2018 14th International Conference on Mobile Ad-Hoc and Sensor Networks (MSN 2018)

Shenyang, China 6 – 8 December 2018



IEEE Catalog Number: CFP1830F-POD ISBN:

978-1-7281-0549-9

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:
 CFP1830F-POD

 ISBN (Print-On-Demand):
 978-1-7281-0549-9

 ISBN (Online):
 978-1-7281-0548-2

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

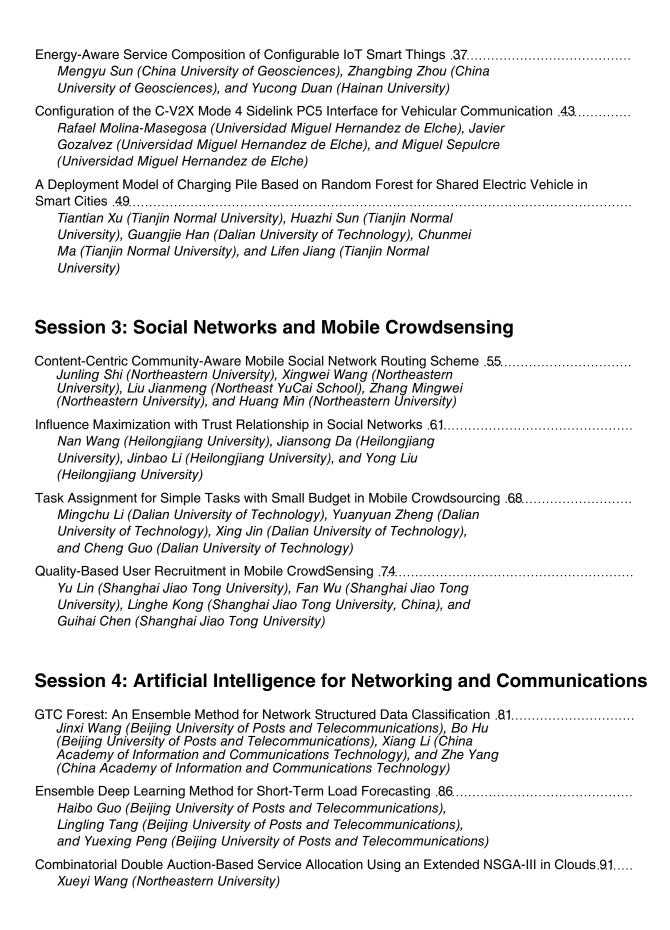


2018 14th International Conference on Mobile Ad-Hoc and Sensor Networks (MSN) MSN 2018

Table of Contents

About MSN 2018 and MSN 2018 Organizing Committee x MSN 2018 Technical Program Committee xi
Session 1: Ad Hoc and Sensor Networks
Clustering-Based Communication Backbone for UAV Networks .1. Hai Yu (Harbin Institute of Technology), Hejiao Huang (Harbin Institute of Technology), and Xiaohua Jia (City University of Hong Kong)
HERMES: Pedestrian Real-Time Offline Positioning and Moving Trajectory Tracking System Based on MEMS Sensors 7
Xinxin Liu (Nanjing University of Posts and Telecommunications) and Xiaolong Xu (Nanjing University of Posts and Telecommunications)
A Blockchain-Based Scheme for Secure Data Provenance in Wireless Sensor Networks .1.3
Multi-Dimension Context-Based Service Recommendation Algorithm in VANET .1.9 Yanliu Zheng (Hunan University), Juan Luo (Hunan University), and Haibo Luo (Fujian University & Minjiang University)
A Joint Optimization on Cross-Layer for mmWave Wireless Network .25

Session 2: IoT and Vehicular Communications



Improving Influence Maximization from Samples: An Empirical Analysis .9.7
Complex Behavior Recognition Based on Convolutional Neural Network: A Survey .1.03
Session 5: Smart Phone and Mobile Computing
Smartphone-Assisted Over-Air Reprogramming Based on Visible Light Communication 1.09
PosAla: A Smartphone-Based Posture Alarm System Design for Smartphone Users .1.15
RPSBPT: A Route Planning Scheme with Best Profit for Taxi .1.21
A Group Construction Algorithm Based on Density and Closeness Clustering in Mobile Communication Networks .1.27
Deep Identity Confusion for Automatic Sleep Staging Based on Single-Channel EEG .1.3.4
Session 6: SDN and Wireless Communications
Brain-Inspired Communications in Dense Wireless Networks .140
Controller Placement in Software-Defined Satellite Networks .1.46
Reputation and Incentive Mechanism for SDN Applications .1.52 Yufu Wang (Northeastern University), Yuan Liu (Northeastern University), Jinqiao Hu (NorthEast Yucai School), Mingwei Zhang (Northeastern University), and Xingwei Wang (Northeastern University)

A Secure Routing Mechanism for Industrial Wireless Networks Based on SDN .1.58
Distributed and Application-Aware Task Scheduling in Edge-Clouds .1.6.5
Session 7: Security and Privacy
Launching Low-Rate DoS Attacks with Cache-Enabled WiFi Offloading 17.1
Real-Time Trajectory Data Publishing Method with Differential Privacy .1.7.7. Fengyun Li (Northeastern University), Jinhua Yang (Northeastern University), Lifang Xue (Northeastern University), and Dawei Sun (China University of Geosciences)
Research on Co-Location Privacy-Preserving System .1.83. Jiachun Li (South China University of Technology), Dongqing Xiong (Guangdong Mechanical and Electronical College of Technology), and Jianzhou Cao (South China University of Technology)
Session 8: Novel Applications and Architecture
How Do Metro Station Crowd Flows Influence the Taxi Demand Based on Deep Spatial-Temporal
Network? .188
GeoLoc: A Geomagnetic Indoor Localization Algorithm with Iterative Uncertainty Elimination.193 Dongpeng Liu (Northeastern University), Leyou Yang (Northeastern Universitya), Ruiyun Yu (Northeastern University), and Yonghe Liu (University of Texas at Arlington)
Path Planning for Sensor Data Collection by Using UAVs .1.99 Baichuan Kong (Harbin Institute of Technology), Hejiao Huang (Harbin Institute of Technology), and Xiaohua Jia (City University of Hong Kong)
Prediction of Customer Churn Incline in Mobile Communication 206. Jingfeng Tang (Heilongjiang University), Jinbao Li (Heilongjiang University), Nan Wang (Heilongjiang University), and Biao Li (Heilongjiang University)

Optimal Content Caching Policy Considering Mode Selection and User Preference under Overlay D2D Communications .212
Yue Wang (Harbin Engineering University), Guangsheng Feng (Harbin
Engineering University), Junyu Lin (Chinese Academy of Sciences),
Haibin Lv (Harbin Engineering University), Jiayu Sun (Harbin
Engineering University), Huiqiang Wang (Harbin Engineeering
University), and Zihan Gao (Harbin Engineering University)
Author Index 219