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Begriffe und Definitionen in Bezug auf die Prüfung automatisierter Fahrzeugtechnologien; Text Deutsch und Englisch

Terms and Definitions Related to Testing of Automated Vehicle Technologies; Text in German and English

Termes et définitions relatives aux essais des technologies des véhicules automatisés; Texte en allemand et anglais

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Foreword

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This specification has been published in English and German.

At present, there are no standards covering this topic in the body of German Standards.

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Introduction

As Automated Vehicle (AV) research and development intensifies and nears projected commercialization, various industry stakeholders have expressed an urgent need to establish a common language vocabulary around and understanding among industry stakeholders, particularly with regard to the latest technological developments around AV testing. Of particular issue are terms being used in completely different ways by different individuals, organizations, projects and countries. Of less critical but still important concern are multiple terms being used to express essentially the same concept. And then there are selected terms whose wording does not impart clarity of meaning. In the current discussion on automated driving, specific terms such as “controlled environment” or “scenario” are frequently misrepresented or used in multiple contexts. Terms also differ among countries and even within them.

This specification is document addresses these issues by establishing concise and clear terms and definitions contains terms and definitions related to the testing of automated vehicles. The intention is that DIN SAE SPEC 91381 be universally used, referenced and adopted to facilitate clear and unambiguous communication around this topic until such time that they might be incorporated into formal standards by the sponsoring bodies (DIN and SAE International). At the time of its publication, there are no internationally recognized standards covering the terms and definitions in this document within the scope and context of AV testing.

The urgency to harmonize AV testing language is great, as it is a necessary precursor to the development of any AV testing standards that should follow. To meet this need SAE and DIN worked cooperatively to bring their constituent stakeholders and jointly develop this co-branded, bi-lingual (German/English), specification. To reiterate, the terms and definitions in this specification are intended to be used unaltered and referenced broadly by the global community in order to foster a common vernacular around AV testing, and in fact many of these terms are commonly in use and/or have been derived from their use by German and European pilot research projects.

Language is not static but ever-evolving. There is certain expectation that this specification will undergo several revisions in response to the evolution of dialogue and vernacular around AV testing. DIN and SAE encourage future contributors to participate in this important process.

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1 Scope

This bilingual DIN SAE SPEC (German/English) defines terms used in automated vehicle technology, particularly terms relating to simulations and test environments. This document will be a useful tool for further research and development activities in this area, and for better communication with international partners. It will help unify language in this complex, interdisciplinary field.

This DIN SAE SPEC does not define terms on levels of automation or vehicle parameters.

This DIN SAE SPEC (PAS) is intended for R&D personnel, software developers, test track operators, testing organizations and manufacturers of automated vehicles.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

There are no normative references in this document.

3 Terms and definitions

3.1 General

For the purposes of this document, the following terms apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at http://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

DIN and DKE maintain terminological databases for use in standardization at the following addresses:

— DIN-TERMinologieportal: available at https://www.din.de/go/din-term

— DKE-IEV: available at http://www.dke.de/DKE-IEV

The following terms and definitions are clustered in three subject areas (3.2 Test methodology, 3.3 Test environment, 3.4 Scenario description).

3.2 Test methodology

3.2.1
baseline
reference to which the series of tests in a study are compared

3.2.2
control factors
influential variables that are kept constant within a series of tests

3.2.3
derived measurement
measurement calculated from a direct measurement (e. g. by applying mathematical or statistical operations) or a combination of one or more direct or derived measurements

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