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REACT - Tranport network resilience in the era of smart cities

Scientific Responsible
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We live in a world that is constantly changing. The rapid developments in the fields of information and communication technologies (ICT) and Artificial Intelligence (AI) form the recent technological changes. Such advancements will allow the transition to modern Smart Cities, which will be characterized with connectivity among their actors. On the other hand, Climate Change makes its presence felt through the adverse weather events, which tend to become a common state. Both said technological advancements and the adverse weather events pose significant challenges for the operation of transport networks. Various studies examine the assistance ICT and AI will provide to the operation of transport networks; there are also studies which deal with the resilience of transport networks and with possible ways towards the optimization the transport networks' operation under disruptive events. In the framework of this project a generic concept of resilience applicable to Smart Cities context will be introduced and a unified framework to support and optimize the operation of transport and traffic networks under disruptive events will be delivered. Resilience will be examined, in the broader context of Smart Cities and the technologies associated with them, integrating, thus all the critical components of the transportation system.