2018 IEEE International Conference on Big Data and Smart Computing (BigComp 2018)

Shanghai, China 15-17 January 2018



IEEE Catalog Number: ISBN:

CFP1840X-POD 978-1-5386-3650-3

Copyright \odot 2018 by the Institute of Electrical and Electronics Engineers, Inc. All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

*** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.

 IEEE Catalog Number:
 CFP1840X-POD

 ISBN (Print-On-Demand):
 978-1-5386-3650-3

 ISBN (Online):
 978-1-5386-3649-7

ISSN: 2375-933X

Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA Phone: (845) 758-0400

Fax: (845) 758-2633

E-mail: curran@proceedings.com Web: www.proceedings.com



2018 IEEE International Conference on Big Data and Smart Computing BigComp 2018

Table of Contents

Chair's Message xxi	
Steering Committee .xxii	
Organizing Committee xxiii	
Program Committee xxy	
Keynote Speakers xxxi	
Regular Papers	
Session 1A: Big Data for Social Media Analysis (I)	
History-Based Article Quality Assessment on Wikipedia 1	
Visual Analysis of Spatio-Temporal Distribution and Retweet Relation in Weibo I Haisheng Li (Beijing Technology and Business University), Xunge Liang (Beijing Technology and Business University), Xuan Song (Beijing Technology and Business University), and Qiang Cai (Beijing Technology and Business University)	Event 9
Analysis of Behavior Patterns to Identify Nicknames of a User in Online Commun Sang-Hyun Park (Sogang University), So-Hye Yoon (Sogang University), Juwon Jeong (Sogang University), Sehwa Park (Sogang University), and Seog Park (Sogang University)	nity .1.7
MPPR: Multi Perspective Page Rank for User Influence Estimation .25	

Session 1B: Big Data Applications in Bioinformatics, Multimedia, Smartphones

Boosting VLAD with Weighted Fusion of Local Descriptors 30. Cong Zhang (Beijing Lab of Intelligent Information Technology), Qingjie Zhao (Beijing Lab of Intelligent Information Technology), Hao Liu (Beijing Lab of Intelligent Information Technology), Sa Jia (Beijing Lab of Intelligent Information Technology), and Jianwei Zhang (Department of Informatics)
Population Density-Based Hospital Recommendation with Mobile LBS Big Data 37. Hanqing Chao (Fudan University), Yuan Cao (Fudan University), Junping Zhang (Fudan University), Fen Xia (Beijing Wisdom Uranium Technology Co.), Ye Zhou (Fudan University), and Hongming Shan (Fudan University)
Understanding Travel Patterns of Tourists from Mobile Phone Data: A Case Study in Hainan .45
Optimal Frame-Level Bit Allocation in HEVC with Distortion Dependency Model .52. Wei Li (Xi'an University of Technology), Fan Zhao (Xi'an University of Technology), Erhu Zhang (Xi'an University of Technology), and Peng Ren
(Xidian University)
(Xidian University) Session 1C: Neural Networks for Smart Computing (I)
Session 1C: Neural Networks for Smart Computing (I) Sequence Translating Model Using Deep Neural Block Cascade Network: Taking Protein Secondary Structure Prediction as an Example 58. Yu Hu (Northeastern University), Tiezheng Nie (Northeastern University), Derong Shen (Northeastern University), and Ge Yu
Session 1C: Neural Networks for Smart Computing (I) Sequence Translating Model Using Deep Neural Block Cascade Network: Taking Protein Secondary Structure Prediction as an Example .58 Yu Hu (Northeastern University), Tiezheng Nie (Northeastern University), Derong Shen (Northeastern University), and Ge Yu (Northeastern University) ANE: Network Embedding via Adversarial Autoencoders .66 Yang Xiao (Beijing University of Posts and Telecommunications), Ding Xiao (Beijing University of Posts and Telecommunications), Binbin Hu (Beijing University of Posts and Telecommunications), and Chuan Shi

Session 2A: Big Data for Social Media Analysis (II)

