Interactive Collision Avoidance Controller- Design and Realization

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Abstract

This paper mainly discusses about the design and realization aspects of collision avoidance (CA) controller which has the capability of interaction. In other words, the controllers can talk with each other while operating in the field. Both static collisions and dynamic collisions scenarios were addressed. The key feature of the control algorithm is that the vehicles on course of an imminent collision communicate with each other and cooperatively takes collision evasive maneuvers using a simple master slave mechanism and dynamically changing the roles of master and slave as per the requirement.

1. Introduction