Contents

Big Data and Smart Health

The SWOT Analysis of the Wearable Devices in Smart Health Applications ............................................. 3
Yu Yang, Sijun Yu, Yuwen Hao, Xiao Xu, and Huiliang Liu

A New Inverse $N^{th}$ Gravitation Based Clustering Method for Data Classification ........................................ 9
Huarong Xu, Li Hao, Chengjie Jianag, and Ejaz Ul Haq

Extracting Clinical-event-packages from Billing Data for Clinical Pathway Mining ........................................ 19
Haowei Huang, Tao Jin, and Jianmin Wang

A Big Data Analysis Platform for Healthcare on Apache Spark .................. 32
Jinwei Zhang, Yong Zhang, Qingcheng Hu, Hongliang Tian, and Chunxiao Xing

A Semi-automated Entity Relation Extraction Mechanism with Weakly Supervised Learning for Chinese Medical Webpages .......... 44
Zhao Liu, Jian Tong, Jinguang Gu, Kai Liu, and Bo Hu

Strategies and Challenges of Multilingual Information Retrieval on Health Forum ........................................ 57
Ye Liang, Ying Qin, and Bing Fu

Health Data Analysis and Management, Healthcare Intelligent Systems and Clinical Practice

SilverLink: Developing an International Smart and Connected Home Monitoring System for Senior Care .................. 65
Lubaina Maimoon, Joshua Chuang, Hongyi Zhu, Shuo Yu, Kuo-Shiuan Peng, Rahul Prayakarao, Jie Bai, Daniel Zeng, Shu-Hsing Li, Hsinmin Lu, and Hsinchun Chen

HKDP: A Hybrid Knowledge Graph Based Pediatric Disease Prediction System ........................................... 78
Penghe Liu, Xiaoping Wang, Xiaoping Sun, Xi Shen, Xu Chen, Yuzhong Sun, and Yanjun Pan
Research on the Smartphone Based eHealth Systems for Strengthening Healthcare Organization ................................................................. 91
   Uzair Aslam Bhatti, Mengxing Huang, Yu Zhang, and Wenlong Feng

Performance of Finger-Vein Features as a Human Health Indicator .......... 102
   Shilei Liu, He Zheng, Gaoxiong Xu, Liao Ni, Yi Zhang, and Wenxin Li

A Cluster Method to Noninvasive Continuous Blood Pressure Measurement Using PPG ................................................................. 109
   Yu Miao, Zhiqiang Zhang, Lifang Meng, Xiaojin Xie, and Haiwei Pan

A Multi-feature Fusion Method to Estimate Blood Pressure by PPG .......... 121
   Lifang Meng, Zhiqiang Zhang, Yu Miao, Xiaojin Xie, and Haiwei Pan

A Networked and Intelligent Regional Collaborative Treatment System for AMI ................................................................. 132
   Ming Sheng, Jianwei Liu, Hongxia Liu, Yong Zhang, Chunxiao Xing, and Yinan Li

Medical Monitoring and Information Extraction, Clinical and Medical Data Mining

AZPharm MetaAlert: A Meta-learning Framework for Pharmacovigilance ... 147
   Xiao Liu and Hsinchun Chen

MedC: Exploring and Predicting Medicine Interactions to Support Integrative Chinese Medicine ................................................................. 155
   Xin Li, Haobo Gu, and Yu Tong

Classification of Cataract Fundus Image Based on Retinal Vascular Information ................................................................. 166
   Yanyan Dong, Qing Wang, Qinyan Zhang, and Jijiang Yang

Medical Data Machine Translation Evaluation Based on Dependency N-Grams ................................................................. 174
   Ying Qin and Ye Liang

A Method of Electronic Medical Record Similarity Computation ............ 182
   Ziping He, Jijiang Yang, Qing Wang, and Jianqiang Li

Heart Rate Variability (HRV) Biofeedback After Stroke Improves Self-regulation of Autonomic Nervous System During Cognitive Stress .. 192
   Xin Li, Dechun Sang, Yan Zhang, Bo Zhang, and Chunxiao Xing

A Medical Image Retrieval Algorithm Based on DFT Encryption Domain ... 205
   Chunyan Zhang, Jingbing Li, Shuangshuang Wang, Yucong Duan, Mengxing Huang, and Daoheng Duan
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Robust Watermarking Algorithm for Medical Images in the Encrypted Domain</td>
<td>217</td>
</tr>
<tr>
<td>Jiangtao Dong, Jingbing Li, and Zhen Guo</td>
<td></td>
</tr>
<tr>
<td>Effect of a Mobile Internet Regional Cooperative Rescue System on Reperfusion Efficiency and Prognosis of STEMI Patients</td>
<td>230</td>
</tr>
<tr>
<td>Sijun Yu, Yu Yang, Wei Han, Jing Lu, and Huiliang Liu</td>
<td></td>
</tr>
<tr>
<td>A Robust Algorithm of Encrypted Medical Image Retrieval Based on 3D DFT</td>
<td>238</td>
</tr>
<tr>
<td>Shuangshuang Wang, Jingbing Li, Chunyan Zhang, and Zhaohui Wang</td>
<td></td>
</tr>
<tr>
<td>Erratum to: Classification of Cataract Fundus Image Based on Retinal Vascular Information</td>
<td>E1</td>
</tr>
<tr>
<td>Yanyan Dong, Qing Wang, Qinyan Zhang, and Jijiang Yang</td>
<td></td>
</tr>
<tr>
<td>Author Index</td>
<td>251</td>
</tr>
</tbody>
</table>
Smart Health
International Conference, ICSH 2016, Haikou, China,
December 24-25, 2016, Revised Selected Papers
Xing, C.; Zhang, Y.; Liang, Y. (Eds.)
2017, XI, 252 p. 123 illus., Softcover
ISBN: 978-3-319-59857-4