A Decision Making Method Based on TOPSIS and Considering the Social Relationship .90. Nan Xiang (Liangjiang International College Chongqing University of Technology), Chin-wan Chung (Liangjiang International College Chongqing University of Technology), and Siwei Shang (Liangjiang International College Chongqing University of Technology)
Community Detection Based on Co-regularized Nonnegative Matrix Tri-Factorization in Multi-view Social Networks .98
SSS: An Accurate and Fast Algorithm for Finding Top-k Hot Items in Data Streams .106
Estimating the Clustering Coefficient of a Social Network by a Non-backtracking Random Walk 11.4
Sentiment Analysis for Microblog Related to Finance Based on Rules and Classification .1.19
Session 2B: Big Data Applications in Intelligent Transportation and Systems
Research on Automated Modeling Algorithm Using Association Rules for Traffic Accidents .127
Reactive Behavioral Strategy for Unmanned Ground Vehicle Under Liner Temporal Logic Specifications .133. Liangguo Liu (Central South University), Jun Peng (Central South University), Xiaoyong Zhang (Central South University), Rui Zhang (Central South University), Bin Chen (Central South University), Kai Gao (Changsha University of Science\&Technology), and Yingze Yang (Central South University)
Distributed H 2 /H infinity Consensus Control and Iterative Approach for Multi-agent Systems with Directed Graph .141
Sensor-Based Mobile Robot Navigation via Deep Reinforcement Learning .147. Seung-Ho Han (KAIST), Ho-Jin Choi (KAIST), Philipp Benz (KAIST), and Jorge Loaiciga (KAIST)

Coverage Analysis in TD-LTE Wireless Private Networks for Power Systems: A 3D Ray-Tracing Approach .155
Weiwei Miao (State Grid Jiangsu Electric Power Company), Jingping Yin
(Beijing University of Posts and Telecommunications), Chengling Jiang
(State Grid Jiangsu Electric Power Company), Lei Wei (State Grid
Jiangsu Electric Power Company), Xiangdong Chen (State Grid Jiangsu
Electric Power Company), Bo Guo (State Grid Jiangsu Electric Power
Company), Wei Li (State Grid Jiangsu Electric Power Company), Rui Liu
(Nari Technology Development Limited Company), Jia Yu (Nari Technology
Development Limited Company), and Wen Ye (Beijing University of Posts
and Telecommunications)

Session 2C: Systems for Big Data Analytics (I)

PPQAR: Parallel PSO for Quantitative Association Rule Mining .163. Danfeng Yan (State Key Laboratory of Networking and Switching Technology), Xuan Zhao (State Key Laboratory of Networking and Switching Technology), Rongheng Lin (State Key Laboratory of Networking and Switching Technology), and Demeng Bai (State Grid ShanDong Electric Power Research Institute) Ensemble Strategy for Hard Classifying Samples in Class-Imbalanced Data Set 170. Yingze Yang (Central South University), Pengcheng Xiao (Central South University), Yijun Cheng (Central South University), Weirong Liu (Central South University), and Zhiwu Huang (Central South University) Fine-Grained Probability Counting: Refined LogLog Algorithm 176. Lun Wang (Peking University), Zekun Cai (Peking University), Hao Wang (Peking University), Jie Jiang (Peking University), Tong Yang (Peking University), Bin Cui (Peking University), and Xiaoming Li (Peking University) Transient Identification: Shortening Identification Delay and Enhancing Identification Rate by Selecting the Optimal Moving Window Size .184. Shuqiao Zhou (Tsinghua University), Chao Guo (Tsinghua University), and Xiaojin Huang (Tsinghua University) Ensemble Clustering Using Maximum Relative Density Path .190..... Ernan Li (Beijing Key Lab of Transportation Data Analysis and Mining), Qingyong Li (Beijing Key Lab of Transportation Data Analysis and Mining), Yangli-ao Geng (Beijing Key Lab of Transportation Data Analysis and Mining), Min Zheng (Beijing Key Lab of Transportation Data Analysis and Mining), and Shiqing Wan (Beijing Key Lab of Transportation Data Analysis and Mining)

