

# **2014 IEEE 17th International Conference on Intelligent Transportation Systems (ITSC 2014)**

**Qingdao, China  
8-11 October 2014**

**Pages 1-791**



**IEEE Catalog Number: CFP14ITS-POD  
ISBN: 978-1-4799-6079-8**

# TABLE OF CONTENTS

## VOLUME 1

<b>An eMBMS Based Congestion Control Scheme in Cellular-VANET Heterogeneous Networks</b> .....	1
<i>Yang Yang, Ping Wang, Chao Wang, Fuqiang Liu</i>	
<b>Using CVIS to Process the Concurrent Signal Priority Requirements: A Cooperative Optimization Model and Its Hardware-In-The-Loop Field Tests</b> .....	6
<i>Xiaoguang Yang, Yinsong Wang, Wei Yin</i>	
<b>Pedestrian-Vehicular Collision Avoidance Based on Vision System</b> .....	11
<i>Zhijun Chen, Chaozhong Wu, Nengchao Lyu, Gang Liu, Yi He</i>	
<b>A Considering Lane Information and Obstacle-Avoidance Motion Planning Approach</b> .....	16
<i>Yunxiao Shan, Bijun Li, Xiaomin Guo, Jian Zhou, Ling Zheng</i>	
<b>Design and Implementation of Driving Control System for Autonomous Vehicle</b> .....	22
<i>Linhai Xu, Yingzhou Wang, Hongbin Sun, Jingmin Xin, Nanning Zheng</i>	
<b>Intuitive Decision-Making Modeling for Self-Driving Vehicles</b> .....	29
<i>Jianwei Gong, Shengyue Yuan, Yan Jiang, Xuemei Chen, Huijuin Di</i>	
<b>An Approach of Lane Detection Based on Inverse Perspective Mapping</b> .....	35
<i>Jun Wang, Tao Mei, Bin Kong, Hu Wei</i>	
<b>Bionic Vision Inspired On-Road Obstacle Detection and Tracking Using Radar and Visual Information</b> .....	39
<i>Xiao Wang, Linhai Xu, Hongbin Sun, Jingmin Xin, Nanning Zheng</i>	
<b>Research of Information Interaction Simulation Method in Cooperative Vehicle Infrastructure System</b> .....	45
<i>Baigen Cai, Congcong Wang, Wei Shangguan, Jian Wang</i>	
<b>Travel Time Reliability Affected by Accident in Freeway with Connected Vehicles</b> .....	51
<i>Fangshu Lei, Yunpeng Wang, Guangquan Lu, Daxin Tian</i>	
<b>Unsignalized Cooperative Optimization Control Method Based on Vehicle Speed Guidance and Information Interaction</b> .....	57
<i>Baigen Cai, Zirui Zheng, Wei Shangguan, Jian Wang</i>	
<b>A Rear-End Collision Avoidance System of Connected Vehicles</b> .....	63
<i>Liang Li, Guangquan Lu, Yunpeng Wang, Daxin Tian</i>	
<b>Test Sequence Generation and Optimization Method Based on Cooperative Vehicle Infrastructure System Simulation</b> .....	69
<i>Baigen Cai, Sen Yang, Wei Shangguan, Jian Wang</i>	
<b>Top-Down Based Saliency Model in Traffic Driving Environment</b> .....	75
<i>Tao Deng, Hongmei Yan, Andong Chen, Min Gao</i>	
<b>An Extended Probabilistic Self-Localization Algorithm Using Hybrid Maps</b> .....	81
<i>Tianyi Li, Ming Yang, Liuyuan Deng, Yong He, Chunxiang Wang</i>	
<b>Towards Real-Time Traffic Sign Detection and Classification</b> .....	87
<i>Yi Yang, Hengliang Luo, Huarong Xu, Fuchao Wu</i>	
<b>Fast and Accurate Vanishing Point Detection in Complex Scenes</b> .....	93
<i>Weibin Yang, Xiaosong Luo, Bin Fang, Daiming Zhang, Yuan Yan Tang</i>	
<b>Obstacle Recognition for ADAS Using Stereovision and Snake Models</b> .....	99
<i>Shumin Liu, Yingping Huang, Renjie Zhang</i>	
<b>Experimental Design of Integrated Platform for Demonstration of Cooperative Vehicle Infrastructure Systems in China</b> .....	105
<i>Fei Tian, Chaozhong Wu, Duanfeng Chu, Chuan Sun, Tuqiang Zhou</i>	
<b>A Method of Passengers Detection Inside the Subway under Complex Circumstances</b> .....	109
<i>Hanjie Ye, Xudong Xie, Jianming Hu</i>	
<b>A Rule Based Control Algorithm of Connected Vehicles in Uncontrolled Intersection</b> .....	115
<i>Guangquan Lu, Lumiao Li, Yunpeng Wang, Ran Zhang, Zewen Bao, Haichong Chen</i>	
<b>Research of Interactive Visual Simulation Method Based on Cooperative Vehicle Infrastructure System</b> .....	121
<i>Wei Shangguan, Hongqian Guo, Penghui Liu, Baigen Cai, Jian Wang</i>	
<b>Approaching Index Based Collision Avoidance for V2V Cooperative Systems</b> .....	127
<i>Boyuan Xie, Keqiang Li, Xiaohui Qin, Hang Yang, Jianqiang Wang</i>	
<b>A Novel Curve Lane Detection Based on Improved River Flow and RANSAC</b> .....	133
<i>Huachun Tan, Yang Zhou, Yong Zhu, Danya Yao, Keqiang Li</i>	
<b>Regenerative Braking Energy Utilization by Multi Train Cooperation</b> .....	139
<i>Xubin Sun, Hu Cai, Xiaowei Hou, Mengyang Zhang, Dong Hairong</i>	
<b>Towards an Integrated Multimodal Transportation Dashboard</b> .....	145
<i>Ana Zaiat, Rosaldo Rossetti, Ricardo Coelho</i>	
<b>Policy and Incentive Designs Evaluation: A Social-Oriented Framework for Artificial Transportation Systems</b> .....	151
<i>Zafeiris Kokkinogenis, Nuno Filipe Monteiro, Rosaldo Rossetti, Ana Lucia Bazzan, Pedro Campos</i>	
<b>Traffic Signal Coordination for Emergency Vehicles</b> .....	157
<i>Wenwen Kang, Gang Xiong, Yisheng Lv, Xisong Dong, Fenghua Zhu, Qing-Jie Kong</i>	
<b>SysML Requirements for Training Game Design - Tracing Requirements from Regulations to the Training Game</b> .....	162
<i>David Hetherington</i>	

<b>Systems Analysis of SDM Graduate Schools - Ex Post and Phylogenetic Approach to Map the System, Design, and Management Education</b> .....	168
<i>Toshiyuki Yasui, Seiko Shirasaka, Takashi Maeno</i>	
<b>A Social Complexity Approach to Investigate Trust in Agile Methodology</b> .....	172
<i>Weng Tat Chan, Fengwei Ying</i>	
<b>Strengthening Harmonization of Development (Dev) and Operations (Ops) Silos in IT Environment through Systems Approach</b> .....	178
<i>Syed Wasiulla Hussaini</i>	
<b>Value of IT Innovations for a Sustainable Business</b> .....	184
<i>Hari Prasad Devarapalli</i>	
<b>On Design and Development of Super-FRS Main Tunnel Remote Handling System Concept</b> .....	188
<i>Faraz Amjad, Helmut Weick, Jouni Mattila, Ekaterina Kozlova, Christian Schloer</i>	
<b>Using Web Data to Enhance Traffic Situation Awareness</b> .....	195
<i>Xiao Wang, Ke Zeng, Xueliang Zhao, Fei-Yue Wang</i>	
<b>Congestion Avoidance Routing in Urban Rail Transit Networks</b> .....	200
<i>Kun He, Pu Wang, Junjie Wang, Lianbo Deng</i>	
<b>Capabilities-Based Requirement Demonstration Method for Weapon System-Of-Systems</b> .....	206
<i>Yanping Fan, Qisheng Guo, Kai Zhao</i>	
<b>Proposal of Space Debris Indemnification Fund</b> .....	211
<i>Akiko Otsuka, Naohiko Kohtake, Yoshiaki Ohkami</i>	
<b>The Proposal for the Application of Reverse Systems Engineering to Light Rail Transit Project Based on the Outputs of ISO/IEC 15288 Technical Processes</b> .....	217
<i>Suk Yoon Han, Joo Uk Kim, Jung Ghun Ohn</i>	
<b>Visualization Fortherapist-Guided Self-Exercise System of Somatic Balance Restoring Therapy</b> .....	222
<i>Michael Munehiro Kayo, Yoshiaki Ohkami</i>	
<b>A Comprehensive Optimization Method for Complex Industrial Processes</b> .....	228
<i>Xiwei Liu, Zhen Gao, Changjian Cheng, Hong Mo, Gang Xiong, Fenghua Zhu</i>	
<b>Optimization of Protections against Supply Chain Risks Due to Intentional Acts</b> .....	232
<i>Chunhui Zhou, Kim Leng Poh</i>	
<b>Road Geometry Estimation Using a Precise Clothoid Road Model and Observations of Moving Vehicles</b> .....	238
<i>Maryam Fatemi, Lars Hammarstrand, Lennart Svensson, Angel Froilan Garcia-Fernandez</i>	
<b>Online Stereovision Calibration Using On-Road Markings</b> .....	245
<i>Donghao Xu, Qiqi Zeng, Huijing Zhao, Chunzhao Guo, Kiyosumi Kidono, Yoshiko Kojima</i>	
<b>Accurate Detection of Moving Regions Via a Nested Model</b> .....	253
<i>Shiyong Li, Huan Huang, Renfa Li</i>	
<b>Vehicle Classification Using Sparse Coding and Spatial Pyramid Matching</b> .....	259
<i>Yishu Peng, Yunhui Yan, Wenjie Zhu, Jiuliang Zhao</i>	
<b>Remote Sensing Image Fusion through Kernel Estimation Based on Energy Minimization</b> .....	264
<i>Qiwei Xie, Zheng Liu, Qian Long, Seiichi Mita, An Jiang</i>	
<b>Perspective Distortion Rectification for Planar Object Based on LIDAR and Camera Data Fusion</b> .....	270
<i>Lipu Zhou, Zhidong Deng</i>	
<b>Fusing Heterogeneous Traffic Data by Kalman Filters and Gaussian Mixture Models</b> .....	276
<i>Chun Hui Wang, Qianqian Zhu, Zhenyu Shan, Yingjie Xia, Yuncai Liu</i>	
<b>Traffic Prediction, Data Compression, Abnormal Data Detection and Missing Data Imputation: An Integrated Study Based on the Decomposition of Traffic Time Series</b> .....	282
<i>Li Li, Xiaonan Su, Yi Zhang, Jianming Hu, Zhiheng Li</i>	
<b>Understanding the Mobility Pattern of Passenger-Searching Taxis</b> .....	290
<i>Fan Rao, Xuedan Zhang, Yuhan Dong, Chuang Chen, Hao Dong</i>	
<b>Robust Real-Time Route Inference from Sparse Vehicle Position Data</b> .....	296
<i>George Rosario Jagadeesh, Thambipillai Srikanthan</i>	
<b>Using Exit Time Predictions to Optimize Self Automated Parking Lots</b> .....	302
<i>Rafael Nunes, Luã-s Moreira-Matias, Michel Ferreira</i>	
<b>Real-time Highway Traffic Flow Estimation based on 3D Markov Random Field</b> .....	308
<i>Jinyoung Ahn, Eunjeong Ko, Eunyi Kim</i>	
<b>Integrated Vehicle Lateral Stability Control with Different Coordination Strategies between Active Steering and Differential Braking</b> .....	314
<i>Carine Bardawil, Reine Talj, Clovis Francis, Ali Charara, Moustapha Doumiati</i>	
<b>Critical Headway Estimation under Uncertainty and Non-Ideal Communication Conditions</b> .....	320
<i>Leon Kester, Willem Van Willigen, Jan De Jongh</i>	
<b>A Vision-Based Safety Driver Assistance System for Motorcycles on a Smartphone</b> .....	328
<i>Chiung-Yao Fang, Wei-Hong Hsu, Chung-Wen Ma, Sei-Wang Chen</i>	
<b>Bayesian, Maneuver-Based, Long-Term Trajectory Prediction and Criticality Assessment for Driver Assistance Systems</b> .....	334
<i>Matthias Schreier, Volker Willert, Jurgen Adamy</i>	
<b>Estimation of Vehicle's Vertical and Lateral Tire Forces Considering Road Angle and Road Irregularity</b> .....	342
<i>Kun Jiang, Adina Pavelescu, Alessandro Correa Victorino, Ali Charara</i>	
<b>Dynamics Control of an In-Wheel Electric Vehicle with Steer-by-Wire</b> .....	348
<i>Moustapha Doumiati, Alessandro Victorino, Ali Charara</i>	
<b>Integrating Appearance and Edge Features for On-Road Bicycle and Motorcycle Detection in the Nighttime</b> .....	354
<i>Han-Hsuan Chen, Chun-Cheng Lin, Wei-Yu Wu, Yi-Ming Chan, Li-Chen Fu, Pei-Yung Hsiao</i>	

