



Call for abstracts

37th ICTCT Conference in Berlin, Germany
on 23rd – 24th October 2025

Data and methods for evidence-based road safety measures and applications

The objective of the conference is to support the understanding and the execution of suitable approaches to move towards a transportation system without severely injured or killed road users. Due to the rapid progress in the development of powerful computing technology and the enormous potential of artificial intelligence, we have the opportunity to uncover the effects of traffic infrastructure, physical conditions, traffic environment and other risk factors, as for example human behaviour, on traffic safety.

Conference topics

Although the number of severe and fatal road user crashes has decreased in many countries thanks to effective measures for road safety, those numbers are still alarmingly high. Established methods such as crash or conflict data analysis have helped to understand traffic safety. However, as crash numbers decrease, areas for progress may become less clear. Powerful methods are required to analyse a large amount of data to achieve evidence on the effects of risk factors on traffic safety. The smart application of AI promises to unveil and fill the current knowledge gaps and understanding the effects of, for instance, infrastructure on road user behaviour and road safety. The application of AI goes hand in hand with novel methods of data generation and data enhancement for traffic safety analysis. Therefore, ways to improve the quality of road safety data including performant methods for data collection, data analysis and interpretation, data modelling, and data enhancement are urgently needed. Contributions featuring innovative methods, approaches, models and tools for the assessment of road safety and the reduction of the impacts of road crashes with special attention to vulnerable road users (VRU), as well as any other road safety related aspects are welcomed.

A non-exhaustive list of topics includes:

- Data acquisition, data fusion, data analysis and data processing for safety research (e.g., crash data, trajectory data, traffic data, infrastructure data, medical data, behavioural and interaction data, research bicycles, e-scooters or other forms of micro-mobility, human behaviour or naturalistic driving studies, eye-tracking, VRU simulators etc.)

- Methods and approaches for safety analysis, e.g., artificial intelligence (AI), large language models (LLMs), surrogate measures of safety (SMoS), injury risk functions (IRF), information theory, signal processing, simulation approaches, crash prediction models (CPMs), highway safety manual (HSM) predictive models, safety in numbers (SiN), collision risk quantification and prediction.
- Safety applications and measures (e.g., V2X for safety alerts, automation, geofencing, safety/criticality dashboards, mobile applications, intelligent traffic management/control, road design tools for traffic planning), including human responses to these measures.
- Any other methods relevant to improving road safety: from various possible perspectives: social sciences, psychology, management, economics, road safety management, product design, etc.

Special sessions:

1. **Surrogate measures of safety:** The scope of this session are practical and methodological studies using near-crashes or other safety-critical events in traffic for safety diagnosis. This includes traffic conflict observations, analysis of near-misses in naturalistic data, the generation and use of injury risk functions and the adoption of microscopic simulation. Authors aiming at presenting in this session may mark the checkbox “SMoS special session” during the submission process to ensure the correct assignment of reviewers.
2. **Infrastructure safety:** The authors are invited to present practical and methodological approaches for impact assessment of risk factors and safety measures with focus on infrastructure design (e.g., urban and rural roads, crossing types, cycle infrastructure motorways, railway crossings; various traffic, luminosity and weather conditions). The attendees of this session may mark “Infrastructure safety” during the submission process to ensure the correct assignment of reviewers.

Submission process

The submission process and registration will be available on [37th ICTCT Conference 2025](#).

Your extended **abstract** (500 – 700 words) should include the following points:

- Background
- Aim
- Method or methodological issues
- Results obtained or expected
- Conclusions

Please note that the abstract can be submitted as plain text, but pictures, diagrams, etc. can help the reader better understand. Do not use references unless absolutely necessary. The system will not accept abstracts longer than 700 words. Provide 3-6 keywords characterizing your submission.

The assessment will be based upon the following criteria: i) scientific quality, (ii) relevance of the topic in relation to the conference theme, and (iii) likelihood to raise the interest of the present audience and to stimulate discussion. Early career researchers are encouraged to do their first presentation at the conference.

Contributions can be accepted for either a poster or an oral presentation (note that the number of oral presentation slots, so not all preferences can be fulfilled).

Important dates

- Deadline for abstract submission: **31 March 2025**
- Notification of acceptance: **16 June 2025**

Presentations

Presentations should, as far and as much as possible, be based on empirical studies with the goal to improve understanding of road users' risks, behaviours and their responses to the conditions in which they take part in traffic. Theoretical contributions related to these issues are welcomed, too.

Full papers

Full papers are not required but welcomed. Participants of the conference are encouraged to submit a full paper to a conference-related special issue of the scientific journal Traffic Safety Research (TSR), <https://tsr.international/>. Details about this special issue will be announced later. Besides that, ICTCT offers to publish the full paper version (not peer reviewed) on the ICTCT homepage.

Information regarding travel and accommodation will follow soon at <https://www.ictct.net/conferences/37-berlin-2025/>.

Contacts and organisation

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General information about ICTCT, members, proceedings of the past conferences, etc. can be found at www.ictct.net.