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5G Enabled Vehicular Social Networks and Internet of Things – Models and Applications

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Topics of interest for this special issue include but are not limited to:

- 5G Network design for distributed communication systems
- 5G Network architectures and algorithms for Vehicular Social Networks
- Intelligent IoT and Vehicular Social networks
- 5G based interconnection of smart things/devices /objects
- Components, algorithms and functions of 5G in virtualized vehicular environment
- Performance evaluation of 5G based Vehicular Social Networks
- 5G based network workload profiling techniques
- 5G based smart network resource management techniques
- 5G based QoS satisfaction models
- Network user modeling techniques
- Intelligent data processing techniques in 5G based Vehicular Social Networks
- Reliable and energy-efficient network design for Vehicular Social Networks

The Internet and the evolving communication and networking technologies are reshaping the future of vehicular communication and social networks. At present the communication scenario of vehicular networks are facing number of challenges in its delay-tolerant architectures, traffic collision avoidance and also in the case of infotainment applications. Eventhough the social networking technologies are increasing its ubiquity in connecting people at anywhere and at any time with its underlying Internet of Things [IoT] architecture, it has become very limited in the existing vehicular communication architecture. In particular, vehicles at motion tend to receive only the low-internet speed, where the network latency is very high with maximum number of delays in the internet connection.

Recently, many heterogeneous vehicular devices are seamlessly integrated with the internet and mobile cellular networks. In some cases, these networks deliver only a limited bandwidth to its users. This makes the users to experience a dynamic state of internet connection, where the network responsiveness will be very low and at the same time it consumes more power. However, this arises the need to develop key enabling technologies that has the capability to provide an uninterrupted internet connection, which can make the social networks to provide unlimited infotainment to the vehicular network users and the interconnected vehicles. In this context, 5G communication and network technology has the significant potential to deliver a power efficient, fast, and responsive internet connection for the vehicular social networks as well as to the internet of vehicles architecture. The increasing research on 5G networks, and vehicular social networks results in developing an optimal performance in the virtualized vehicular social networks and internet of vehicles architecture. Specifically, the 5G networks are used to reduce the latency and energy consumption with a better internet reach for the vehicular social networks. Nevertheless, some areas like the establishment of trust on these 5G networks, performance evaluation are still remaining unexplored.

This special issues aims to collect the state-of-the-art research works that deploys the 5G and AI based communication and networking design for the vehicular social networks and Internet of Things model.

Papers must describe original research that advances state-of-the-art research and must not be simultaneously submitted to a journal or a conference with proceedings. Papers must be written in excellent English and should not exceed 20 pages. Previously published or accepted conference papers must contain at least 40% new material to be considered for the special issue. A covering letter to the Guest editors clearly describing the extensions made must accompany these types of submissions.
All submissions must be made using the instructions available at: http://annalsoftelecommunications.wp.mines-telecom.fr/how-to-publish/

The authors can directly submit their papers at: https://www.editorialmanager.com/ante/ and must select the item "CfP: 5G Enabled Vehicular Social Networks and IoT" when answering the submission questionnaire (additional information stage).

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Proposed schedule

- **Manuscript submission**   ~~June 30, 2020~~ Extended to September 30, 2020
- **Online with DOI**   As soon as accepted
- **Printed issue**   2021