<b>Probabilistic Error Model for a Lane Marking Based Vehicle Localization Coupled to Open Source Maps</b> .....	360
<i>Wenjie Lu, Sergio Rodriguez, Emmanuel Seigne, Roger Reynaud</i>	
<b>Driver Fatigue Surveillance Via Eye Detection</b> .....	366
<i>Tang-Hsien Chang, Yi-Ru Chen</i>	
<b>Prospective Analysis-Method for Estimating the Effect of Advanced Driver Assistance Systems on Property Damage</b> .....	372
<i>Klaus Gschwendtner, Miklos Kiss, Markus Lienkamp</i>	
<b>Pedestrian Crossing Prediction Using Multiple Context-Based Models</b> .....	378
<i>Sarah Bonnin, Thomas H. Weisswange, Franz Kummert, Jens Schmuuederich</i>	
<b>Risk Assessment for Collision Avoidance Systems</b> .....	386
<i>Adam Houenou, Philippe Bonnifait, Veronique Cherfaoui</i>	
<b>Probabilistic Decision-Making under Uncertainty for Autonomous Driving Using Continuous POMDPs</b> .....	392
<i>Sebastian Brechtel, Tobias Gindele, Rudiger Dillmann</i>	
<b>Interactive Path Planning for Teleoperated Road Vehicles in Urban Environments</b> .....	400
<i>Amin Hosseini, Thomas Wiedemann, Markus Lienkamp</i>	
<b>Integrated Lateral and Longitudinal Control System for Autonomous Vehicles</b> .....	406
<i>Il Bae, Jaeyoung Moon, Jaekwang Cha, Shiho Kim</i>	
<b>A Visual Servoing Approach for Road Lane Following with Obstacle Avoidance</b> .....	412
<i>Danilo Alves De Lima, Alessandro Correa Victorino</i>	
<b>Model Predictive Steering Control for Automated Vehicle Following System on Inner-City Streets</b> .....	418
<i>Dongwook Kim, Beomjun Kim, Kangwon Lee, Kyongsu Yi, Junyung Lee</i>	
<b>Vehicle Motion Intention Reasoning Using Cooperative Perception on Urban Road</b> .....	424
<i>Wei Liu, Seong-Woo Kim, Katarzyna Anna Marczuk, Marcelo H Ang Jr</i>	
<b>Real-Time Ego-Motion Estimation using Lidar and a Vehicle Model Based Extended Kalman Filter</b> .....	431
<i>Klaus Zindler, Niklas Geib, Konrad Doll, Sven Heinlein</i>	
<b>Tightly Coupling GPS with Lane Markings for Autonomous Vehicle Navigation</b> .....	439
<i>Zui Tao, Philippe Bonnifait</i>	
<b>Accurate Camera-Based Traffic Sign Localization</b> .....	445
<i>Andre Welzel, Andreas Auerswald, Gerd Wanielik</i>	
<b>Feature Evaluation of Factorized Self-Localization</b> .....	451
<i>Florian Schule, Florian Buchner, Roland Schweiger, Klaus Dietmayer</i>	
<b>Probability Iterative Closest Point Algorithm for Position Estimation</b> .....	458
<i>Juan Liu, Shaoyi Du, Chunjia Zhang, Jihua Zhu, Ke Li, Jianru Xue</i>	
<b>On Designing Robust Real-Time Map-Matching Algorithms</b> .....	464
<i>Matej Kubicka, Arben Cela, Hugues Mounier, Silviu-Julian Niculescu</i>	
<b>A Time-Dependent Area-Based Pricing Scheme for Multimodal Urban Networks with User Adaptation: An Agent-Based Approach</b> .....	471
<i>Nan Zheng, Nikolas Geroliminis, Guillaume Rerat</i>	
<b>Traffic Monitoring for Coordinated Traffic Management—Experiences from the Field Trial Integrated Traffic Management in Amsterdam</b> .....	477
<i>Hans Van Lint, Ramon Landman, Yufei Yuan, Chris Philip Ijsbrand Van Hinsbergen, Serge Hoogendoorn</i>	
<b>Can C-ITS Lead to the Emergence of Traffic Management 2.0?</b> .....	483
<i>Nour-Eddin El Faouzi, Romain Billot, Maxime Gueriau, Julien Monteil</i>	
<b>Robust Control of Bi-Modal Multi-Region Urban Networks: An LMI Optimisation Approach</b> .....	489
<i>Konstantinos Ampountolas, Nan Zheng, Nikolas Geroliminis</i>	
<b>Experiment of Boundedly Rational Route Choice Behavior and the Model under Satisficing Rule</b> .....	495
<i>Chuan-Lin Zhao, Hai-Jun Huang</i>	
<b>Model Predictive Control for Multi-Lane Motorways in Presence of VACS</b> .....	501
<i>Claudio Roncoli, Ioannis Papamichail, Markos Papageorgiou</i>	
<b>On Hartley Image Rejection Receivers and Adaptive Sinusoidal Interference Cancellation in Automotive Wireless Links</b> .....	508
<i>Dipayan Mazumdar, Govind R. Kadambi, Yuri A. Vershinin, Imran Rasheed</i>	
<b>Current and Future Trends in Applications of Intelligent Transport Systems on Cars and Intelligent Infrastructure</b> .....	514
<i>Anne Nkoro, Yuri A. Vershinin</i>	
<b>Vehicle Dynamics Simulation by using Hardware in the Loop Techniques</b> .....	520
<i>Konrad Stahl, Klaus-Dieter Leimbach</i>	
<b>Graph Methods for Estimation of Railway Capacity</b> .....	525
<i>Sergey Branishtov, Yuri A. Vershinin, Dmitry Tumchenok, Artem Shirvanyan</i>	
<b>Information Retrieval of LED Text on Electronic Road Sign for Driver-Assistance System Using Spatial-Based Feature and Nearest Cluster Neighbor Classifier</b> .....	531
<i>Wahyono, Kang Hyun Jo</i>	
<b>State of the Art and Simulation of Motion Cueing Algorithms for a Six Degree of Freedom Driving Simulator</b> .....	537
<i>Konrad Stahl, Gobir Abdulsamad, Klaus-Dieter Leimbach, Yuri A. Vershinin</i>	
<b>Experimental Studies of Pedestrian Flows Under Different Boundary Conditions</b> .....	542
<i>Jun Zhang, Armin Seyfried</i>	
<b>Moving Characteristics of "Blind" People Evacuating from a Room</b> .....	548
<i>Shujie Wang, Weiguo Song, Wei Lv</i>	
<b>Validation of FDS+Evac for Pedestrian Simulations in Wide Bottlenecks</b> .....	554
<i>Weichen Liao, Mohcine Chraïbi, Armin Seyfried, Jun Zhang, Xiaoping Zheng, Ying Zhao</i>	

<b>Nonlinear Effects in Examples of Crowd Evacuation Scenarios</b> .....	560
<i>Jens Starke, Kristian Berg Thomsen, Asger Sorensen, Christian Marschler, Frank Schilder, Anne Dederichs, Poul Hjorth</i>	
<b>Study on Evacuation Characteristics in an Ultra High-Rise Building with Social Force Model</b> .....	566
<i>Chongyang Wang, W. G. Weng</i>	
<b>An Agent-Based Model of Pedestrian Dynamics Considering Groups: A Real World Case Study</b> .....	572
<i>Stefania Bandini, Luca Crociani, Andrea Gorrini, Giuseppe Vizzari</i>	
<b>LIDAR and Vision-Based Real-Time Traffic Sign Detection and Recognition Algorithm for Intelligent Vehicle</b> .....	578
<i>Lipu Zhou, Zhidong Deng</i>	
<b>Road Marking Detection Using LIDAR Reflective Intensity Data for Vehicle Localization</b> .....	584
<i>Alberto Hata, Denis Wolf</i>	
<b>Lane Detection &amp; Localization for UGV in Urban Environment</b> .....	590
<i>Teawon Han, Yanghyun Kim, Kisung Kim</i>	
<b>Detecting Symbols on Road Surface for Mapping and Localization Using OCR</b> .....	597
<i>Markus Schreiber, Fabian Poggenhans, Christoph Stiller</i>	
<b>Detection of Camera Artifacts from Camera Images</b> .....	603
<i>Nils Einecke, Harsh Gandhi, Joerg Deigmoeller</i>	
<b>Urban Traffic Commuting Analysis Based on Mobile Phone Data</b> .....	611
<i>Honghui Dong, Xiaoping Ding, Mingchao Wu, Li-Min Jia, Yong Qin, Yan Shi, Lianyu Chu</i>	
<b>Traffic Semantic Analysis Based on Mobile Phone Base Station Data</b> .....	617
<i>Mingchao Wu, Honghui Dong, Xiaoping Ding, Qingchao Shan, Lianyu Chu, Li-Min Jia, Yong Qin</i>	
<b>A Driver Steering Behavior Model Based on Lane-Keeping Characteristics Analysis</b> .....	623
<i>Jieyun Ding, Jianqiang Wang, Changchun Liu, Meng Lu, Keqiang Li</i>	
<b>Realistic Optimal Policies for Energy-Efficient Train Driving</b> .....	629
<i>Josif Grabocka, Alexandros Dalkalitis, Athanasios Lois, Evangelos Katsaros, Lars Schmidt-Thieme</i>	
<b>One Semantic Data Warehouse Fits Both Electrical Vehicle Data and Their Business Processes</b> .....	635
<i>Kevin Royer, Ladjel Bellatreche, Stephane Jean</i>	
<b>Coordination of Actuators for an A-Double Heavy Vehicle Combination Using Control Allocation</b> .....	641
<i>Karin Uhlen, Per Nyman, Johan Eklov, Leo Laine, Maliheh Sadeghi Kati, Jonas Fredriksson</i>	
<b>Collision Avoidance at Intersections: A Probabilistic Threat-Assessment and Decision-Making System for Safety Interventions</b> .....	649
<i>Gabriel Rodrigues De Campos, Adam Runarsson, Fredrik Granum, Paolo Falcone, Klas Alenljung</i>	
<b>Head Tracking Based Gaze Area Estimation for Driver Behaviour Modelling During Lane Change Execution</b> .....	655
<i>Timo Pech, Philipp Lindner, Gerd Wanielik</i>	
<b>Safety Benefits of Motorized Seat Belt as a Component in ADAS in Front-end Collisions</b> .....	661
<i>Xiao Luo, Wenjing Du, Jinhuan Zhang</i>	
<b>Vehicle Lateral Position Prediction: A Small Step Towards a Comprehensive Risk Assessment System</b> .....	667
<i>Qiang Liu, Vadim Butakov, Brian Lathrop</i>	
<b>Design and Evaluation of a Steering Wheel-Mount Speech Interface for Drivers' Mobile Use in Car</b> .....	673
<i>Ying Wang, Shengfan He, Zuerhumuer Mohedan, Yueyan Zhu, Lijun Jiang, Zhelin Li</i>	
<b>Pedestrian Path Prediction Based on Body Language and Action Classification</b> .....	679
<i>R. Quintero, Ignacio Parra, David Fernandez Llorca, Miguel A. Sotelo</i>	
<b>A Driver Assistance System Based on Multilayer Iconic Classifiers: Model and Assessment on Adverse Conditions</b> .....	685
<i>Giovanni Luca Masala, Enrico Grosso</i>	
<b>A Coarse-To-Fine Vehicle Detector Running in Real-Time</b> .....	691
<i>Luca Castangia, Paolo Grisleri, Paolo Medici, Antonio Prioletti, Andrea Signifredi</i>	
<b>Overtaking and Receding Vehicle Detection for Driver Assistance and Naturalistic Driving Studies</b> .....	697
<i>Ravi Kumar Satzoda, Mohan M. Trivedi</i>	
<b>Predictive Risk Maps</b> .....	703
<i>Florian Damerow, Julian Eggert</i>	
<b>Predictive Risk Estimation for Intelligent ADAS Functions</b> .....	711
<i>Julian Eggert</i>	
<b>A Trajectory Planning Method Based on Forward Path Generation and Backward Tracking Algorithm for Automatic Parking Systems</b> .....	719
<i>Jaeyoung Moon, Il Bae, Jaekwang Cha, Shiho Kim</i>	
<b>Combining Local Trajectory Planning and Tracking Control for Autonomous Ground Vehicles Navigating Along a Reference Path</b> .....	725
<i>Xiaohui Li, Zhenping Sun, Daxue Liu, Qi Zhu, Zhenhua Huang</i>	
<b>A Probabilistic Long Term Prediction Approach for Highway Scenarios</b> .....	732
<i>Julian Schleichtriemen, Andreas Wedel, Gabi Breuel, Klaus-Dieter Kuhnert</i>	
<b>Smart Adaptation of Beacons Transmission Rate and Power for Enhanced Vehicular Awareness in VANETs</b> .....	739
<i>Sofiane Zemouri, Soufiene Djahel, John Murphy</i>	
<b>Design and Performance Tests in an Integrated TD-LTE Based Train Ground Communication System</b> .....	747
<i>Hongli Zhao, Li Zhu, Hailin Jiang, Tao Tang</i>	
<b>Signal-To-Interference-Ratio Based Capacity Analysis for Vehicular Ad Hoc Networks</b> .....	751
<i>Minming Ni, Jian Yu, Hao Wu, Zhangdui Zhong</i>	
<b>A Novel Handoff Decision Algorithm in TD-LTE Based Train-Ground Communication System</b> .....	757
<i>Xiaomeng Shu, Li Zhu, Hongli Zhao, Tao Tang</i>	
<b>Method to Improve the Performance of Communication-Based Train Control (CBTC) Systems with Transmission Delays and Packet Drops</b> .....	762
<i>Bing Bu, F. Richard Yu, Tao Tang</i>	

<b>Local Ramp Metering with Distant Downstream Bottlenecks: A Comparative Study</b> .....	768
<i>Yibing Wang, Yuheng Kan, Markos Papageorgiou, Ioannis Papamichail</i>	
<b>Estimation of Saturation Degree for Lane Groups at Signalized Intersections Using Video Imaging Detection Data</b> .....	774
<i>Dongfang Ma, Dianhai Wang, Fengjie Fu, Xiaolong Ma, Sheng Jin</i>	
<b>High-Resolution Sensing of Urban Traffic</b> .....	780
<i>Pravin Varaiya, Ajith Muralidharan, Christopher Flores</i>	
<b>Towards Distribution-Based Calibration for Traffic Simulation</b> .....	786
<i>Constantinos Antoniou, Vassilis Gikas, Vasileia Papathanasopoulou, Thanassis Mpimis, Ioulia Markou, Haris Perakis</i>	

