



[www.iaia.org](http://www.iaia.org)

# The Eleventh International Conference on Advanced Cognitive Technologies and Applications COGNITIVE 2019

May 5 - 9, 2019 - Venice, Italy

<http://www.iaia.org/conferences2019/COGNITIVE19.html>

## Important deadlines:

Submission (full paper)	December 22, 2018
Notification	February 24, 2019
Registration	March 9, 2019
Camera ready	March 20, 2019

## Tracks:

### NEW DIRECTIONS: Hot topics on cognitive science

Neuroscience; Brain connectivity; Brain-like Computing; Neuromorphic computing; Neuromorphic devices; Brain machine interface; Interfacing via brain waves; Spiking hierarchical models; Vision sensors; Sensory modalities; Temporal approach to object recognition; Hierarchical temporal memory; Spatio-temporal event recognition; Reasoning with relative directions; Web-navigation via Cognitive Models; Mining cognitive patterns; Bag-of-Features for retrievals; Computing with symmetries; Periphery of Knowledge; Emotions and cooperation levels

### BRAIN: Brain information processing and informatics

Cognitive and computation models; Human reasoning mechanisms; Modeling brain information processing mechanisms; Brain learning mechanisms; Human cognitive functions and their relationships; Modeling human multi-perception mechanisms and visual, auditory, and tactile information processing; Neural structures and neurobiological process; Cognitive architectures; Brain information storage, collection, and processing; Formal conceptual models of human brain data; Knowledge representation and discovery in neuroimaging; Brain-computer interface; Cognition-inspired complex systems; Aesthetic emotions

### COGNITION: Artificial intelligence and cognition

Expert systems, knowledge representation and reasoning; Reasoning techniques, constraint satisfaction and machine learning; Logic programming, fuzzy logic, neural networks, and uncertainty; State space search, ontologies and data mining; Games, planning and scheduling; Natural languages processing and advanced user interfaces; Cognitive, reactive and proactive systems; Ambient intelligence, perception and vision; pattern recognition

### AGENTS: Agent-based adaptive systems

Agent frameworks and development platforms; Agent models and architectures; Agent communication languages and protocols; Cooperation, coordination, and conversational agents; Group decision making and distributed problem solving; Mobile, cognitive and autonomous agents; Task planning and execution in multi-agent systems; Security, trust, reputation, privacy and safety in agent-based systems; Negotiation brokering and matchmaking in agent-oriented protocols; Web-oriented agents (mining, semantic discovery, navigation, etc.); SOA and software agents; Economic agent models and social adoption

### AUTONOMY: Autonomous systems and autonomy-oriented computing

Self-organized intelligence nature-inspired thinking paradigms; Swarm intelligence and emergent behavior; Autonomy-oriented modeling and computation; Coordination, cooperation and collective group behavior; Agent-based complex systems modeling and development; Complex behavior aggregation and self-organization; Agent-based knowledge discovery and sharing; Autonomous and distributed knowledge systems; Autonomous knowledge via information agents; Ontology-based agent services; Knowledge evolution control and information filtering agents; Natural and social law discovery in multi-agent systems; Distributed problem solving in complex and dynamic environments; Auction, mediation, pricing, and agent-based market-places; Autonomous auctions and negotiations

### APPLICATIONS

Agent-oriented modeling and methodologies; Agent-based interaction protocols and cognitive architectures; Emotional modeling and quality of experience techniques; Agent-based assistants and e-health; Agent-based interfaces; Knowledge and data intensive classification systems; Agent-based fault-tolerance systems; Learning and self-adaptation via multi-agent systems; Task-based and task-oriented agent-based systems; Agent-based virtual enterprise; Embodied agents and agent-based systems applications; Agent-based perceptive animated interfaces; Agent-based social simulation; Socially planning; E-Technology agent-based ubiquitous services and systems