Session 3A: Big Data Applications in Load Balancing and Network Resource Management

Power Savings with CoMP Technology in Cellular Networks .206
Load Balancing with Load Threshold Adjustment in Structured P2P 2.13. Kyoungsoo Bok (Chungbuk National University), Jonghyeon Yoon (Chungbuk National University), Jongtae Lim (Chungbuk National University), and Jaesoo Yoo (Chungbuk National University)
A Short-Term Electric Load Forecasting Scheme Using 2-Stage Predictive Analytics 2.19. Jihoon Moon (Korea University), Kyu-Hyung Kim (Korea University), Yongsung Kim (Korea University), and Eenjun Hwang (Korea University)
Semantic Channel and Shannon Channel Mutually Match and Iterate for Tests and Estimations with Maximum Mutual Information and Maximum Likelihood .227
Session 3B: Systems for Big Data Analytics (II)
Attribute Weighting and Samples Sampling for Collaborative Filtering .235. Zhaowei Qu (Institute of Network Technology Beijing University of Posts and Telecommunications), Jingjing Yao (Institute of Network Technology Beijing University of Posts and Telecommunications), Xiaoru Wang (Institute of Computer Science Beijing University of Posts and Telecommunications), and Sixing Yin (Institute of Information and Communication Engineering Beijing University of Posts and Telecommunications)
Local Standard Deviation Spectral Clustering 242. Juanying Xie (Shannxi Normal University), Ying Zhou (Shaanxi Normal University), and Lijuan Ding (Shaanxi Normal University)
XGBoost Classifier for DDoS Attack Detection and Analysis in SDN-Based Cloud 251. Zhuo Chen (Central South University), Fu Jiang (Central South University), Yijun Cheng (Central South University), Xin Gu (Central South University), Weirong Liu (Central South University), and Jun Peng (Central South University)
MR-Mafia: Parallel Subspace Clustering Algorithm Based on MapReduce for Large Multi-dimensional Datasets 257 Zhipeng Gao (Beijing University of Posts and Telecommunications), Yidan Fan (Beijing University of Posts and Telecommunications), Kun Niu (Beijing University of Posts and Telecommunications), and Zhenyi Ying (Beijing University of Posts and Telecommunications)
Pseudo-Labeling Using Gaussian Process for Semi-Supervised Deep Learning .263

Session 3C: Models and Algorithms for Big Data

An Evaluation Mechanism Based on HDFS in Unstable Network Environment .270
Single Hash: Use One Hash Function to Build Faster Hash Based Data Structures .278. Xiangyang Gou (Peking University), Chenxingyu Zhao (Peking University), Tong Yang (Peking University), Lei Zou (Peking University), Yang Zhou (Peking University), Yibo Yan (Peking University), Xiaoming Li (Peking University), and Bin Cui (Peking University)
Research on Real-Time Prediction of Large Scale Datasets Based on Feature Vectors and Fuzzy Parameter Self-tuning SVR Algorithm .286
GLM+: An Efficient System for Generalized Linear Models 293. Lele Yu (Peking University), Lingyu Wang (Peking University), Yingxia Shao (Peking University), Long Guo (Peking University), and Bin Cui (Peking University)
A Fast Content-Based Spam Filtering Algorithm with Fuzzy-SVM and K-means .301. Shengnan Wang (Central South University), Xiaoyong Zhang (Central South University), Yijun Cheng (Central South University), Fu Jiang (Central South University), Wentao Yu (Central South University of Forestry and Technology), and Jun Peng (Central South University)
Session 4A: Network Models for Smart Computing (II)
Converged Recommendation System Based on RNN and BP Neural Networks 308. ZhaoWei Qu (Beijing University of Posts and Telecommunications), Shuqiang Zheng (Beijing University of Posts and Telecommunications), Xiaoru Wang (Beijing University of Posts and Telecommunications), Xiaomin Song (Beijing University of Posts and Telecommunications), Baiwei Li (Beijing University of Posts and Telecommunications), and Xiaohui Song (Beijing University of Posts and Telecommunications)
Research on the Cascade Pedestrian Detection Model Based on LDCF and CNN 3.14. Zhonggui Ma (University of Science and Technology Beijing) and Pan-pan Gao (University of Science and Technology Beijing)
Optimization Method of Residual Networks of Residual Networks for Image Classification 321. Ke Zhang (North China Electric Power University), Liru Guo (North China Electric Power University), and Ce Gao (North China Electric Power University)