## VOLUME 2

<b>Monitoring of Traffic Networks Using Mobile Sensors</b> .....	792
<i>Zhe Cong, Bart De Schutter, Mernout Burger, Robert Babuska</i>	
<b>Pattern Recognition Using Clustering Algorithm for Scenario Definition in Traffic Simulation-Based Decision Support Systems</b> .....	798
<i>Ying Chen, Jiwon Kim, Hani S. Mahmassani</i>	
<b>Interactive Multiple Model Ensemble Kalman Filter for Traffic Estimation and Incident Detection</b> .....	804
<i>Ren Wang, Daniel Work</i>	
<b>Development of Real-Time Simulation-Based Decision Support System for Weather Responsive Traffic Signal Operations</b> .....	810
<i>Jiwon Kim, Hani S. Mahmassani, Tian Hou, Roemer Alfjlor</i>	
<b>A Three-Stage Framework for Motorway Travel Time Prediction</b> .....	816
<i>Zhitao Xiong, David Rey, Tuo Mao, Haiyang Liu, Vinayak Dixit, S. Travis Waller</i>	
<b>Axle Box Acceleration for Health Monitoring of Insulated Joints: A Case Study in the Netherlands</b> .....	822
<i>Maria Molodova, Mainer Oregui, Alfredo Nunez, Zili Li, Jan Moraal, Rolf Dollevoet</i>	
<b>Reliable Tracking Control for High Speed Train against Actuator Failures: A Parallel Control Architecture</b> .....	828
<i>Weiming Xiang, Jian Xiao</i>	
<b>Energy-Efficient Optimization for Train Tracking Operation in Urban Rail Transit</b> .....	834
<i>Qing Gu, Fei Ma, Yu Meng</i>	
<b>The Estimation Approach of Rail Thermal Stress Based on Vehicle-Track Dynamic Responses</b> .....	840
<i>Yishi Guo, Zujun Yu, Hongmei Shi, Liqiang Zhu</i>	
<b>Visual Abnormality Detection Framework for Train-Mounted Pantograph Headline Surveillance</b> .....	847
<i>Peng Tang, Weidong Jin, Liang Chen</i>	
<b>A Real-Time Dense Stereo Matching Method for Critical Environment Sensing in Autonomous Driving</b> .....	853
<i>Qian Long, Qiwei Xie, Seiichi Mita, Kazuhisa Ishimaru, Noriaki Shirai</i>	
<b>Weighted Template Construction for Pedestrian Detection Using Biased Boosting</b> .....	861
<i>Shih-Shih Huang, Shih-Han Ku</i>	
<b>Multi-Sensors People Detection System for Heavy Machines</b> .....	867
<i>Manh-Tuan Bui, Vincent Fremont, Djamel Boukerroui, Pierrick Letort</i>	
<b>Real-Time Obstacle Detection Using Stereo Vision for Autonomous Ground Vehicles: A Survey</b> .....	873
<i>Mario Sabbatelli, Nicola Bernini, Marco Patander, Luca Castangia, Massimo Bertozzi</i>	
<b>Detect the Rail Track Flaw by Estimating the Camera Shaking</b> .....	879
<i>Liang Wang, Xiaoyue Luo, Berthold K. P. Horn, Shengchun Wang, Siwei Luo</i>	
<b>A Novel Goal Oriented Concept for Situation Representation for ADAS and Automated Driving</b> .....	886
<i>Max Theo Schmidt, Ulrich Hofmann, Mohamed Essayed Bouzouraa</i>	
<b>Robust and Real-Time Multi-Cue Map Verification for the Road Ahead</b> .....	894
<i>Oliver Hartmann, Michael Gabb, Florian Schule, Roland Schweiger, Klaus Dietmayer</i>	
<b>Text Mining Based Fault Diagnosis of Vehicle On-Board Equipment for High Speed Railway</b> .....	900
<i>Yang Zhao, Tianhua Xu, Haifeng Wang</i>	
<b>Road Network Inference from GPS Traces Using DTW Algorithm</b> .....	906
<i>Xingzhe Xie, Wilfried Philips, Hamid Aghajan, Peter Veelaert</i>	
<b>A Deep Learning Based Approach for Traffic Data Imputation</b> .....	912
<i>Yanjie Duan, Yisheng Lv, Wenwen Kang, Yifei Zhao</i>	
<b>Pattern Recognition Approach for the Prediction of Infrequent Target Events in Floating Train Data Sequences within a Predictive Maintenance Framework</b> .....	918
<i>Wissam Sammouri, Etienne Come, Latifa Oukhellou, Patrice Aknin, Charles-Eric Fonlladosa</i>	
<b>A Dynamic Method to Monitor Public Transport Based on Smart Card Data and GPS Data</b> .....	924
<i>Xiaoguang Yang, Linan Zhang</i>	
<b>Mining Traffic Data for Road Incidents Detection</b> .....	930
<i>Evangelos Gakis, Dionysios Kehagias, Dimitrios Tzovaras</i>	
<b>A Procedure for Urban Route Travel Time Forecast Based on Advanced Traffic Data: Case Study of Rome</b> .....	936
<i>Ernesto Cipriani, Stefano Gori, Livia Mannini, Stefano Brinchi</i>	
<b>Trajectory Prediction of a Lane Changing Vehicle Based on Driver Behavior Estimation and Classification</b> .....	942
<i>Peng Liu, Arda Kurt, Umit Ozguner</i>	
<b>An Application of Parametric Speaker Technology to Bus-Pedestrian Collision Warning</b> .....	948
<i>Alexander Burka, Alaric Qin, Daniel Lee</i>	
<b>A Novel Approach for Intelligent Pre-Crash Threat Assessment Systems</b> .....	954
<i>Dennis Carlo Bastian Bohmlander, Vitor Yano, Thomas Brandmeier, Alessandro Zimmer, Lee Luan Ling, Chi-Biu Wong, Tobias Dirndorfer</i>	

<b>Analysis of Peripheral Vehicular Behavior in Driver's Gaze Transition: Differences between Driver's Neutral and Cognitive Distraction States</b> .....	962
<i>Takatsugu Hirayama, Shota Sato, Kenji Mase, Chiyomi Miyajima, Kazuya Takeda</i>	
<b>Graph-Cut Based Regional Risk Estimation for Traffic Scene</b> .....	968
<i>Ozgur Karaduman, Haluk Eren, Hasan Kurum, Mehmet Celenk</i>	
<b>The Concept and Modeling of Driving Safety Field Based on Driver-Vehicle-Road Interactions</b> .....	974
<i>Jianqiang Wang, Jian Wu, Yang Li, Keqiang Li</i>	
<b>Model the Vibrations of Rack-Mounted On-vehicle Devices by Underdamped Oscillations</b> .....	982
<i>Yi-Ta Chuang, Chih-Wei Yi, Tsung-Hsiang Wu, Ching-Yao Chan</i>	
<b>Where Is the Driver Looking: Analysis of Head, Eye and Iris for Robust Gaze Zone Estimation</b> .....	988
<i>Ashish Tawari, Kuo Hao Chen, Mohan M. Trivedi</i>	
<b>Assessing Map-Based Maneuver Hypotheses Using Probabilistic Methods and Evidence Theory</b> .....	995
<i>Dominik Steven Petrich, Thao Dang, Gabi Breuel, Christoph Stiller</i>	
<b>Combined Longitudinal and Lateral Control Design for String Stable Vehicle Platooning within a Designated Lane</b> .....	1003
<i>Roozbeh Kianfar, Mohammad Ali, Paolo Falcone, Jonas Fredriksson</i>	
<b>Complementing Transit Signal Priority with Speed and Dwell Time Extension Advisories</b> .....	1009
<i>Marcin Sereczynski, Djamel Khadraoui</i>	
<b>Model-Based Development of an Automatic Train Operation Component for Communication Based Train Control</b> .....	1015
<i>Paolo Nesi, Simone Menabeni, Alessandro Fantechi, Mariano DiClaudio, Giacomo Martelli</i>	
<b>Online Driving Style Recognition Using Fuzzy Logic</b> .....	1021
<i>Dominik Dorr, Frank Gauterin, David Grabengieser</i>	
<b>Recognizing Driver Awareness of Pedestrian</b> .....	1027
<i>Minh-Tien Phan, Vincent Fremont, Indira Thouvenin, Mohamed Sallak, Veronique Cherfaoui</i>	
<b>A Fast RRT Algorithm for Motion Planning of Autonomous Road Vehicles</b> .....	1033
<i>Liang Ma, Jianru Xue, Kuniaki Kawabata, Jihua Zhu, Chao Ma, Nanning Zheng</i>	
<b>Recursive Conflict Resolution for Cooperative Motion Planning in Dynamic Highway Traffic</b> .....	1039
<i>Wilko Schwarting, Patrick Pascheka</i>	
<b>A Data-Driven Method for Stochastic Shortest Path Problem</b> .....	1045
<i>Zhiguang Cao, Hongliang Guo, Jie Zhang, Dusit Niyato, Ulrich Fastenrath</i>	
<b>Estimating Time to Interaction for Vehicles in ITS Applications</b> .....	1053
<i>Stewart Worrall, James Robert Ward, Gabriel Agamennoni, David Orchansky, Eduardo Nebot</i>	
<b>Semantic State Space for High-level Maneuver Planning in Structured Traffic Scenes</b> .....	1060
<i>Ralf Kohlhaas, Thomas Bittner, Thomas Schamm, J. Marius Zollner</i>	
<b>Lane Estimation Using a Vehicle Kinematic Lateral Motion Model under Clothoidal Road Constraints</b> .....	1066
<i>Chang Mook Kang, Seung-Hi Lee, Chung Choo Chung</i>	
<b>Joint Probabilistic Modeling and Inference of Intersection Structure</b> .....	1072
<i>Avdhut Joshi, Michael James</i>	
<b>Real-Time Traffic Monitoring Using Wireless Beacons with the Cell Transmission Model</b> .....	1079
<i>Lavy Libman, Saeed Bastani, S. Travis Waller</i>	
<b>Time and Frequency Domain Channel Estimation Scheme for IEEE 802.11p</b> .....	1085
<i>Yoonkyeong Kim, Jangmi Oh, Yoo Ho Shin, Cheol Mun</i>	
<b>Multi-Hop Broadcasting in WAVE Multi-Channel Vehicular Networks: Single Transceiver Case</b> .....	1091
<i>Celimuge Wu, Satoshi Ohzahata, Yusheng Ji, Toshihiko Kato</i>	
<b>Index Modulated OFDM with Interleaved Grouping for V2X Communications</b> .....	1097
<i>Xiang Cheng, Miaowen Wen, Liuqing Yang, Yuke Li</i>	
<b>Cooperation with Disagreement Correction in the Presence of Communication Failures</b> .....	1105
<i>Oscar Morales-Ponce, Elad Schiller, Paolo Falcone</i>	
<b>Shadow Fading Cross-Correlation of Multi-Frequencies in Curved Subway Tunnels</b> .....	1111
<i>Bei Zhang, Zhangdui Zhong, Ke Guan, Ruisi He, Cesar Briso-Rodriguez</i>	
<b>Performance Improvement in Communication-Based Train Control (CBTC) Using Cognitive Control</b> .....	1117
<i>Wenzhe Sun, F. Richard Yu, Tao Tang</i>	
<b>Automatic and Efficient Driving Strategies While Approaching a Traffic Light</b> .....	1122
<i>Martin Treiber, Arne Kesting</i>	
<b>Capacity Drops at Merges: New Analytical Investigations</b> .....	1129
<i>Ludovic Leclercq, Victor Knoop, Florian Marczak, Serge Hoogendoorn</i>	
<b>Network Operation Reliability in a Manhattan-Like Urban System with Adaptive Traffic Lights</b> .....	1135
<i>Da-Cheng Ao, Rui Jiang, Mao-Bin Hu, Ziyou Gao, Bin Jia</i>	
<b>An Analytical Model to Characterize the Spatiotemporal Propagation of Information under Vehicle-To-Vehicle Communications</b> .....	1142
<i>Yong Hoon Kim, Srinivas Peeta, Xiaozheng He</i>	
<b>Building an Inverse Model of MR Damper Based on Dahl Model</b> .....	1148
<i>Ming Zhu, Xiukun Wei, Li-Min Jia</i>	
<b>Autonomous Lane-Change Controller Via Mixed Logical Dynamical</b> .....	1154
<i>Yaoqiong Du, Yizhou Wang, Ching-Yao Chan</i>	
<b>RoadView: A Traffic Scene Simulator for Autonomous Vehicle Simulation Testing</b> .....	1160
<i>Chi Zhang, Yuehu Liu, Danchen Zhao, Yuanqi Su</i>	
<b>Priority-based Coordination of Autonomous and Legacy Vehicles at Intersection</b> .....	1166
<i>Xiangjun Qian, Jean Gregoire, Fabien Moutarde, Arnaud De La Fortelle</i>	

