IEEE Transactions on Intelligent Transportation Systems

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Title of Issue: Special Issue on Optimization for Electric Vehicles Networks and Heterogeneous Networking in Smart Future Cities

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Description (couple of paragraphs):
Smart cities can manage assets and resources efficiently by using different types of electronic data collection sensors, devices and vehicles, specially monitor and manage traffic and transportation systems. Meanwhile, through GPS, RFID, sensors, camera image processing and other devices, Internet of vehicles can complete the collection of transportation environment and state information, transmit the real time information to the central processing unit for analyzing and processing the best route of different vehicles, timely reporting road conditions, etc. Specially, Electric vehicles can significantly help smart cities to become greener by reducing emissions of the transportation sector and play an important role in green smart cities. While smart future cities applications require massive devices and Electric vehicles with real-time communication, computation, management and control, the growing complexity of wireless communications and heterogeneous networking have brought many challenges and opportunities for smart future cities. These challenges have brought several issues for developing communications and networking methods for large scale and heterogeneous networking of Electric Vehicles Networks in Smart Cities. Recently, optimization for Electric Vehicles Networks and mart heterogeneous networking have been investigated to cope with smart future cities, which have shown their great potentials in real time communications, intelligent processing, reliable understanding and efficient management of Electric Vehicles Networks in smart future cities.
However, traditional transportation systems, network design and performance optimization approaches are not competent anymore and cannot satisfy and serve that smart future cities regarding operation and cost optimization effectively for Electric Vehicles Networks. Thus, there is a need for a novel paradigm of proactive, self-aware, self-adaptive and predictive design to solve the challenges faced in optimization for Electric Vehicles Networks and heterogeneous networking in smart future cities. Systematic exploitation of optimization for Electric Vehicles Networks with smart communications and heterogeneous networking helps to make the smart cities system smart, intelligent, and facilitates cost-effective design and performance optimization. Although the studies on wireless communications and

networking for Electric Vehicles Networks are valuable for both research and industry, there are many fundamental problems remain unsolved. In order to pursue first-class research outputs along this direction, this special issue aimed at promoting the scaling-up of optimization and heterogeneous networking for Electric Vehicles Networks, the development of smart future cities models, the design of wireless charging system for sensing devices and electric vehicles, the extension to self-supervised, multi-intelligent, and robust sensors / image /audio communications, and the UAV-based transportation applications, smart cities social network, big data multimedia transmission, security and privacy protection of Electric Vehicles Networks, Intelligent medical treatment, emergency care, etc. This special issue will provide the optimization for Electric Vehicles Networks and heterogeneous networking with a forum to present new academic research and industrial development in Smart Future Cities.

List of Topics:

Topics of interest include, but are not limited to:

- Protocol design and optimization with smart future cities
- Resource allocation with heterogeneous networking in Smart Future Cities
- QoS/QoE provisioning for smart cities surveillance
- Electric Vehicles Networks -Driven automated object detection in smart cities
- Multi-intelligent and robust smart cities transportation systems
- Smart UAV-based modeling and optimization for Electric Vehicles Networks
- Routing and charging scheduling optimization for Electric Vehicles Networks
- Incentive for smart cities video surveillance system
- Intelligent wireless charging system for Electric Vehicles Networks
- Electric Vehicles Networks -based Intelligent medical treatment and emergency care
- Big data analytics techniques for smart cities and electric vehicles
- Electric Vehicles Networks -based intelligent health application
- Electric Vehicles Networks -based wireless sensor’s civil applications and future integration
- Green Electric Vehicles Networks communication in smart future cities
- Versatile management platform for transportation systems in Smart Cities
- Intelligent data transportation in smart cities
- P2P Networks for Electric Vehicles in smart cities
- Deployment and management for smart cities with Electric Vehicles Networks
- Security and privacy protection of Electric Vehicles Networks
- Location privacy techniques deployed in Electric Vehicles Networks

Time Schedule

Original Full Paper

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Revision

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