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Intelligent transport systems — Low speed following (LSF) systems — Performance requirements and test procedures

Systèmes intelligents de transport — Systèmes suiveurs à basse vitesse (LSF) — Exigences de performance et méthodes d'essai



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Contents

Page

Foreword.....	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and abbreviated terms	3
5 Classification — types of LSF systems	4
6 Requirements	4
6.1 Basic control strategy	4
6.2 Applicable target vehicle	6
6.3 Functionality.....	8
6.4 Basic driver interface and intervention capabilities	10
6.5 Operational limits.....	11
6.6 Activation of brake lights.....	12
6.7 Failure reactions	12
6.8 Combination with other systems	13
7 Performance evaluation test methods.....	13
7.1 Environmental conditions.....	13
7.2 Test target specification	14
7.3 Detection zone test	14
7.4 Target discrimination test.....	15
7.5 Automatic deceleration test.....	17
7.6 Automatic retargeting capability test (type 2 LSF system only).....	18
7.7 Curve capability test.....	19
Annex A (normative) Technical information.....	23
Bibliography	28

Foreword

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

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Introduction

The main system function of low speed following is to control vehicle speed adaptively to a forward vehicle by using information about: (1) ranging to forward vehicles, (2) the motion of the subject (LSF equipped) vehicle and (3) driver commands (see Figure 1 — Functional LSF elements). Based upon the information acquired, the controller (identified as “LSF control strategy” in Figure 1) sends commands to actuators for carrying out its longitudinal control strategy and also sends status information to the driver.

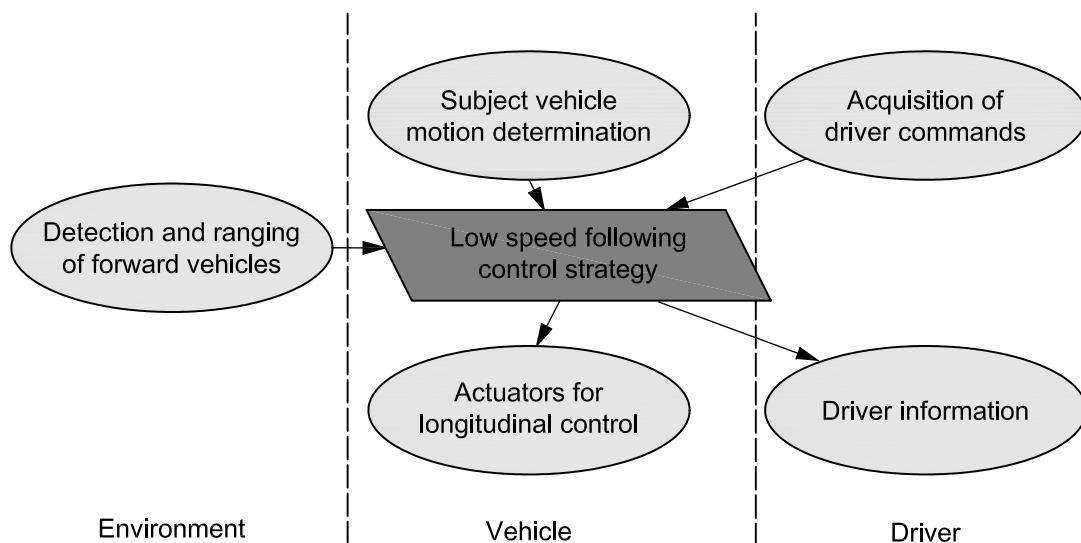


Figure 1 — Functional LSF elements

The goal of LSF is a partial automation of the longitudinal vehicle control to reduce the driver’s workload.

This International Standard may be used as a system level standard by other standards, which extend the LSF to a more detailed standard, e.g. for specific detection and ranging sensor concepts or higher level of functionality. Therefore, issues like specific requirements for the detection and ranging sensor function and performance or communication links for co-operative solutions will not be considered here.