

Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering

252

Editorial Board

Ozgur Akan

Middle East Technical University, Ankara, Turkey

Paolo Bellavista

University of Bologna, Bologna, Italy

Jiannong Cao

Hong Kong Polytechnic University, Hong Kong, Hong Kong

Geoffrey Coulson

Lancaster University, Lancaster, UK

Falko Dressler

University of Erlangen, Erlangen, Germany

Domenico Ferrari

Università Cattolica Piacenza, Piacenza, Italy

Mario Gerla

UCLA, Los Angeles, USA

Hisashi Kobayashi

Princeton University, Princeton, USA

Sergio Palazzo

University of Catania, Catania, Italy

Sartaj Sahni

University of Florida, Florida, USA

Xuemin Sherman Shen

University of Waterloo, Waterloo, Canada

Mircea Stan

University of Virginia, Charlottesville, USA

Jia Xiaohua

City University of Hong Kong, Kowloon, Hong Kong

Albert Y. Zomaya

University of Sydney, Sydney, Australia

More information about this series at <http://www.springer.com/series/8197>

Imed Romdhani · Lei Shu
Hara Takahiro · Zhangbing Zhou
Timothy Gordon · Deze Zeng (Eds.)

Collaborative Computing: Networking, Applications and Worksharing

13th International Conference, CollaborateCom 2017
Edinburgh, UK, December 11–13, 2017
Proceedings

Editors

Imed Romdhani
Edinburgh Napier University
Edinburgh
UK

Lei Shu
Guangdong University of Petrochemical
Technology
Maoming
China

Hara Takahiro
Osaka University
Osaka
Japan

Zhangbing Zhou
China University of Geosciences
Beijing
China

Timothy Gordon
University of Nebraska–Lincoln
Lincoln
UK

Deze Zeng
School of Computer Science
China University of Geosciences
Wuhan, Hubei
China

ISSN 1867-8211 ISSN 1867-822X (electronic)
Lecture Notes of the Institute for Computer Sciences, Social Informatics
and Telecommunications Engineering
ISBN 978-3-030-00915-1 ISBN 978-3-030-00916-8 (eBook)
<https://doi.org/10.1007/978-3-030-00916-8>

Library of Congress Control Number: 2018954768

© ICST Institute for Computer Sciences, Social Informatics and Telecommunications Engineering 2018

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This Springer imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Preface

We are delighted to introduce the proceedings of the 13th edition of the 2017 European Alliance for Innovation (EAI) International Conference on Collaborative Computing: Networking, Applications and Worksharing (CollaborateCom). This conference has brought together researchers, developers, and practitioners from around the world who are leveraging and developing collaboration between distributed teams of humans, computer applications, and/or autonomous robots to achieve higher productivity and produce joint products that would have been impossible to develop without the contributions of multiple collaborators.

The technical program of CollaborateCom 2017 consisted of 65 papers, in oral presentation sessions during the main conference tracks. The three-day conference included ten sessions. Aside from the high-quality technical paper presentations, the technical program also featured one keynote speech titled “Converged Technology for Intelligent Airport Services.” The keynote speaker was Prof. Henry Wang from the University of West London, UK.

Coordination between the Steering Committee and the Organizing Committee was essential for the success of the conference. We sincerely appreciate the support and guidance of the general chairs: Prof. Takahiro Hara, Lei Shu and Imed Romdhani. We would like to thank the program chairs: Zhangbing Zhou, Timothy Gordon, and Takahiro Hara, who supervised the review process of the technical papers and compiled a high-quality technical program. We greatly appreciate the excellent support and hard work of the local chair, Prof. Imed Romdhani. We are also grateful to the conference manager, Dominika Belisova, for her support, and all the authors who submitted their papers to the CollaborateCom 2017 conference.

We strongly believe that the CollaborateCom conference provides a good forum for all researchers, developers, and practitioners to discuss all science and technology aspects that are relevant to collaborative computing. We also expect that the future CollaborateCom conference will be as successful and stimulating as indicated by the contributions presented in this volume.

