Editorial: Special issue related to the 33rd ICTCT Conference, held online on 28-29 October 2021

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ICTCT (International Co-operation on Theories and Concepts in Traffic Safety) held its 33rd annual conference on the 28th and 29th of October 2021. The conference was held on-line due to the COVID19 pandemic. The practical organisation was in the hands of the German Aerospace Center (DLR). This special issue presents a selection of papers that were presented at the conference and that were subsequently accepted for publication in Transactions on Transport Sciences following the journal’s reviewing procedure. The aim of the conference was to discuss a broad range of road safety topics with a special focus on research questions and challenges related to safer active urban mobility. Keynote speeches were given by Merja Spott of the Senate Department for the Environment, Transport and Climate Protection in Berlin, and by Wolfgang Fastenmeier, professor Traffic and Transport Psychology at the Psychological University of Berlin.

First established in 1977, ICTCT was an initiative instigated by researchers who wanted to work together on developing traffic conflict techniques as a complement to injury and accident data for research, diagnosis and evaluation purposes. Later, ICTCT’s focus widened to include theories and methods enabling researchers and practitioners to work on road safety without having to rely solely on scarce or insufficient accident and injury data. Since then, ICTCT has organised annual thematic conferences.

The 8 papers selected for this special issue vary with respect to the topics dealt with and the approaches followed. Two papers look at a more methodological perspective. Jakobowsky et al. compare two traffic conflict techniques to assess encounters in shared space environments: the Swedish traffic conflicts technique (STCT) and the pedestrian-vehicle conflicts analysis (PVCA). While both techniques yielded similar results, this could not be confirmed for all the assessed encounters. Gruden et al. assessed the performance of a pedestrian crossing time prediction model by comparing its outputs with a microsimulation model.

Other papers provide interesting examples of how human responses to changing environments can be assessed. Gitelman & Korchatov explored the safety level of a signalized roundabout with crossing bus rapid transit by analysing video recordings. The pilot demonstrated how useful a thorough analysis of observed behaviour in real-world conditions can be, even if results cannot directly be generalized. Junghans et al. used video recordings to assess the real-world consequences of employing a SAE3-level test vehicle. Their work underpins the further development of algorithms that try to optimize efficiency aspects of automated vehicles, without relaxing safety requirements. Bärwolff et al. investigated pedestrian and cyclist falls in icy or snowy conditions by means of a survey and by camera observations. In winter conditions behaviour of pedestrians and cyclists turns out to change in terms of speed and lateral position on the road. Stark et al. observed young pedestrians’ cell phone use at road crossings. The results show how much cell phone use while walking, even when crossing a street, has become a routine.