CFP: 18th Australian Joint Conference on Artificial Intelligence
  The second Australian Conference on Artificial Life
Sydney, Australia, 5-8 December 2005
 http://www.itee.adfa.edu.au/~abbass/acal05/

CALL FOR PAPERS

The Second Australian Conference on Artificial Life, (ACAL05), will be held
in the University of Technology Sydney, 5-8 December 2005 in conjunction
with the 18th Australian Joint Conference on Artificial Intelligence (AI05).

The Technical Committee of ACAL05 invites technical papers on substantial,
original, and unpublished research on all aspects of Artificial Life and
Complex Adaptive Systems. Topics of particular interest to ACAL05 include,
but are not limited to:

o Adaptive robotics
o Artificial Chemistry
o Artificial societies and markets
o Ant colony optimization
o Applications of ALife technologies
o Bioinformatics
o Biological agents
o Cellular automata
o Coevolution of morphology and mind
o Collaborative behaviour
o Complex systems
o Complexity
o Coordination
o Embodied cognition
o Emergence
o Ethics of artificial life
o Evolutionary and adaptive dynamics
o Evolutionary computation
o Fitness landscapes
o Games
o Hierarchical dynamics
o Marriage in Honey-Bees optimization
o Modularity
o Multi-agent systems
o Neural networks and connectionism
o Neurobiology
o Origin of life
o Philosophy of artificial life
o Percolation
o Self-organization

o Self-replication
o Simulation and synthesis tools and methodologies
o Social networks
o Swarm Intelligence

PAPER SUBMISSION

Authors are invited to submit previously unpublished work to ACAL05 and its special sessions. All papers, including the special session papers, will be subject to a peer review process. Each paper will be reviewed by at least two members of the program committee. At least one author should attend at the conference to present his/her paper. Accepted papers will be published in the conference proceedings. The maximum number of pages is 15. Only PDF files are accepted. Papers should be submitted to abbass@itee.adfa.edu.au

PUBLICATION

Papers accepted for presentation at ACAL05 will be published by a major publisher.

IMPORTANT DATES

Submission of papers to the conference: 30 June-2005
Notification of acceptance/rejection to authors: 22 August-2005
Camera ready format: 12
September-2005
Conference date: 5-8
December-2005

SPECIAL SESSION ON COMPLEX ADAPTIVE SYSTEMS FOR DEFENCE

Session chair: Alex Ryan, DSTO

The special Defence session on Complex Adaptive Systems is an extension of the Defence Science and Technology Organization (DSTO) Complex Adaptive Systems in Defence workshops. The DSTO workshops identify emerging approaches to complex systems with potential defence applications. This is achieved by fostering interactions between defence, academic and industrial research sectors to provide collaboration opportunities that can strengthen both the theory and application of complex systems science. The special Defence session on Complex Systems promotes these objectives by providing a refereed forum for novel approaches to complex systems in defence, and an opportunity for wider interaction with the academic community. Authors should mention at the time of submission if their papers are submitted to this special session. All papers submitted to the special session will be refereed in the same way as those submitted for the main stream. All papers

accepted in the special session will be included in the conference proceedings.

CONFERENCE INTERNATIONAL ADVISORY COMMITTEE

Mark Bedau (Reed, USA)
Eric Bonabeau (Icosystem, USA)
David Fogel (Natural Selection, USA)
Peter Stadler (Leipzig, Germany)
Masanori Sugisaka (Oita, Japan)

CONFERENCE CO-CHAIRS

*Hussein A. Abbass, **Terry Bossomaier, and ***Janet Wiles

*The Australian Defence Force Academy @ the University of New South Wales, Canberra, ACT2600, Australia. Email: abbass@itee.adfa.edu.au ;

**Charles Sturt University, Bathurst NSW 2795, Australia. Email:
 tbossomaier@csu.edu.au ;

***The University of Queensland QLD 4072, Australia. Email:
 janetw@itee.uq.edu.au

ORGANIZING CHAIR

Jie Lu
University of Technology Sydney, PO Box 123, Broadway NSW 2007, Australia.
Email: jielu@it.uts.edu.au

CONFERENCE PROGRAM COMMITTEE

Alan Blair (UNSW, Australia)
Stephen Chalup (Newcastle, Australia)
Tan Kay Chen (NUS, Singapore)
Vic Ciesielski (RMIT, Australia)
David Cornforth (CSU, Australia)
Alan Dorine (Monash, Australia)
Daryl Essam (UNSW@ADFA , Australia)
David Green (Monash, Australia)
Tim Hendtlass (Swinburne, Australia)
Christian Jacob (Calgary, Canada)
Ray Jarvis (Monash, Australia)
Graham Kendall (Nottingham, UK)
Kevin Korb (Monash, Australia)
Xiaodong Li (RMIT, Australia)

Xavier Llorà (UIUC, USA)
Frederic Maire (QUT, Australia)
Bob Mckay (UNSW@ADFA , Australia)
Naoki Mori (Osaka Prefecture University, Japan)
Akira Namatame (Defence Academy, Japan)
Chrystopher Nehaniv (Herts, UK)
David Newth (CSIRO, Australia)
Stefano Nolfi (CNR, Italy)
Marcus Randall (Bond, Australia)
Alex Ryan (DSTO, Australia)
Russell Standish (UNSW, Australia)
Jason Teo (Universiti Malaysia Sabah, Malaysia)