Efficient Optimization and Hardware Acceleration of CNNs towards the Design of a Scalable Neuro inspired Architecture in Hardware 326
of Aizu), Yuichi Okuyama (The university of Aizu), and Abderazek Ben Abdallah (The university of Aizu)
Session 4B: Computer Vision and Data Visualization
Online Video Object Segmentation Based on Region and Edge Consistency .333. Jingjing Ma (Beijing Institute of Technology), Qingjie Zhao (Beijing Institute of Technology), Peng Lv (Beijing Institute of Technology), Jimmy T. Mbelwa (Beijing Institute of Technology), Hao Liu (Beijing Institute of Technology), and Jianwei Zhang (University of Hamburg)
iHDViewer: A Visualization Tool for Tracking HD .340. Wenbo Wang (ShanghaiTech University), Xi Luo (ShanghaiTech University), Liangfu Lu (Tianjin University), and Youyi Zheng (Zhejiang University)
The Cramér-InfoGAN and Partial Inverse Filter System for Unsupervised Image Classification .348
A QoE Estimation Model Considering Video Popularity for Video Streaming Services 354
Session 4C: Big Data Storage Methods and Systems
iDiscard: Enhanced Discard() Scheme for Flash Storage Devices .360. Dong Hyun Kang (Sungkyunkwan University) and Young Ik Eom (Sungkyunkwan University)
Hardware Transactional Memory Based on Abort Prediction and Adaptive Retry Policy for Multi-Core In-Memory Databases 367.
Hyeong-Jin Kim (Chonbuk National University), Mun-Hwan Kang (Chonbuk National University), Yeon-Woo Chang (Chonbuk National University), Min Yoon (Chonbuk National University), and Jae-Woo Chang (Chonbuk National University)
SciDFS: An In-Situ Processing System for Scientific Array Data Based on Distributed File System .375 Donghyoung Han (DGIST), Yoon-Min Nam (DGIST), Min-Soo Kim (DGIST), Kyongseok Park (KISTI), and Sunggeun Han (KISTI)
Accelerating Storage Performance with NVRAM by Considering Application's I/O Characteristics .383 Jisun Kim (Ewha University) and Hyokyung Bahn (Ewha University)

Session 5A: Big Data Applications in Text Analysis Intelligent Models
Class-Specific Word Embedding through Linear Compositionality .390. Sicong Kuang (Lehigh University) and Brian D. Davison (Lehigh University)
Article Impact Value for Nearby Citation Network Analysis 398

Abdulrhman M. Alshareef (University of Ottawa), Mohammed F. Alhamid (King Abdulaziz University), and Abdulmotaleb El Saddik (University of Ottawa)

Unlabeled Text Classification Optimization Algorithm Based on Active Self-Paced Learning .404......

Tingyi Zheng (Taiyuan University of Technology) and Li Wang (Taiyuan University of Technology)

LSTM Networks for Vessel Traffic Flow Prediction in Inland Waterway .4.18.

Zhaoqing Xie (Wuhan University of Technology) and Qing Liu (Wuhan University of Technology)

Session 5B: Big Data Applications in Objects Detection and Retrieval

Optimal Index Partitioning of Main-Memory Based TPR*-Tree for Real-Time Tactical Moving Objects .432...

