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Intelligent transport systems — Forward vehicle collision mitigation systems — Operation, performance, and verification requirements

Systèmes intelligents de transport — Systèmes d'atténuation de collision de véhicule frontale — Exigences de fonctionnement, de performance et de vérification



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

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The committee responsible for this document is ISO/TC 204, *Intelligent transport systems*.

Introduction

Forward Vehicle Collision Mitigation Systems (FVCMS) reduce the severity of forward vehicle collisions that cannot be avoided, and may reduce the likelihood of collision with forward vehicles. FVCMS require information about range to forward vehicles, motion of forward vehicles, motion of the subject vehicle, driver commands and driver actions. FVCMS detect vehicles ahead, determine if detected vehicles represent a hazardous condition, and warn the driver if a hazard exists. They estimate if the driver has an adequate opportunity to respond to the hazard. If there is inadequate time available for the driver to respond, and if appropriate criteria are met, FVCMS determine that a collision is imminent. Based upon this assessment, the FVCMS will activate vehicle brakes to mitigate collision severity.

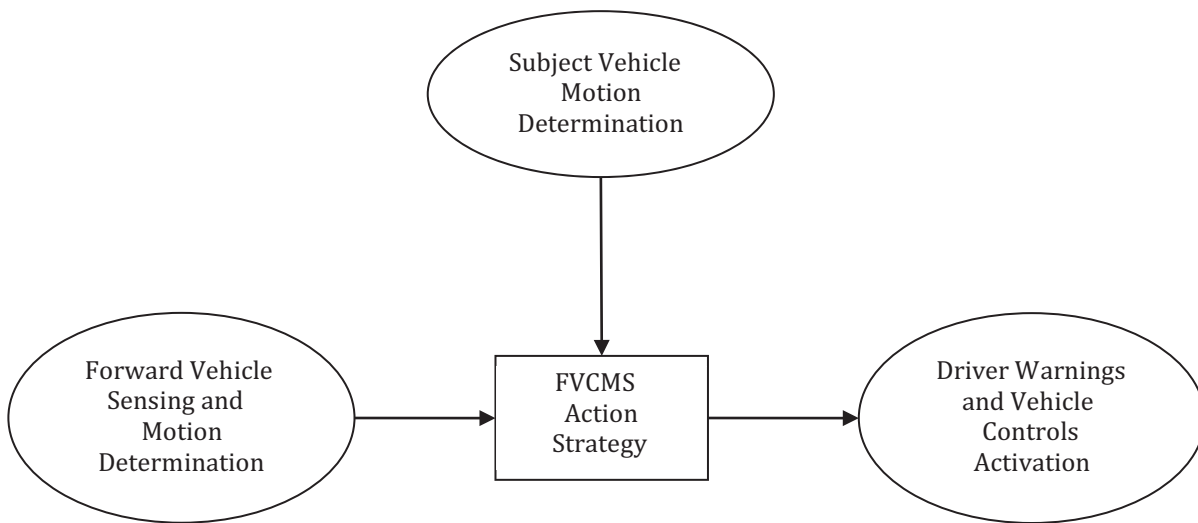


Figure 1 — Forward Vehicle Collision Mitigation Systems (FVCMS) Functional Elements

System designers and other users of this International Standard may apply it to stand-alone FVCMS or to the integration of the FVCMS functions into other driving assistance and support systems.