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Optimization performance of unmanned aerial vehicle in wireless sensor network

Abstract

An unmanned aerial vehicle (UAV) has been widely used in the Wireless Sensor Network for remote surveillance with number of advantages such as flexibility, mobility and ease of realization. The UAV can acts as a data collector or a relay between the central gateway and WSNs. The smart system in UAV are able to capture valuable data by using the right acquisition equipment and translate the information to better and faster data-driven decision. In despite of its success in many applications and field of studies, there are still open issues regarding the collaborative of UAV in Wireless Sensor Network such as an optimal trajectory design for the UAV, height between UAV and ground sensor nodes and energy management of the networks. This paper analyses the most common used algorithms to improve the performance of UAV-WSN. Each of the techniques are studied and a comprehensive analysis is presented.