

## CALL FOR PAPERS



IEEE CS



# 38<sup>th</sup> International Conference on Tools with Artificial Intelligence

November 02 to November 04, 2026, Boca Raton FL, USA *(only in Person)*

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The IEEE International Conference on Tools with Artificial Intelligence (ICTAI) has been a leading IEEE-CS annual scientific meeting for three decades. It provides a major international forum where the creation and exchange of ideas related to artificial intelligence are fostered among academia, industry, and government agencies. The conference facilitates the cross-fertilization of these ideas and promotes their transfer into practical tools, for developing intelligent systems and pursuing artificial intelligence applications. ICTAI encompasses all technical aspects of specifying, developing and evaluating the theoretical underpinnings and applied mechanisms of the AI-based components of computer tools such as algorithms, architectures and languages.

### Topics (but not limited to)

#### AI Foundations

Evolutionary computing, Bayesian and Neural Networks  
Decision/Utility Theory and Decision Optimization  
Search, SAT, and CSP  
Logics and Ontologies

#### AI in Domain-specific Applications

AI in Computational Biology, Medicine & Biomedical Applications  
AI in the Web, Communication, Social Networking, Recommender  
Systems, Games and E-Commerce  
AI in Finance and Risk Management

#### AI in Computer Systems

AI in Robotics, Computer Vision and Games  
AI in Natural Language Processing  
AI in Software Engineering, Real-Time and Embedded  
Applications, and Sensor Networks  
AI in Cloud Computing, Data-Intensive Applications and  
Online/Streaming and Multimedia Systems  
AI in Web Search and Information Retrieval  
AI in Computer Security, Data Privacy, and Information Assurance

#### AI in Data Analytics, Data Mining and Big Data

Visual Analytics for Big Data  
Computational Modeling for Big Data  
Large-scale Recommendation and Social Media Systems  
Cloud/Grid/Stream Data Mining for Big Velocity Data  
Semantic-based Big Data Mining

#### AI in Smart Cities

Healthcare, Traffic, Transportation, Environment, etc.

#### AI Synergistic Models

Bridging AI Models for Advanced AI

#### AI and Societal Impact

AI Fairness, Accountability and Transparency  
AI interpretability and explainability  
Ethical and Trustworthy AI

#### Machine Learning

Dimension Reduction and Feature Selection  
Learning Graphical Models and Complex Networks  
Active, Cost-Sensitive, Semi-Supervised, Multi-Instance, Multi-  
Label and Multi-Task Learning  
Transfer/Adaptive, Rational and Structured Learning  
Preference/Ranking, Ensemble, and Reinforcement Learning  
Learn continuous-Incremental Learning

#### Knowledge Representation, Reasoning, Cognition

Knowledge Representation and Reasoning  
Knowledge Extraction, Management and Sharing  
Case-based Reasoning and Knowledge-based Systems  
Cognitive Modelling and Semantic Web

#### AI and Decision Systems

Decision Guidance and Support Systems  
Optimization-based Recommender Systems  
Group, Distributed, and Collaborative Decisions  
Crowd-sourcing and Collective Intelligence Decision-making  
Strategic, Tactical and Operational-level Decisions

#### Uncertainty in AI

Uncertainty and Fuzziness Representation and Reasoning  
Approximate/Exact Probabilistic Inference

#### Natural Language Processing

Natural Language Processing/Understanding  
Large language models  
Dialogue systems and digital assistants/chatbots

#### AI in Quantum Computing and Systems

Quantum machine learning (QML), hybrid quantum-classical AI  
Variational quantum algorithms (e.g., QAOA, VQE) for AI tasks  
AI for quantum system design, control, and error mitigation  
AI for distributed and networked quantum  
Benchmarking and evaluation of quantum AI systems

### Papers Submission

The submissions should contain original, high-quality work that has not been submitted or published elsewhere. Papers must be submitted electronically (through the ICTAI 2026 web site) in pdf format and must conform to IEEE specifications (single-spaced, double-column, 10-point font, up to 8 pages).

### Papers Presentation

Each accepted paper should be presented by one of the authors and accompanied by at least one full registration fee payment, to guarantee publication in the proceedings. All accepted papers will be included in proceedings of ICTAI 2026 that will be published by the IEEE Computer Society.

### Special Issues in IEEE & International Journals

Extended versions of selected papers from the conference will be reviewed and published in special issues in various IEEE and International Journals.

### Best ICTAI Papers Recognition Awards

ICTAI provide several financial awards to the top 5 best ICTAI Best Paper Award.

**Paper submission: June 30, 2026**

**Paper notification: Sept. 10, 2026**

**Camera ready paper: Sept. 25, 2026**