PerMIS'07
Performance Metrics for Intelligent Systems
http://www.isd.mel.nist.gov/PerMIS_2007
August 28-30, 2007

Call for Papers

PerMIS'07 will be the seventh in the series that started in 2000, targeted at defining measures and methodologies of evaluating performance of intelligent systems. The workshop has proved to be an excellent forum for discussions and partnerships, dissemination of ideas, and future collaborations in an informal setting. Attendees usually include researchers, graduate students, practitioners from industry, academia, and government agencies.

The cardinal theme of this year's workshop will be the **interplay between autonomy and intelligence**, i.e. how does autonomy influence intelligence and vice versa. In addition to the main theme, as in previous years, the workshop will focus on applications of performance measures to practical problems in commercial, industrial, homeland security, and military applications. Topic areas include, but are not limited to:

- Defining and measuring aspects of a system:
    - The level of autonomy
    - Human-robot interaction
    - Collaboration
- Evaluating components within intelligent systems:
    - Sensing and perception
    - Knowledge representation, world models, ontologies
    - Planning and control
    - Learning and adapting
    - Reasoning
- Infrastructural support for performance evaluation:
    - Testbeds and competitions for intercomparisons
    - Instrumentation and other measurement tools
    - Simulation and modeling support
- Technology readiness measures for intelligent systems
- Applied performance measures in various domains, e.g.,
    - Intelligent transportation systems
    - Emergency response robots (search and rescue, bomb disposal)
    - Homeland security systems
    - De-mining robots
    - Defense robotics
    - Hazardous environments (e.g., nuclear remediation)
    - Industrial and manufacturing systems
    - Space/Aerial robotics
    - Medical Robotics & Assistive devices

Selected papers from the past workshops have been published as special issues with the *Journal of Integrated Computer-Aided Engineering* (PerMIS'04) and the *Journal of Field Robotics* (PerMIS'06).

The Proceedings of PerMIS'07 will be indexed by INSPEC (EI Compendex is pending approval) and are released as a NIST Special Publication.

Submission Information

Prospective authors are requested to either send a draft paper (maximum 8 pages) or an extended abstract (1-2 pages) for review. Invited session proposals should contain 1) a session title and a brief statement of purpose, 2) name and affiliation of the organizer(s), and 3) a preliminary list of speakers.
All submissions must be written in English, starting with a succinct statement of the problem, the results achieved, their significance, and a comparison with previous work. Electronic submission (PDF, Word) is required. Please submit to **PerMIS@cme.nist.gov**
Contact: Jennifer Peyton   Phone: (301) 975-3422
          Jeanenne Salvermoser   Phone: (301) 975-3418

Important Dates

Submission of full papers   June 05, 2007   NEW
Proposal for invited sessions   June 05, 2007   NEW
Notification of acceptance   June 29, 2007
Final papers due   July 23, 2007

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E. Tunstel *Jet Propulsion Lab. USA*

Plenary Addresses
Prof. Maria Gini
University of Minnesota USA
Dr. Eric Krotkov
Griffin Technologies USA
Prof. Illah Nourbakhsh
Robotics Institute CMU USA
Dr. Alex Zelinsky
CSIRO ICT Centre Australia

Location
Washington, D.C. (The workshop will be held at the **Courtyard Gaithersburg Washingtonian Center**, Gaithersburg MD 20878)

National Institute of Standards and Technology