

ISO PAS 8800 - An automotive safety standard for AI

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This presentation provides an overview of the upcoming standard ISO PAS 8800 Road Vehicles - Safety and AI, as well as the wider context of safety standards in this area.

The motivation behind the structure and key concepts of ISO PAS 8800 is explained, including how these can be interpreted in combination with ISO 26262 and ISO 21448. ISO PAS 8800 proposes an AI safety life cycle which takes an iterative approach to eliciting requirements on the AI system, developing and testing the system and validating it within the system context. The various phases of this safety lifecycle are presented, including treating training and verification datasets as safety-relevant work products themselves, thus requiring the allocation of safety requirements, verification and safety analysis. A core requirement of the standard is also the production of a safety assurance argument that is continually maintained during operation. This ensures that risks are re-evaluated as previously unknown insufficiencies in the system come to light and that changes in the system or the environment do not undermine the validity of the argument.

The application of ISO PAS 8800 must be understood within the wider context of the evolving landscape of safety and AI standards as well as regulations, both for automated driving as well as AI in general. In addition, both the technologies, as well as the use cases for automotive AI applications are constantly evolving. The presentation therefore gives an overview of future standardization activities within the ISO TC 22/SC32/WG 14 Road Vehicles – Safety and AI working group.