Jiwan Lee (Pusan National University), Bonghee Hong (Pusan National

University), Jaegi Hong (Pusan National University), Chumsoo Kim

(Agency for Defense Development), and Woo Chan Kim (Agency for Defense

Development)

Sunghoon Jung (Pusan National University), Chumsu Kim (Agency for Defense Development), Jiwan Lee (Pusan National University), and Bonghee Hong (Pusan National University)

Scale-Invariant Wave Kernel Signature for Non-Rigid 3D Shape Retrieval .448.

Haisheng Li (Beijing Technology and Business University), Li Sun
(Beijing Technology and Business University), Xiaoqun Wu (Beijing
Technology and Business University), and Qiang Cai (Beijing Technology
and Business University)

Session 5C: Big Data Applications in Other Fields

Development of Stock Correlation Network Models Using Maximum Likelihood Method and Stock Big Data .455 Xue Guo (Zhongnan University of Economics and Law), Hu Zhang (Zhongnan University of Economics and Law), Feng Jiang (Zhongnan University of Economics and Law), and Tianhai Tian (Monash University)
Quality Traceability of Converter Steelmaking Based on Adaptive Feature Selection and Multiple Linear Regression .462
Classification of Both Seizure and Non-Seizure Based on EEG Signals Using Hidden Markov Model .469 Miran Lee (Korea Institute of Science and Technology), Inchan Youn (Korea Institute of Science and Technology), Jaehwan Ryu (Inha University), and Deok-Hwan Kim (Inha University)
Artificial Landmarks to Facilitate Spatial Learning and Recalling for Curved Visual Wall Layout in Virtual Reality 475
Byungmoon Kim (Adobe Research), and Jee-In Kim (Konkuk University)
Short Papers
Session 6A: Big Data Applications and Machine Learning
Bike-Sharing Dynamic Scheduling Model Based on Spatio-Temporal Graph .483
Semantic Enrichment of Twitter News for Differentiated STEAM Education .487
Contextual-CNN: A Novel Architecture Capturing Unified Meaning for Sentence Classification .491
Spline: Spark Lineage, not only for the Banking Industry 495. Jan Scherbaum (Barclays Africa Group Limited), Marek Novotny (Barclays Africa Group Limited), and Oleksandr Vayda (Barclays Africa Group Limited)
Retention Time Based Data Management Policy for Improving the Lifespan of SSDs .499
A Storm-Based Sampling System for Multi-source Stream Environment .503. Wonhyeong Cho (Kangwon National University), Myeong-Seon Gil (Kangwon National University), Sanghun Lee (Kangwon National University), and Yang-Sae Moon (Kangwon National University)

ll Cycle Campus Life of College Students: A Big Data Case in China .507 Benyou Wang (West Anhui University), Kaihe Deng (University of Science and Technology of China), Weiwei Wei (University of Science and Technology of China), Sihai Zhang (University of Science and Technology of China), Wuyang Zhou (University of Science and Technology of China), and Shui Yu (Deakin University)	
Fast Density Peaks Clustering Algorithm Based on Pre-Screening .5.13 Xiao Xu (China University of Mining and Technology), Shifei Ding (China University of Mining and Technology), and Tongfeng Sun (China University of Mining and Technology)	••••
cplicit Content Detection in Music Lyrics Using Machine Learning .517	
hage Analogy with Gaussian Process .522	••••
atic Correlative Filter Based Convolutional Neural Network for Visual Question Answering .526 Lijun Chen (Tongji University), Qinyu Li (Lanzhou City University), Hanli Wang (Tongji University), and Yu Long (Tongji University)	
edicting Emotion in Movie Scripts Using Deep Learning .530.	
Seong-Ho Lee (Sungkyunkwan University), Dong-Min Kim (Sungkyunkwan University), and Yun-Gyung Cheong (Sungkyunkwan University)	
University), and Yun-Gyung Cheong (Sungkyunkwan University)	
University), and Yun-Gyung Cheong (Sungkyunkwan University) ession 6B: Techniques, Models and Algorithms for Big Data Short-Term Traffic Flow Prediction Method Based on Kernel Extreme Learning Machine .533 Yi-ming Xing (University of Science and Technology Beijing), Xiao-juan Ban (University of Science and Technology Beijing), and Ruoyi Liu	
University), and Yun-Gyung Cheong (Sungkyunkwan University) ession 6B: Techniques, Models and Algorithms for Big Data Short-Term Traffic Flow Prediction Method Based on Kernel Extreme Learning Machine .533 Yi-ming Xing (University of Science and Technology Beijing), Xiao-juan Ban (University of Science and Technology Beijing), and Ruoyi Liu (University of Science and Technology Beijing) alogue Act Classification Model Based on Deep Neural Networks for a Natural Language Interface to atabases in Korean .537 Minkyoung Kim (Kangwon National University) and Harksoo Kim (Kangwon	
Ession 6B: Techniques, Models and Algorithms for Big Data Short-Term Traffic Flow Prediction Method Based on Kernel Extreme Learning Machine .533	