<b>Detection of Stable Mobile Communities in Vehicular Ad Hoc Networks</b> .....	1172
<i>Agata Grzybek, Marcin Sereczynski, Gregoire Danoy, Pascal Bouvry</i>	
<b>Context-Based Vector Fields for Multi-Object Tracking in Application to Road Traffic</b> .....	1179
<i>Egor Sattarov, Sergio Rodriguez, Alexander Geppert, Roger Reynaud</i>	
<b>The Role of Communication in Emergency Evacuations: An Analysis of a Ring Network with a Static Disruption</b> .....	1186
<i>Felicia Eng, Heng Soon Gan, Owen Jones</i>	
<b>Condition Monitoring for Train Suspension System Based on Cross-Correlation</b> .....	1194
<i>Jin Guo, Zhengguo Xu, Ning Ren, Minyue Fu, Youxian Sun</i>	
<b>Parameter Estimation of High-Speed Railway Vehicle Using Improved Rao-Blackwellised Particle Filter</b> .....	1199
<i>Bowen Xu, Zhongshun Zhang, Shaoyang Geng, Lei Ma</i>	
<b>Using Maximum Power to Save Energy</b> .....	1205
<i>Amie Albrecht, P. G. Howlett, Peter Pudney, Xuan Vu, Peng Zhou, Dewang Chen</i>	
<b>Wheel Skid Prediction and Antiskid Control of High Speed Trains</b> .....	1209
<i>Huinan Chen, Wenchuan Cai, Yong Duan Song</i>	
<b>Robust Adaptive Re-Adhesion Control for High Speed Trains</b> .....	1215
<i>Kuan Lu, Yong Duan Song, Wenchuan Cai</i>	
<b>A Wheel Slip Detection Method of Electric Locomotive Based on Time-Frequency Analysis</b> .....	1221
<i>Jingchun Huang, Jian Xiao, Dan Zhao, Song Wang</i>	
<b>WARIM: Wireless Sensor Network Architecture for a Reliable Intersection Monitoring</b> .....	1226
<i>Rodrigue Domga Konguem, Razvan Stanica, Maurice Tchuente, Fabrice Valois</i>	
<b>A Machine Learning Approach to Vehicle Occupancy Detection</b> .....	1232
<i>Beilei Xu, Paul Peter, Yusuf Artan, Florent Perronnin</i>	
<b>Vehicle Logo Recognition Based on a Weighted Spatial Pyramid Framework</b> .....	1238
<i>Yuanchang Ou, Huicheng Zheng, Shuyue Chen, Jiangtao Chen</i>	
<b>Beyond Just Keeping Hands on the Wheel: Towards Visual Interpretation of Driver Hand Motion Patterns</b> .....	1245
<i>Eshed Ohn-Bar, Mohan M. Trivedi</i>	
<b>Tracking and Estimation of Ego-Vehicle's State for Lateral Localization</b> .....	1251
<i>Young-Woo Seo, R. Rajkumar</i>	
<b>STELLAR - A Case-Study on Systematically Embedding a Traffic Light Recognition</b> .....	1258
<i>Jan Micha Borrman, Frederik Haxel, Dennis Nienhuser, Alexander Viehl, J. Marius Zollner, Oliver Bringmann, Wolfgang Rosenstiel</i>	
<b>Recognition and Pose Estimation of Urban Road Users from On-Board Camera for Collision Avoidance</b> .....	1266
<i>Yanlei Gu, Shunsuke Kamijo</i>	
<b>Detection and Tracking of Rural Crossroads Combining Vision and LiDAR Measurements</b> .....	1274
<i>Sebastian Bayerl, Hans-Joachim Wuensche</i>	
<b>The Powered Two Wheelers Fall Detection Using Multivariate Cumulative SUM (MCUSUM) Control Charts</b> .....	1280
<i>Ferhat Attal, Abderrahmane Boubezoul, Latifa Oukhellou, Nicolas Cheifetz, Stephane Espie</i>	
<b>Floating Car and Camera Data Fusion for Non-Parametric Route Travel Time Estimation</b> .....	1286
<i>Mahmood Rahmani, Erik Jenelius, Haris N. Koutsopoulos</i>	
<b>Probabilistic Estimation of Travel Times in Arterial Streets Using Sparse Transit Bus Data</b> .....	1292
<i>Nianfeng Wan, Ardalan Vahidi</i>	
<b>Motion Perception for Traffic Surveillance</b> .....	1298
<i>Lei Song, Lin Mei, Zheyuan Liu, Huixian Duan, Na Liu, Jun Wang, Chuanping Hu</i>	
<b>Traffic Condition Matrix Estimation via Weighted Spatio-Temporal Compressive Sensing for Unevenly-Distributed and Unreliable GPS Data</b> .....	1304
<i>Ye Li, Chen Tian, Fan Zhang, Chengzhong Xu</i>	
<b>The Analysis of Wheel-Rail Vibration Signal Based on Frequency Slice Wavelet Transform</b> .....	1312
<i>Yuejian Chen, Zongyi Xing, Jianwei Li, Yong Qin</i>	
<b>Ex-Ante Data Analysis Approach for Assessing the Effect of Variable Speed Limits</b> .....	1317
<i>Goof Sterk Van De Weg, Andreas Hegyi, Serge Hoogendoorn</i>	
<b>Using Ensemble of Decision Trees with SVM Nodes to Learn the Behaviour of a Transmission Control Software</b> .....	1323
<i>Tianyi Guan, Christian Frey</i>	
<b>Car Following Regime Taxonomy Based on Markov Switching</b> .....	1329
<i>Ahmed Bayoumy Zaky, Walid Gomaa</i>	
<b>Mode Control of Motorized Active Suspension Damper for Ride Quality and Energy Efficiency</b> .....	1335
<i>Donghoon Shin, Jongsang Seo, Geesu Lee, Kyongsu Yi</i>	
<b>Multi-Model Fuzzy Controller for Vehicle Lane Tracking</b> .....	1341
<i>Guangwei Wang, Jin Zhao, Xiangnan Zhang, Rongchen Zhao</i>	
<b>Simulation Platform Cooperative Vehicle Systems</b> .....	1347
<i>Andres Eduardo Gomez, Tiago Cesar Dos Santos, Carlos Alberto Massera Filho, Diego Gomes, Diego Gomes Da Silva, Juan Perafan, Denis Wolf</i>	
<b>Integrated Performance Evaluation of Roadside Equipment Placement for Real-Time Traffic Monitoring</b> .....	1353
<i>Gang Liu, Lin Shao, Tony Qiu, Jie Fang</i>	
<b>Extensible Platform for Studying the Behavior of Drivers in Urban Traffic</b> .....	1359
<i>Piotr Blaszczyk, Wojciech Turek, Krzysztof Cetnarowicz</i>	
<b>Probabilistic Model for Estimating Vehicle Trajectories Using Sparse Mobile Sensor Data</b> .....	1363
<i>Peng Hao, Kanok Boriboonsomsin, Guoyuan Wu, Matthew Barth</i>	
<b>Fast Fog Detection for Camera Based Advanced Driver Assistance Systems</b> .....	1369
<i>Carsten Koch, Rita Spinneker, Su-Birm Park, Jeongsuk Yoon</i>	



<b>Driver Distraction Recognition Based on Dual Compass Motion Sensoring</b> .....	1375
<i>Wei-Yao Chou, Chung-Hsien Yang, Hsiao-Chien Tasi, Yi-Chun Lin, Chun-Fu Chuang, Kaohung Chen</i>	
<b>Attention Estimation by Simultaneous Analysis of Viewer and View</b> .....	1381
<i>Ashish Tawari, Andreas Mogellose, Sujitha Martin, Thomas Moeslund, Mohan M. Trivedi</i>	
<b>Prediction of Driver's Pedestrian Detectability by Image Processing Adaptive to Visual Fields of View</b> .....	1388
<i>Ryunosuke Tanishige, Daisuke Deguchi, Keisuke Doman, Yoshito Mekada, Ichiro Ide, Hiroshi Murase</i>	
<b>Traffic Sign Detection for U.S. Roads: Remaining Challenges and a Case for Tracking</b> .....	1394
<i>Andreas Mogellose, Dongran Liu, Mohan M. Trivedi</i>	
<b>Extending the Stixel World with Online Self-Supervised Color Modeling for Road-Versus-Obstacle Segmentation</b> .....	1400
<i>Willem Pieter Sanberg, Gijs Dubbelman, Peter H. N. De With</i>	
<b>Road Tracking Using Particle Filters for Advanced Driver Assistance Systems</b> .....	1408
<i>Prashanth Chandran, Mala John, Santhosh Kumar, N. S. R. Mithilesh</i>	
<b>Fair Route Guidance: Bridging System and User Optimization</b> .....	1415
<i>Marin Lujak, Stefano Giordani, Sascha Ossowski</i>	
<b>Maneuver Delegation and Planning for Automated Vehicles at Multi-Lane Road Intersections</b> .....	1423
<i>Felix Lotz, Hermann Winner</i>	
<b>Continuous Curvature Planning with Obstacle Avoidance Capabilities in Urban Scenarios</b> .....	1430
<i>David González Bautista, Joshue Perez Rastelli, Ray Lattarulo, Vicente Milanés, Fawzi Nashashibi</i>	
<b>A Novel Setup Method of 3D LIDAR for Negative Obstacle Detection in Field Environment</b> .....	1436
<i>Erke Shang, Xiangjing An, Jian Li, Hangen He</i>	
<b>A Path Planning Algorithm Based on Fusing Lane and Obstacle Map</b> .....	1442
<i>Hao Zhu, Mengyin Fu, Yi Yang, Xinyu Wang, Meiling Wang</i>	
<b>Automated Extraction of Driver Behaviour Primitives Using Bayesian Agglomerative Sequence Segmentation</b> .....	1449
<i>Gabriel Agamennoni, Stewart Worrall, James Robert Ward, Eduardo Nebot</i>	
<b>A Driver Model Using Optic Information for Longitudinal and Lateral Control of a Long Vehicle Combination</b> .....	1456
<i>Peter Nilsson, Leo Laine, Ola Benderius, Bengt Jacobson</i>	
<b>Parameter Adaptive Steering Control for Autonomous Driving</b> .....	1462
<i>Chanhee Jung, Hakgu Kim, Youngseop Son, Kangwon Lee, Kyongsu Yi</i>	
<b>Complex Terrain Perception Based on Hidden Markov Model</b> .....	1468
<i>Meiling Wang, Liang Zuo, Yi Yang, Qiangrong Yang, Tong Liu</i>	
<b>Simulations on Consumer Tests: A Systematic Evaluation Approach in an Industrial Case Study</b> .....	1474
<i>Christian Berger, DelfBlock, Sonke Heeren, Christian Hons, Stefan Kuhnel, Andre Leschke, Dimitri Plotnikov, Bernhard Rumpé</i>	
<b>Optimization of the Development Process of Intelligent Transportation Systems Using Automotive SPICE and ISO 26262</b> .....	1481
<i>Ansgar Meroth, Frank Trankle, Bastian Richter, Marco Wagner, Michael Neher, Jochen Luling</i>	
<b>Prediction of Driving Behaviors in Intersections Based on a Supervised Dimension Reduction Considering Locality</b> .....	1487
<i>Takatomi Kubo, Ryunosuke Hamada, Zujie Zhang, Kazushi Ikeda, Takashi Bando, Kentarou Hitomi, Masumi Egawa</i>	
<b>An Automatic Online Camera Calibration System for Vehicular Applications</b> .....	1490
<i>Kun Zhao, Uri Iurgel, Mirko Meuter, Josef Pauli</i>	
<b>Towards Surround Stereo Vision: Analysis of a New Surround View Camera Configuration for Driving Assistance Applications</b> .....	1493
<i>Jose Esparza, Michael Helmle, Bernd Jahne</i>	
<b>Smart Mobility Strategy in Korea on Enhanced Safety and Higher Capacity Toward 2025</b> .....	1496
<i>Jedok Kim, Karam Hwang, In-Soo Suh</i>	
<b>New Opportunity in ITS - Transportation Systems with Wireless Power Transfer Technology</b> .....	1502
<i>Young Jae Jang, Dong Ho Cho, Seungmin Jeong, Min Seok Lee</i>	
<b>Novel ITS Based on Space-Air-Ground Collected Big-Data</b> .....	1509
<i>Gang Xiong, Fenghua Zhu, Fan Haisheng, Xisong Dong, Wenwen Kang, Teng Teng</i>	
<b>Online Adaptive Positioning Algorithm for Public Location Services in Indoor Places</b> .....	1515
<i>Yunqi Zhu, Dongxiu Ou, Tuo Shen</i>	
<b>IMA - An Adaptable and Dynamic Service Platform for Intermodal Mobility Assistance</b> .....	1521
<i>Jan Keiser, Nils Masuch, Marco Lutzenberger, Dennis Grunewald, Maximilian Kern, Frank Trollmann, Esra Acar, Cigdem Avci, Salma, Xuan-Thuy Dang, Christian Kuster, Sahin Albayrak</i>	
<b>Product Oriented Integration of Heterogeneous Mobility Services</b> .....	1529
<i>Markus Christian Beutel, Sevket Goekay, Wolfgang Kluth, Karl-Heinz Krempels, Christian Samsel, Christoph Terwelp</i>	
<b>Real-Time Predictions for Light Rail Train Systems</b> .....	1535
<i>Oded Cats</i>	
<b>A Route Guidance System with Personalized Rerouting for Reducing Traveling Time of Vehicles in Urban Areas</b> .....	1541
<i>Zilu Liang, Yasushi Wakahara</i>	
<b>Extraction of Traffic Information from Social Media Interactions: Methods and Experiments</b> .....	1549
<i>Jian Cui, Rui Fu, Chenghao Dong, Zuo Zhang</i>	
<b>Efficient Organization Study of Local Tourism Transportation Mode Based on Analytic Hierarchy Process</b> .....	1555
<i>Hui Jin, Xiaoguang Yang</i>	
<b>A New Advanced Traveler Advisory Tool Based on Personal User Preferences</b> .....	1561
<i>Agostino Nuzzolo, Umberto Crisalli, Antonio Comi, Luca Rosati</i>	
<b>Accurate Multi-Scale License Plate Localization Via Image Saliency</b> .....	1567
<i>Tong He, Jian Yao, Yaolin Hou, Shiyao Han, Kao Zhang</i>	
<b>Proactive Protection Scheme for Small Backoff Window Attack Over Distributed Cognitive Radio Networks</b> .....	1573
<i>Fa Liu, Honglin Zhao</i>	

<b>Hybrid Causal Methodology in Quantitative Risk Assessment for the On-Board ATP of High Speed Railway</b> .....	1577
<i>Dewang Ren, Wei Zheng, Daohua Wu</i>	

