

## IOS Press

**Intelligent Journal of Intelligent Decision Technologies**  
<http://www.iospress.nl/loadtop/load.php?isbn=18724981>

### Call for Papers

#### Special Issue

#### *PERVASIVE AND CONTEXT AWARE DECISION TECHNOLOGIES*

#### **About the IDT Journal**

The IDT Journal solicits original research contributions addressing on the fundamental concepts and applications of intelligent systems that support decision-making. The field of intelligent decision technologies is interdisciplinary in nature, bridging computer science with its development of artificial intelligence, information systems with its development of decision support systems, and engineering with its development of systems. IDT seeks to attract research that is focused on applied technology while exploring its development at a fundamental level. IDT seeks an interchange of research on intelligent systems and intelligent technologies, which enhance or improve decision-making in industry, government and academia. IDT publishes research on all aspects of intelligent decision technologies, from fundamental development to the applied system. The journal is concerned with theory, design, development, implementation, testing and evaluation of intelligent decision systems that have the potential to support decision making in the areas of management, international business, finance, accounting, marketing, healthcare, military applications, production, networks, traffic management, crisis response, human interfaces and other applied fields.

For further information, please, refer to the "Aims and scope" section on the Website of the IDT Journal.

#### **Aims and scope of this special issue**

In the new era of pervasive computing the trend is towards achieving two goals: the availability of applications and information anywhere and anytime and the invisibility of computing; computing modules are hidden in multimedia information appliances. Pervasive applications are often made of collaborative parts spread over network components like computing devices, sensors, recognition or decision modules and actuators. Furthermore, pervasive applications are characterized by adaptation of their functionality subject to their current environment. Such environment may refer to the physical location, orientation or a user profile. Context awareness similarly refers to the ability of systems to react based on their environment. Devices and computer-based systems may have information about the circumstances under which they are able to operate and based on rules, or an intelligent stimulus, react accordingly. Context aware devices may also try to make assumptions about the user's current situation and define context as any information that can be used to characterize the situation of entities. Intelligent decision support modules are considered essential in such pervasive and context aware system, since many decisions are to be made without any user interaction.

The general focus of this special issue is to provide insights on how intelligent decision technologies can be implemented in real world pervasive applications; papers describing advanced prototypes, systems, tools and techniques and general survey papers indicating future directions are also encouraged. Acceptance will be based on quality, originality and the practical value of the work. Authors of submissions should carefully explain how the work and results presented contribute to facilitating and promoting the intelligence of pervasive and context aware systems.

#### **Main topics**

This special issue will focus on research work on the design, development, evaluation, and use of emerging intelligent decision technologies for pervasive and context aware systems. Contributions are solicited in, but not limited to, the following topics:

- Tools, infrastructures, architectures and techniques for designing, implementing and deploying decision technologies for pervasive and context aware systems
- Intelligent data fusion and decision technologies

- Planning and scheduling for pervasive and context aware systems
- Data mining and information retrieval for pervasive and context aware systems
- Distributed decision systems and architectures
- Reasoning systems and machine learning for pervasive and context aware systems
- Sensor data stream fusion, feature extraction and pattern analysis
- Affective computing, Sensing of affect, emotion and cognitive state
- Behavior-driven assistance and Affect-aware interfaces
- Intelligent decision technologies for pervasive health applications
- Data modeling, ontologies and information management for pervasive and context aware systems
- Usability and methodologies for assessing the utility, intelligence and user satisfaction of context aware applications

### **Important dates**

#### **Submission deadline: December 31, 2011**

Deadline for the completion of reviews and selection of papers: March 31, 2012

Deadline for the submission of modified papers (according to reviews): June 30, 2012

Final Decision and minor corrections September 30, 2012

Date for submitting the material to the publisher October 30, 2012

Authors should submit their manuscripts electronically as PDF files to the Guest Editors of the special issue: Ilias Maglogiannis (University of Central Greece), Lazaros Iliadis (Democritus University of Thrace), Harry Papadopoulos (Frederick University Cyprus)

(e-mails: [imaglo@ucg.gr](mailto:imaglo@ucg.gr); [liliadis@fmenr.duth.gr](mailto:liliadis@fmenr.duth.gr); [H.Papadopoulos@fit.ac.cy](mailto:H.Papadopoulos@fit.ac.cy))

### **Manuscript preparation**

Please, refer to the "Instructions to authors" section on the Website of the IDT Journal.

### **Reviewing process**

All papers will be peer reviewed by three reviewers, experts in the field, appointed by the Guest Editors of the issue in consultation with the Editor-in-Chief of the Journal.

### **Copyright information**

Submission of an article implies that:

- the work described has not been published before, except in form of an abstract or as part of a published lecture, review, or thesis;
- it is not under consideration for publication elsewhere.

For further information, please, refer to the "Copyright information" section on the Website of the IDT Journal.

### **Sources of papers and referees:**

Invitation of the best papers from the 12th EANN / 7th IFIP AIAI 2011 Joint Conferences (Engineering Applications of Neural Networks / Artificial Intelligence Applications and Innovations) (<http://delab.csd.auth.gr/eann2011/index.html>) and the publicly announced CFP will be the source for papers.