Attribute Extraction by Combing Feature Ranking and Sequence Labeling .553. Bin Peng (Beihang University), Xiaoming Zhang (Beihang University), Yueying He (National Computer Network Emergency Response Technical Team Center of China), and Zhoujun Li (Beihang University)	
Tideo Retrieval Based on Image Queries Using THOG for Augmented Reality Environments .557	
An Ontology-Based Semantic Similarity Computation Model .561	
Lecursive Filtering for Complex Networks Against Random Deception Attacks .565	
Cooperative Interference Eliminated Mechanism in MIMO Systems .569. Xiaoshuai Zhao (Centural South University Changsha), Xiaoyong Zhang (Centural South University Changsha), Shuo Li (Changsha University of Science & Technology), Fu Jiang (Centural South University Changsha), and Jun Peng (Centural South University Changsha)	
Global A* for Pedestrian Room Evacuation Simulation 573	
Deep Manifold Embedding Active Shape Model for Pose Invarient Face Tracking .578	
In-Ho Choi (Sejong University) and Yong-Guk Kim (Sejong University)	
In-Ho Choi (Sejong University) and Yong-Guk Kim (Sejong University) ession 6C: AI for Big Data and Data Science	
Dession 6C: AI for Big Data and Data Science Despitimizing Policy via Deep Reinforcement Learning for Dialogue Management .582	
Detecting Multiclass Emotions from Labeled Movie Scripts .590. Jaewoo Kim (KAIST), Yui Ha (KAIST), Seungche Kang (KAIST), Hongjun Lim	

A Novel Data Dependent Similarity Measure Algorithm Based on Attribute Selection .603. Nanjie Deng (Beijing University of Posts and Telecommunications), Zhipeng Gao (Beijing University of Posts and Telecommunications), and Kun Niu (Beijing University of Posts and Telecommunications)
Combining Link and Content for Community Detection in Social Networks .607. Zhaowei Qu (Beijing University of Posts and Telecommunications), Jingyi Yang (Beijing University of Posts and Telecommunications), Xiaoru Wang (Beijing University of Posts and Telecommunications), and Sixing Yin (Beijing University of Posts and Telecommunications)
Average Path Length Estimation of Social Networks by Random Walk .6.11. Toshiki Matsumura (Tokyo Institute of Technology), Kenta Iwasaki (Tokyo Institute of Technology), and Kazuyuki Shudo (Tokyo Institute of Technology)
Convolutional Neural Network with SDP-Based Attention for Relation Classification .6.15
Extracting Disaster Characteristics Using Text Mining .619. Tsunetsugu Munakata (University of Tsukuba) and Yoko Kobayashi (University of Tsukuba)
Numeric-Attribute-Powered Sentence Embedding .623. Sicong Kuang (Lehigh University) and Brian D. Davison (Lehigh University)
Complex Network of Damage Assessment Using GMM Based FAIR .627. Mookyu Park (Korea University), Minhee Joo (Korea University), Junwoo Seo (Korea University), Kyoungmin Kim (Korea University), Moosung Park (Agency for Defense Development), and Kyungho Lee (Korea University)
The 1st International Workshop on Driving Computing Platform for Autonomous Vehicles (DrivComp 2018)
OpenCL-Darknet: An OpenCL Implementation for Object Detection .631
Image Preprocessing for Efficient Training of YOLO Deep Learning Networks .635
Hybrid Approach for Efficient Quantization of Weights in Convolutional Neural Networks .638
MOD: Multi-camera Based Local Position Estimation for Moving Objects Detection .642
Correlation Analysis Between Vehicular Traffic and PM Using Sensor Big Data .644

