Preface

This volume contains a selection of papers presented at the 9th edition of the international conference Bio-Inspired Computing: Theories and Applications, BIC-TA, 2014.

This is a series of conferences which 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. The topics of the conference typically include: evolutionary computing, neural computing, DNA computing, and membrane computing.

The first edition of BIC-TA was held at Huazhong University of Science and Technology, Wuhan, China, in 2006. Subsequent sites of the conference were Zhengzhou, China, in 2007, Adelaide, Australia, in 2008, Beijing, China, in 2009, Liverpool, UK, and Changsha, China, in 2010, Penang, Malaysia, in 2011, Gwalior, India, in 2012, and Anhui, China, in 2013.

The 2014 edition was organized by Huazhong University of Science and Technology and Zhengzhou University of Light Industry, in Wuhan, China, from 16th to 19th October, 2014. The conference was financially supported by the National Natural Science Foundation of China.

BIC-TA 2014 has attracted a wide spectrum of interesting research papers on various aspects of bio-inspired computing with a diverse range of theories and applications. There were 204 submissions. Among them, 109 papers were accepted for presentation and included in a pre-proceedings volume. Eight of them are selected for the present volume of *Fundamenta Informaticae*. Besides the conference evaluation, they have passed a usual journal refereeing process.

Most of these papers are dealing with membrane computing, ranging from theoretical issues (e.g., computing power and computing efficiency, languages associated with various classes of P systems) to software (P-lingua) and implementation on parallel hardware, and to membrane algorithms. One paper deals with evolutionary computing (bee colony algorithms).

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