### VOLUME 3

<b>Automatic Detection of Defective Rail Anchors</b> .....	1583
<i>Rubayat Ahmed Khan, Samiul Islam, Rubel Biswas</i>	
<b>A Genetically Optimized Graph-Based People Extraction Method for Embedded Transportation Systems Real Conditions</b> .....	1589
<i>Christophe Coniglio, Cyril Meurie, Olivier Lezoray, Berbineau Berbineau</i>	
<b>Research of Acquisition Method for Pavement Surface Texture Based on Photometric Stereo Techniques</b> .....	1596
<i>Jinyu Lei, Enjun Wang, Juan Zeng, Weifeng Wang, Jianbo Wu</i>	
<b>"Privilege to Kill" Phenomenon on Developing Countries' Roads: A Case Study of China</b> .....	1602
<i>Zhe Wang, Zuduo Zheng</i>	
<b>A Comparative Study of K-NN and Hazard-Based Models for Incident Duration Prediction</b> .....	1608
<i>Bahar Namaki Araghi, Simon Hu, Rajesh Krishnan, Michael Geoffrey Harrison Bell, Washington Ochieng</i>	
<b>Connecting Road Environment Features and Driver Glance Behavior in the Macro Level: Surrounding Vehicle Patterns, Traffic Density, and Driver Eye-Glance Behaviors</b> .....	1614
<i>Renran Tian, Jiangqiang Wang, Lingxi Li, Yaobin Chen</i>	
<b>Vehicle Detection Based on LiDAR and Camera Fusion</b> .....	1620
<i>Feihu Zhang, Daniel Stephen Clarke, Alois Knoll</i>	
<b>Mannequin Development for Pedestrian Pre-Collision System Evaluation</b> .....	1626
<i>Qiang Yi, Stanley Chien, Jason Brink, Yaobin Chen, Lingxi Li, David Good, Rini Sherony, Chi-Chih Chen</i>	
<b>Vehicle Speeds for Pedestrian Pre-Crash System Test Scenarios</b> .....	1632
<i>David Good, Rachel Abrahams</i>	
<b>Bicyclist Detection in Large Scale Naturalistic Driving Video</b> .....	1638
<i>Kai Yang, Chao Liu, Jiang Yu Zheng, Christopher Lauren, Yaobin Chen</i>	
<b>A Robust Road Segmentation Method Based on Graph Cut with Learnable Neighboring Link Weights</b> .....	1644
<i>Jun Yuan, Shuming Tang, Fei Wang, Hong Zhang</i>	
<b>Obtain a Simulation Model of a Pedestrian Collision Imminent Braking System Based on the Vehicle Testing Data</b> .....	1650
<i>Bo Tang, Stanley Chien, Yaobin Chen</i>	
<b>Genetic Algorithm-Based Testing Scenarios Selection for the Performance Evaluation of Crash Imminent Braking Systems for Pedestrian Safety</b> .....	1656
<i>Ali Gholamjafari, Lingxi Li, Stanley Chien, Yaobin Chen</i>	
<b>Superpixel-Based Obstacle Segmentation from Dense Stereo Urban Traffic Scenarios Using Intensity, Depth and Optical Flow Information</b> .....	1662
<i>Ion Giosan, Sergiu Nedevschi</i>	
<b>Pedestrian Detection in Infrared Images Using HOG, LBP, Gradient Magnitude and Intensity Feature Channels</b> .....	1669
<i>Raluca Brehar, Sergiu Nedevschi</i>	
<b>Exponential Image Enhancement in Daytime Fog Conditions</b> .....	1675
<i>Mihai Negru, Sergiu Nedevschi, Ioan Radu Peter</i>	
<b>Multiple Lane Boundary Detection Using a Combination of Low-Level Image Features</b> .....	1682
<i>Yingmao Li, Asif Iqbal, Nicholas Gans</i>	
<b>Road Estimation with Sparse 3D Points from Stereo Data</b> .....	1688
<i>Patrick Shinzato, Diego Gomes, Diego Gomes Da Silva, Denis Wolf</i>	
<b>Modeling Risk Anticipation and Defensive Driving on Residential Roads with Inverse Reinforcement Learning</b> .....	1694
<i>Masamichi Shimosaka, Takuhiro Kaneko, Kentaro Nishi</i>	
<b>Traffic Delay Detection by Mining Ticket Validation Transactions</b> .....	1701
<i>Boris Chidlovskii, Eduardo Cardenas Sanchez</i>	
<b>Wavelets on Graphs with Application to Transportation Networks</b> .....	1707
<i>Dhanya Menoth, Muhammad Tayyab Asif, Nikola Mitrovic, Justin Dauwels, Patrick Jaillet</i>	
<b>Travel Time Prediction for Origin-Destination Pairs without Route Specification in Urban Network</b> .....	1713
<i>Sehyun Tak, Sunghoon Kim, Hwasoo Yeo</i>	
<b>Analysis of Urban Freeway Traffic Flow Characteristics Based on Frequent Pattern Tree</b> .....	1719
<i>Lei Lin, Kai Yuan, Shuyun Ren</i>	
<b>The "Floor-Wall" Traffic Scenes Construction for Unmanned Vehicle Simulation Evaluation</b> .....	1726
<i>Yaochen Li, Yuehu Liu, Chi Zhang, Danchen Zhao, Nanning Zheng</i>	
<b>An Intelligent Freight Corridor Overload Control System</b> .....	1732
<i>Alwyn Jakobus Hoffman, Arno De Coning</i>	
<b>Modeling Urban Road Risky Driving Behaviors in China with Multi-Agent Microscopic Traffic Simulation</b> .....	1740
<i>Xia Li, Ruibin Bai, Peer-Olaf Siebers, Christian Wagner</i>	
<b>Online Testing of Real-Time Performance in High-Speed Train Control System</b> .....	1746
<i>Xiaolin Zhu, Teng Li, Kaicheng Li, Jidong Lv</i>	
<b>Microscopic Traffic Simulation Based Evaluation of Highly Automated Driving on Highways</b> .....	1752
<i>Mohammad Bahram, Zahra Ghandeharioun, Peter Zahn, Mathias Baur, Werner Huber, Fritz Busch</i>	
<b>Analysis on Termination of Pedestrians' Gait at Urban Intersections</b> .....	1758
<i>Michael Goldhammer, Andreas Hubert, Sebastian Koehler, Klaus Zindler, Ulrich Brunsmann, Konrad Doll, Bernhard Sick</i>	
<b>Short-Term Forecasting of Bicycle Traffic Using Structural Time Series Models</b> .....	1764
<i>Ronan Doorley, Vikram Pakrashi, Brian Caulfield, Bidisha Ghosh</i>	

<b>Effect of Situational Factors on Pedestrian Intention to Jaywalk</b> .....	1770
<i>Li Dan, Yongjuan Li, Xiao Yuan</i>	
<b>An Optimal Location Model for a Bicycle Sharing Program with Truck Dispatching Consideration</b> .....	1775
<i>Shou-Ren Hu, Chao-Tang Liu</i>	
<b>Exploring Pareto Routes in Multi-Criteria Urban Bicycle Routing</b> .....	1781
<i>Qing Song, Pavol Zilecky, Michal Jakob, Jan Hrnčíř</i>	
<b>Opportunistic Solution-Space Reduction Techniques for Reducing the Time Complexity of Dynamic Speed Control with Microsimulation on Motorways</b> .....	1788
<i>Konstantinos Gkiotsalitis, Francesco Alesiani</i>	
<b>Train Trajectory Optimisation of ATO Systems for Metro Lines</b> .....	1796
<i>Ning Zhao, Clive Roberts, Stuart Hillmansen, Paul Weston, Lei Chen, Zhongbei Tian, Tingyu Xin, Shuai Su</i>	
<b>Development of an Agent-Based Online Adaptive Signal Control Strategy Using Connected Vehicle Technology</b> .....	1802
<i>David Kari, Guoyuan Wu, Matthew Barth</i>	
<b>Model of Capacity Estimation of Roundabout in Beijing</b> .....	1808
<i>Jianjun Shi, Weiqi Wang, X. K. Yang</i>	
<b>Online Velocity Trajectory Planning for Manual Energy Efficient Driving of Heavy Duty Vehicles Using Model Predictive Control</b> .....	1814
<i>Michael Henzler, Michael Buchholz, Klaus Dietmayer</i>	
<b>A High-Definition Traffic Performance Monitoring System with the Inductive Loop Detector Signature Technology</b> .....	1820
<i>Shin-Ting (Cindy) Jeng, Lianyu Chu</i>	
<b>Wireless Network Deployment and Optimization for IEEE 802.11p/WAVE Network</b> .....	1826
<i>Jooyoung Choi, Yeon A Kim, Min Baek, Gil-Won Seo, Kyunbyoung Ko, Cheol Mun</i>	
<b>Personalised Public Transportation: A New Mobility Model for Urban and Suburban Transportation</b> .....	1831
<i>Arun Vishwanath, Heng Soon Gan, Shivkumar Kalyanaraman, Stephan Winter, Iven Mareels</i>	
<b>Historical Data Based Real Time Prediction of Vehicle Arrival Time</b> .....	1837
<i>Santa Maiti, Arpan Pal, Arindam Pal, T Chattopadhyay, Arijit Mukherjee</i>	
<b>Stereo Vision Based Road Surface Preview</b> .....	1843
<i>Truman Shen, Gregory Schamp, Mario Haddad</i>	
<b>A Robust Multi-Objective Compatible Optimization Control Algorithm for Traffic Signal Control</b> .....	1850
<i>Juan Chen</i>	
<b>Tractable Robust Predictive Control Approaches for Freeway Networks</b> .....	1857
<i>Shuai Liu, Jose Ramon Dominguez Frejo, Alfredo Nunez, Bart De Schutter, Anna Sadowska, Hans Hellendoorn, Eduardo F. Camacho</i>	
<b>Real-Time Traffic Control for Sustainable Urban Living</b> .....	1863
<i>Xiao-Feng Xie, Stephen F. Smith, Ting-Wei Chen, Gregory J. Barlow</i>	
<b>FuzzyJam: Reducing Traffic Jams Using a Fusion of Fuzzy Logic and Vehicular Networks</b> .....	1869
<i>Myounggyu Won, Taejoon Park, Sang Son</i>	
<b>Distributed Model Predictive Control of Freeway Traffic Networks: A Serial Partially Cooperative Approach</b> .....	1876
<i>Hirsh Majid, Mohammad Hajiahmadi, Bart De Schutter, Hassane Abouaissa, Daniel Jolly</i>	
<b>BDS/GPS Dual Systems Positioning Based on Kalman Filter in Urban Canyon Environments</b> .....	1882
<i>Fucheng Dai, Xuchu Mao</i>	
<b>Drive Behavior Diagnosis Based on Vehicle Dynamics State Observers and I2V Communication</b> .....	1884
<i>Bin Wang, Alessandro Correa Victorino, Bertrand Ducourthial, Ali Charara</i>	
<b>Measuring Aggressive Driving Behavior Using Signals from Drive Recorders</b> .....	1886
<i>Yiyang Li, Chiyomi Miyajima, Norihide Kitaoka, Kazuya Takeda</i>	
<b>Evidential Models and Hierarchical Fusion Based on Visual Information for Vehicle Safety Evaluation</b> .....	1888
<i>Xuanpeng Li, Emmanuel Seignez, Dominique Gruyer, Pierre Loois</i>	
<b>Wheel Odometry-Based Car Localization and Tracking on Vectorial Map (Extended Abstract)</b> .....	1890
<i>Pierre Merriault, Yohan Dupuis, Pascal Vasseur, Xavier Savatier</i>	
<b>Particle Filter Map Matching and Trajectory Prediction using a Spline Based Intersection Model</b> .....	1892
<i>Florian Kuhnt, Ralf Kohlhaas, Rudiger Jordan, Thomas Gubner, Thomas Gumpp, Thomas Schamm, J. Marius Zollner</i>	
<b>Automatic Lane Change Data Extraction from Car Data Sequence (Extended Abstract)</b> .....	1894
<i>Wen Yao, Yu-Ping Lin, Chao Wang, Huijing Zhao, Hongbin Zha</i>	
<b>Verification of the Effect on "Finger Pointing and Calling" Method from Observation of Brain Activity Related Driver's Attention</b> .....	1896
<i>Chika Kishi, Yasuhiko Nakano, Shoaib Bhuiyan, Haruki Kawanaka, Koji Oguri</i>	
<b>Design and Implementation of an Image-Based Backing Assistance System</b> .....	1898
<i>Yu-Sheng Liao, Li-You Hsu</i>	
<b>The Ko-PER Intersection Laserscanner and Video Dataset (Extended Abstract)</b> .....	1900
<i>Elias Strigel, Daniel Meissner, Florian Seeliger, Benjamin Wilking, Klaus Dietmayer</i>	
<b>CRF-Based Semantic Labeling in Miniaturized Road Scenes (Extended Abstract)</b> .....	1902
<i>Mario Passani, J. Javier Yebes, Luis M. Bergasa</i>	
<b>Overload Control Centre Bypass Detection System</b> .....	1904
<i>Arno De Coning, Alwyn Jakobus Hoffman</i>	
<b>A Novel 2D-3D Hybrid Approach to Vehicle Trajectory and Speed Estimation</b> .....	1906
<i>Panya Chanawangsa, Jingyan Wan, Changxu Wu, Chang Wen Chen</i>	
<b>Shiftable Intelligent Transportation Systems for Mega-Event in Rural and Suburban Areas</b> .....	1908
<i>Jin-Tae Kim, Junyong Kim, Hyunsik Bae</i>	

