Special Issue on “Solutions Based on Intelligent Transportation Systems for Green transportation and Emergency Response”

Background and Scope

Green transportation and emergency response are essential needs of modern transport systems, which underpin the prosperity of our society and economy. Specially, energy conservation and emission reduction in transport sector, and emergency response of transport systems to various disasters have received increasingly attention, and also become serious issues. However, it is challenging to achieve green transportation and rapid emergency response owing to complex nature of transport systems caused by human behaviors, travel mode, traffic flow patterns, travel demand, and so forth. As the progress of information and communication technology, the emerging technologies, methods and theories based on intelligent transport systems show the potential to solve these important issues.

Green transportation and rapid emergency response have become central focuses of transport management and planning. To achieve these goals, intelligent transport systems (ITS), as an innovative way to make safer, more coordinated, and ‘smarter’ use of transport infrastructure, may provide reasonable solutions. For example, drivers within urban areas may change their route choice, departure time choice or travel mode choice based on the information collected by inductive loop detectors, video vehicle detectors or other intelligent traffic information collection technologies, or change their behaviors by various intelligent control measures such as adaptive signal controls, variable message signs and advanced travel information system, so as to avoid the congested, disrupted or polluted routes. In addition, the emerging technologies such as electrical vehicles and connected autonomous vehicles show the potential to achieve these goals. All of the above require in-depth and extensive discussions and explorations.

This special issue intends to encourage experts and scholars to discuss and explore how to find out the solutions arising from intelligent transport systems to address the issues related.

List of Topics

Suitable topics include but not limited to the following:

• Environment benefits of emerging new mobility modes, such as bike sharing, car sharing, carpooling, and scooter sharing schemes

• Investigation on green driving pattern/habits
• Connected autonomous vehicles
• Electric vehicles
• Traffic data collection and processing for green transportation and emergence response
• Cooperative vehicle infrastructure systems which reduce environmental pollution and enhance the security of transport systems
• Intelligent transportation technologies such as car navigation, signal control systems, speed cameras
• Applications of ITS which may mitigate the GHG emissions and the impact of emergencies
• Resilience and robustness of transport systems under intelligent traffic measures
• Evacuation strategies based on intelligent transport systems
• Mobile phone data processing, analytics, assessment, and utilization

Important Dates
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Notification of final decision: May 2022
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Paper Submission Guidelines
Paper submission should conform to the information for authors available at https://mc.manuscriptcentral.com/t-its.

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