August 2018

Imed Romdhani
Lei Shu
Hara Takahiro
Zhangbing Zhou
Timothy Gordon
Deze Zeng

Organization

Steering Committee

Imrich Chlamtac	EAI/Create-Net, Italy
Song Guo	University of Aizu, Japan
Bo Li	The Hong Kong University of Science and Technology, SAR China
Xiaofei Liao	Huazhong University of Science and Technology, China

Organizing Committee

Honorable Chair

Qinghua Zhang (President)	Guangdong University of Petrochemical Technology, China
------------------------------	--

General Co-chairs

Lei Shu	Guangdong University of Petrochemical Technology, China/University of Lincoln, UK
Takahiro Hara	Osaka University, Japan
Imed Romdhani	Edinburgh Napier University, UK

TPC Co-chairs

Timothy Gordon	University of Lincoln, UK
Zhangbing Zhou	China University of Geosciences, Beijing, China/TELECOM SudParis, France

General Track Co-chairs

Liehuang Zhu	Beijing Institute of Technology, China
Jianwei Niu	Beihang University, China

Track 1 Co-chairs

Jianwu Wang	University of Maryland, Baltimore County, USA
Zhuofeng Zhao	North China University of Technology, China

Track 2 Co-chairs

Yucong Duan	Hainan University, China
Antonella Longo	University of Salento, Italy

Track 3 Co-chairs

Shigang Yue	University of Lincoln, UK
Farshad Arvin	University of Manchester, UK

Track 4 Co-chairs

Helge Janicke	De Montfort University, UK
Leandros Maglaras	De Montfort University, UK/ABMS Open University, Switzerland

Local Co-chairs

Jiafu Wan	South China University of Technology, Guangzhou, China
Jianfeng Huang	Guangdong University of Petrochemical Technology, China

Workshops Co-chairs

Peng Li	University of Aizu, Japan
Chunsheng Zhu	The University of British Columbia, Canada

Publicity Co-chairs

Oli Mival	Edinburgh Napier University, UK
Weipeng Jing	Northeast Forestry University, China
Daichi Amagata	Osaka University, Japan

Posters and PhD Track Chair

Mithun Mukherjee	Guangdong University of Petrochemical Technology, China
------------------	--

Publication Co-chairs

Fei Lei	Beijing University of Technology, China
Deze Zeng	China University of Geosciences, Wuhan, China

Demo Chair

Amjad Mehmood	Guangdong University of Petrochemical Technology, China
---------------	--

Poster/Demo Co-chair

Sanjay Madria	Missouri University of Science and Technology, USA
---------------	--

Sponsorship Co-chairs

Li Yan	Guangdong University of Petrochemical Technology, China
Guangjie Han	Hohai University, China

Web Chair

Zhiqiang Huo University of Lincoln, UK

Special Sessions**Special Session: Internet of Things****Special Session Chair**

Ahmed Al-Dubai Edinburgh Napier University, UK

Special Session: Collaborative Next Generation Networking**Special Session Co-chairs**

Deze Zeng China University of Geosciences, Wuhan, China
Heng Qi Dalian University of Technology, China

Special Session: Collaboration Techniques in Data-Intensive Cloud Computing**Special Session Co-chairs**

Shaojie Qiao Chengdu University of Information Technology, China
Cheqing Jin East China Normal University, China
Hongzhi Wang Harbin Institute of Technology, China

Special Session: Collaborative Manufacturing System and Machinery Fault Diagnosis**Special Session Co-chairs**

Ailin Yu Guangdong University of Technology, China
Chilou Zhou South China University of Technology, China
Jianfeng Huang Guangdong University of Petrochemical Technology,
China

Workshop: Vehicular Telematics over Heterogeneous Wireless Networks**Workshop Chair**

