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Lin Zhang · Lei Ren  
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# Challenges and Opportunity with Big Data

19th Monterey Workshop 2016  
Beijing, China, October 8–11, 2016  
Revised Selected Papers

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# Preface

The 2016 edition of the Monterey Workshop was the 19th in the series, initiated in 1993 and devoted to exploring the critical problems associated with cost-effective development of high-quality software systems. Monterey workshops have a rich history of bringing together both American and European scientists who share a common interest in seeing that software development research serves as a catalyst for practical advances in next-generation software-intensive systems. These workshops have been highly praised by participants for their high quality of presentations and discussions and given rise to many new collaborations that have significantly advanced the field.

The year 2016 marked the 23rd anniversary for the Monterey Workshop. For nearly a quarter of century, the Monterey Workshops have established themselves as an important international forum to foster – among academia, industry, and government agencies – the discussion and exchange of ideas, research results, and experience in developing software-intensive systems, and have significantly advanced the field. The community of the workshop participants has grown to become an influential source of ideas and innovations and its impact on the knowledge economy has been felt worldwide. The workshop in 2016 was held in Beijing, China, during October 8–11 2016.

More than 40 scholars, engineers, and students from six countries attended the workshop. Two keynote speeches were given: “Software Decay as a Big-Data Problem View Through the Architecture Lens” by Prof. Nenad Medvidovic from the University of Southern California, USA, and “Performance of Big Data on Small Nodes” by Yong Meng TEO from the National University of Singapore. In all, 27 papers were presented and extended versions of 18 selected papers are included in these proceedings, which address challenging issues in big data and artificial intelligence and their applications in different areas, such as manufacturing and transportation.

As the first Monterey Workshop held outside the United States and Europe, we would like to take this opportunity to thank the Steering Committee for their support and guidance. We also thank the authors and reviewers for their valuable efforts to make the workshop a memorable and successful event.

March 2017

Lin Zhang  
Lei Ren  
Fabrice Kordon

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# Contents

## Theoretical Underpinnings for Big Data

A Hybrid M&S Methodology for Knowledge Discovery . . . . .	3
<i>Jae Kwon Kim, Jong Sik Lee, and Kang Sun Lee</i>	
A Model-Driven Visualization System Based on DVDL . . . . .	11
<i>Yi Du, Lei Ren, Yuanchun Zhou, and Jianhui Li</i>	
A Practical Energy Modeling Method for Industrial Robots in Manufacturing. . . . .	25
<i>Wenjun Xu, Huan Liu, Jiayi Liu, Zude Zhou, and Duc Truong Pham</i>	
An Optimization Method for User Interface Components Based on Big Data . . . . .	37
<i>Fei Lyu, Lei Ren, and Yi Du</i>	
Clustering-Based Data Aggregation and Routing for Real-Time WirelessHART Communication . . . . .	43
<i>Feng Li, Chunhui Wang, Lei Ju, and Zhiping Jia</i>	

## Big Data Management

Constrained Semantic Grammar Enabled Question Answering System . . . . .	55
<i>Dongsheng Wang, Shi Wang, Weiming Wang, Jianhui Fu, and Yun Dai</i>	
Information Composition Analysis and Adaptation Access of CNC Lathes in Cloud Manufacturing Environment . . . . .	66
<i>Lei Qiu, Chao Yin, and Xiao-bin Li</i>	
Interactive Animation Editing Based on Sketch Interaction . . . . .	77
<i>Yan Huang, Ti Zhou, Yanfeng Li, Yan Zhang, and Cuixia Ma</i>	
Manufacturing Service Reconfiguration Optimization Using Hybrid Bees Algorithm in Cloud Manufacturing . . . . .	87
<i>Wenjun Xu, Xin Zhong, Yuanyuan Zhao, Zude Zhou, Lin Zhang, and Duc Truong Pham</i>	
MyTrace: A Mobile Phone-Based Tourist Spatial-Temporal Behavior Record and Analysis System . . . . .	99
<i>Lei Dou, Haitao Qu, Xiaoqiang Bi, Yu Zhang, Chongsheng Yu, Jian Qin, Xiaoting Huang, and Xin Li</i>	

**Big Data Simulation**

Multi-source Information Intelligent Collection and Monitoring  
of CNC Machine Tools Based on Multi-agent . . . . . 111  
*Yun Yang, Chao Yin, Xiao-bin Li, and Liang Li*

Ontology Management and Ontology Reuse in Web Environment. . . . . 122  
*Yapeng Cui, Lihong Qiao, and Yifan Qie*

Research on the Shortest Path of Two Places in Urban Based  
on Improved Ant Colony Algorithm . . . . . 131  
*Yanjuan Hu, Luquan Ren, Hongwei Zhao, and Yao Wang*

RUL Prediction of Bearings Based on Mixture of Gaussians Bayesian  
Belief Network and Support Vector Data Description . . . . . 139  
*Qianhui Wu, Yu Feng, and Biqing Huang*

**Industrial Track of Big Data**

Social Recommendation Terms: Probabilistic Explanation Optimization . . . . . 155  
*Jie Liu, Lin Zhang, Victor S. Sheng, and Yuanjun Laili*

Towards a Holistic Method for Business Process Analytics . . . . . 168  
*Gianna Reggio, Maurizio Leotta, Filippo Ricca, and Egidio Astesiano*

Traffic Flow Prediction with Improved SOPIO-SVR Algorithm . . . . . 184  
*Xuejun Cheng, Lei Ren, Jin Cui, and Zhiqiang Zhang*

Workshop Multi-source Information IntelliSense Method Based  
on IPv6 Intelligent Terminal. . . . . 198  
*Chao Yin, Zhengbing Pan, Xiaobin Li, and Liang Li*

**Author Index** . . . . . 209