CFP: Workshop on Computational Intelligence

Aims and Scope

We apply Artificial Intelligence in ever more application domains but AI still lacks the adaptability and resilience of most biological systems. One of those gaps is probabilistic reasoning and decision making. Nature as a paragon brings fuzzy reasoning, neuronal networks, and learning together, e.g., to decide on a fight-or-flight response. The inspiration of Computational Intelligence originating from natural systems, therefore, aims at closing this gap with theoretical results as well as applying them in real-world applications.

Call for Papers

Like the IEEE Computational Intelligence Society which describes its focus as "the theory, design, application, and development of biologically and linguistically motivated computational paradigms emphasizing neural networks, connectionist systems, genetic algorithms, evolutionary programming, fuzzy systems, and hybrid intelligent systems in which these paradigms are contained" the Workshop on Computational Intelligence aims to bring together scientists and specialist form industry to tackle some of the challenges of AI and their application. Thus, we invite you to submit original research and application papers including but not limited to the following topics:

Fuzzy logic

Probabilistic models of meaning
Probabilistic reasoning
Fuzzy inference
Decision making in uncertainty
Evaluation of Probabilistic Models

Neuronal Networks

Generalizations of neuronal networks
Explainable ANN
Spreading Activation
Neuroevolution

Evolutionary computations

Online Genetic Algorithms
ANN and generational learning
Biased Genetic Algorithms
Transfer learning with GA

Learning theory

Adversarial Learning
Reinforcement Learning
Abductive
Deductive
Reasoning

PC:

Prof. Dr. Johannes Fähndirch (Hochschule für Polizei BW)
Dr. Sebastian Ahrndt (Curamatik UG)
Prof. Dr. Engelbrecht (Stellenbosch University)
Prof. Dr. rer. nat. Frank Hoffmann (TU Dortmund)
Prof. Dr. Frank Klawonn (Ostfalia Hochschule für angewandte Wissenschaften)
Prof. Dr. rer. nat. habil. Rudolf Kruse (Universität Magdeburg)

Workshop website: https://dainas.dai-labor.de/~faehndrich@dai/CI2019/

The workshop is part of the KI 2019 conference. The KI 2019 conference takes place in Kassel, Germany, September 23th-26th 2018, and will be held in conjunction with the 49th Annual Conference of the German Computer Science Association: INFORMATIK 2019 (http://informatik2019.de).

Submission Guidelines

We invite papers, which have to be in English and formatted according to the Springer LNCS style, in the following category:

Full technical papers (12 pages max., excluding references) are expected to report on new research that makes a substantial technical contribution to the field. Additional details may be included in an appendix, which, however, will be read at the discretion of the PC.

Important Dates

July 14: Abstract submission

July 21: Paper submission

August 15: Notifications

August 21: Final versions

Submission will be through the EasyChair conference management system.

The submission link is: https://easychair.org/conferences/?conf=ci20190.

Full papers and technical communications will be subject to blind peer review based on the standard criteria of relevance, the significance of results, originality of ideas, soundness, and quality of the presentation. Papers accepted in this process will be published in the main conference proceedings, published by Springer in the LNAI Lecture Notes of Artificial Intelligence series will be presented at the conference. At least one author of each accepted paper must register for the conference and present the contribution.