Daxin Tian Beihang University, China

Conference Manager

Dominika Belisova European Alliance for Innovation

Technical Program Committee

Ali Emre Turgut	Middle East Technical University, Turkey
Abdelrahman Osman	University of Tabuk, Saudi Arabia
Elfaki	
Alex Nortá	Tallinn University of Technology, Estonia
Antonella Longo	University of Salento, Italy
Anna Lisa Ferrara	University of Surrey, UK
Athanasios Giannetsos	University of Surrey, UK
Aggeliki Tsohou	Ionian University, Greece
Antonis Tzounis	University of Thessaly, Greece
Artemios Voyiatzis	TU Wien, Austria
Bin Li	Guangzhou Maritime University, China
Christos Xenakis	University of Piraeus, Greece
Chao Tong	Beihang University, China
Dayang Sun	The University of British Columbia, Canada
Francois Siewe	De Montfort University, UK
Fekade Getahun	Addis Ababa University, Ethiopia
Guolin He	South China University of Technology, China
Guangquan Xu	Tianjin University, China
Georgios V. Lioudakis	National Technological University of Athens, Greece
Georgios Karopoulos	National and Kapodistrian University of Athens, Greece
Honghao Gao	Shanghai University, China
Helge Janicke	De Montfort University, UK
Haoming Li	Freescale Semiconductors, Inc., USA
Haipeng Dai	Nanjing University, China
Iryna Yevseyeva	De Montfort University, UK
Jianlong Xu	Shantou University, China
Jianqiang Wang	Tsinghua University, China
Jian Wang	Inria, France
Jin Liu	Wuhan University, China
Jin Li	Guangzhou University, China
Joe Tekli	Lebanese American University (LAU), Lebanon
Joel Rodrigues	University of Beira Interior, Portugal
Kutluk Bilge Arikan	Atilim University, Turkey
Mengxuan Li	China Ship Development and Design Center, China
Maria Karyda	University of the Aegean, Greece
Marco Comerio	University of Milano-Bicocca, Italy
Mohamed Amine Ferrag	Guelma University, Algeria
Meikang Qiu	Pace University, USA
Mingliang Xu	Zhengzhou University, China
Man Hon Cheung	The Chinese University of Hong Kong, SAR China
Nanjangud C. Narendra	MS Ramaiah University of Applied Sciences, India
Nianjun Joe Zhou	IBM T. J. Watson Research Center, USA
Nikos Tziritas	Chinese Academy of Sciences, China
Ouyang Zhenchao	Beihang University, China

Payam Zahadat	University of Graz, Austria
Panagiotis Andriotis	University of the West of England, UK
Pavlina Fragkou	Technological Institute of Athens, Greece
Qiang Duan	Pennsylvania State University, USA
Shuichang Liu	Hunan University of Technology, China
Shangguan Wei	Beijing Jiaotong University, China
Shangguang Wang	Beijing University of Posts and Telecommunications, China
Shizhan Chen	Tianjin University, China
Stephan	University of Leicester, UK
Reiff-Marganiec	
Simon Watson	University of Manchester, UK
Shasha Mo	Beihang University, China
Sotiris Moschoyiannis	University of Surrey, UK
Song Guo	Hong Kong Polytechnic University, SAR China
Tomas Krajník	Czech Technical University, Czech Republic
Tiago Cruz	University of Coimbra, Portugal
Vasilis Sourlas	University College London, UK
Wentao Wang	Guangzhou City Polytechnic, China
Wencan Zhang	Foshan University, China
Weiwei Fang	Beijing Jiaotong University, China
Yingchun Long	Shaoguan University, China
Yingjun Chen	Guangdong University of Petrochemical Technology, China
Yucong Duan	Hainan University, China
Yunchuan Sun	Beijing Normal University, China
Ying He	De Montfort University, UK
Ying Li	Beihang University, China
Yu Shui	Deakin University, Australia
Liangyong Qi	Qufu Normal University, China
Limin Sun	Chinese Academy of Sciences, China
Long Cheng	Virginia Tech, USA
Lu Liu	University of Derby, UK
Le Dong	University of Electronic Science and Technology of China (UESTC), China
Xiujuan Liang	Guangdong Ocean University, China
Xiaolei Ma	University of Washington, USA
Xiaobing Sun	Yangzhou University, China
Xiong Li	Hunan University of Science and Technology, China
Xinkai Wu	Cal Poly Pomona, USA
Zhipeng Cai	Georgia State University, USA
Zheli Liu	Nankai University, China