<b>A Communication Protocol of Man Overboard System Based on BeiDou</b> .....	1910
<i>Xia Mao, Xiang Liu, Tao Feng, Kai Chen</i>	
<b>Development of Vehicular Base-Station for Wireless Parking Assistance System</b> .....	1912
<i>Doo Seop Yun, Seung-Jun Lee, Do Hyun Kim</i>	
<b>Enhancing Speed Estimation Accuracy of Electric Bike Riders through Training</b> .....	1915
<i>Rui Jiang, Jingyu Zhang, Guozhen Zhao, Changxu Wu</i>	
<b>A 3-Dimensional Real-Time Traffic Simulator Considering the Interaction among Autonomous and Human-Driven Vehicles</b> .....	1917
<i>Sangho Lee, Hoondong Song, Jaegwan Kim, Shiho Kim</i>	
<b>Data Analysis of Blocked Road Information Based on GIS</b> .....	1919
<i>Shuyun Niu, Jian-ping Liu, Liang-you Li, Hai-yun Sha, Ji-sheng Zhang</i>	
<b>Optimization of Traffic Lights Timing Based on Artificial Neural Networks</b> .....	1921
<i>Michel Bruno Wanderley De Oliveira, Areolino De Almeida Neto</i>	
<b>A Lane Change Warning System Based on V2V Communication</b> .....	1923
<i>Ruina Dang, Jieyun Ding, Bo Su, Keqiang Li, Qichang Yao, Yuanmu Tian</i>	
<b>Stereo Based ROIs Generation for Detecting Pedestrians in Close Proximity</b> .....	1929
<i>Meiqing Wu, Siew-Kei Lam, Srikanthan Thambipillai</i>	
<b>Robust Visual Pedestrian Detection by Tight Coupling to Tracking</b> .....	1935
<i>Alexander Geppert, Egor Sattarov, Bernd Heisele, Sergio Alberto Rodriguez Flores</i>	
<b>Modeling Arbitrarily Oriented Slanted Planes for Efficient Stereo Vision Based on Block Matching</b> .....	1941
<i>Benjamin Ranft, Tobias Strauss</i>	
<b>Modeling and Tracking of Crowded Traffic Scenes by Using Policy Trees, Occupancy Grid Blocks and Bayesian Filters</b> .....	1948
<i>Andrei Vatavu, Radu Gabriel Danescu, Sergiu Nedevschi</i>	
<b>Improved Lane Detection based on Past Vehicle Trajectories</b> .....	1956
<i>Chunzhao Guo, Junichi Meguro, Koichiro Yamaguchi, Kiyosumi Kidono, Yoshiko Kojima</i>	
<b>Road Curb and Lanes Detection for Autonomous Driving on Urban Scenarios</b> .....	1964
<i>Carlos Fernandez, R. Izquierdo, David Fernandez Llorca, Miguel A. Sotelo</i>	
<b>A Vision System for Detecting and Tracking of Stop-Lines</b> .....	1970
<i>Young-Woo Seo, R. Rajkumar</i>	
<b>Agent Based Heterogeneous Data Integration and Maintenance Decision Support for High-Speed Railway Signal System</b> .....	1976
<i>Lianbao Yang, Tianhua Xu, Zhenxian Wang</i>	
<b>Mining Freight Truck's Trip Patterns from GPS Data</b> .....	1988
<i>Jun Huang, Li Wang, Chen Tian, Fan Zhang, Chengzhong Xu</i>	
<b>Catch Me If You Can: Predicting Mobility Patterns of Public Transport Users</b> .....	1995
<i>Stefan Foell, Santi Phithakkitnukoon, Gerd Kortuem, Marco Veloso, Carlos Bento</i>	
<b>Recommend a Profitable Cruising Route for Taxi Drivers</b> .....	2003
<i>Hao Dong, Xuedan Zhang, Yuhan Dong, Chuang Chen, Fan Rao</i>	
<b>An Online Learning Framework for Predicting the Taxi Stand's Profitability</b> .....	2009
<i>Luis Moreira-Matias, Joao Mendes Moreira, Michel Ferreira, Joao Gama, Luis Damas</i>	
<b>Analyzing Passenger Density for Public Bus: Inference of Crowdedness and Evaluation of Scheduling Choices</b> .....	2015
<i>Jun Zhang, Xin Yu, Chen Tian, Fan Zhang, Lai Tu, Chengzhong Xu</i>	
<b>Traffic Jams Prediction Method based on Two-dimension Cellular Automata Model</b> .....	2023
<i>Wenbin Hu, Liping Yan, Huan Wang</i>	
<b>Intelligent Surveillance System with See-Through Technology</b> .....	2029
<i>Yu-Chen Lin, Che-Tsung Lin, Cheng-Chuan Chang, Long-Tai Chen</i>	
<b>Off-line Calibration of a Macroscopic Dynamic Traffic Assignment Model: Iterative Demand-Supply Parameters Estimation</b> .....	2035
<i>Seyedehsan Seyedabrishami, Mohsen Nazemi, Mohammadsajjad Shafiei</i>	
<b>Vehicle Mass Estimation Based on Vehicle Vertical Dynamics Using a Multi-Model Filter</b> .....	2041
<i>Justus Jordan, Nils Hirsenkorn, Felix Klanner, Martin Kleinstueber</i>	
<b>Measuring the Impact of Cognitive Distractions on Driving Performance Using Time Series Analysis</b> .....	2047
<i>Matias Garcia-Constantino, Paolo Missier, Phil Blythe, Weihong Guo</i>	
<b>Stochastic Bus Traffic Modelling and Validation Using Smart Card Fare Collection Data</b> .....	2054
<i>Jordan Ivanchev, Heiko Aydt, Alois Knoll</i>	
<b>Effects of Vertical Alignment on Rail Line Capacity Loss for HSR Operation</b> .....	2062
<i>Shou-Ren Hu, Shou-Shan Huang</i>	
<b>Lane-Level Traffic Jam Control Using Vehicle-To-Vehicle Communications</b> .....	2068
<i>Myounggyu Won, Taejoon Park, Sang Son</i>	
<b>Low-Speed Cooperative Car-Following Fuzzy Controller for Cybernetic Transport Systems</b> .....	2075
<i>Vicente Milanés, Mohamed Marouf, Joshue Perez Rastelli, David Gonzalez Bautista, Fawzi Nashashibi</i>	
<b>Performance Analysis of Cooperative HADF Relaying V2I Communication Systems for <math>N_D</math>-Symbol Burst Transmission Using PSA-CE Methods Over Quasi-Static Rayleigh Fading Channels</b> .....	2081
<i>Min Baek, Gil-Won Seo, Chung-Ha Bong, Kyunbyoung Ko</i>	
<b>Inter-Vehicle Information-Fusion with Shared Perception Information</b> .....	2087
<i>Florian Seeliger, Klaus Dietmayer</i>	
<b>Influence of Information Flow Topology on Closed-Loop Stability of Vehicle Platoon with Rigid Formation</b> .....	2094
<i>Yang Zheng, Shengbo Li, Jianqiang Wang, Le Yi Wang, Keqiang Li</i>	

<b>Performance Evaluation for Cooperative ADF Relaying V2I Communications with Burst Transmission and PSA-CE Schemes Over Quasi-Static Rayleigh Fading Channels</b> .....	2101
<i>Gil-Won Seo, Min Baek, Chung-Ha Bong, Kyunbyoung Ko</i>	
<b>A Novel Fair Cooperation Strategy Based on Kalai-Smorodinsky Bargaining Solution for Selfish Cooperative Relay Networks</b> .....	2107
<i>Chuang Zhang, Honglin Zhao</i>	
<b>Search Space Reduction in Dynamic Programming Using Monotonic Heuristics in the Context of Model Predictive Optimization</b> .....	2113
<i>Olivier Chevrand-Breton, Tianyi Guan, Christian Frey</i>	
<b>Railway Vertical Alignment Optimisation at Stations to Minimize Energy</b> .....	2119
<i>Tingyu Xin, Clive Roberts, Jinghan He, Stuart Hillmansen, Ning Zhao, Lei Chen, Zhongbei Tian, Shuai Su</i>	
<b>Performance Evaluation and Statistical Analysis of Algorithms for Ego-Motion Estimation</b> .....	2125
<i>Jan Erik Stellet, Christian Heigele, Florian Kuhnt, J. Marius Zollner, Dieter Schramm</i>	
<b>Arterial Traffic Signal Coordination Utilizing Vehicular Traffic Origin-Destination Information</b> .....	2132
<i>Tugba Arsava, Yuanchang Xie, Nathan Gartner, Judith Mwakalonge</i>	
<b>Dynamic Inversion-Based Control for a Front Wheel Drive Autonomous Ground Vehicles Near the Limits of Handling</b> .....	2138
<i>Carlos Alberto Massera Filho, Denis Wolf</i>	
<b>Biologically-Inspired Neural Network for Traffic Signal Control</b> .....	2144
<i>Guilherme Castro, Andre Hirakawa, Jose Sidnei Martini</i>	
<b>A Two-Step Travel Delay Estimation Method for Macroscopic Urban Traffic Models</b> .....	2150
<i>Yu Hu, Hans Hellendoorn</i>	
<b>Non-Gaussian Approximation Iterative Receiver for MIMO-OFDM Vehicular Networks</b> .....	2156
<i>Shuangshuang Han, Liuqing Yang, Xiang Cheng, Shichao Chen, Fenghua Zhu, Zhongdong Yu, Haitao Xie</i>	
<b>Detecting Illegal Pickups of Intercity Buses from Their GPS Traces</b> .....	2162
<i>Ling Yin, Jinxing Hu, Lian Huang, Fan Zhang, Peng Ren</i>	
<b>Pedestrian Detection from Thermal Images with a Scattered Difference of Directional Gradients Feature Descriptor</b> .....	2168
<i>Bin Qi, Vijay John, Zheng Liu, Seiichi Mita</i>	
<b>A Travel Time Prediction Model for Freeway with Considering Interchange Disturbances</b> .....	2174
<i>Wei-Hsun Lee, Chia-Hao Hu, Shou-Ren Hu</i>	
<b>Routing Multiple Cars in Large Scale Networks: Minimizing Road Network Breakdown Probability</b> .....	2180
<i>Hongliang Guo, Zhiguang Cao, Jie Zhang, Dusit Niyato, Ulrich Fastenrath</i>	
<b>Feasibility Study of Urban Road Traffic State Estimation Based on Taxi GPS Data</b> .....	2188
<i>Zhenyu Shan, Yanni Wang, Qianqian Zhu</i>	
<b>SCATS Ramp Metering: Strategies, Arterial Integration and Results</b> .....	2194
<i>J. Carlos Aydos, Andrew Philip O'Brien</i>	
<b>Distributed Urban Traffic Signal Control Based on Spontaneous Synchronization</b> .....	2202
<i>Jia Wu, Fei Yan, Ping Kuang</i>	
<b>Dynamic Division of Traffic Control Sub-Area Methods Based on the Similarity of Adjacent Intersections</b> .....	2208
<i>Haifeng Guo, Jun Cheng, Qitao Peng, Chao Zhu, Yuanjie Mu</i>	
<b>Evaluating Tire Pressure Monitoring System for Traffic Management Purposes - Simulation Study</b> .....	2214
<i>Nemanja Savic, Marek Junghans, Milos Krstic</i>	
<b>Macroscopic vs. Mesoscopic Traffic Flow Models in Signal Setting Design</b> .....	2221
<i>Giulio Erberto Cantarella, Stefano De Luca, Massimo Di Gangi, Roberta Di Pace, Silvio Memoli</i>	
<b>A Comparative Study on Numerical Optimization Techniques for Model Predictive Variable Speed Limit Control</b> .....	2227
<i>Xu Wang, Md. Hadiuzzaman, Cheng Lan, Jing Cao, Tony Qiu, Xinpeng Yan</i>	
<b>Vehicle Routing through Deadlock-Free Policy for Cooperative Traffic Control in a Network of Intersections: Reservation and Congestion</b> .....	2233
<i>Florent Perronnet, Abdeljalil Abbas-Turki, Abdellah El Moudni</i>	
<b>A Method of Road Traffic State Acquisition Based on Wireless Sensor Network</b> .....	2239
<i>Honghui Dong, Kai Liu, Li-Min Jia, Haijian Li, Yong Qin, Wei Ma, Pan Li, Xuesong Zhou</i>	
<b>Multiple Map Representations for Vehicle Localization and Scene Reconstruction</b> .....	2241
<i>Mengyin Fu, Hao Zhu, Yi Yang, Meiling Wang, Yu Li</i>	
<b>On Addressing Driving Inattentiveness: Robust Rear Light Status Classification Using Hierarchical Matching Pursuit (Extended Abstract)</b> .....	2243
<i>Zhiyong Cui, Shao-Wen Yang, Chenqi Wang, Hsin-Mu Tsai</i>	
<b>A Histogram-Based Joint Boosting Classification for Determining Urban Road (Extended Abstract)</b> .....	2245
<i>Giovani Bernardes Vitor, Alessandro Correa Victorino, Janito Vaqueiro Ferreira</i>	
<b>Occluded Side Road Detection Using a Single Camera</b> .....	2247
<i>Itaru Kikuchi, Kazunori Onoguchi</i>	
<b>Raindrop Removal by Using Camera Array System</b> .....	2249
<i>Takashi Matsui, Fumihiko Sakaue, Jun Sato</i>	
<b>On Road Precise Vehicle Detection System Using ROI Estimation</b> .....	2251
<i>Jisu Kim, Jeonghyun Baek, Euntai Kim</i>	
<b>Pedestrian Detection System in Low Illumination Conditions with Data Fusion of Image and Range Sensor</b> .....	2253
<i>Pang-Ting Huang, Yi-Ming Chan, Li-Chen Fu, Pei-Yung Hsiao, Shih-Shih Huang, Wei-Yu Wu, Chun-Cheng Lin, Kuo-Ching Chang, Ping-Min Hsu</i>	

<b>Fast Curvilinear Structure Extraction and Delineation from Line Scan Images Using Multi-Scale Yin-Yang Discrete-Point Computing</b> .....	2255
<i>Zongxiao Zhu, Yihui Wang, Xiaoji Dong</i>	
<b>Discriminane of Activation Time for Bus Dispatching under the Environment of Intelligent Vehicle-Infrastructure Cooperation</b> .....	2257
<i>Jian Zhang, Xiangfeng Ji, Tingting Yin, Mengtian Li, Bin Ran</i>	
<b>A HIL Simulation Platform of Locomotive Adhesion Control</b> .....	2259
<i>Siyu Zhang, Jingchun Huang, Jian Xiao, Kai Chen</i>	
<b>The Improved Ant Colony Algorithm Test Sequence Optimization Based on the RBC Test Platform</b> .....	2261
<i>Naiwen Hu, Wei Zheng</i>	
<b>Subjective Mental Workload Measurement Using Video Fragments</b> .....	2263
<i>Michiel Christoph, Nicole Van Nes</i>	
<b>Travel Time Management Using Time Compensation Scheme for Traffic Exclusively of Autonomous Vehicles in a Double Lane Highway</b> .....	2265
<i>Ricardo Reghelin, Eduardo Da Silva</i>	
<b>Traffic Flow Forecasting with Particle Swarm Optimization and Support Vector Regression</b> .....	2267
<i>Jianming Hu, Pan Gao, Yunfei Yao, Xudong Xie</i>	
<b>A Simulation Study on Real-Time Parking Guidance</b> .....	2269
<i>Man Xu, Zuo Zhang, Yi Wan, Li Li</i>	
<b>Enhancing Launch Pads for Decision Making in Intelligent Mobility On-Demand (Extended Abstract)</b> .....	2271
<i>Michael Rigby, Stephan Winter</i>	
<b>Archetypes for Dynamic Evolution of Human and Organizational Factors in Fully Automated Operation System</b> .....	2273
<i>Bobo Zhao, Tao Tang</i>	
<b>Modeling and Verification of Steering Torque Feedback System for Driving Simulator (Extended Abstract)</b> .....	2275
<i>Yuyao Jiang, Weiwen Deng, Sumin Zhang, Hang Zheng</i>	
<b>Development of Augmented Forward Collision Warning System for Head-Up Display</b> .....	2277
<i>Changrak Yoon, Kyongho Kim, Hye Sun Park, Min Woo Park, Soon Ki Jung</i>	
<b>An Early Warning Model of Traffic Accidents Based on Fractal Theory</b> .....	2280
<i>Can Ye, Huiyun Li, Guoqing Xu</i>	
<b>Traffic Light Recognition in Varying Illumination Using Deep Learning and Saliency Map</b> .....	2286
<i>Vijay John, Keisuke Yoneda, Bin Qi, Zheng Liu, Seiichi Mita</i>	
<b>Head Detection and Orientation Estimation for Pedestrian Safety</b> .....	2292
<i>Eike Rehder, Horst Kloeden, Christoph Stiller</i>	
<b>A Framework of Traffic Lights Detection, Tracking and Recognition Based on Motion Models</b> .....	2298
<i>Litian Zhang, Mengyin Fu, Yi Yang, Meiling Wang</i>	
<b>Is it Safe to Change the Lane? - Visual Exploration of Adjacent Lanes for Autonomous Driving</b> .....	2304
<i>Bjoern Froehlich, Julian Bock, Uwe Franke</i>	
<b>Object Tracking and Dynamic Estimation on Evidential Grids</b> .....	2310
<i>Ruben Jungnickel, Franz Korf</i>	
<b>Using Edit Distance and Junction Feature to Detect and Recognize Arrow Road Marking</b> .....	2317
<i>Yuhang He, Shi Chen, Yifeng Pan, Kai Ni</i>	
<b>Distortion-Based Video Streaming Over Vehicular Ad Hoc Networks in Highway</b> .....	2324
<i>Je-Wei Chang, Kuan-Yu Sun, Chien Chen, Andy An-Kai Jeng</i>	
<b>Quantitatively Analysis of Train Communication Network Based on Multi-Attribute Utility Function</b> .....	2330
<i>Honghui Dong, Xianpeng Xia, Limin Jia, Yin Tian, Haijian Li, Junqing Tang, Yong Qin</i>	
<b>An Improved TAPAS Algorithm for the Traffic Assignment Problem</b> .....	2336
<i>Jun Xie, Chi Xie</i>	
<b>Inventory Service-Level Optimization in a Distribution Network Design Problem Using Heterogeneous Fleet</b> .....	2342
<i>Rafael Bernardo Carmona Bentez, Esther Segura, Angelica Lozano</i>	
<b>How to Find the Optimal Paths in Stochastic Time-Dependent Transportation Networks?</b> .....	2348
<i>Shichao Sun, Zhengyu Duan, Shuo Sun, Dongyuan Yang</i>	
<b>Modeling and Simulation of DC Rail Traction Systems for Energy Saving</b> .....	2354
<i>Zhongbei Tian, Stuart Hillmansen, Clive Roberts, Paul Weston, Lei Chen, Ning Zhao, Shuai Su, Tingyu Xin</i>	
<b>Optimal Mode of Each Intersection in a Congested Road Network</b> .....	2360
<i>Jun-Jie Tao, Yong Zhang</i>	
<b>Multi-Resolution Entities Aggregation and Disaggregation Method for Train Control System Modeling and Simulation Based on HLA</b> .....	2367
<i>Chen-Xi Gou, Bai-Gen Cai</i>	
<b>Research on Intelligent Terminal Oriented Optimal Parking Space Recommendation Model</b> .....	2373
<i>Jiabin Fu, Zhenxiang Chen, Runyuan Sun</i>	

