Engineering, Automation, Robotics.

Program (planned):

- The full-day workshop format will be as follows:
- Invited talk: Resource-limited Machine Learning: concepts and challenges
- Contributions (papers)
- Presentation of Applications
- Panel discussion: The future in Machine Learning in Real Time Applications

Submission Guidelines

Full contributions should be not more 8 pages long. We also welcome position papers of 4 pages length. Please use the IEEE Transactions paper style; further details are available at the workshop homepage. All papers must be written in English. Submissions should be sent by email to the workshop organizers with "KI Workshop MLRTA Submission" as subject. All papers will be peer reviewed. The workshop submission is electronic, in pdf-format. All papers will be available at the workshop as citable proceedings (with ISBN number). Depending on the particular focus of the papers and/or on the outcomes of the discussions at the workshop, we are considering some form of post-publication. At least one author per accepted paper must register for the workshop and present the contribution.

Organisation:

Chair
Volker Lohweg, Institute Industrial IT, Lemgo, Germany, volker.lohweg@hs-owl.de

Co-Chair
Oliver Niggemann, Institute Industrial IT, Lemgo, Germany, oliver.niggemann@hs-owl.de

Program Committee:

Jürgen Belz, Hella KGaA Hueck & Co., Lippstadt, Germany

Olaf Enge-Rosenblatt, Fraunhofer Institute for Integrated Circuits, Dresden, Germany

Ulrich Heinkel, Chemnitz University of Technology, Germany

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Dirk Spenneberg, dSPACE GmbH, Paderborn, Germany

Benno Stein, Bauhaus-University Weimar, Germany