Contents

Main Track

Sentiment Analysis of Chinese Words Using Word Embedding and Sentiment Morpheme Matching	3
<i>Jianwei Niu, Mingsheng Sun, and Shasha Mo</i>	
Collaborative and Green Resource Allocation in 5G HetNet with Renewable Energy	13
<i>Yi Liu, Yue Gao, Shengli Xie, and Yan Zhang</i>	
On Cost Efficient Dataflow Computing Program Deployment in SDN Managed Distributed Computing Environment	27
<i>Yating Zhang, Yuepeng Li, Long Zheng, and Deze Zeng</i>	
A Short Review of Constructing Noise Map Using Crowdsensing Technology	37
<i>Xuhui Zhang, Lei Shu, Zhiqiang Huo, Mithun Mukherjee, and Yu Zhang</i>	
Research of Positioning Tracking on Dynamic Target Based on the Integral Complementing Algorithm	44
<i>Jianrong Xu, Guiping Lu, Jingsheng Lin, and Jianfeng Huang</i>	
LWTP: An Improved Automatic Image Annotation Method Based on Image Segmentation	53
<i>Jianwei Niu, Shijie Li, Shasha Mo, and Jun Ma</i>	
A Comparative Analysis of Content Delivery Capability for Collaborative Dual-Architecture Network	63
<i>Xuan Liu, Peng Yang, Yongqiang Dong, and Syed Hassan Ahmed</i>	
AXE: Objects Search in Mobile Volunteered Service	73
<i>Yao Wu, Wenjuan Liang, Yuncheng Wu, Hong Chen, and Cuiping Li</i>	
Modeling the Impacts of WiFi Signals on Energy Consumption of Smartphones	88
<i>Yuxia Sun, Junxian Chen, and Yong Tang</i>	
Constrained Route Planning Based on the Regular Expression	98
<i>Jing Wang, Huiping Liu, and Zhao Zhang</i>	
A Human-Machine Collaborative Detection Model for Identifying Web Attacks	109
<i>Yong Hu, Bo Li, Weijing Ye, and Guiqin Yuan</i>	

A Reinforcement Learning Based Workflow Application Scheduling Approach in Dynamic Cloud Environment	120
<i>Yi Wei, Daniel Kudenko, Shijun Liu, Li Pan, Lei Wu, and Xiangxu Meng</i>	
p-Faster R-CNN Algorithm for Food Detection.	132
<i>Yanchen Wan, Yu Liu, Yuan Li, and Puhong Zhang</i>	
PUED: A Social Spammer Detection Method Based on PU Learning and Ensemble Learning	143
<i>Yuqi Song, Min Gao, Junliang Yu, Wentao Li, Lulan Yu, and Xinyu Xiao</i>	
Position vs. Attitude: How Topological Factors Influence Our Difference in the Attitudes on Online Interrelationships? A Case Study with Language Use	153
<i>Bo Wang, Yingjun Sun, Yuexian Hou, Dawei Song, and Ruifang He</i>	
Route-Oriented Participants Recruitment in Collaborative Crowdsensing	164
<i>Shu Yang, Jinglin Li, Quan Yuan, and Zhihan Liu</i>	
Management Node Selection Based on Cloud Model in a Distributed Network	176
<i>Hanyi Tang, Qibo Sun, and Jinglin Li</i>	
CNTE: A Node Centrality-Based Network Trust Evaluation Method	186
<i>Xiang Yuan, Qibo Sun, and Jinglin Li</i>	
Minimum Cost Load Migration in Distributed Software Defined Networks. . .	197
<i>Kuangyu Qin, Chuanhe Huang, N. Ganesan, and Kewei Liu</i>	
Hybrid-Aware Collaborative Multipath Communications for Heterogeneous Vehicular Networks	208
<i>Yana Liu, Wei Quan, Jinjie Zeng, Gang Liu, and Hongke Zhang</i>	
Internet of Things (IoT) and Collaboration	
RETaIL: A Machine Learning-Based Item-Level Localization System in Retail Environment	221
<i>Xiaoyi Xu, Xiaoming Chen, Jiang Ji, Feng Chen, and Addicam V. Sanjay</i>	
A Point of Interest Recommendation Approach by Fusing Geographical and Reputation Influence on Location Based Social Networks	232
<i>Jun Zeng, Feng Li, Junhao Wen, and Wei Zhou</i>	
An Electricity Power Collection Data Oriented Missing Data Imputation Solution.	243
<i>Jiangqi Chen, Han Li, Ting Zhao, and He Liu</i>	

