



Important Message

★ **Proposals to Organize CIS Conferences**

- Proposals for IEEE SSCI 2021 must be submitted by **15 March 2019**
- Proposals for IEEE WCCI 2022 must be submitted by **15 April 2019**

Please inform [Gary Fogel](#) and [Gary Yen](#) of your intention to prepare a bid as soon as you decide to do so. Policies, procedures and budget worksheet for such proposals are [available](#).

★ **Distinguished Lecturer Invitation**

CIS local chapters are encouraged to invite DLP speakers. For more information about DLP speaker invitation, please refer to the [webpage](#).

CIS Conferences

★ **Conference Calendar (2019-2021)**

★ **2019 IEEE Congress on Evolutionary Computation (IEEE CEC 2019)**

Wellington, New Zealand
10-13 June 2019

(Submission: 21 January)

2019 Newly Elevated IEEE Fellows in CIS

IEEE Fellow is a distinction reserved for select IEEE members who have achieved remarkable results and outstanding performance. Congratulations to the 2019 Newly Elevated IEEE Fellows in CIS:

Yun Fu

Northeastern University, USA
for contributions to manifold learning and face and gesture recognition



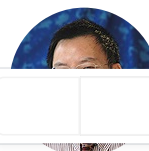
Zeng-guang Hou

Chinese Academy of Sciences, China
for contributions to neural network optimization and control for rehabilitation

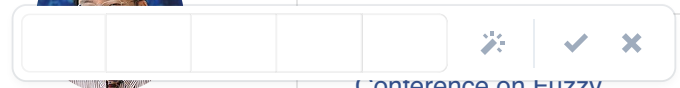


Tingwen Huang

Texas A&M University, USA
for contributions to dynamical analysis of neural networks



Chia-feng Juang



Conference on Fuzzy Systems (FUZZ-IEEE)

National Chung Hsing University, Taiwan
for contributions to data-driven fuzzy systems



Irwin King

The Chinese University of Hong Kong, Hong Kong
for contributions to the theory and applications of machine learning in social computing



Stuart Rubin

Space and Naval Warfare Systems Center, USA
for contributions to computational intelligence



Fuchun Sun

Tsinghua University, China
for contributions to neural network control of nonlinear systems with applications to robotic manipulators



Zhaohui Wu

Zhejiang University, China
for contributions to intelligent service computing



Shengli Xie

Guangdong University of Technology, China
for contributions to blind source separation and its applications



Mengjie Zhang

Victoria University of Wellington, New Zealand
for contributions to evolutionary learning and optimization methodologies



2019)

New Orleans, USA

23-26 June 2019

(Submission: 11 January)

★ 2019 International Joint Conference on Neural Networks (IJCNN 2019)

Budapest, Hungary

14-19 July 2019

(Submission: 15 January)

★ 2019 IEEE Conference on Computational Intelligence in Bioinformatics and Computational Biology (IEEE CIBCB 2019)

Tuscany, Italy

9-11 July 2019

(Submission: Feb. 15)

★ 2019 Joint IEEE International Conference on Developmental Learning and Epigenetic Robotics (IEEE ICDL-EpiRob 2019)

Oslo, Norway

19-22 August 2019

(Submission: 22 February)

★ 2019 IEEE Conference on Games (IEEE CoG 2019)

London, UK

20-23 August 2019

★ 2020 IEEE World Congress on Computational Intelligence (IEEE WCCI 2020)

Glasgow, UK

19-24 July 2020

Editor

Chuan-Kang Ting

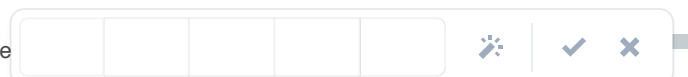
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Research Frontier

Coevolutionary Multiobjective Evolutionary Algorithms: Survey of the State-of-the-Art

Coevolutionary algorithms (CAs) are extensions of traditional EAs which have become subject of numerous studies in the last few years, particularly for dealing with large-scale global optimization problems. CAs have also been applied to the solution of MOPs, motivating the development of new algorithmic and analytical formulations that have advanced the state-of-the-art in CAs research, while simultaneously opening a new research path within MOEAs. This paper presents a critical review of the most representative MOEAs (CMOEAs) that have been reported in the specialized literature. This survey includes a taxonomy of approaches together with a brief description of their main features. In the final

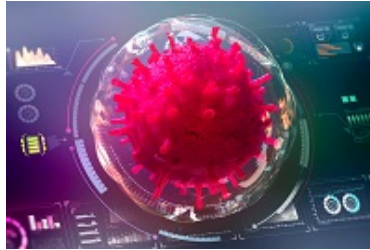


part of this paper, we also identify what we believe to be promising areas of future research in the field of CMOEAs.

