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# Information Technology in Bio- and Medical Informatics

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# 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.

The editors would like to thank all the participants for their high-quality contributions and Springer for publishing the proceedings of this conference. Once again, our special thanks go to Gabriela Wagner for her hard work on various aspects of this event.

June 2016

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# Contents

## Biomedical Data Analysis and Warehousing

What Do the Data Say in 10 Years of Pneumonia Victims? A Geo-Spatial Data Analytics Perspective . . . . .	3
<i>Maribel Yasmina Santos, António Carvalheira Santos, and Artur Teles de Araújo</i>	
Ontology-Guided Principal Component Analysis: Reaching the Limits of the Doctor-in-the-Loop . . . . .	22
<i>Sandra Wartner, Dominic Girardi, Manuela Wiesinger-Widi, Johannes Trenkler, Raimund Kleiser, and Andreas Holzinger</i>	
Enhancing EHR Systems Interoperability by Big Data Techniques . . . . .	34
<i>Nunziato Cassavia, Mario Ciampi, Giuseppe De Pietro, and Elio Masciari</i>	
Integrating Open Data on Cancer in Support to Tumor Growth Analysis . . . .	49
<i>Fleur Jeanquartier, Claire Jean-Quartier, Tobias Schreck, David Cemernek, and Andreas Holzinger</i>	

## Information Technologies in Brain Science

Filter Bank Common Spatio-Spectral Patterns for Motor Imagery Classification . . . . .	69
<i>Ayhan Yuksel and Tamer Olmez</i>	
Adaptive Segmentation Optimization for Sleep Spindle Detector . . . . .	85
<i>Elizaveta Saifutdinova, Martin Macaš, Václav Gerla, and Lenka Lhotská</i>	
Probabilistic Model of Neuronal Background Activity in Deep Brain Stimulation Trajectories . . . . .	97
<i>Eduard Bakstein, Tomas Sieger, Daniel Novak, and Robert Jech</i>	

## Social Networks and Process Analysis in Biomedicine

Multidisciplinary Team Meetings - A Literature Based Process Analysis . . . .	115
<i>Oliver Krauss, Martina Angermaier, and Emmanuel Helm</i>	
A Model for Semantic Medical Image Retrieval Applied in a Medical Social Network . . . . .	130
<i>Riadh Bouslimi, Mouhamed Gaith Ayadi, and Jalel Akaichi</i>	

**Poster Session**

A Clinical Case Simulation Tool for Medical Education . . . . .	141
<i>Juliano S. Gaspar, Marcelo R. Santos Jr., and Zilma S.N. Reis</i>	
Covariate-Related Structure Extraction from Paired Data . . . . .	151
<i>Linfei Zhou, Elisabeth Georgii, Claudia Plant, and Christian Böhm</i>	
Semantic Annotation of Medical Documents in CDA Context . . . . .	163
<i>Diego Monti and Maurizio Morisio</i>	
Importance and Quality of Eating Related Photos in Diabetics . . . . .	173
<i>Kyriaki Saiti, Martin Macaš, and Lenka Lhotská</i>	
Univariate Analysis of Prenatal Risk Factors for Low Umbilical Cord Artery pH at Birth. . . . .	186
<i>Ibrahim Abou Khashabh, Václav Chudáček, and Michal Huptych</i>	
Applying Ant-Inspired Methods in Childbirth Asphyxia Prediction . . . . .	192
<i>Miroslav Bursa and Lenka Lhotska</i>	
Tumor Growth Simulation Profiling . . . . .	208
<i>Claire Jean-Quartier, Fleur Jeanquartier, David Cemernek, and Andreas Holzinger</i>	
Integrated DB for Bioinformatics: A Case Study on Analysis of Functional Effect of MiRNA SNPs in Cancer. . . . .	214
<i>Antonino Fiannaca, Laura La Paglia, Massimo La Rosa, Antonio Messina, Pietro Storniolo, and Alfonso Urso</i>	
The Database-is-the-Service Pattern for Microservice Architectures . . . . .	223
<i>Antonio Messina, Riccardo Rizzo, Pietro Storniolo, Mario Tripiciano, and Alfonso Urso</i>	
A Comparison Between Classification Algorithms for Postmenopausal Osteoporosis Prediction in Tunisian Population. . . . .	234
<i>Naoual Guannoni, Rim Sassi, Walid Bedhiafi, and Mourad Elloumi</i>	
Process Mining: Towards Comparability of Healthcare Processes . . . . .	249
<i>Emmanuel Helm and Josef Küng</i>	
<b>Author Index . . . . .</b>	<b>253</b>