

Editorial

Vehicular Ad Hoc Networks

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With vehicular ad hoc networks gaining an ever-increasing interest to serve a diverse variety of applications in today's intelligent transportation systems, it was not at all surprising for the guest editorial team to receive a handful of submissions for this special issue addressing different aspects and test-beds of vehicular networks. In sum, 8 papers were accepted to be published in the special issue. An interesting note to make is that 5 of the accepted papers had an actual experimental implementation carried out in the road and under real-world conditions. This certainly helps to justify their application and usefulness for future deployment by the industry and authorities. While all papers address enhancing the safety and efficiency of driving, each of them addresses a certain aspect of this issue.

The paper by M. J. Flores et al., “*Driver Drowsiness Warning System Using Visual Information for Both Diurnal and Nocturnal Illumination Conditions*,” seeks to locate, track, and analyze both the drivers face and eyes to compute a drowsiness index under varying light conditions (diurnal and nocturnal).

In their paper “*Multiobjective Reinforcement Learning for Traffic Signal Control Using Vehicular Ad Hoc Network*,” D. Houli et al. propose a new multiobjective control algorithm based on reinforcement learning for urban traffic signal control, named, multi-RL.

M. Tsukada et al. in “*Design and Experimental Evaluation of a Vehicular Network Based on NEMO and MANET*,” present a policy-based solution to distribute traffic among multiple paths to improve the overall performance of a vehicular network.

The paper “*Traffic Data Collection for Floating Car Data Enhancement in V2I Networks*” by D. F. Llorca et al. presents

a complete vision-based vehicle detection system for floating car data (FCD) enhancement in the context of vehicular ad hoc networks.

S. Miyata et al. in “*Improvement of Adaptive Cruise Control Performance*” propose a more accurate method for detecting the preceding vehicle by radar while cornering.

The paper “*Reducing Congestion in Obstructed Highways with Traffic Data Dissemination Using Ad hoc Vehicular Networks*” by T. D. Hewer et al. presents a message-dissemination procedure that uses vehicular wireless protocols to influence vehicular flow, reducing congestion in road networks.

M. Koubek et al., in “*Reliable Delay Constrained Multihop Broadcasting in VANETs*,” focus on mechanisms that improve the reliability of broadcasting protocols, where the emphasis is on satisfying the delay requirements for safety applications.

Finally, M. G. Cinsdikici and K. Memiş in “*Traffic Flow Condition Classification for Short Sections Using Single Microwave Sensor*” seek to identify the current traffic condition by examining the traffic measurement parameters and taking into account occupancy as another important parameter of classification.

We hope this special issue can help the research community further its understanding of this emerging field.

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