CALL FOR PAPERS – ICCI*CC 2011

10th IEEE International Conference on Cognitive Informatics & Cognitive Computing
http://www.ucalgary.ca/icci_cc2011/ Paper submission https://www.easychair.org/conferences/?conf=iccc2011 Extended to March 31
August 18-20, 2011, Banff, Alberta, Canada

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THEME
Cognitive Computers and the e-Brain

Cognitive Informatics (CI) is a cutting-edge and multidisciplinary research field that tackles the fundamental problems shared by modern informatics, computing, AI, cybernetics, computational intelligence, cognitive science, intelligence science, neuropsychology, medical sciences, systems science, software engineering, knowledge engineering, cognitive robots, scientific philosophy, computational linguistics, and life sciences. Cognitive Computing (CC) is a maturing paradigm of intelligent computing methodologies and systems based on cognitive informatics that implements computational intelligence by autonomous inferences and perceptions mimicking the mechanisms of the brain. CI and CC are a transdisciplinary enquiry on the internal information processing mechanisms and processes of the brain and their engineering applications in cognitive computers, computational intelligence, cognitive robots, cognitive systems, and in the AI, IT, and software industries.

The development and the cross fertilization between the aforementioned science and engineering disciplines have led to a wide range of extremely interesting new research areas known as CI and CC. Following the first nine successful conferences on Cognitive Informatics (ICCI’02 through ICCI’10), the 10th IEEE Int’l Conference on Cognitive Informatics and Cognitive Computing (ICCI*CC’11) focuses on the theme of Cognitive Computers and the e-Brain. ICCI*CC’11 welcomes researchers, practitioners, and graduate students to join the international initiative on cognitive informatics and cognitive computing toward the investigation of cognitive mechanisms and processes of human information processing, and the development of the next generation of computers that learn and think.

SCOPE
Original papers are invited from multidisciplinary perspectives on subject areas including, but not limited to, the following:

Cognitive Informatics
- Informatics models of the brain
- Cognitive processes of the brain
- Internal information processing mechanisms
- Machine consciousness
- Neuroscience foundations of information processing
- Denotational mathematics
- Knowledge representation
- Autonomous machine learning
- Neural models of memory
- DNA and gene modelling
- Brain information processing
- Cognitive linguistics
- Cognitive complexity and metrics
- Bioinformatics
- Neural signal modeling
- Emotions/motivations/attitudes
- Cognitive sensors and networks
- Ergonomics

Cognitive Computing
- Cognitive computers
- Cognitive reasoning and inferences
- Computing beyond imperative mechanisms
- Cognitive behavioural modelling
- Software simulations of the brain
- Mathematical means for CC
- Knowledge manipulation
- Pattern and object recognition
- Cognitive agent technologies
- Dynamic concept networks
- Computing with words (CWW)
- Cognitive decision theories
- Concept algebra
- Cognitive learn engines
- Cognitive inference engines
- Fuzzy/rough sets/logic
- Semantic computing
- Granular computing
- Abstract Intelligence
- Abstract intelligence (AL) and AI
- Cognitive models of intelligence
- Theories of natural intelligence
- Neural informatics
- Neural computing
- Mathematical forms of AL
- Natural language cognition
- Computational psychology
- Distributed intelligence
- Cognitive Robots/Systems
- Brain informatics
- e-Brain
- Neurocontrol mechanisms
- Hybrid intelligence
- Visual information representation
- Visual semantics
- Novel machine intelligence
- AL vs. concrete intelligence

PAPER SUBMISSION
An electronic copy of papers in PDF format in English should be submitted via https://www.easychair.org/conferences/?conf=iccc2011 by March 31, 2011 with detailed information of author(s). Full papers should be around 6-8 pages in length in IEEE double column format as posted in the web site. Short papers (4-5 pages) that report industrial experience, case studies, work in progress, or graduate students’ research may also be considered. The proceedings of ICCI*CC’11 will be published by IEEE CS Press and indexed by EI and DBLP. Selected papers will be published in International Journal of Cognitive Informatics and Natural Intelligence (IJCIIN), International Journal of Software Science and Computational Intelligence (IJSSCI), and others.

IMPORTANT DATES
Full paper submission due: March 31, 2011 (extended)
Notification of acceptance: April 31, 2011
Camera-ready paper due: May 20, 2011