

GITSS2015

Green Intelligent Transportation System and Safety



1. Introduction

Effectiveness and efficiency have been accepted as the measures for the transportation system as well as its components performance. However, highlighted by the concept of sustainability, environmental impacts of the transportation system must be standardized for traffic participants, roads and infrastructure from planning to operation. With consideration of the road transport accounting for 75% of the world's total carbon dioxide emissions from fossil fuel combustion and the transportation systems being responsible for more than 20% of world energy consumption, statistical results raise the problems: what efforts should we make to solve such environmental problems and what countermeasures should we conduct to balance the energy saving and the demand of mobility? Within the sustainable approaches, green traffic and intelligent transportation system are now widely discussed.

The metropolises experience the consequence of overloaded traffic demand and the worsening environment. Walking and cycling traffic are encouraged by enhancing the role of public transport in order to control CO₂, air pollution and noise. Focusing on the improvement of traffic conditions, productivity of cities will be benefit from green urban traffic by mitigating the traffic congestions and delay. Furthermore, user-oriented urban traffic will contribute to the safety of vulnerable road users. It is believed that the green intelligent transportation will be a prime target for obtaining eco-friendly systems and safety.

2. GITSS2015

The 6th International Conference on Green Intelligent Transportation System and Safety (GITSS2015) has been held in Beijing, P. R. China, between July 2-4, 2015. The GITSS2015 is sponsored by Beijing Institute of Technology, Technical University of Munich, Hasselt University and North China University of Technology. The objective of the conference is to present the new achievement in the field of safety transportation system and the state of the art of intelligent transportation system, the current problems and solutions of green transportation system and the trend of the development of advanced driver assistance systems. The GITSS2015 offers the opportunity to stimulate international cooperation and interdisciplinary understanding.

The GITSS2015 received 310 submissions from 76 universities, scientific institutions and industrial communities, 100 papers have been accepted to publish in the special issue according to the reviewers' comments. The collected papers have covered a wide range of topics, including:

Intelligent Transportation Systems (ITS)
Driver Assistance Systems and Automobile Safety
Road User Behavior and Traffic Safety
Transport Planning and Road Traffic
Traffic Operations, Management and Control
Transport Economics and Policy
Urban Rail and Public Transit
Infrastructure Constructions and Management
New Energy Vehicle Technology and Application

3. Acknowledgements

National Natural Science Foundation of China, State Administration of Foreign Experts Affairs P. R. China, and Beijing Institute of Technology deserve the support of all members for its integration to the success of the GITSS series. GITSS2015 wishes to acknowledge the authors of the contributions, the members of the Academic Committees, and the institutions partners who supported the conference. Especially Dr. Hongwei Guo, Ms. Min Li, Mr. Chenggan Li, Mr. Yanlong Zhou, Mr. Tianyi Wang, Ms. Leyi Wang, Mr. Qian Chen do take time to edit this collected paper.

Guest Editors:

Prof. Dr. Wuhong Wang, Beijing Institute of Technology
Prof. Dr. phil. Klaus Bengler, Technical University of Munich
Prof. Dr. Geert Wets, Hasselt University
Dr. Yongjun Shen, Hasselt University
Dr.-Ing. Xiaobei Jiang, Beijing Institute of Technology