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# 车用自组织网络传输控制研究

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## Abstract

Vehicle ad-hoc network (VANET), as an application of mobile ad-hoc network and sensor network on road, has no an integrated protocol architecture, and has no special transmission control protocols available. In order to provide the reference for transmission protocol design of VANET, this paper investigates the goals and elements that the transmission protocol design should conform with. At first, this paper introduces the characteristics and applications of VANET, and the challenges of transmission control of VANET. Then the classification standards for wireless transmission protocol are presented. The advantages and disadvantages are discussed with analysis and comparison if various classes of wireless transmission control protocol are applied to VANET. Furthermore, according to the characteristics of VANET, the goals and elements of transmission control design of VANET are proposed. Finally, the research trends of transmission control of VANET are prospected.

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## 摘要

车用自组织网络——VANET(vehicle ad-hoc network)作为移动自组织网络和传感器网络在道路交通领域的应用,不具备完整协议体系结构,没有专门的传输控制协议.为提供VANET传输协议设计参考,研究了VANET传输协议设计应具备的目标和要素.首先介绍了VANET的特点、研究内容及其传输控制所面临的挑战.然后提出了无线传输协议的分类方法,使用分析和比较的方式讨论了各类无线传输协议用于VANET的利弊,并针对

VANET应用及特性提出了VANET传输控制协议设计目标和设计要素.最后展望了VANET传输控制未来的研究方向.

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