



IEEE



AIPR 2009: Vision: Humans, Animals, and Machines

Cosmos Club, Washington DC

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Many pattern recognition applications involve a relationship or interaction with biological systems. Biological systems have motivated methods for pattern recognition, such as neural networks or genetic algorithms. The interaction between machine and human can also occur in the application where the pattern recognition algorithm provides information to a human decision maker, as is the case with computer-aided diagnosis or assisted target recognition systems. Similarly, to improve system performance, an operator can modify or guide the algorithm. This approach is common with many machine learning systems. The AIPR-2009 executive committee invites papers in the following topic areas:

- Biologically inspired approaches: algorithms, techniques and methods motivated by understanding of human or animal vision, cognition, or neuroscience
- Biologically-inspired sensor technology, such as new hardware motivated by biological principles
- Synergy between humans and computers: Systems or techniques which exhibit a joint process where the human and machine each contribute to the overall solution
- Performance evaluation: Evaluation of imagery and pattern recognition systems, including assessments of machine assistance to a user
- Fundamental discoveries in biological vision systems that motivate new approaches to computer vision
- Sensing and analysis of color, motion, and three-dimensional information
- Historical or retrospective papers

Areas of interest include, but are not limited to, development of new theory and methods, theoretical advances in image processing and pattern recognition, performance analysis and benchmarking, and applications of image processing and pattern recognition to medical imaging and life science applications, automated target recognition (ATR), target tracking, biometrics, law enforcement and homeland security applications, forensic analysis, behavior recognition and analysis, mapping and geospatial information, and film preservation and restoration.

The Applied Imagery Pattern Recognition Workshop promotes and encourages the interdisciplinary interchange of ideas. The purpose of the annual AIPR workshops is to bring together researchers from government, industry, and academia in an elegant setting conducive to technical interchange across a broad range of disciplines.

Abstracts are being accepted now, for both oral and poster presentations. The abstract submission deadline is 1 June 2009. Send abstracts (150 - 300 words) and inquiries to:

John M. Irvine, PhD

Charles Stark Draper Laboratory, Inc.

555 Technology Square, MS 15

Cambridge, MA 02139-3563

Phone: 617-258-4957

Fax: 617-258-2772

program@aipr-workshop.org

Written papers will be required for accepted works and will be published in the AIPR Proceedings. The AIPR Home Page can be found at <http://www.aipr-workshop.org/>.

AIPR will present an award for the Best Student Paper

*AIPR 2009 is sponsored by the IEEE Computer Society Technical Committee on Pattern Analysis and Machine Intelligence, by IEEE, by Cybernet, and by the AIPR Executive Committee:
Dedicated to facilitating the interchange between government, industry, and academia.*