Call for Papers

Special Issue "Intelligent Decision Making in Dynamic Environments: Methods, Architectures and Applications"

For publication in *Intelligent Decision Technologies* (*IDT*): *An International Journal*

Decision making in dynamic environments poses unique challenges. First, time is an inherent dimension of the decision making process due to continuously changing situations. Speed, temporal relations between occurring events, and the order of decision-making actions are all important factors in such situations. Secondly, multiple alternative decision-making strategies can be applied depending on an assessment of the current situation. Already ongoing decision-making processes may be changed on-the-fly, modified, or optimized in response to unfolding external situations on the ground as well as to the system internal situation, e.g. internal resources available to the system. Thirdly, decision-making processes in dynamic environments need to maintain the truth of the logical decision process and resolve conflicts. Intelligent decision technologies (IDT) can assist decision making in these situations by constructing and updating complex situational views as they occur, potentially involving a large number of entities tied together with different structural, spatial, temporal, casual, and other domain-specific relationships. This special issue will focus on theoretical and applied IDT to support decision making in dynamic environments.

A variety of applications benefit from intelligent technologies in dynamic environments, including natural and human-caused disaster management, tactical warfare, intelligent transportation systems, physical and cyber security management, among others.

Aim and Scope

The guest editors of the special issue invite scientists, engineers and decision makers from government, industry and academia to contribute theoretical and applied research papers in areas including but not limited to the following topics:

Topics:

- Theoretical basis and models of intelligent decision making in dynamic environments
- Situation modeling
- Pro-active decision-making
- Agent technology for distributed decision making
- Ontology for collective behavior and decision support
- Applications and case studies

Each research paper will be double-blind reviewed and should be about 15 formatted pages long if accepted for publication (following the instruction located on http://www.iospress.nl/html/18724981_ita.html). Authors may submit double-spaced Word documents for the review phase. Please contact the guest editors with questions or to discuss potential contributions.

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Deadlines:

- Paper submission to Guest Editors: Aug 1, 2008
- Notification of acceptance: Oct.1, 2008

- Revised paper submission: Nov 15, 2008
- Final acceptance: Dec 15, 2008
- Manuscript delivery to the publisher: Jan 15, 2009