Road and Lane Detection Using Stereo Camera .649. Jung-Gu Kim (VisionST Co.), Jae-Hyung Yoo (VisionST Co.), and Ja-Cheol Koo (VisionST Co.)
Motion Control Block Implementation for Driving Computing System .653. MyungWook Park (Electronics and Telecommunications Research Institute), Yongbon Koo (Electronics and Telecommunications Research Institute), and SungHoon Kim (Electronics and Telecommunications Research Institute)
Formal Modeling and Verification of Serial Communication for Autonomous Vehicles .657. Hyeok-june Jung (Konkuk University), Kyeong-sik Park (Konkuk University), Cheol-Jin Kim (Konkuk University), and Young-Guk Ha (Konkuk University)
The First International Workshop on Dialog Systems (IWDS)
Finding a News Article Related to Posts in Social Media: The Need to Consider Emotion as a Feature .662 ByungSoo Ko (Korea Advanced Institute of Science and Technology (KAIST)), Chanyong Park (Korea Advanced Institute of Science and Technology (KAIST)), Dongkeon Lee (Korea Advanced Institute of Science and Technology (KAIST)), Jaewon Kim (Korea Advanced Institute of Science and Technology (KAIST)), Ho-Jin Choi (Korea Advanced Institute of Science and Technology (KAIST)), and Dongsoo Han (Korea Advanced Institute of Science and Technology (KAIST))
LSTM-Based Model for Extracting Temporal Relations from Korean Text .666. Chae-Gyun Lim (KAIST) and Ho-Jin Choi (KAIST)
Sense Space for Word Sense Disambiguation .669
Out-of-Domain Detection Method Based on Sentence Distance for Dialogue Systems .6.73
Improved Bayes Method Based on TF-IDF Feature and Grade Factor Feature for Chinese Information Classification .6.77
Chinese News Classification 681. David Cecchini (University of Science and Technology Beijing) and Li Na (University of Science and Technology Beijing)

The First International Workshop on Big Data Analysis for Smart Energy (BigData4SmartEnergy 2018)

A Unsupervised Learning Method of Anomaly Detection Using GRU .685 Zhaowei Qu (Beijing University of Posts and Telecommunications), Lun Su (Beijing University of Posts and Telecommunications), Xiaoru Wang (Beijing University of Posts and Telecommunications), Shuqiang Zheng (Beijing University of Posts and Telecommunications), Xiaomin Song (Beijing University of Posts and Telecommunications), and Xiaohui Song (Beijing University of Posts and Telecommunications)
Anomaly Pattern Detection on Data Streams .689. Cheong Hee Park (Chungnam National University)
Towards Smart City Platform Intelligence: PI Decoupling Math Model for Temperature and Humidity Control .693
Dynamics of Electricity Consumers for Classifying Power Consumption Data Using PCA .697 Minkyung Kim (Korea Advanced Institute of Science and Technology), Sangdon Park (Korea Advanced Institute of Science and Technology), Kireem Han (Korea Advanced Institute of Science and Technology), Nakyoung Kim (Korea Advanced Institute of Science and Technology), and Jun kyun Choi (Korea Advanced Institute of Science and Technology)
Towards Intelligent IoT Smart City platform Based on OneM2M Guideline: Smart Grid Case Study .701 Batyrkhan Omarov (Gachon University) and Aigerim Altayeva (Gachon University)
Fault Tolerance for Software-Defined Networking in Smart Grid .705. Chanhee Lee (KAIST) and Seungwon Shin (KAIST)
Noisy Power Method with Grassmann Average .709. Se-Young Yun (KAIST)
Energy Peak Reduction Mechanism with Prediction of Demand and PV Generation on Big Data 7.13
Text to Game Characterization: A Starting Point for Generative Adversarial Video Composition .7.17
Locality Aware Traffic Distribution in Apache Storm for Energy Analytics Platform 721. Siwoon Son (Kangwon National University), Sanghun Lee (Kangwon National University), Myeong-Seon Gil (Kangwon National University), Mi-Jung Choi (Kangwon National University), and Yang-Sae Moon (Kangwon National University)
An Adaptive Batch-Orchestration Algorithm for the Heterogeneous GPU Cluster Environment in Distributed Deep Learning System .725

