Congress on
Evolutionary
Computation
2017

EVOLUTIONARY COMPUTATION FOR MUSIC, ART, AND CREATIVITY

Francisco Fernández de Vega and Chuan-Kang Ting

Evolutionary computation (EC) techniques, including genetic algorithm, evolution strategies, genetic programming, particle swarm optimization, ant colony optimization, differential evolution, and memetic algorithms, have shown to be effective for search and optimization problems. Recently, EC gained several promising results and becomes an important tool in computational creativity, such as in music, visual art, literature, architecture, and industrial design.

The aim of this special session is to reflect the most recent advances of EC for Music, Art, and Creativity, with the goal to enhance autonomous creative systems as well as human creativity. This session will allow researchers to share experiences and present their new ways for taking advantage of EC techniques in computational creativity.

Topics

- Generation of music, visual art, literature, architecture, and industrial design
- Algorithmic design in creative intelligence
- Optimization in creativity
- Development of hardware and software for creative systems
- Evaluation methodologies
- Assistance of human creativity
- Computational aesthetics
- Emotion response
- Human-machine creativity