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Zheng Kan
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Introduction Architecture of Heterogeneous Vehicular Networks Efficient MAC Mechanisms for Heterogeneous Vehicular Networks Resource Allocation in Heterogeneous Vehicular Networks Conclusions and Outlook.
This brief examines recent developments in the Heterogeneous Vehicular NETworks (HETVNETs), integrating cellular networks with Dedicated Short-Range Communication (DSRC) for meeting the communications requirements of the Intelligent Transport System (ITS) services. Along with a review of recent literature, a unified framework of the HetVNET is presented. The brief focuses on introducing efficient MAC mechanisms for vehicular communications, including channel access protocols, broadcast/multicast protocols, the location-based channel congestion control scheme and the content-based resource allocation scheme. The cooperative communication between vehicles is discussed. This brief concludes with a discussion on future research directions, and provides the readers with useful insights into the future designs in the HetVNETs, to motivate new ideas for performance improvements in vehicular networks

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