

IET International Conference on Intelligent and Connected Vehicles (ICV 2016)

IET Conference Publications 697

Chongqing, China
22 – 23 September 2016

ISBN: 978-1-5108-3883-3

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© (2016) by the Institution of Engineering and Technology
All rights reserved.

Printed by Curran Associates, Inc. (2017)

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

DRIVER BEHAVIOUR CHARACTERISTICS IDENTIFICATION STRATEGIES BASED ON THE BIONIC INTELLIGENT ALGORITHMS	1
<i>Zhu Bing, Liu Zhipeng, Zhao Jian, Chen Yizhou, Deng Weiwen</i>	
THE RESEARCH ON THE VEHICLE COLLISION AVOIDANCE CONTROL BASED ON VEHICLE MOTION ESTIMATION	7
<i>Ren Yue, Zheng Ling, Li Zhe, Yang Wei, Li Yinong, Wang Ke, Li Yusheng, Xiong Zhoubing</i>	
OBSTACLES DETECTION BASED ON MILLIMETRE-WAVE RADAR AND IMAGE FUSION TECHNIQUES	13
<i>Mo Chunmei, Li Yinong, Zheng Ling, Ren Yue, Wang Ke, Li Yusheng, Xiong Zhoubing</i>	
RESEARCH ON CONTROL STRATEGY OF AUTOMATIC EMERGENCY BRAKE SYSTEM BASED ON PRESCAN	19
<i>Hu Xiong, Zheng Ling, Ren Yue, Li Yinong, Zhan Zhenfei, Li Yusheng, Zhang Qiang, Xiong Zhoubing</i>	
PREDICTIVE FUEL-SAVING OPTIMIZATION OF AN ECOLOGICAL DRIVING ASSISTANCE SYSTEM	25
<i>H. Shu, Y. X. Wang, F. Gao, L. Huang, R. Zheng</i>	
ECONOMIC DRIVING ASSISTANCE SYSTEM CONSIDERING POWER DEMAND AND TRAFFIC	31
<i>F. Gao, G. Q. Ming</i>	
RESEARCH OF VEHICLE AUTOMATIC EMERGENCY BRAKING SYSTEM EVALUATION METHODS	37
<i>Chen Chao, Xia Qin</i>	
A DECOUPLING METHOD FOR DISTRIBUTED CONTROL OF VEHICULAR PLATOONS WITH V2V	46
<i>F. Gao, S. E. Li, T. Chen, K. Q. Li, F. Xie</i>	
INTELLIGENT VEHICLE WIRELESS POSITION ALGORITHM FUSING BP NEURAL NETWORKS AND WEIGHTED LEAST SQUARES METHOD	52
<i>Z. Q. Zhang, J. F. Wang, C. Wang, C. C. Li</i>	
RECENT ADVANCES IN CONNECTED VEHICLES VIA INFORMATION-CENTRIC NETWORKING	57
<i>Z. Zhu, J. Loo, Y. Chen, K. K. Chai, T. Zhang</i>	
A STUDY ON EVALUATION METHODS OF HUMAN COMPUTER INTERACT & USER EXPERIENCE TESTING TOWARDS SMART PHONES-VEHICLE INTERCONNECT PRODUCTS	65
<i>Bangbei Tang, Gang Guo, Li Lin, Wenbo Li, Mingqing Tang</i>	
SPEED TRAJECTORY OPTIMISATION FOR ELECTRIC VEHICLES IN ECO-APPROACH AND DEPARTURE USING LINEAR PROGRAMMING	72
<i>Shaofeng Lu, Fei Xue, Tiew On Ting, Yang Du</i>	
RESEARCH ON ELECTRICAL/ELECTRONIC ARCHITECTURE FOR CONNECTED VEHICLES	78
<i>Jian Wang, Diange Yang, Xiaomin Lian</i>	
ENERGY MANAGEMENT OF PLUG-IN HYBRID ELECTRIC VEHICLES USING ROAD GRADE PREVIEW	84
<i>Liu Yonggang, Li Jie, Qin Datong, Lei Zhenzhen</i>	
STUDY ON THE INFLUENCE OF TIRE PRESSURE TO TIRE MECHANICAL PROPERTIES	90
<i>Dang Lu, Chuan Wang, Zhihua Pang, Qianjin Liu, Yichi Zhang, Ze Lin</i>	
COMBINED PLANNING STRATEGY FOR CHARGING INFRASTRUCTURES AND DISTRIBUTION NETWORK INTEGRATED WITH DISTRICT INFORMATION	95
<i>Shuoya Tang, Junyong Liu, Yue Xiang, Qiao Peng, Xiangyang An</i>	
ENERGY CONSUMPTION OPTIMIZATION OF VEHICLE POWER SYSTEM BASED ON BIG DATA	102
<i>Huang Kaisheng, Jianye Huang, Lin Rongsheng, Dakai Ren</i>	
VIRTUAL DEVELOPMENT OF ENERGY OPTIMAL ADAS FUNCTIONALITY FOR ELECTRIFIED VEHICLES	108
<i>S. Jones, D. Barbé, R. Ellinger, E. Kural, A. Ferreira Parrilla</i>	
DESIGNING AND CALIBRATING TRUST THROUGH SITUATIONAL AWARENESS OF THE VEHICLE (SAV) FEEDBACK	113
<i>G. Filip, Xiaolin Meng, G. Burnett, C. Harvey</i>	

