



Call for Papers
IEEE TRANSACTIONS ON
AUTOMATION SCIENCE AND ENGINEERING

IEEE

Special Issue on Automation and Engineering for Ambient Intelligence

The **Ambient Intelligence** community is working towards a future where humans live in *autonomous and responsive* environments, a goal shared by many researchers, above all by the Intelligent and Smart Environments' research proponents. This special issue will bring together solutions from research and engineering for the automatic understanding of a complex scene via multi-modal arrays of sensors, with automation of adaptation as the theme connecting various areas of interest. Manuscripts of scientific results from technical experts from academe and industry are solicited, and topics to be covered include, but are not limited to:

- Learning methods:
 - Ontology learning for a specific problem and generalizations there-of for novel context-aware applications
 - Learning methods for identification of behavior and classification of intentions in highly cluttered, complex and dynamic environments (e.g. emotion detection, social behaviour classification)
 - Clustering techniques for large corpora of multi-modal information acquired by heterogeneous sensor arrays.
- Multimodal Sensing and Interactivity:
 - Multi-modal fusion of information such as video, audio and speech, haptic, GIS, biometric, RFID, etc...
 - Context-based object description and scene understanding
 - Events annotation, summarization and classification for efficient information archiving and retrieval
- Robotics Methods:
 - Single and multi-robot solutions as mediators for intelligent environments
 - Human-robot interactions and Mobile platforms autonomous navigation
- Distributed and Emerging Intelligence methods:
 - Distributed intelligence solutions and migrating software for knowledge base creation of a complex scene
 - Biological-inspired methods such as ant algorithms
- Fielded Applications and Systems Evaluation Methods:
 - Models and Architectures for designing and programming Ambient Intelligence (small, large, wide area)
 - Performance evaluation methods and metrics for deployed working ambient intelligence systems through user test (performances, usability, and improvement in quality of life).

Important Dates

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| <ul style="list-style-type: none">• June 15, 2007: Paper submission deadline.• October 1, 2007: Completion of the first round paper review.• February 15, 2008: Completion of the second round paper review | <ul style="list-style-type: none">• March 15, 2008: Final manuscripts due.• July 1, 2008: Tentative publication date. |
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Guest Editors

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Paper Submission

All papers are to be submitted through the IEEE's **Manuscript Central** for Transactions on Automation Science and Engineering <http://mc.manuscriptcentral.com/t-ase>. Please select "Special Issue" under Manuscript Category of your submission. All manuscripts must be prepared according to the T-ASE publication guidelines <http://www.engr.uconn.edu/~ieeetase/>. Please address submission inquiries to T-ASE Editorial Assistant Ms. Tatiana Janowycz at ieeetase@engr.uconn.edu, technical inquiries to p.remagnino@kingston.ac.uk, and other inquires to Editor-in-Chief Peter Luh at Peter.Luh@uconn.edu.