Curve-Registration-Based Feature Extraction for Predictive Maintenance of Industrial Equipment	253
<i>Shouli Zhang, Xiaohong Li, Jianwu Wang, and Shen Su</i>	
Predicting Next Points of Interests Based on a Markov Model	264
<i>Jie Xu, Chunxiao Xing, and Yong Zhang</i>	
A Topology-Aware Reliable Broadcast Scheme for Multidimensional VANET Scenarios.	275
<i>Fengrui Liu, Chuanhe Huang, and Xiying Fan</i>	
MAC-ILoc: Multiple Antennas Cooperation Based Indoor Localization Using Cylindrical Antenna Arrays.	286
<i>Wu Jie, Zhu Minghua, and Xiao Bo</i>	
Easing Traffic Congestion: An Improved Clustering Method for Sharing Bike Station Deployment	296
<i>Jian Kang, Weipeng Jing, and Chengfang Zhao</i>	
Sensor Data Classification for the Indication of Lameness in Sheep.	309
<i>Zainab Al-Rubaye, Ali Al-Sherbaz, Wanda McCormick, and Scott Turner</i>	

Collaborative Data and Workflow Management

Learning Planning and Recommendation Based on an Adaptive Architecture on Data Graph, Information Graph and Knowledge Graph	323
<i>Lixu Shao, Yucong Duan, Zhangbing Zhou, Quan Zou, and Honghao Gao</i>	
A 3D Registration Method Based on Indoor Positioning Through Networking	333
<i>Haibo Li, Huahu Xu, Honghao Gao, Minjie Bian, and Huaikou Miao</i>	
A Load Balancing Method Based on Node Features in a Heterogeneous Hadoop Cluster.	344
<i>Pengcheng Yang, Honghao Gao, Huahu Xu, Minjie Bian, and Danqi Chu</i>	
Towards Collaborative Typed Resources Manipulation in Health-Care Environments	355
<i>Lixu Shao, Yucong Duan, Zhangbing Zhou, Antonella Longo, Donghai Zhu, and Honghao Gao</i>	
Constructing Search as a Service Towards Non-deterministic and Not Validated Resource Environment with a Positive-Negative Strategy.	365
<i>Yucong Duan, Lixu Shao, Xiaobing Sun, Lizhen Cui, Donghai Zhu, and Zhengyang Song</i>	

A Passenger Flow Analysis Method Through Ride Behaviors on Massive Smart Card Data	374
<i>Weilong Ding, Zhuofeng Zhao, Han Li, Yaqi Cao, and Yang Xu</i>	
Ranking the Influence of Micro-blog Users Based on Activation Forwarding Relationship	383
<i>Yiwei Yang, Wenbin Yao, and Dongbin Wang</i>	
UR Rank: Micro-blog User Influence Ranking Algorithm Based on User Relationship	394
<i>Wenbin Yao, Yiwei Yang, and Dongbin Wang</i>	
Using the MapReduce Approach for the Spatio-Temporal Data Analytics in Road Traffic Crowdsensing Application	405
<i>Sandhya Armoogum and Shevam Munchetty-Chendriah</i>	
An Efficient Critical Incident Propagation Model for Social Networks Based on Trust Factor	416
<i>XiaoMing Li, Limengzi Yuan, ChaoChao Liu, Wei Yu, Xue Chen, and Guangquan Xu</i>	
Impact of the Important Users on Social Recommendation System	425
<i>Zehua Zhao, Min Gao, Junliang Yu, Yuqi Song, Xinyi Wang, and Min Zhang</i>	
Analysis on Communication Cost and Team Performance in Team Formation Problem	435
<i>Weijun Chen, Jing Yang, and Yang Yu</i>	
An Efficient Black-Box Vulnerability Scanning Method for Web Application	444
<i>Haoxia Jin, Ming Xu, Xue Yang, Ting Wu, Ning Zheng, and Tao Yang</i>	
Collaboration with Artificial Intelligence	
Collaborative Shilling Detection Bridging Factorization and User Embedding	459
<i>Tong Dou, Junliang Yu, Qingyu Xiong, Min Gao, Yuqi Song, and Qianqi Fang</i>	
Integrating User Embedding and Collaborative Filtering for Social Recommendations	470
<i>Junliang Yu, Min Gao, Yuqi Song, Qianqi Fang, Wenge Rong, and Qingyu Xiong</i>	
CORB-SLAM: A Collaborative Visual SLAM System for Multiple Robots . . .	480
<i>Fu Li, Shaowu Yang, Xiaodong Yi, and Xuejun Yang</i>	

