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# Big Data Analysis and Visualization in Transport Infrastructure: Challenges for Operations, Control, and Planning

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Deadline for manuscript submissions: closed (31 December 2021)



mdpi.com/si/55718

### **Message from the Guest Editors**

Dear colleagues,

Transport Systems are equipped with multiple systems that collect large quantities of data every day, every hour, or even every second, at various forms and by different technologies. This means the traffic and transport data in many cases are 'voluminous', are generated at a high 'velocity', have a high 'variety', and have a considerable 'veracity'. The challenge today is to process this big data to derive meaningful results and insights.

All modes of a transport network face a form of this challenge, large amounts of trajectory data, count data, and traffic signal control data are generated in the road network, while transit systems (rail, bus, ferry) generate large volumes of data from their automatic fare collection and vehicle location technologies. Shared mobility and combined mobility solutions such as Mobility as a Service (MaaS) or Infrastructure as a Service (IaaS), generate a multi-modal and door-to-door trip and activity information.

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