Intelligent Fault Detection via Dilated Convolutional Neural Networks .729. Mohammad Azam Khan (Korea University), Yong-Hwa Kim (Myongji University), and Jaegul Choo (Korea University)
Knowledge Graph Modeling for Semantic Integration of Energy Services 732 Sejin Chun (Yonsei University), Xiongnan Jin (Yonsei University), Seungmin Seo (Yonsei University), Kyong-Ho Lee (Yonsei University), Youngmee Shin (Electronics and Telecommunications Research Institute), and Ilwoo Lee (Electronics and Telecommunications Research Institute)
The Architectural Design of Storage System for Power Data Management .736. Seung-Won Yoon (Chungnam National University), InA Kim (Chungnam National University), and Kyu-Chul Lee (Chungnam National University)
Efficient Searching of Subhypergraph Isomorphism in Hypergraph Databases .739 Tae Wook Ha (Korea Advanced Institute of Science and Technology), Jung Hyuk Seo (Korea Advanced Institute of Science and Technology), and Myoung Ho Kim (Korea Advanced Institute of Science and Technology)
A Study on Utilization of Blockchain for Electricity Trading in Microgrid .743. GeunYoung Kim (Chungnam National University), Junhoo Park (Chungnam National University), and Jaecheol Ryou (Chungnam National University)
Energy Operation System Using Uncertain Electric Data in Korean Tariff System .747 Jangkyum Kim (Korea Advanced Institute of Science and Technology (KAIST)), Nakyung Kim (Korea Advanced Institute of Science and Technology (KAIST)), Kangsan Kim (LG Electronics Inc), Jaseob Han (Korea Advanced Institute of Science and Technology (KAIST)), Joohyung Lee (Gahon University), and Junkyun Choi (Korea Advanced Institute of Science and Technology (KAIST))
Time-Synchronized Measurements and Applications for Monitoring of Intelligent Electric Power Systems.751. Gyul Lee (Yonsei University), Seon Hyeog Kim (Yonsei University), and Yong-June Shin (Yonsei University)
Fusion Sentimental Analysis in Self-Growth Broadcasting .756
The 2nd International Workshop on Affective and Sentimental Computing (ASC 2018)
Data Fusion Method Based on Improved D-S Evidence Theory .760. Wei Zhang (State Key Laboratory of Networking and Switching Technology), Xilin Ji (The electronic equipment system engineering corporation institute of China), Yang Yang (State Key Laboratory of Networking and Switching Technology), Jianwen Chen (Beijing Information and Communications Technology Research Center), Zhipeng Gao (State Key Laboratory of Networking and Switching Technology), and Xuesong Qiu (State Key Laboratory of Networking and Switching Technology)
Capture Commonsense Knowledge for Sentiment Analysis .767. Hongming Zhang (HKUST), Zhaoyu Liu (HKUST), and Yangqiu Song (HKUST)

GAN-Based One-Class Classification for Personalized Image Retrieval 77.1.
So Hyeon Kim (University of Seoul), Han-Joon Kim (University of
Seoul), and Jae-Young Kim (Hansung University)
A Clustering Based Adaptive Sequence-to-Sequence Model for Dialogue Systems .77.5
Da Ren (South China University of Technology), Yi Cai (South China
University of Technology), Wai Hong Chan (The Education University of
Hong Kong), and Zongxi Li (The Education University of Hong Kong)
Author Index 783