Security and Trustworthy

An Efficient and Privacy Preserving CP-ABE Scheme for Internet-Based Collaboration	493
<i>Jinmiao Wang and Bo Lang</i>	
An Efficient Identity-Based Privacy-Preserving Authentication Scheme for VANETs.	508
<i>Jie Cui, Wenyu Xu, Kewei Sha, and Hong Zhong</i>	
<i>ProNet</i> : Toward Payload-Driven Protocol Fingerprinting via Convolutions and Embeddings	519
<i>Yafei Sang, Yongzheng Zhang, and Chengwei Peng</i>	
Formal Verification of Authorization Policies for Enterprise Social Networks Using PlusCal-2	530
<i>Sabina Akhtar, Ehtesham Zahoor, and Olivier Perrin</i>	
High Performance Regular Expression Matching on FPGA	541
<i>Jiajia Yang, Lei Jiang, Xu Bai, and Qiong Dai</i>	
Adaptive Carving Method for Live FLV Streaming	554
<i>Haidong Ge, Ning Zheng, Lin Cai, Ming Xu, Tong Qiao, Tao Yang, Jinkai Sun, and Sudeng Hu</i>	
Android App Classification and Permission Usage Risk Assessment	567
<i>Yidong Shen, Ming Xu, Ning Zheng, Jian Xu, Wenjing Xia, Yiming Wu, Tong Qiao, and Tao Yang</i>	
A Privacy Settings Prediction Model for Textual Posts on Social Networks . . .	578
<i>Lijun Chen, Ming Xu, Xue Yang, Ning Zheng, Yiming Wu, Jian Xu, Tong Qiao, and Hongbin Liu</i>	

Collaboration Techniques in Data-intensive Cloud Computing

HSASore: A Hierarchical Storage Architecture for Computing Systems Containing Large-Scale Intermediate Data	591
<i>Zhoujie Zhang, Limin Xiao, Shubin Su, Li Ruan, Bing Wei, Nan Zhou, Xi Liu, Haitao Wang, and Zipeng Wei</i>	
Early Notification and Dynamic Routing: An Improved SDN-Based Optimization Mechanism for VM Migration	602
<i>Xuanlong Qin, Dagang Li, Ching-Hsuan Chen, and Nen-Fu Huang</i>	
Cloud Data Assured Deletion Based on Information Hiding and Secondary Encryption with Chaos Sequence.	613
<i>Yijie Chen and Wenbin Yao</i>	

Performance Analysis of Storm in a Real-World Big Data Stream
Computing Environment 624
Hongbin Yan, Dawei Sun, Shang Gao, and Zhangbing Zhou

Collaborative Next Generation Networking

Shortest Path Discovery in Consideration of Obstacle in Mobile Social
Network Environments 637
Dawei Sun, Wentian Qu, Shang Gao, and Li Liu

Minimize Residual Energy of the 3-D Underwater Sensor Networks
with Non-uniform Node Distribution to Prolong the Network Lifetime 647
Gaotao Shi, Jia Zeng, Chunfeng Liu, and Keqiu Li

Combinational Meta-paths Mining for Correlation Relationship Evaluation
in Bibliographic Networks 660
Qinchen Wu, Peng Wu, and Li Pan

Detecting Spammer Communities Using Network Structural Features 670
Wen Zhou, Meng Liu, and Yajun Zhang

Citation Based Collaborative Summarization of Scientific Publications
by a New Sentence Similarity Measure 680
*Chengzhe Yuan, Dingding Li, Jia Zhu, Yong Tang, Shahbaz Wasti,
Chaobo He, Hai Liu, and Ronghua Lin*

Collaborative Manufacturing System and Machinery Fault Diagnosis

Exploiting User Activities for Answer Ranking in Q&A Forums. 693
Chenyang Zhao, Liutong Xu, and Hai Huang

A Two-Level Classifier Model for Sentiment Analysis. 704
*Haidong Hao, Li Ruan, Limin Xiao, Shubin Su, Feng Yuan,
Haitao Wang, and Jianbin Liu*

An Effective Method for Self-driving Car Navigation based on Lidar 718
Meng Liu, Yu Liu, Jianwei Niu, Yu Du, and Yanchen Wan

Author Index 729