

Abstract

In this paper, the main components of the Smart Grid concept were analyzed, and various wireless technologies, including LoRa, were reviewed in terms of a further use to implement the concept. As the result of the comparative analysis of LoRa and the alternative technologies, the choice of LoRa was justified and main use cases of this technology in smart grids were identified. In the experimental part, the performance of smart grids based on LoRa with various configurations was evaluated using simulation with LoRaSim.