

Call for Papers: IEEE Transactions on Vehicular Technology Blockchain for Vehicles and Intelligent Communications

TVT seeks submissions for an upcoming special issue

Abstract

The proliferation of vehicles and intelligent communications is generating enormous amount of data for enabling autonomous driving and innovative communications applications. The data may raise efficiency and security concerns to users, e.g., offering real-time services for smart phones/devices/vehicles and exposing sensitive driving information to the untrusted 3rd party.

Blockchain, which is featured with decentralization recording and tamper-proofing, has been emerged as a promising approach for mitigating data security risks of vehicles and intelligent communications. In addition, incorporating with smart contracts and other techniques, users connected through blockchain can share the data information in an efficient, private and secure manner, thereby reducing the management cost of service provision, improving the security of intelligent communications, and protecting the privacy of vehicles and mobile users. Further, highly dynamic communication topology caused by driving vehicles may undermine the establishment of consensus protocols. Thus, efficiency will become a critical challenge in leveraging blockchain for delay sensitive services in vehicular and intelligent communications.

The aim of this special issue is to seek high-quality papers focusing on the use of blockchain for vehicles and intelligent communications, and to bring together researchers and experts from both academia and industry to provide their innovative insights into blockchain for vehicles and intelligent communications. Specifically, it solicits new architectures, protocols, theories and algorithms that leverage blockchain for vehicles and intelligent communications.

The topics of interest include, but are not limited to:

- Blockchain architectures and protocols for vehicles and intelligent communications
- Blockchain architectures, protocols, and algorithms for intelligent wireless communications
- Blockchain theories and algorithms for vehicles and intelligent communications
- Network and computing optimization in blockchains for vehicles and intelligent communications
- Blockchain and AI for vehicles and intelligent communications
- Blockchain-enabled intelligent communication techniques
- Blockchain technology for intelligent communications in vehicles
- Blockchain based security, privacy, and trust for vehicles and intelligent communications
- Deployment and feasibility study in vehicles communications based on blockchain technology
- Blockchain for intelligent transportation systems, vehicular networks, and autonomous vehicles
- Decentralization optimization in blockchain empowered vehicles and intelligent communications
- Scalable consensus algorithms for vehicles and intelligent communications

- Lightweight blockchain designs for vehicles and intelligent communications
- Innovative applications and research in blockchain for vehicles and intelligent communications

Important Dates

- Manuscript Submission Due: July 1, 2020
- First Notification Due: October 1, 2020
- Revised Submission Due: November 1, 2020
- Notification of Acceptance: December 1, 2020
- Final Papers Due: January 1, 2021
- Publication Date: 2021

Submission Guidelines

Please submit your paper to Manuscript Central at: <http://mc.manuscriptcentral.com/tvt-ieee>.

Author guidelines are available at: <http://www.it.is.tohoku.ac.jp/~tvt/authors/information.html>.

The submissions must be original and not under consideration in any other venues.

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