

4th International Conference on Smart and Sustainable City (ICSSC 2017)

IET Conference Publications 719

Shanghai, China
5 – 6 June 2017

ISBN: 978-1-5108-6088-9

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2017) by the Institution of Engineering and Technology
All rights reserved.

Printed by Curran Associates, Inc. (2018)

For permission requests, please contact the Institution of Engineering and Technology
at the address below.

Institution of Engineering and Technology
P. O. Box 96
Stevenage, Hertfordshire
U.K. SG1 2SD

Phone: 01-441-438-767-328-328
Fax: 01-441-438-767-328-375

www.theiet.org

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
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

ADAPTIVELY SELF-DRIVING TRACKING ALGORITHM BASED ON PARTICLE FILTER	1
<i>Shiyu Yang ; Kuangrong Hao ; Yongsheng Ding ; Jian Liu</i>	
QUANTITY FORECAST OF ADMINISTRATIVE ITEMS BASED ON PARALLEL RANDOM FOREST	7
<i>Linxia Zhong ; Wanggen Wan ; Ziyue Luo ; Xiaodong Zhang</i>	
GPS DATA CLEANING AND ANALYSIS BASED ON YOUSENSE MOBILE APPLICATION	12
<i>Qiyun Sun ; R. Ahas ; A. Aasa ; Wanggen Wan ; Chi Yuan</i>	
A COMPARATIVE STUDY ON LARGE-SIZE VIDEO INDEXING	20
<i>Ziyue Luo ; Xiaoging Yu ; Linxia Zhong</i>	
3D MODEL PROGRESSIVE COMPRESSION ALGORITHM USING ATTRIBUTES	25
<i>Yuanyuan Dong ; Xiaoging Yu ; Pengfei Li</i>	
UAV IMAGE MATCHING BASED ON SURF FEATURE AND HARRIS CORNER ALGORITHM	30
<i>Cheng Cheng ; Xuzhi Wang ; Xiangjie Li</i>	
A NEW APPROACH FOR TRACKING HUMAN BODY MOVEMENTS BY KINECT SENSOR	36
<i>A. Michael ; Zhao Chen ; Guohua Liu ; Yang Yi</i>	
A MEMORY-LITE TIME SYNCHRONIZATION PROTOCOL FOR WIRELESS SENSOR NETWORKS	43
<i>Jin He ; Guoyong Shi ; Hongtao Chen</i>	
CROWD COUNTING AND DENSITY ESTIMATION VIA TWO-COLUMN CONVOLUTIONAL NEURAL NETWORK	52
<i>Jianing Qiu ; Wanggen Wan ; Haiyan Yao ; Kang Han</i>	
THE DECOMPOSITION AND COMPRESSION OF HRTF BASED ON ADAPTIVE FOURIER DECOMPOSITION	57
<i>Yong Fang ; Mengjie Shi ; Qinghua Huang ; Liming Zhang</i>	
SMALL-SIZED LOUDSPEAKER EQUALIZATION BASED SVD-KRYLOV MODEL REDUCTION AND VIRTUAL BASS ENHANCEMENT	62
<i>Yong Fang ; Hecan Zou ; Qinghua Huang</i>	
RESEARCH ON UNSTRUCTURED ROAD DETECTION ALGORITHM BASED ON IMPROVED MORPHOLOGICAL OPERATIONS	67
<i>Xu Ming ; Zhang Juan ; Fang Zhijun</i>	
OPTIMAL SECRET SHARING FOR SECURE WIRELESS COMMUNICATIONS IN THE ERA OF INTERNET OF THINGS	72
<i>Lei Miao and Dingde Jiang</i>	
IOT BASED SMART RESTAURANT SYSTEM USING RFID	78
<i>B. E. Kossonon and Wang Hong Ya</i>	
URBAN TOURISM RESEARCH BASED ON THE SOCIAL MEDIA CHECK-IN DATA	84
<i>Kai Yang ; Wanggen Wan ; Tianyu Xia ; Xuan He</i>	
APPLICATION OF SCENE RECOGNITION TECHNOLOGY BASED ON FAST-ER AND SURF ALGORITHM IN AUGMENTED REALITY	89
<i>Xiangjie Li ; Xuzhi Wang ; Cheng Cheng</i>	
HUMAN POSE ESTIMATION VIA IMPROVED RESNET-50	94
<i>Xiao Xiao and Wanggen Wan</i>	
ROLE & IMPACT OF BIG DATA IN EHEALTH & TELEMEDICINE: A SURVEY	99
<i>S. Mahmood ; M. Rizwan ; Wanggen Wan</i>	
A PEDESTRIAN TRACKING ALGORITHM BASED ON BACKGROUND UNRELATED HEAD DETECTION	107
<i>Yibing Zhang and Tao Fan</i>	
CURRENT STATUS OF SMART CITY RESEARCHES IN CHINA USING THE CO-WORD ANALYSIS METHOD	113
<i>Qinghong Cui ; Hongsheng Kan ; Jinxian Zhao ; Jianhong Shen ; Kai Xue</i>	
LICENSE PLATE CHARACTER RECOGNITION METHOD BASED ON COMBINATION FEATURE AND BP NETWORK	119
<i>Li Mingdong ; Zhang Juan ; Fang Zhijun</i>	
UNSTRUCTURED ROAD DETECTION BASED ON CONTOUR SELECTION	123
<i>Wang Xiang ; Zhang Juan ; Fang Zhijun</i>	

LOCATION BASED SOCIAL MEDIA DATA ANALYSIS FOR OBSERVING CHECK-IN BEHAVIOR AND CITY RHYTHM IN SHANGHAI	128
<i>M. Rizwan ; S. Mahmood ; W. Wanggen ; S. Ali</i>	
KULLBACK-LEIBLER THRESHOLD COMPUTING METHOD BASED ON CLUSTERING MOTION PATTERNS	136
<i>Li Pan ; Zhang Jing ; Wang Jian Ping</i>	
RESEARCH ON PARALLEL FREQUENT PATTERN MINING BASED ON ONTOLOGY AND RULES	140
<i>Chenxi Yi and Ming Sun</i>	
MODELING THE DYNAMIC SOCIAL RELATIONS OF CITIZENS BASED ON DAILY GPS DATA	145
<i>Chi Yuan ; R. Ahas ; A. Aasa ; Xiaoging Yu ; Qiyun Sun</i>	
VISION BASED AUTONOMOUS VEHICLE FOR SMART TRANSPORTATION SYSTEM	150
<i>S. A. Haidery and M. Rizwan</i>	
Author Index	