

Call for Papers Journal of Universal Computer Science (J.UCS)

Special issue



Theory and Application of Bio-inspired Intelligence and Methods

Guest Editors

Xingyi Zhang
Anhui University, China

Alfonso Rodríguez-Patón Aradas,
Polytechnical University of Madrid, Spain

Xiangxiang Zeng
Xiamen University, China

Tao Song
Swinburne University of Technology Sarawak
Campus, Malaysia

Pan Zheng
Swinburne University of Technology Sarawak
Campus, Malaysia

Introduction

The environment adaptation capability of biological entities and systems unfolds solutions to challenging problems. Evolution constantly polishes up the solutions to be optimal. Computer scientists look into the phenomenon as guiding metaphors for problem solving; henceforth the Bio-inspired computing (BIC) comes into picture. BIC focuses on the designs and developments of computer algorithms and models based on biological mechanisms and living phenomena. It is now a major subfield of natural computation that leverages on the recent advances in computer science, biology and mathematics. The ideas provide abundant inspiration to construct high-performance computing models and intelligent algorithms, thus enabling powerful methods to solve real-life problems.

Objective

The proposed special issue is designed to be an open platform gathering the recent models, methods and algorithms that are developed and introduced in the field of bio-inspired computing. The objective of the special issue is to provide a comprehensive and latest collection of research and experiment works in the field. The special issue endeavours to tackle the bio-inspired computing from a slightly different aspect. Besides the conventional topics, e.g. Swarm Intelligences, Machine Learning, Neural Networks, Computer Vision and Pattern Recognition, we would like to have topics of some unconventional ones, i.e. Membrane Computing, DNA Molecular Computing and Programming, Evolutionary Computation, Bioinformatics, Game Theory, Application in Biometric. Nevertheless, the topics should be equally balanced.

List of topics

- Evolutionary Computation
- Neural Computing
- DNA Molecular Computing/Programming
- Membrane Computing
- Cellular Automata
- Swarm intelligences
- P system
- Artificial Immune Systems
- Applications in Biometric Recognition
- Applications in Computer Vision
- Applications in Pattern Classification
- Other Bio-inspired/Artificial Intelligence Models and Algorithms

Instructions for authors

Authors are invited to contribute their original and unpublished manuscripts on the topics listed. The J.UCS article style guideline is available at http://www.jucs.org/ujs/jucs/info/submissions/style_guide.html

All the papers should be submitted to xyzhanghust@gmail.com or xzeng@xmu.edu.cn

and titled “J.UCS SI Submission: BIIM”

It is the author(s)’ responsibility to ensure the quality of the English used in the submitted manuscripts. If the English is not sufficient, the paper may not be passed on for the peer review process.

Provisional Dates

Call for Papers:	30 th July, 2016
Paper Submission:	31 st March 2017
Acceptance notice:	30 th June 2017
Publication:	30 th September, 2017

Panel of Reviewers

Abishai Daniel, Intel, USA

Chaoli Sun, University of Surrey, UK

Dennis Wong, Swinburne University of Technology Sarawak Campus, Malaysia

Handing Wang, University of Surrey, UK

Henry Adorna, University of the Philippines Diliman, Philippines

Hui Li, China University of Petroleum, China

Huiling Wu, The University of Auckland, New Zealand

Iman Yi Liao, The University of Nottingham Malaysia Campus, Malaysia

Jun Wang, Leiden Institute of Advanced Computer Science, The Netherlands

Kai Qin, RMIT University, Australia

Karthik Sindhya, University of Jyväskylä, Finland
Ke Li, University of Birmingham, UK
Lau Bee Theng, Swinburne University of Technology Sarawak Campus, Malaysia
Luis Felipe Macias Ramos, University of Sevilla; Spain
Manule Garcia-Quismondo, University of Sevilla, Spain
Miqing Li, University of Birmingham, UK
Nabi Omidvar, University of Birmingham, UK
Niall Murphy, Microsoft Research Cambridge, UK
Petr Sosík, Charles University in Prague, Czech Republic
Rui Wang, National University of Defence Technology, China
Tinkle Chugh, University of Jyväskylä, Finland
Xun Wang, China University of Petroleum, China
Ying-Ping Chen, National Chiao Tung University, China (Taiwan)

Inquiries

- Prof. Xingyi Zhang, xyzhanghust@gmail.com
School of Computer Science and Technology, Anhui University
- Assoc. Prof. Xiangxiang Zeng, xzeng@xmu.edu.cn
Department of Computer Science, Xiamen University