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**The Fourth International Conference on Advanced Cognitive
Technologies and Applications
COGNITIVE 2012**

July 22-27, 2012 - Nice, France

<http://www.aria.org/conferences12/COGNITIVE12.html>

Important deadlines:

Submission (full paper)	March 5, 2012
Notification	April 23, 2012
Registration	May 7, 2012
Camera ready	May 7, 2012

Tracks:

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

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

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