## VOLUME 4

<b>An Improved Least Square Support Vector Regression Algorithm for Traffic Flow Forecasting</b> .....	2379
<i>Wanqiu Lou, Yingjie Zhou, Peng Sheng, Junfeng Wang</i>	
<b>Impacts of Multi-Criteria Routing on Dynamic Traffic Management</b> .....	2385
<i>Fan Zhang, Yu Sen Chen, Jisheng Zhang</i>	

<b>Adaptive Route Guidance Based on Real-Time Information in Stochastic Time-Dependent Transportation Networks</b> .....	2392
<i>Chengjin Wu, Xuedan Zhang, Yuhan Dong</i>	
<b>Optimizing the High Speed Train Stop Schedule Using Flexible Stopping Patterns Combination</b> .....	2398
<i>Xin Zhang, Huiling Fu, Lu Tong</i>	
<b>An In-Depot Realtime Train Tracking System Using RFID and Wireless Mesh Networks</b> .....	2404
<i>Zongjian He, Yigui Luo, Junhao Zheng</i>	
<b>Train Dwell Time Distributions at Short Stop Stations</b> .....	2410
<i>Dewei Li, Rob Goverde, Winnie Daamen, Hong He</i>	
<b>Fast Train: A Computationally Efficient Train Routing and Scheduling Engine for General Rail Networks</b> .....	2416
<i>Lingyun Meng, Xuesong Zhou</i>	
<b>Train Operation Adjustment of the Urban Rail Transit Based on Dwell Time Model</b> .....	2422
<i>Dong Hairong, Jiazheng Liu, Yao Chen, Xubin Sun</i>	
<b>Spatiotemporally Adaptive Synchronized (SAS) Express &amp; Local Trains for Urban Commuter Rail Systems</b> .....	2428
<i>Joong H. Chun, Rodney M. Anderson, Daehyun Paik</i>	
<b>Multi-Vehicles Green Light Optimal Speed Advisory Based on the Augmented Lagrangian Genetic Algorithm</b> .....	2434
<i>Jinjian Li, Mahjoub Dridi, Abdellah El Moudni</i>	
<b>Nonholonomic Constrained Navigation Algorithm for MIMU/Odometer Integration</b> .....	2440
<i>He Li, Xuan Xiao, Bo Wang, Zhihong Deng</i>	
<b>An Algorithmic Framework for the Scheduling of Construction Projects Based on Ant Colony Optimization and Expert Knowledge</b> .....	2446
<i>Zhitao Xiong, David Rey, Vinayak Dixit, S. Travis Waller</i>	
<b>Iterative Tuning Strategy for Setting Phase Splits in Traffic Signal Control</b> .....	2453
<i>Yu Wang, Danwei Wang, Nan Xiao, Yitong Li, Emilio Frazzoli</i>	
<b>Air-Fuel Ratio Regulation Using a Discrete-Time Internal Model Controller</b> .....	2459
<i>Nazli E. Kahveci, Serkan Impram, A. Umut Genc</i>	
<b>Multi-Agent Cooperative Transport Planning of Intermodal Freight Transport</b> .....	2465
<i>Le Li, Rudy Negenborn, Bart De Schutter</i>	
<b>Understanding Operational and Charging Patterns of Electric Vehicle Taxis Using GPS Records</b> .....	2472
<i>Zhiyong Tian, Yi Wang, Chen Tian, Fan Zhang, Lai Tu, Chengzhong Xu</i>	
<b>An On-Line Energy Management Strategy for Plug-In Hybrid Electric Vehicles Using an Estimation Distribution Algorithm</b> .....	2480
<i>Xuewei Qi, Guoyuan Wu, Kanok Boriboonsomsin, Matthew Barth</i>	
<b>Development of a Foldable Micro Electric Vehicle for Future Urban Driving with Intelligent Control</b> .....	2486
<i>Minyoung Lee, Kibeom Lee, Karam Hwang, In-Soo Suh</i>	
<b>Design Optimization of the OLEV System Considering Battery Lifetime</b> .....	2492
<i>Seungmin Jeong, Young Jae Jang, Dongsuk Kum</i>	
<b>Maximise the Regenerative Braking Energy Using Linear Programming</b> .....	2499
<i>Shaofeng Lu, Paul Weston, Ning Zhao</i>	
<b>Network Equilibrium of Electric Vehicles with Stochastic Range Anxiety</b> .....	2505
<i>Chi Xie, Xing Wu, Stephen Boyles</i>	
<b>Traffic Routing in Urban Environments: The Impact of Partial Information</b> .....	2511
<i>Lara Codeca, Raphael Frank, Thomas Engel</i>	
<b>Implementation and Optimization of Group-Based Signal Control in Traffic Simulation</b> .....	2517
<i>Junchen Jin, Xiaoliang Ma</i>	
<b>Online Distributed Network Traffic Signal Control Using the Cell Transmission Model</b> .....	2523
<i>Stelios Timotheou, Christos Panayiotou, Marios Polycarpou</i>	
<b>Multi-Agent Reinforcement Learning for Traffic Signal Control</b> .....	2529
<i>K. J. Prabuchandran, A. N. Hemanth Kumar, Shalabh Bhatnagar</i>	
<b>Performance Evaluation of Stage Skipping and New Data Sources Compared against MOVA Control</b> .....	2535
<i>Andrew Hamilton, Ben Waterson, Ian Snell, Martin Andrews</i>	
<b>A Multi-Agent Based Vehicles Re-Routing System for Unexpected Traffic Congestion Avoidance</b> .....	2541
<i>Shen Wang, Soufiene Djahel, Jennifer McManis</i>	
<b>Advanced Public Transport Systems and ITS: New Tools for Operations Control and Traveler Advising</b> .....	2549
<i>Agostino Nuzzolo, Antonio Comi</i>	
<b>Real-Time Bus Departure Time Predictions: Vehicle Trajectory and Countdown Display Analysis</b> .....	2556
<i>Masoud Fadaei Oshyani, Oded Cats</i>	
<b>Allocating the Transport Subsidy Based on the Social Contribution of Public Transport Enterprises</b> .....	2562
<i>Qiwei Xie, Seiichi Mita, Qianzhi Dai, Chao Ma, Yongjun Li, Long Qian</i>	
<b>A New Capacity Computing Model of Bus Stop at Upstream Signalized Intersection in Peak</b> .....	2567
<i>Huadong Tan, Xiaoguang Yang</i>	
<b>An Adaptive Transportation Prediction Model for the Informal Public Transport Sector in Africa</b> .....	2572
<i>Innocent Ndibatya, Marthinus Booysen, John Quinn</i>	
<b>A Schedule-Based Coordinated Optimization Model for Transit Signal Priority under Connected Vehicle Environment</b> .....	2578
<i>Yanxi Hao, Yinsong Wang, Xiaoguang Yang</i>	
<b>Driving Risk Assessment using Cluster Analysis based on Naturalistic Driving Data</b> .....	2584
<i>Yang Zheng, Jianqiang Wang, Xiaofei Li, Chenfei Yu, Kenji Kodaka, Keqiang Li</i>	
<b>Defining the Accuracy of Real-World Range Estimations of an Electric Vehicle</b> .....	2590
<i>Stewart Birrell, Andrew McGordon, Paul Jennings</i>	

<b>Smartphone Sensor Platform to Study Traffic Conditions and Assess Driving Performance</b> .....	2596
<i>Joel Goncalves, Joao S. V. Goncalves, Rosaldo Rossetti, Cristina Olaverri Monreal</i>	
<b>Laserscanner Based Road Curb Feature Detection and Efficient Mapping Using Local Curb Descriptions</b> .....	2602
<i>Martin Kellner, Ulrich Hofmann, Mohamed Essayed Bouzouraa, Stephan Neumaier, Hannah Kasper</i>	
<b>Simulation and Evaluation of Sensor Characteristics in Vision Based Advanced Driver Assistance Systems</b> .....	2610
<i>Dennis Hospach, Stefan Mueller, Oliver Bringmann, Joachim Gerlach, Wolfgang Rosenstiel</i>	
<b>A Real-Time Applicable 3D Gesture Recognition System for Automobile HMI</b> .....	2616
<i>Thomas Kopinski, Stefan Geisler, Louis-Charles Caron, Alexander Gepperth, Uwe Handmann</i>	
<b>Calibrating Multiple Cameras with Non-Overlapping Views Using Coded Checkerboard Targets</b> .....	2623
<i>Tobias Strauss, Julius Ziegler, Johannes Beck</i>	
<b>Driving Recorder Based On-Road Pedestrian Tracking Using Visual SLAM and Constrained Multiple-Kernel</b> .....	2629
<i>Kuan-Hui Lee, Jenq-Neng Hwang, Greg Okapal, James Pitton</i>	
<b>Circle Detection in Single-Layer Laser Scans for Roundabout Perception</b> .....	2636
<i>Marvin Raaijmakers, Mohamed Essayed Bouzouraa</i>	
<b>Generating Nominal Flight Profile for Air Traffic Control System Based on AMDAR Data</b> .....	2644
<i>Xinmin Tang, Jiang Xing, Ping Chen, Zhiyuan Shen</i>	
<b>A Study on the Spatial Vulnerability of the Civil Aviation Network System in China*</b> .....	2650
<i>Hang Li, Xiao-Mei Guo, Zhen Xu, Xiao-Bing Hu</i>	
<b>AirportSurface Trajectory Optimization Considering Runway Exit Selection</b> .....	2656
<i>Peng Cheng, Xiang Zou, Wenda Liu</i>	
<b>Modeling Air Traffic Controllers' Decision Making Processes with Relational Complexity Network</b> .....	2663
<i>Jingyu Zhang, Jinrui Ren, Changxu Wu</i>	
<b>Simulation Model for Airport Runway Capacity Estimation</b> .....	2669
<i>Xiang Zou, Peng Cheng, Nong Cheng</i>	
<b>Step-Crossing Feasibility of Two-Wheeled Transporter: Analysis Based on Takagi-Sugeno Descriptor Approach</b> .....	2675
<i>Benyamine Allouche, Laurent Vermeiren, Antoine Dequidt, Michel Dambrine</i>	
<b>An Actual Urban Traffic Simulation Model for Predicting and Avoiding Traffic Congestion</b> .....	2681
<i>Wenbin Hu, Huan Wang, Liping Yan</i>	
<b>Comparison of Queue Estimation Accuracy by Shockwave-Based and Input-Output-Based Models</b> .....	2687
<i>Jing Cao, Dawei Hu, Md. Hadiuzzaman, Xu Wang, Tony Qiu</i>	
<b>A Simulation Strategy to Optimize the Design of Internet Enabled Logistics Services</b> .....	2693
<i>Peter Kabanda Lusanga, Alwyn Jakobus Hoffman, Arno De Coning, Ernest Bhero</i>	
<b>The Transition between Normal and Emergency Driving Behaviour During Evacuation and Its Implications for Traffic Flow Operations and Traffic Management</b> .....	2700
<i>Yufei Yuan, Adam Pel, Serge Hoogendoorn</i>	
<b>An Investigation into the Economics of Fuel Management in the Freight Logistics Industry</b> .....	2706
<i>Alwyn Jakobus Hoffman, Marius Van Der Westhuizen, Jitesh Naidoo</i>	
<b>Functional Safety Verification on Railway Signaling System with Colored Petri Nets</b> .....	2713
<i>Xiaoli She, Jiyuan Zhao, Jian Yang</i>	
<b>A GNSS/Trackmap Cooperative Train Positioning Method for Satellite-Based Train Control</b> .....	2718
<i>Jiang Liu, Baigen Cai, Jian Wang</i>	
<b>Carrying Capacity of Railway Station by Microscopic Simulation Method</b> .....	2725
<i>Song Han, Yixiang Yue, Leishan Zhou</i>	
<b>Distributed Model Predictive Control for Rescheduling of Railway Traffic</b> .....	2732
<i>Bart Kersbergen, Ton Van Den Boom, Bart De Schutter</i>	
<b>Real-Time Trajectory Planning for Rail Transit Train Considering Regenerative Energy</b> .....	2738
<i>Jianwei Qu, Xiaoyun Feng, Qingyuan Wang</i>	
<b>Online Adjusting Subway Timetable by Q-Learning to Save Energy Consumption in Uncertain Passenger Demand</b> .....	2743
<i>Jiateng Yin, Dewang Chen, Wentian Zhao, Long Chen</i>	
<b>Dynamic Network Zoning Method Based on Community Detection</b> .....	2749
<i>Cheng Chen</i>	
<b>A Hybrid Intelligent Algorithm for the Vehicle Scheduling Problems with Time Windows</b> .....	2756
<i>Li-Juan Zheng, Decun Dong, Dongyun Wang</i>	
<b>A Real Geographical Application for the School Bus Routing Problem</b> .....	2762
<i>Marcelo Fonseca Faraj, Joao Fernando Machry Sarubbi, Cristiano Maciel Da Silva, Marcelo Franco Porto, Nilson Tadeu Ramos Nunes</i>	
<b>A New Two-Stages PSO Algorithm for Railway Trajectory Planning on GIS System</b> .....	2768
<i>Jun Liu, Tianyun Shi</i>	
<b>An Energy-Efficient Adjustment Approach in Subway Systems</b> .....	2774
<i>Erchao Chen, Xin Yang, Yi Ding</i>	
<b>Operation and Charging Scheduling of Electric Buses in a City Bus Route Network</b> .....	2780
<i>Topon Paul, Hisashi Yamada</i>	
<b>Electric Vehicle Green Routing with Possible En-Route Recharging</b> .....	2787
<i>Fouad Baouche, Romain Billot, Rochdi Trigui, Nour-Eddin El Faouzi</i>	
<b>Enhanced Electric Vehicle Efficiency Via Wheel Torque Redistribution</b> .....	2793
<i>Andy Wong, Amir Khajepour, Shih-Ken Chen, Bakhtiar Litkouhi</i>	
<b>Economic Evaluation of Electric Bus Charging Infrastructure</b> .....	2799
<i>Ning Wang, Yun Li, Yafei Liu</i>	
<b>City Readiness System Assessment of Electric Vehicle Charging Infrastructure</b> .....	2805
<i>Ning Wang, Yafei Liu, Gangzhan Fu</i>	



