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Intelligent transport systems — Full speed range adaptive cruise control (FSRA) systems — Performance requirements and test procedures

Systèmes intelligents de transport — Systèmes de commande de croisière adaptatifs à la gamme entière de vitesse (FSRA) — Exigences de performance et méthodes d'essai

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Foreword

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ISO 22179 was prepared by Technical Committee ISO/TC 204, *Intelligent transport systems*.

Introduction

The main system function of full speed range adaptive cruise control (FSRA) is to control vehicle speed adaptively to a forward vehicle by using information about:

a) distance to forward vehicles,

b) the motion of the subject (FSRA equipped) vehicle, and

c) driver commands (see Figure 1).

Based upon the information acquired, the controller (identified as “FSRA control strategy” in Figure 1) sends commands to actuators that carry out its longitudinal control strategy, and sends status information to the driver.

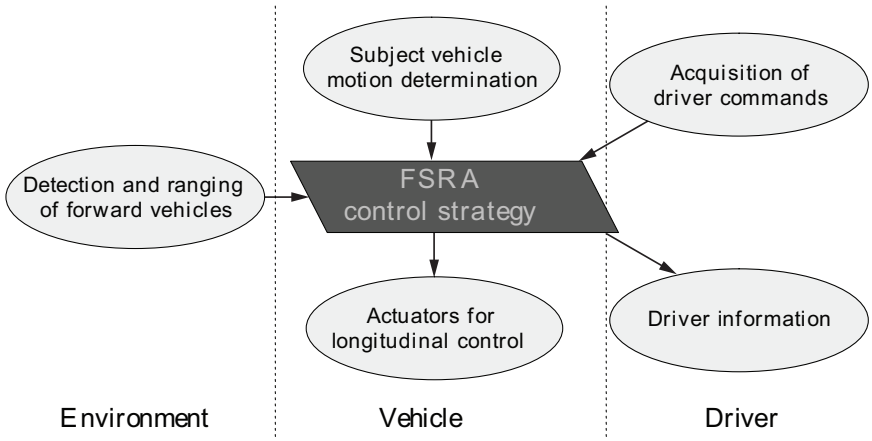

Figure 1 — Functional FSRA elements

The goal of FSRA is partial automation of longitudinal vehicle control to reduce drivers’ workload.

This International Standard may be used as a system level standard by other standards, which extend FSRA to a more detailed standard, e.g. for specific detection and ranging-sensor concepts or higher levels of functionality. Issues such as specific requirements for the detection and ranging sensor function and performance or communication links for co-operative solutions are not considered in this International Standard.