

Preface

Biomedical engineering and medical informatics represent challenging and rapidly growing areas. Applications of information technology in these areas are of paramount importance. Building on the success of ITBAM 2010, ITBAM 2011, ITBAM 2012, ITBAM 2013, ITBAM 2014, and ITBAM 2015, the aim of the seventh ITBAM conference was to continue bringing together scientists, researchers, and practitioners from different disciplines, namely, from mathematics, computer science, bioinformatics, biomedical engineering, medicine, biology, and different fields of life sciences, to present and discuss their research results in bioinformatics and medical informatics. We hope that ITBAM will serve as a platform for fruitful discussions between all attendees, where participants can exchange their recent results, identify future directions and challenges, initiate possible collaborative research, and develop common languages for solving problems in the realm of biomedical engineering, bioinformatics, and medical informatics. The importance of computer-aided diagnosis and therapy continues to draw attention worldwide and has laid the foundations for modern medicine with excellent potential for promising applications in a variety of fields, such as telemedicine, Web-based healthcare, analysis of genetic information, and personalized medicine.

Following a thorough peer-review process, we selected nine long papers for oral presentation and 11 short papers for poster session for the seventh annual ITBAM conference (from a total of 26 contributions). The organizing committee would like to thank the reviewers for their excellent job. The articles can be found in the proceedings and are divided to the following sections: *Biomedical Data Analysis and Warehousing*, *Information Technologies in Brain Sciences*, and *Social Networks and Process Analysis in Biomedicine*. The papers show how broad the spectrum of topics in applications of information technology to biomedical engineering and medical informatics is.

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