



# CALL FOR PAPERS – ICCI 2005



## The Fourth IEEE International Conference on Cognitive Informatics

<http://www.enel.ucalgary.ca/ICCI2005>

August 8-10, 2005, University of California, Irvine, California, USA

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### PAPERS SUBMISSION

c/o Prof. D. Zhang & Prof. W. Kinsner  
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### THEME

#### *Natural Intelligence and Autonomous Computing*

**Cognitive Informatics (CI)** is a cutting-edge and multidisciplinary research area that tackles the fundamental problems shared by modern informatics, computation, software engineering, AI, cybernetics, cognitive science, neuropsychology, medical science, philosophy, linguistics, and life sciences. CI is the transdisciplinary study of cognitive and information sciences, which investigates into the internal information processing mechanisms and processes of the natural intelligence – human brains and minds – and their engineering applications in computing and ICT industries.

The development and the cross fertilization between the aforementioned science and engineering disciplines have led to a whole range of extremely interesting new research areas known as CI. Following the first three successful conferences on Cognitive Informatics (*ICCI'02*, *ICCI'03* and *ICCI'04*), the *Fourth IEEE International Conference on Cognitive Informatics (ICCI'05)* has its theme on **Natural Intelligence and Autonomous Computing**. The objectives of ICCI'05 are to draw attention of researchers, practitioners and graduate students to the investigation of cognitive mechanisms and processes of human information processing, and to stimulate the international effort on cognitive informatics research and engineering applications.

### SCOPE

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

#### **Cognitive Informatics**

Autonomous computing  
 Intellectual foundations of computing  
 Information models of the brain  
 Informatics foundations of software engineering  
 Descriptive mathematics  
 Internal information processing mechanisms  
 Software agent systems  
 Ergonomics  
 Informatics laws of software  
 Knowledge representation  
 Neural computation  
 Metrics of informatics

#### **Informatics**

Nature of software  
 Knowledge engineering  
 Bioinformatics  
 Quantum information processing  
 Artificial intelligence  
 Fuzzy logic  
 Machine learning  
 Neural networks  
 Pattern recognition  
 Agent technologies  
 Web-based information systems

#### **Cognitive Science & Neuropsychology**

Natural intelligence  
 Philosophy of mind  
 Brain organization  
 Cognitive mechanism and process  
 Memory  
 Learning  
 Thinking  
 Reasoning  
 Problem solving  
 Cognitive linguistics  
 Neuropsychology

### PAPER SUBMISSION

Papers submitted to ICCI'05 must not have been previously published and must not be currently under consideration for publication elsewhere. The manuscript should be in English, and should not exceed 10 pages in IEEE double-column format, including figures and tables. The font size should be at least 10 point. All paper submissions will be handled electronically through our online web-based submission system at the conference website. The submission of your paper should be in either PDF or PS file format. Make sure that you indicate the contact author's information (email and postal addresses, phone and fax numbers) in your submission. It is required that all accepted papers must be presented at ICCI'05 conference. The proceedings of ICCI'05 will be published by IEEE CS Press. Selected best papers of ICCI'05 will be published in a special issue of either IEEE-TSMCC or IJCI (TBA).

### WORKSHOPS AND SPECIAL SESSIONS

ICCI'05 welcomes proposals for workshops and special sessions. Proposals need to be sent to the Conference Co-chairs by February 14, 2005.

### IMPORTANT DATES

Paper submission deadline: February 7, 2005  
 Workshop proposals deadline: February 14, 2005  
 Notification of acceptance: April 1, 2005  
 Camera-ready copy due: May 2, 2005