<b>A Stochastic Flow Capturing Location and Allocation Model for Siting Electric Vehicle Charging Stations</b> .....	2811
<i>Jingzi Tan, Wei-Hua Lin</i>	
<b>Map-Matching Based on Driver Behavior Model and Massive Trajectories</b> .....	2817
<i>Chuang Chen, Xuedan Zhang, Yuhan Dong, Hao Dong, Fan Rao</i>	
<b>Urban Traffic Flow Prediction: A MapReduce Based Parallel Multivariate Linear Regression Approach</b> .....	2823
<i>Liang Dai, Wen Qin, Hongke Xu, Ting Chen, Chao Qian</i>	
<b>Congestion Pattern Model for Predicting Short-Term Traffic Decongestion Times</b> .....	2828
<i>Kyungmin Lee, Bonghee Hong, Doseong Jeong, Jiwon Lee</i>	
<b>Threshold Based Decision-Tree for Automatic Driving Maneuver Recognition Using CAN-Bus Signal</b> .....	2834
<i>Yang Zheng, Amardeep Sathyanarayana, John Hansen</i>	
<b>Vehicle Type Classification from Laser Scans with Global Alignment Kernels</b> .....	2840
<i>Boris Chidlovskii, Gabriela Csurka, Jose Antonio Rodriguez-Serrano</i>	
<b>Monitor-Based Temporal Properties Checking of Train Control Systems with Quantitative Constraints</b> .....	2846
<i>Lin Zhao, Ming Chai, Yang Liu</i>	
<b>Priority Rule Strategy for Managing a Personal Rapid Transit System</b> .....	2852
<i>Olfa Chebbi, Jowhaina Chaouachi Siala</i>	
<b>Regression-Based Models for Bus Dwell Time</b> .....	2858
<i>Xinkai Jiang, Xiaoguang Yang</i>	
<b>A Bus Lane Reservation Problem in Urban Bus Transit Network</b> .....	2864
<i>Peng Wu, Feng Chu, Ada Che, Qin Shi</i>	
<b>Measuring Capacity Flexibility of a Subway Station</b> .....	2870
<i>Xinyue Xu, Jun Liu, Haiying Li, Wei Wang</i>	
<b>A Bibliographic Analysis of the Development of Agent Technology in Traffic Control and Management Systems</b> .....	2877
<i>Cheng Chen, Song Guo</i>	
<b>An Event-Based Bus Monitoring System</b> .....	2882
<i>Antonios Antoniou, Andreas Georgiou, Panayiotis Kolios, Christos Panayiotou, Georgios Ellinas</i>	
<b>Parallel Management for Traffic Signal Control</b> .....	2888
<i>Yifei Zhao, Qing-Jie Kong, Hang Gao, Fenghua Zhu, Fei-Yue Wang</i>	
<b>A Computational Experiment Method in ACP Framework for Complex Urban Traffic Networks</b> .....	2894
<i>Yaran Chen, Shu Lin, Gang Xiong, Qing-Jie Kong, Fenghua Zhu</i>	
<b>A Model-Based Demand-Balance Control for Complex Urban Traffic Networks</b> .....	2900
<i>Shu Lin, Qing-Jie Kong</i>	
<b>Parallel Transportation Management and Control System for Subway System Based on ACP Approach</b> .....	2906
<i>Xisong Dong, Yuan Liu, Gang Xiong, Fenghua Zhu, Zhenjiang Li</i>	
<b>Extracting Road Surface from Mobile Laser Scanning Point Clouds in Large Scale Urban Environment</b> .....	2912
<i>Hanyun Wang, Cheng Wang, Yiping Chen, Wentao Yang, Jonathan Li</i>	
<b>Solo Vision Gates Control: Simulation and Testing</b> .....	2918
<i>Luca Bombini, Alberto Broggi, Rean Isabella Fedriga, Alessandro Giacomazzo, Andrea Signifredi</i>	
<b>Detecting Walking Pedestrians from Leg Motion in Driving Video</b> .....	2924
<i>Mehmet Kilicarslan, Jiang Yu Zheng</i>	
<b>A Method of Multi-Target Detecting and Velocity Estimation Using Automotive Radar</b> .....	2930
<i>Jianwei Gong, Yinjian Sun, Yan Jiang</i>	
<b>Exploiting Domain Constraints for Exemplar Based Bus Detection for Traffic Scheduling</b> .....	2936
<i>Aravindh Mahendran, Martial Hebert, Stephen F. Smith</i>	
<b>iTrip: Traffic Signal Prediction Using Smartphone Based Community Sensing</b> .....	2944
<i>Junhao Zheng, Jiannong Cao, Zongjian He, Xuefeng Liu</i>	
<b>Integrated Real-Time Data Collection and Safety Improvement System at Signalized Intersections</b> .....	2950
<i>Montasir Abbas, Bryan Higgs, Sahar Ghanipoor Machiani</i>	
<b>Vehicle License Plate Recognition Based on Class-Specific ERs and SaE-ELM</b> .....	2956
<i>Chao Gou, Kunfeng Wang, Bo Li, Fei-Yue Wang</i>	
<b>HOG Based Multi-Object Detection for Urban Navigation</b> .....	2962
<i>Amina Chayeb, Noureddine Ouadah, Zineb Tobal, Mustapha Lakrouf, Ouahiba Azouaoui</i>	
<b>Research on Abandoned and Removed Objects Detection Based on Embedded System</b> .....	2968
<i>Bin Hu, Yiyue Li, Zizhang Chen, Gang Xiong, Fenghua Zhu</i>	
<b>Development of an Emotional Car-Following Model</b> .....	2972
<i>Bryan Higgs, Montasir Abbas</i>	
<b>Switching from Manual to Automated Driving and Reverse: Do Drivers Behave More Risky After Highly Automated Driving?</b> .....	2978
<i>Stefan Brandenburg, Eva-Maria Skottke</i>	
<b>Automatic Trip-Separation Method Using Sensor Data Continuously Collected by Smartphone</b> .....	2984
<i>Hiroki Ohashi, Takayuki Akiyama, Masaaki Yamamoto, Akiko Sato</i>	
<b>Understanding Temporal and Spatial Travel Patterns of Individual Passengers by Mining Smart Card Data</b> .....	2991
<i>Juanjuan Zhao, Chen Tian, Fan Zhang, Chengzhong Xu, Shengzhong Feng</i>	
<b>Discriminant Analysis of Transit Operator Distracted Driving Behaviors Using Naturalistic Driving Data</b> .....	2998
<i>Nurlayla Arbie, Montasir Abbas</i>	
<b>Performance Evaluation of IEEE 802.11p Vehicle to Infrastructure Communication Using Off-The-Shelf IEEE 802.11a Hardware</b> .....	3004
<i>Yuhang Zhao, Hesheng Zhang, Wei Sun, Zhe Bai, Cheng Pan</i>	
<b>Evaluation of Smart-Phone Performance for Real-Time Traffic Prediction</b> .....	3010
<i>Ansar Rauf, Paron Sarampakhul, Soham Gosh, Nikola Mitrovic, Muhammad Tayyab Asif, Justin Dauwels, Patrick Jaillet</i>	

<b>Fuzzy Logic Slip Rate Controller for Experimental Test Vehicle</b> .....	3016
<i>Vincent Judalet, Meriem Dhaoui, Sebastien Glaser, Said Mammari</i>	
<b>Towards a Frugal Framework for Monitoring Road Quality</b> .....	3022
<i>Tierra Bills, Aisha Walcott-Bryant, Reginald Bryant</i>	
<b>Passive, Decentralized, and Fully Autonomous Intersection Access Control</b> .....	3028
<i>John Khoury, Joud Khoury</i>	
<b>Development and Application of the Freeway Emergency Plan Simulation System</b> .....	3034
<i>Tao Wang, Xiaoguang Yang, Wencong Tong, Lei Yang, Wei Wei</i>	
<b>Experimental Analysis of CCA Threshold Self-Adjusting Method for EWM Dissemination</b> .....	3040
<i>Lingqiu Zeng, Le Yang, Qingwen Han, Xueying He, Lei Ye, Bin Yang</i>	
<b>Development of an Integrated Emergency Management System for Hazardous Materials Transport Improve the Transportation Safety and Enhance the Efficiency of Emergency Response</b> .....	3046
<i>Qingyuan Ma, Chen Wang, Jian Lu, Chenming Jiang</i>	
<b>Car2X Technology-based "Green Light on Demand" System</b> .....	3052
<i>Yougang Bian, Jianqiang Wang, Bin Huang, Keqiang Li, Sheng Lai, Carsten Isert</i>	
<b>Snowfall Detection under Bad Visibility Scene</b> .....	3058
<i>Hiroshi Kawarabuki, Kazunori Onoguchi</i>	
<b>Matching Cost Computation Algorithm and High Speed FPGA Architecture for High Quality Real-Time Semi Global Matching Stereo Vision for Road Scenes</b> .....	3064
<i>Frank Schumacher, Thomas Greiner</i>	
<b>Robust Image Segmentation for Overhead Real Time Motorbike Counting</b> .....	3070
<i>Yohan Dupuis, Peggy Subirats, Pascal Vasseur</i>	
<b>Lane Detection by Trajectory Clustering in Urban Environments</b> .....	3076
<i>Zezhi Chen, Tim Ellis, Yuyao Yan</i>	
<b>Hybrid Map-Based SLAM Using a Velodyne Laser Scanner</b> .....	3082
<i>Jaebum Choi</i>	
<b>Vehicle and Pedestrian Collision Prevention System Based on Smart Video Surveillance and C2I Communication</b> .....	3088
<i>Daniel Becker, Bernd Schaufele, Jens Einsiedler, Oliver Sawade, Ilija Radusch</i>	
<b>Vehicle Model Recognition Using Geometry and Appearance of Car Emblems from Rear View Images</b> .....	3094
<i>David Fernandez Llorca, Diego Colas, Ivan Garcia Daza, Ignacio Parra, Miguel A. Sotelo</i>	
<b>Vision-Based Turning Movement Counting at Intersections by Cooperating Zone and Trajectory Comparison Modules</b> .....	3100
<i>Mohammad Shokrolah Shirazi, Brendan Morris</i>	
<b>Visual Vehicle Tracking Based on Conditional Random Fields</b> .....	3106
<i>Yuqiang Liu, Kunfeng Wang, Fei-Yue Wang</i>	
<b>Real-Time Taxi Detection for Embedded System</b> .....	3112
<i>Bin Hu, Gang Xiong, Fenghua Zhu, Weisi Zhou, Zizhang Chen, Qiuchang Tian</i>	
<b>Research on Passenger Flow Counting Based on Embedded System</b> .....	3116
<i>Bin Hu, Gang Xiong, Li Yiyue, Zizhang Chen, Weisi Zhou, Xin Wang, Qiang Wang</i>	
<b>Experimental Design for a Psychophysiological Driving Simulator Study</b> .....	3120
<i>Bryan Higgs, Montasir Abbas</i>	
<b>A Predictive Driver Model with Physical Constraints for Closed Loop Simulation of Vehicle Driver</b> .....	3126
<i>Kwangseok Oh, Kyongsu Yi</i>	
<b>Risk Assessment of Vehicle Cornering Events in GNSS Data Driven Insurance Telematics</b> .....	3132
<i>Johan Wahlstrom, Isaac Skog, Peter Handel</i>	
<b>Clustering Based Transfer Detection with Fuzzy Activity Recognition from Smart-Phone GPS Trajectories</b> .....	3138
<i>Rahul Deb Das, Nicole Amy Ronald, Stephan Winter</i>	
<b>Extracting Characteristics of Traffic Flow in Bottlenecks with Exchange Interactions in Time Headway</b> .....	3144
<i>Makoto Kasai, Shun Shibagaki, Shintaro Terabe</i>	
<b>Identification and Classification of State-Action Clusters of Car-Following Behavior</b> .....	3151
<i>Bryan Higgs, Montasir Abbas</i>	
<b>A Traffic Congestion Control Method in the Cyber Physical Systems</b> .....	3156
<i>Dihua Sun, Tong Zhou, Min Zhao, Weining Liu, Zhiyong Yang, Geng Zhang, Hui Liu</i>	
<b>A Methodology for Calibrating Microscopic Simulation for Modeling Traffic Flow under Incidents</b> .....	3161
<i>Semuel Rompis, Filmon Habtemichael, Mecit Cetin</i>	
<b>Author Index</b>	