

# Contents

## Editorial

IT in Biology & Medical Informatics: On the Challenge of Understanding the Data Ecosystem . . . . .	3
<i>Andreas Holzinger, Miroslav Bursa, Sami Khuri, and M. Elena Renda</i>	

## General Track

A Hybrid Feature Selection Method to Classification and Its Application in Hypertension Diagnosis . . . . .	11
<i>Hyun Woo Park, Dingkun Li, Yongjun Piao, and Keun Ho Ryu</i>	
Statistical Analysis of Perinatal Risk Factors for Emergency Caesarean Section . . . . .	20
<i>Ibrahim Abou Khashabh, Václav Chudáček, and Michal Huptych</i>	
Modelling of Cancer Patient Records: A Structured Approach to Data Mining and Visual Analytics . . . . .	30
<i>Jing Lu, Alan Hales, and David Rew</i>	

## Poster Session

Contextual Decision Making for Cancer Diagnosis . . . . .	55
<i>Samia Sbissi and Said Gattoufi</i>	
A Review of Model Prediction in Diabetes and of Designing Glucose Regulators Based on Model Predictive Control for the Artificial Pancreas . . .	66
<i>Kyriaki Saiti, Martin Macaš, Kateřina Štechová, Pavlína Pithová, and Lenka Lhotská</i>	
Audit Trails in OpenSLEX: Paving the Road for Process Mining in Healthcare . . . . .	82
<i>Eduardo González López de Murillas, Emmanuel Helm, Hajo A. Reijers, and Josef Küng</i>	
Riemannian Geometry in Sleep Stage Classification . . . . .	92
<i>Elizaveta Saifutdinova, Václav Gerla, and Lenka Lhotská</i>	
The Use of Convolutional Neural Networks in Biomedical Data Processing . . . . .	100
<i>Miroslav Bursa and Lenka Lhotska</i>	

Reducing Red Blood Cell Transfusions . . . . .	120
<i>James P. McGlothlin, Evan Crawford, Hari Srinivasan, Carissa Cianci, Brenda Bruneau, and Ihab Dorotta</i>	
<b>Author Index</b> . . . . .	135

Information Technology in Bio- and Medical Informatics  
8th International Conference, ITBAM 2017, Lyon,  
France, August 28–31, 2017, Proceedings  
Bursa, M.; Holzinger, A.; Renda, M.E.; Khuri, S. (Eds.)  
2017, X, 135 p. 37 illus., Softcover  
ISBN: 978-3-319-64264-2