

Preface

Bio-inspired computing is a field of study that abstracts computing ideas (data structures, operations with data, ways to control operations, computing models, etc.) from the living phenomena or biological systems such as evolution, cells, tissues, neural networks, immune system, and ant colonies. Bio-Inspired Computing: Theories and Applications (BIC-TA) is a series of conferences that aims to bring together researchers working in the main areas of natural computing inspired from biology, for presenting their recent results, exchanging ideas, and cooperating in a friendly framework.

Since 2006, the conference has taken place at Wuhan (2006), Zhengzhou (2007), Adelaide (2008), Beijing (2009), Liverpool and Changsha (2010), Penang (2011), Gwalior (2012), Anhui (2013), Wuhan (2014), Anhui (2015), and Xi'an (2016). Following the success of previous editions, the 12th International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA 2017) was organized by Harbin Engineering University, during December 1–3, 2017.

BIC-TA 2017 attracted a wide spectrum of interesting research papers on various aspects of bio-inspired computing with a diverse range of theories and applications. In all, 50 papers were selected for the volume of *Communications in Computer and Information Science*.

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