Bolstering the functional safety of Autonomous Driving Vehicles with Safety of Intended Functionality (SOTIF) by overcoming unknown risks in ISO26262

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Keywords: Functional Safety, Autonomous Driving Vehicles, Automotive, Verification and Validation, ISO26262, ISO/PAS 21448 SOTIF, HARA, Safety analysis.

The onset of autonomous driving has been a technological boon in the field of automotive. It also has several challenges in the functional safety perspective that when handled meticulously lead to safer commute. This paper can help one understand engineering of the autonomous vehicles in compliance with ISO26262 standard and how to overcome the unknown risks of ISO26262 with ISO/PAS 21448 Safety of Intended Functionality (SOTIF). The solution proposed will comply with the safety standards of automated driving levels. Basic sources of risk are insufficient specification, performance limitations are also addressed. The different requirements, scenarios and statistics are assessed carefully to identify use cases that involves risks, functional enhancements, conceptual risks in verification and validation, triggering conditions, foreseeable misuses, unfavourable weather conditions there by attaining the goal of safe autonomous driving without any hazards.

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