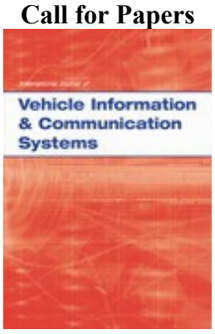
Call for Papers



Int. J. of Vehicle Information and Communication Systems (IJVICS)

ICCDC 2019: Special Issue on: "Advances and Future Trends in Vehicular Communication, Computing and Applications"

Guest Editors:
Prof. Victor C. M. Leung, University of British Columbia , Canada
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This special issue aims to explore recent state-of-the-art developments in the emerging fields of self-organising VANETs for future intelligent transport systems (ITSs), co-operative VANET-UMTS networks, utilisation of mobile femto-cell in LTE/5 G vehicular environments, VANETs in cloud computing environments, cross-layer design issues, cross-layer security, evaluation of cross-layer performance metrics, practical implementations of C-V2X (cellular vehicle-to-everything), inter-vehicle communication using IEEE 802.15.3 and IEEE 802.15.4, intelligent transportation systems applying flying ad hoc networks (FANETs), and practical implementations of 802.11p-based DSRC.

The objective of the special issue is to provide an intellectual forum for researchers both from academia and industry, and to support the research community of vehicular communication and computing in continuing their innovative work and in focusing on future research challenges.

The special issue will carry revised and substantially extended versions of selected papers presented at the 2nd International Conference on Communication, Devices and Computing (ICCDC 2019), but the issue also welcomes other experts from around the world to submit their state-of-the-art research findings.

Subject Coverage

Suitable topics include, but are not limited, to the following:

- Self-organising VANETs for future intelligent transport system (ITSs)
- Distributed processing in vehicular communication
- LTE, MIMO, HetNet IEEE 802.11p co-operative communication and deployment
- Cooperative VANET-UMTS networks
- Utilisation of mobile femto-cell in LTE/5 G vehicular environment
- Performance improvement and minimisation of vehicular penetration
- Propagation and packet error models in VANETs
- Application of Doppler shift, evaluation and estimation, time-frequency synchronisations, run-time estimation of channels
- VANETs in cloud computing environment
- Computational complexity and distributed computing in nodes in VANETs
- Routing protocols security and privacy in VANETs
- Intelligent communication: V2V, V2R, V2I
- Efficient configuration protocols in IEEE 802.11p
- Cognitive radio and dynamic spectrum access methods
- Issues of high-mobility communicating vehicles: dynamic topology, minimisation of delay
- Address issues of nodes in VANETs

- Intelligent transportation systems applying flying ad hoc networks (FANETs) – issues and challenges
- Cognitive MAC and MAC protocols in VANETs
- MAC layer cooperative models
- Real-time multimedia traffic flow in VANETs/hetrogeneous VANETs: QoS and QoE requirements
- Context-aware services in next-generation networks with applications to vehicular networking environments
- Vehicular social-networking systems
- Inter-vehicle communication using IEEE 802.15.3 and IEEE 802.15.4
- Cross-layer design issues, cross-layer security, evaluation of cross-layer performance metrics
- Design and compatibility issues of heterogeneous VANETs
- Dynamic on-demand bandwidth allocation and resource utilisation
- V2X communication assisted by cellular networks
- Cellular floating vehicle data
- Localisation of VANETs with GPS
- Intelligent VANETs for ubiquitious computing
- On-demand traffic condition monitoring in VANETs
- Design and optimisation of performance of vehicular antennas
- Dynamic load balancing in VANETs
- Route optimisation and re-routing for congestion and collision avoidance
- Bio-inspired protocols in VANETs
- Test bed architecture and deployment of VANETs and practical applications issues
- Simulation of stochastic models in VANETs
- Vehicular sensor networks
- Future trends of IoV
- Self-driving vehicles using ICT
- Embedded integration with in-vehicle electronics for vehicular communication
- Security threats, issues of authentication and challenges in vehicular communication
- Business model rules and regulations in VANETs
- Emerging technologies and practical implementations of C-V2X (cellular vehicle-to-everything, or cellular-V2X)
- Practical implementations of 802.11p-based DSRC

Notes for Prospective Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. (N.B. Conference papers may only be submitted if the paper has been completely re-written and if appropriate written permissions have been obtained from any copyright holders of the original paper).

All papers are refereed through a peer review process.

All papers *must* be submitted online. To submit a paper, please read our Submitting articles page.

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Important Dates

Manuscripts due by: *1 August, 2019*

Notification to authors: *1 October, 2019*

Final versions due by: *1 December, 2019*