

22nd International Joint Conference on Artificial Intelligence

IJCAI-11, Barcelona, Spain

July 19-22, 2011

Call for Papers

The IJCAI-11 Program Committee invites submissions of technical papers for IJCAI-11, to be held in Barcelona, Spain, July 19-22, 2011. Submissions are invited on significant, original, and previously unpublished research on all aspects of artificial intelligence.

The theme of IJCAI-11 is “Integrated and Embedded Artificial Intelligence” (IEAI) with a focus on artificial intelligence that crosses discipline boundaries within AI, and between AI and other disciplines. Building systems often requires techniques from more than one area (e.g. both machine learning and natural language processing, or both planning and preference representation). In addition, larger systems often have AI components embedded within that provide intelligent functionalities such as learning and reasoning. The conference will include a special track dedicated to such work.

Important dates

- Abstract submission: Jan 19, 2011 (11:59PM, UTC-12)
- Paper submission: Jan 24, 2011 (11:59PM, UTC-12)
- Author feedback: Feb 28-Mar 3, 2011 (11:59PM, UTC-12).
- Notification of acceptance/rejection: Mar 31, 2011
- Camera-ready copy due: Apr 15, 211
- Technical sessions: Jul 19-22, 2011

Submission Details

Submitted papers must be formatted according to IJCAI guidelines and submitted electronically through the IJCAI-11 paper submission site. Full instructions including formatting guidelines and electronic templates are available on the IJCAI-11 website: <http://www.ijcai-11.org> (see the link titled Submission Details). Submission is only electronic using the IJCAI-11 paper submission software (this will be linked from the IJCAI-11 website during the first week of December, 2010).

Papers will be accepted for either oral or poster presentation. However, no distinction will be made between accepted papers in the conference proceedings. At least one author of each accepted paper is required to attend the conference to present the work. Authors will be required to agree to this requirement at the time of submission.

The paper title, author names, contact details, and a brief abstract must be submitted electronically by January 19, 2011 (11:59 UTC-12). Authors will also be required to indicate if their submission is for the special track on “Integrated and Embedded Artificial Intelligence” (IEAI), in which case authors are required to clarify the synergistic aspects of the integrated and embedded system. All technical papers are due electronically on January 24, 2011 (11:59 UTC-12). Submissions received after the deadline or that do not meet the length or formatting requirements will not be accepted for review. No email or fax submissions will be accepted. Notification of receipt of an electronically submitted paper will be emailed to the designated contact author soon after receipt. If there are problems with the electronic submission, the program chair will contact the designated author by email. The last day for enquiries regarding lost submissions is January 28, 2011. The designated author will be emailed notification of acceptance or rejection by March 31, 2011. Authors will also be able to respond to preliminary reviews during the period Feb. 28 to March 3, 2011. Guidelines for such responses, along with details of the reviewing process will be posted on the IJCAI-11 website. Camera-ready copy of accepted papers must be received by the publisher by April 15, 2011.

Authors who do not have access to the web should contact the program chair at pcchair11@ijcai.org no later than January 1, 2011 for alternative submission instructions.

Content Areas

When submitting their abstract, authors will be required to choose at least two and at most four content area keywords. General categories should only be used if specific categories do not apply or do not accurately reflect the main contributions. Each keyword is placed within one of ten major areas; however, many of the keywords cut across multiple areas, and authors should feel free to select keywords from multiple areas.

Policy on Multiple Submissions

IJCAI-11 will not accept any paper which, at the time of submission, is under review for or has already been published or accepted for publication in a journal or another conference. Authors are also required not to submit their papers elsewhere during IJCAI’s review period. These restrictions apply only

to journals and conferences, not to workshops and similar specialized presentations with a limited audience and without archival proceedings. Authors will be required to confirm that their submissions conform to these requirements at the time of submission.

Paper Length and Format

Submitted technical papers must be no longer than six pages, including all figures and references, and must be formatted according to posted IJCAI-11 guidelines. Papers must be formatted for letter-size (8.5 x 11 paper, in double-column format with a 10pt font. Electronic templates for the LaTeX typesetting package, as well as a Word template, that conform to IJCAI-11 guidelines will be made available at the conference website in December.

Authors are required to submit their electronic papers in PDF format. Files in Postscript (ps), or any other format will not be accepted.

Over-length papers will not be considered for review. Each accepted paper will be allowed six pages in the proceedings; up to two additional pages may be purchased at a price of \$275 per page.

In order to make blind reviewing possible, authors must omit their names and affiliations from the paper. Also, while the references should include all published literature relevant to the paper, including previous works of the authors, it should not include unpublished works. When referring to one's own work, use the third person rather than the first person. For example, say "Previously, Foo and Bar [7] have shown that...", rather than "In our previous work [7] we have shown that...". Such identifying information can be added back to the final camera-ready version of accepted papers.