IEEE Transactions on Evolutionary Computation, Dec. 2018

Three Branches of Negative Representation of Information: A Survey

Negative Representation of Information (NRI) is an emerging topic that is primarily inspired by the self-nonsel self discrimination paradigm of the biological immune system, and it is mainly used as an emerging technique for security and privacy. For the first time, this paper provides a survey of the models and algorithms that are based on Negative Representation of Information. Thus far, the NRI has three primary branches, namely, negative selection algorithms, negative databases, and negative surveys. The basic ideas, related algorithms, and applications of each branch are summarized as well as issues that need to be studied further.



IEEE Transactions on Emerging Topics in Computational Intelligence, Dec. 2018

Fuzzy Group Decision Making With Incomplete Information Guided by Social Influence

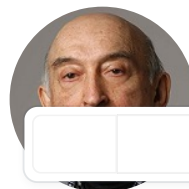
A promising research area in the field of group decision making (GDM) is the study of interpersonal influence and its impact on the evolution of experts' opinions. In order to take into account the effects of social influence during the GDM process, we propose a new influence-guided GDM model based on the following assumptions: experts influence each other and the more an expert trusts in another expert, the more his opinion is influenced by that expert. The proposed model adopts fuzzy rankings to collect both experts' preferences on available alternatives and trust statements on other experts. Starting from collected information, possibly incomplete, the configuration and the strengths of interpersonal influences are evaluated and represented through a social influence network (SIN). The SIN, in its turn, is used to estimate missing preferences and evolve them by simulating the effects of experts' interpersonal influence before aggregating them for the selection of the best alternative. The proposed model has been experimented with synthetic data to demonstrate the influence driven evolution of opinions and its convergence properties.



IEEE Transactions on Fuzzy Systems, Jun. 2018

Zadeh's Last Known Work

We are honored to announce that in the International Journal of Intelligent Systems, Volume 34, Issue 1, January 2019 we have published the last known work of Professor L. A. Zadeh entitled **Preliminary Draft Notes on a Similarity-Based Analysis of Time Series with Applications to Prediction, Decision and Diagnostics.**



Call for Papers (Journal)

- [IEEE TETCI Special Issue on New Advances in Deep-Transfer Learning \(31 Jan\)](#)
 - [IEEE TETCI Special Issue on Privacy and Security in Computational Intelligence \(3 Feb\)](#)
 - [IEEE TCDS Special Issue on Continual Unsupervised Sensorimotor Learning \(6 Jan 2019\)](#)
 - [IEEE TFS Special Issue on Fuzzy Rough Sets for Big Data \(1 Apr 2019\)](#)
 - [IEEE TFS Special Issue on Toward Humanoid Robots: Fuzzy Sets and Extensions \(1 May 2019\)](#)
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Call for Papers (Conference)

- [IEEE CEC 2019 Special Session on Evolutionary Computation for Creativity, Manufacture and Engineering Management in the Industry 4.0 Era](#)
 - [IEEE CEC 2019 Special Session on Evolutionary Computation on Filtering, Modeling and Data Assimilation](#)
 - [IEEE CEC 2019 Special Session on Evolutionary Computation for Music, Art, and Creativity](#)
 - [IEEE CEC 2019 Special Session on Differential Evolution: Past, Present and Future](#)
 - [IEEE CEC 2019 Special Session on Brain Storm Optimization Algorithms](#)
 - [IEEE CEC 2019 Special Session on Smart Logistics](#)
 - [IEEE CEC 2019 Special Session on Search-based and Machine Learning Methods in Software Engineering](#)
 - [IEEE CEC 2019 Special Session on Computational Intelligence for Cybersecurity](#)
 - [IEEE CEC 2019 Special Session on Evolutionary Computation for Multi-Agent Systems](#)
 - [IEEE CEC 2019 Special Session on Evolutionary Algorithms for Complex Optimization in the Energy Domain](#)
 - [IEEE CEC 2019 Special Session on Speciation](#)
 - [IEEE CEC 2019 Special Session on Data-Driven Evolutionary Optimization of Computationally Expensive Problems](#)
 - [IEEE CEC 2019 Special Session on When Evolutionary Computation Meets Data Mining](#)
 - [IEEE CEC 2019 Special Session on Games](#)
 - [IEEE CEC 2019 Special Session on Ethics and Social Implications of Computational Intelligence](#)
 - [IEEE CEC 2019 Special Session on Evolutionary Deep Learning and Applications](#)
 - [IEEE FUZZ-IEEE 2019 Special Session on Software for Soft Computing](#)
 - [IEEE FUZZ-IEEE 2019 Special Session on Advances on eXplainable Artificial Intelligence](#)
 - [International Conference on Advanced Computational Intelligence \(ICACI 2019\) \(1 Jan\)](#)
 - [International Conference on Process Mining \(ICPM 2019\) \(8 Feb\)](#)
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Career Opportunities

- [12 Fully-funded PhD Studentships, EPSRC Centre for Doctoral Training in Intelligent Games and Game Intelligence \(IGGI\), UK \(31 Jan\)](#)
- [Research Associate \(Postdoctoral Fellow\) in Swarm Intelligence and Swarm Robotics, University of New South Wales Canberra, Australia \(8 Feb\)](#)



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