

## **ADVANCEMENT IN TRAFFIC SAFETY STUDIES: FROM THEORY TO PRACTICE**

### **GUEST EDITORS**

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Traffic safety issue has been plaguing Asian societies for many decades. Based on recent statistics provided by the World Health Organization, traffic accident continues to be one of the leading causes of death in most Asian countries. The aim of this special issue is to document state-of-the-art research and development on various aspects of traffic safety in Asia. It is anticipated that through this special issue, readers can understand key concerns and issues involved with traffic safety and develop implementable strategies that are capable to traffic safety in Asian cities.

Driver behavior modeling and analysis is one of the focus areas in this special issue. It is known that human factor issues (such as perception error, slow response rate, fatigue, speeding, and aggressive driving) are some of the main accident causation factors. Detailed studies on driver behavior are important in understanding how Asian drivers behave in response to various roadway design and the environment. In addition, risk issues related to driver behavioral research is also within the scope of this special issue.

Naturalistic driving studies (NDS) is increasingly been used in the study of traffic safety and it involves the installation of various in-vehicle recording and detection instruments (such as camera and sensors) to record vehicle movement (e.g. speed and acceleration profile), driver behavior (e.g. eye, head and hand movement) and road/environment conditions (e.g. traffic, road condition, and weather). Such studies reveal the natural behavior of road users during ordinary day trips which is useful for accident prevention. This special issue includes topics related to development, data management and extraction, modeling and data analysis of NDS with applications to Asian cities.

Research focusing on the nature of accidents and their analysis is within the scope of the special issue. The analysis and modeling of accident occurrence involving different types of vehicles (such as trucks, cars and motorcycles), users (such as pedestrians and cyclists), and road/environment (such as intersections, expressways and arterial roads) and their circumstances around the accident (the “when”, “where”, “who” and “how”) are one of the target topics in this issue.

Safety of vulnerable road users such as pedestrians, bicyclists, and motorcyclists are important issues that need to be addressed. Traffic safety research related to this group of road users are welcome.

Intelligent Transportation System (ITS) has been around since 1990s and various aspects of ITS are developed with the specific intention to improve traffic management and safety. Advanced research and development on accident prevention and detection-related ITS are crucial to address the traffic safety issue with specific interest in new algorithms, methods, and systems.

Smart phone applications (apps) are emerging popular tools in transportation and simply as a way of life. Many traffic-related apps are designed to provide latest transport information to drivers and used by road users in their daily travel. Emerging issues on the development and implementation traffic safety apps as well as analysis of its effectiveness are welcomed.

Proper management of roadway infrastructure (such as roadway pavements, roadway assets and lighting) ensures that the roadway facilities are functioning at the tip-top condition and are primed to

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reduce accident risk. Also, proper understanding of vehicle-pavement interaction can lead to safer pavements being design and constructed to enhance roadway safety. Models and analysis of road maintenance and optimization, facility deficiency detection and roadway friction related research are important infrastructural elements of traffic safety.

New policies or/and regulation implementations to improve traffic safety enforcement as well as recent implementation and analysis of new awareness programs in Asian countries are within the scope of this special issue as they provide a unique perspective on the effectiveness of safety improvement measures that is relevant to the Asian context.

In summary, the scope of this special issue include the following topics but not limited to:

1. Driver behavior and analysis
2. Naturalistic driving studies in Asian context
3. Accident modeling and analysis, with focus on traffic safety improvement schemes
4. Safety of vulnerable road users
5. Intelligent transportation systems (ITS) applications to traffic safety
6. Smart phone applications (apps) and its impact on traffic safety
7. New policies, regulations and awareness programs related to traffic safety
8. Road infrastructure and asset management with focus on safety management
9. Roadway pavement friction and vehicle safety

**SCHEDULE OF PUBLICATION:**

Date	Activity
1 <sup>st</sup> May 2016	Deadline for abstract submission
15 <sup>th</sup> June 2016	Notification of abstract acceptance
1 <sup>st</sup> November 2016	Deadline for full paper submission
15 <sup>th</sup> November 2016 to 1 <sup>st</sup> February 2017	Paper review by reviewers
15 <sup>th</sup> February 2017	Notification to authors on papers acceptance Categories: (1) Accept with no or minor revision; (2) Major revision and re-review; (3) Reject.
15 <sup>th</sup> April 2017	Deadline for Submission of revised papers for re-review.
1 <sup>st</sup> May 2017 to 30 <sup>th</sup> June 2017	Review deadline for re-reviewed papers
1 <sup>st</sup> July 2017	Issue confirmation of acceptance for publication
15 <sup>th</sup> July 2017	Submission of accepted manuscripts to Editor of Asian Transport Studies
1 <sup>st</sup> September 2017	Publication of Volume 4, Issue 4

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