Review Process

Papers will be subject to blind peer review. Selection criteria include accuracy and originality of ideas, clarity and significance of results and quality of the presentation. IEAI papers will be judged based on the usual measures of quality, with consideration of the synergistic aspect of the integrated and embedded components. Comparisons are encouraged to be made against single-discipline systems.

The review process will include a short period for the authors to view reviews and respond to technical questions on the submitted work raised by the reviewers before discussion starts within the programme committee. The decision of the Program Committee will be final and cannot be appealed.

Please send enquiries about paper submissions to Toby Walsh, Program Chair IJCAI-11, pcchair11@ijcai.org.

For further information please visit the conference web site: <http://www.ijcai-11.org>

List of keywords:

Agent-based and Multiagent Systems

- Agent Theories and Architectures
- Agent Communication
- Agreement Technologies
- Argumentation

- Auctions and Market-Based Systems
- Coordination and Collaboration
- Distributed AI
- E-Commerce
- Game Theory
- Multiagent Learning
- Multiagent Planning
- Multiagent Systems
- Simulation and Emergent Behavior
- Social Choice

Constraints, Satisfiability, and Search

- Applications
- Constraint Optimization
- Constraint Satisfaction
- Distributed Constraints
- Dynamic Programming
- Evaluation and Analysis
- Global Constraints
- Heuristic Search
- Meta-heuristics
- Quantifier Formulations
- Satisfiability
- Modeling
- Search
- Solvers and Tools
- Symmetry

Knowledge Representation, Reasoning and Logic

- Action, Change and Causality
- Automated Reasoning and Theorem Proving
- Beliefs and Knowledge
- Case-based Reasoning
- Common-Sense Reasoning
- Computational Complexity
- Description Logics and Ontologies
- Diagnosis and Abductive Reasoning
- Geometric, Spatial, and Temporal Reasoning
- Knowledge Representation
- Logic Programming
- Many-Valued and Fuzzy Logics
- Nonmonotonic Reasoning
- Preferences
- Qualitative Reasoning
- Reasoning with Beliefs

Machine Learning

- Active Learning
- Case-based Reasoning
- Classification
- Cost-Sensitive Learning
- Data Mining
- Deep Learning
- Ensemble Methods
- Evolutionary Computation
- Feature Selection/Construction
- Kernel Methods
- Learning Graphical Models
- Learning Preferences or Rankings
- Learning Theory
- Machine Learning
- Neural Networks
- Online Learning
- Reinforcement Learning
- Relational Learning
- Semi-Supervised/Unsupervised Learning
- Structured Learning
- Time-series/Data Streams
- Transfer, Adaptation, Multi-task Learning

Multidisciplinary Topics and Applications

- AI and Natural Sciences
- AI and Social Sciences
- Art and Music
- AI and Ubiquitous Computing Systems
- Autonomic Computing
- Brain Sciences
- Cognitive Modeling
- Computational Biology and e-Health
- Computer Games
- Computer-Aided Education
- Human-Computer Interaction
- Intelligent Database Systems
- Intelligent User Interfaces
- Interactive Entertainment
- Knowledge-based Software Engineering
- Personalization and User Modeling
- Philosophical and Ethical Issues
- Real-Time Systems
- Security and Privacy
- Validation and Verification

Natural-Language Processing

- Dialogue
- Discourse
- Information Extraction
- Information Retrieval
- Machine Translation
- Morphology and Phonology
- Natural Language Generation
- Natural Language Semantics
- Natural Language Summarization
- Natural Language Syntax
- Natural Language Processing
- Psycholinguistics
- Question Answering
- Speech Recognition and Understanding
- Text Classification

Planning and Scheduling

- Activity and Plan Recognition
- Applications of Planning
- Conformant/Contingent Planning
- Hierarchical Task Networks
- Hybrid Systems
- Markov Decisions Processes
- POMDPs
- Plan Execution and Monitoring
- Planning Algorithms
- Planning under Uncertainty
- Real-time Planning
- Robot Planning
- Scheduling
- Search in Planning and Scheduling
- Theoretical Foundations of Planning

Robotics and Vision

- Behavior and Control
- Cognitive Robotics
- Human Robot Interaction
- Localization, Mapping, State Estimation
- Manipulation
- Motion and Path Planning
- Multi-Robot Systems
- Robotics
- Sensor Networks
- Vision and Perception

Uncertainty in AI

- Approximate Probabilistic Inference
- Bayesian Networks
- Decision/Utility Theory
- Exact Probabilistic Inference
- Graphical Models
- Preference Elicitation
- Sequential Decision Making
- Uncertainty

Web and Knowledge-based Information Systems

- Information Extraction
- Information Integration
- Information Retrieval
- Knowledge Acquisition
- Knowledge Engineering
- Knowledge-based Systems
- Ontologies
- Recommender Systems
- Semantic Web
- Social Networks
- Source Wrapping
- Web Mining
- Web Search
- Web Technologies