

# AUSTRALASIAN CONFERENCE ON ARTIFICIAL LIFE AND COMPUTATIONAL INTELLIGENCE (ACALCI 2016) Canberra, Australia

2-5 February 2016

## CALL FOR PAPERS

While Artificial Life (AL) attempts to understand nature through modelling and simulation, Computational Intelligence (CI) attempts to translate this understanding into algorithms for learning and optimisation. The Australasian Conference on Artificial Life and Computational Intelligence features international research in AL and CI and provides a forum for innovative, interdisciplinary research associated with the computational concepts underlying living and intelligent systems.

ACALCI 2016 will be organised in broad technical sessions that bring together experts from different fields in AL, CI and associated areas. The forum also hopes to encourage ALCI applied research in domains as diverse as health, the creative arts and finance. ACALCI encourages presentations, demonstrations, performances and discussions on topics including but not limited to:

Adaptive Ecologies	Cognitive Neuroscience	Ethics and Security in CI	Memetic Algorithms
Affective Computing	Complex Systems	Evolutionary Computation	Models of Emotions
ALCI in Design and Music	Computational Neuroscience	Evolutionary Design	Multi-Agent Systems
Ant Colony Optimization	Consciousness and Mind	Facial Expression Analysis	Non-player Game Characters
Applications of ALCI	Creative Arts and CI	Game Playing Agents	Pattern Recognition
Autonomous Agents	Data Mining	Human Machine Interaction	Philosophy of Artificial Life
Architecture and ALCI	Deep Learning	Humanities and ALCI	Reservoir Computing
Artificial Neural Networks	Developmental Learning	Humanoid Robots	Self-Organization
Artificial Societies and Markets	Digital Societies	Implementation Techniques	Simulation and Modelling
Augmented and Virtual Realities	Dimensionality Reduction	Information Theoretic Learning	Smart Grid Techniques
Big Data	Embodiment and Robotics	Intelligent Home Automation	Social Networks and ALCI
Bioinformatics	Emergence of Collaborative Behaviour	Language Processing	Statistical Learning Theory
Brain Computer Interfaces	Emotional AI	Machine Learning	Swarm Algorithms
Brain theory	Engineering of Consciousness and Mind	Mathematical Models	Synthetic Life Computations
Chatbots	Epidemiology Simulations	Medical Image Analysis	Visual Information Processing

## SUBMISSION AND PRESENTATION

Authors are invited to submit papers based on recent research. All relevant papers will be fully peer reviewed by at least three reviewers from the ACALCI International Program Committee before acceptance for publication in the proceedings. It is expected that submitted manuscripts are original and have neither been published nor submitted for publication elsewhere. All accepted papers for ACALCI 2016 will be published as the proceedings in Lecture Notes in Artificial Intelligence (LNAI) by Springer.

## IMPORTANT DATES

Paper submission deadline: August 15, 2015  
Decision notification: September 18, 2015  
Camera-ready submission: October 26, 2015

## WORKSHOPS, TUTORIALS AND PERFORMANCES

If you would like to organise a workshop, tutorial or performance in connection with ACALCI2016 please contact the organisers as soon as possible.

## CONTACT

Website: <http://www.acalci.net>  
Email: [acalci2016@gmail.com](mailto:acalci2016@gmail.com)

ACALCI 2016 will be co-located with the Australasian Computer Science Week (ACSW 2016). <http://cs.anu.edu.au/conf/acsw2016/>

## PLENARY SPEAKERS (Confirmed)

Prof. Kalyanmoy Deb, Michigan State University (USA)  
Prof. Jun Wang, The Chinese University of Hong Kong (Hong Kong)  
Prof. Yew-Soon Ong, Nanyang Technological University (Singapore)  
Prof. Nikhil Pal, Indian Statistical Institute, Kolkata (India)  
Prof. Akira Oyama, Japan Aerospace Exploration Agency (Japan)

## CONFERENCE ORGANISERS

General Chair: Tapabrata Ray (UNSW)  
Program Co-Chairs: Ruhul Sarker (UNSW), Xiaodong Li (RMIT)  
Paper and poster award committee chair : Mengjie Zhang (Victoria University of Wellington)  
Tutorial and Workshop chair: Philip Hingston (Edith Cowan University)  
Special Session Chairs: Xiuping Jia (UNSW), Girija Chetty (UC)  
Treasurer & Registration Chairs: Kamran Shafi(UNSW), Saber Elsayed (UNSW)  
Publicity Chairs: Hemant Singh (UNSW), Jiangjun Tang (UNSW)  
Local Organising Committee: Kathryn Merrick (UNSW), Sameer Alam (UNSW), George Leu (UNSW), Daoyi Dong (UNSW)

## LOCATION AND VENUE

Canberra is the capital of Australia, a hub of political, socio-economic and cultural activities. One of the few planned cities in the world, it offers a unique blend of cosmopolitan and countryside experience. Central business district ('Civic') is the heart of the city, sprawling with restaurants, bars and entertainment areas, and also a host to a number of festivals including the annual Multicultural festival in February. Lake Burley Griffin and numerous nature parks provide ideal scenic settings for leisure and outdoor activities. Australian war memorial, National museum and the Parliament house are a few among many iconic landmarks exhibiting Australian history and culture. Namadgi national park, Canberra district wineries and south-east coast are all within short driving distance from the city.

