

Device-to-device communications in wireless sensor networks

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In device-to-device (D2D) communications, devices communicate with each other autonomously without any centralized control and collaborate to gather, share, and forward information in short-range networks such as wireless sensor networks (WSNs), LTE Direct, Wi-Fi Direct, or Bluetooth Low Energy (BLE). D2D communications and networking are a promising concept to improve resource utilization and enhance user quality of experience (QoE) for both licensed and unlicensed spectra. Moreover, D2D communications may extend the network coverage and facilitate new types of wireless peer-to-peer services, while at the same time, increasing energy efficiency of communications. The scope of this Special Issue is in line with recent research advances of D2D communications in WSN. For the current issue, we are pleased to introduce a collection of papers covering a range of topics as follows:

- Design of an energy-efficient multi-hop D2D routing scheme;
- Design of a lightweight authenticated key exchange protocol;

- Design of a greedy algorithm on constructing the minimum connected dominating set in WSN;
- Design of a cognitive lightweight strategy based on game theory and collaboration in D2D Cognitive Networks;
- Design of a social WSN for D2D interactive Internet of things (IoT) services.

As always, we appreciate the high-quality submissions from authors and the support of the community of reviewers.

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