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Editorial

SmartGift 2018 — Mobile and wireless technologies for sustainable mobility and transportation system

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The emerging technologies for Connected Autonomous Vehicles (CAVs), Unmanned Aerial Vehicles (UAVs), and Internet of Vehicles (IoV) have been evolving rapidly and will reshape our mobility and transportation systems in the near future. Mobile and wireless technologies have been the key enablers in these systems and extensive research have been undertaken to enhance their communication and vehicular performances. However, less attention has been paid to the sustainable factors of these technologies for the systems to minimize their carbon footprints and other potential impacts on the environment.

3rd EAI International Conference on Smart Grid and Innovative Frontiers in Telecommunications (SmartGift 2018) was hosted in Auckland, New Zealand, between April 23 and 25, 2018. The conference covered both 1) next generation electrical grid and 2) telecommunications technologies. This Special Issue on **Mobile and Wireless Technologies for Sustainable Mobility and Transportation System** selected the best relevant papers from SmartGift 2018 to be invited to submit an extended version of their work to *AIMS Electronics and Electrical Engineering*. This special issue aims to present their latest research findings and also ongoing research and development activities in the areas of mobile and wireless technologies that are applied to enable more sustainable mobility and transportation system algorithms and models.

Three papers are invited to submit to this Special Issue. The first paper, '*Optical environment sensing in wireless smart meter network*', presents a wireless smart grid (WSG) platform integrated with optic fiber-based sensors for real-time monitoring. An interface between the measured optical

spectra and the WSG is proposed and demonstrated, and the data acquired is transmitted through a network of wireless smart meters. The proposed technology is well applicable to future smart city. The second paper, '*NOMA for V2X under similar channel conditions*', introduces a novel multiple access technique for V2X network based on non-orthogonal multiple access (NOMA). A special scenario that several vehicles approach towards a road junction from different directions is considered. Since the performance of NOMA is highly dependent upon having significant channel gain difference among users, such scenario poses a challenge to apply NOMA. One current and incoming electric-vehicle (EV) drawback is the variety of EV charging methods available in the market. The third paper, '*E-Mobility: dynamic mono-phase loads control during charging session of electric vehicles*'**,** proposes an adaptive solution to use single-phase recharging points are applied with non-high power for both domestic and working environments. The goal of the research is to allow any end-user who wants to acquaintance with the EV world with a user-friendly support.

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