LANE-LEVEL POSITIONING SYSTEM BASED ON RFID AND VISION	119
<i>C. Zheng, C. Libo, Y. Linbo, Q. Qin, Z. Ruijeng</i>	
AN ADAPTIVE POSITION OBSERVER WITH PARAMETERS ESTIMATION FOR SURFACE-MOUNT PERMANENT MAGNET SYNCHRONOUS MOTOR	124
<i>Shaofang Wu, Jianwu Zhang, Huaishan Chen, Pan Wang</i>	
A CONTROL STRATEGY OF REGENERATIVE BRAKING SYSTEM FOR INTELLIGENT VEHICLE	129
<i>Li Zhe, Zheng Ling, Ren Yue, Yang Wei, Li Yinong, Gao Feng, Li Yusheng, Xiong Zhoubin</i>	
RESEARCH ON FUSION ESTIMATION OF VEHICLE STATE BASED ON GPS INFORMATION	136
<i>Yang Wei, Zheng Ling, Ren Yue, Li Zhe, Li Yinong, Zhan Zhenfei, Li Yusheng, Xiong Zhoubin</i>	
STUDY OF AUTONOMOUS PLATOON VEHICLE LONGITUDINAL MODELING	144
<i>Yang Liangyi, Sun Dihua, Xie Fei, Zhu Jian</i>	
STUDY OF CAUSATION MECHANISM AND DYNAMIC FEATURE FOR TYPICAL REAR END SITUATIONS IN CHINA-FOT	154
<i>Xiaoyu Sun, Xichan Zhu, Lin Li, Zhixiong Ma</i>	
A REVIEW OF CONDITION ASSESSMENT OF CHARGING INFRASTRUCTURE FOR ELECTRICAL VEHICLES	160
<i>Xi Chen, Tianyan Jiang, Maoqiang Bi, You Wang, Haowei Gao</i>	
DEVELOPMENT STRATEGY RESEARCH ON INTELLIGENT AND CONNECTED VEHICLE OF AMERICA	164
<i>Yusi Chen, Tao Chen, Ling Jin</i>	
RESEARCH ON USER EXPERIENCE FOR IN-VEHICLE INFOTAINMENT	169
<i>Lan Wei, Chen Hai-Yang, Zhang Chi, Cheng Ting, Wei Si-Ning</i>	
STATE-OF-THE-ART OF DESIGNS STUDIES FOR BATTERIES PACKS OF ELECTRIC VEHICLES	174
<i>A. Garg, Fangyuan Chen, Jian Zhang</i>	
Author Index	