اسم مقاله: Low-Power LoRa Signal-Based Outdoor Positioning Using Fingerprint Algorithm

خلاصه برای related work:

Wongeun Choi et al. make a notable contribution by proposing a novel outdoor positioning method using LoRa signals and a fingerprint algorithm, addressing the limitations of traditional GPS-based systems. Their approach provides a low-power, cost-effective solution suitable for IoT applications, such as tracking people and animals. They conduct extensive experiments using a dataset collected from a 340m x 340m area, where four LoRa gateways recorded RSSI values to create detailed fingerprint maps. The dataset, divided into training and test sets, includes RSSI measurements, GPS coordinates, and metadata, enabling a robust evaluation of positioning accuracy with an average error of 24.1 meters. This work is significant for advancing energy-efficient and practical localization solutions in IoT environments...

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