2014 IEEE Symposium on Computational Intelligence in Big Data

(CIBD 2014)

Orlando, Florida, USA
9 – 12 December 2014
TABLE OF CONTENTS

IEEE SSCI 2014 General Committee ........................................................................................................... v
IEEE CIBD 2014 Committee ........................................................................................................................... vi
Keynote Talk: CIBD’14 ............................................................................................................................... viii

Wednesday, December 10

9:20AM-10:00AM
CIBD’14 Keynote Talk

Big Data and Analytics at Verizon
Ashok Srivastava

10:20AM-12:00PM
CIBD’14 Session 1: Big Data Applications
Chair: Yaochu Jin and Yonghong Peng

10:20AM Endmember Representation of Human Geography Layers ........................................................ 1
Andrew Buck, Alina Zare, James Keller and Mihail Popescu

10:40AM Sparse Bayesian Approach for Feature Selection ........................................................................ 7
Chang Li and Huanhuan Chen

11:00AM High Level High Performance Computing for Multitask Learning of Time-varying Models ..............................................................................................................14
Marco Signoretto, Emanuele Frandi, Zahra Karevan and Johan Suykens

11:20AM Sentiment Analysis for Various SNS Media Using Naive Bayes Classifier and Its Application to Flaming Detection ..............................................................................................................20
Shun Yoshida, Jun Kitazono, Seiichi Ozawa, Takahiro Sugawara, Tatsuya Haga and Shogo Nakamura

11:40AM Increasing Big Data Front End Processing Efficiency via Locality Sensitive Bloom Filter for Elderly Healthcare ...................................................................................................26
Yongqiang Cheng, Ping Jiang and Yonghong Peng

1:30PM-3:10PM
Special Session: CIBD’14 Session 2: Big Data Analytic for Healthcare
Chair: Norman Poh and David Windridge

1:30PM A Human Geospatial Predictive Analytics Framework With Application to Finding Medically Underserved Areas .................................................................34
James Keller, Andrew Buck, Mihail Popescu and Alina Zare

1:50PM Challenges in Designing an Online Healthcare Platform for Personalised Patient Analytics ..................................................................................................................40
Norman Poh, Santosh Tirunagari and Windridge David

2:10PM Feature Selection/Visualisation of ADNI Data with Iterative Partial Least Squares ..............................46
Li Bai and Torbjorn Wasterlid

2:30PM Application of Sparse Matrix Clustering with Convex-Adjusted Dissimilarity Matrix in an Ambulatory Hospital Specialist Service ..............................................................54
Xiaobin You, Bee Hoon Heng and Kioh Liang Teow

2:50PM Microarray Big Data Integrated Analysis for the Prediction of Robust Diagnostics Signature for Triple-Negative Breast Cancer .................................................................62
Masood Zaka, Yonghong Peng and Chris W Sutton
3:30PM-5:10PM

**Special Session: CIBD'14 Session 3: Big Data Analytics in Traditional Chinese Medicine**
Chair: Josiah Poon, Xuezhong Zhou and Runshun Zhang

3:30PM *Mining the Prescription-Symptom Regularity of TCM for HIV/AIDS Based on Complex Network* ............................................................. 69
Jian Wang, Xiaoping Zhang, Biyan Liang, Haixun Qi, Yufeng Zhao, Jaming Lu, Liran Xu, Xin Deng, Xiuhui Li, Li Wang, Xinghua Tan, Yuxiang Mao, Guoliang Zhang, Junwen Wang, Xiaodong Li, and Yuguang Wang

3:50PM *Regularity of Herbal Formulae for HIV/AIDS Patients with Syndromes Based on Complex Networks* .................................................. 77
Jian Wang, Xiaoping Zhang, Biyan Liang, Xuezhong Zhou, Jiaming Lu, Liran Xu, Xin Deng, Xiuhui Li, Li Wang, Xinghua Tan, Yuxiang Mao, Guoliang Zhang, Junwen Wang, Xiaodong Li and Yuguang Wang

4:10PM *Development of large-scale TCM corpus using hybrid named entity recognition methods for clinical phenotype detection: an initial study* ...................................................... 84
Lizhi Feng, Xuezhong Zhou, Haixun Qi, Runshun Zhang, Yinghui Wang and Baoyan Liu

4:30PM *Methods and technologies of traditional Chinese medicine clinical information datamation in real world* ........................................ 91
Guanli Song, Guanbo Song, Baoyan Liu, Yinghui Wang, Runshun Zhang, Xuezhong Zhou, Liang Xie and Xinghuan Huang

4:50PM *TCM Syndrome Classification of AIDS based on Manifold Ranking* ........................................... 96
Yufeng Zhao, Lin Luo, Liyun He, Baoyan Liu, Qi Xie, Xiaoping Zhang, Jian Wang, Guanli Song and Xianghong Jing

Thursday, December 11

5:10PM-6:45PM

**Poster Session: SSCI'14 Poster Session**

P115 *Integrated Analytics of Microarray Big Data for Revealing Robust Gene Signature* ............................................................. 101
Wanting Liu, Yonghong Peng and Desmond J Tobin

P116 *Large Graph Clustering Using DCT-Based Graph Clustering* .................................................. 108
Nikolaos Tsapanos, Anastasios Tefas, Nikolaos Nikolaidis and Ioannis Pitas

P117 *A Scalable Machine Learning Online Service for Big Data Real-Time Analysis* .......... 112
Alejandro Baldominos, Esperanza Albacete, Yago Saez and Pedro Isasi

**AUTHOR INDEX** ................................................................................................................................. 120