Performance Evaluation of a 6G UAM Connected Sensor Fusion System

The master thesis aims to develop a connected sensor fusion system focusing on its application in Urban Air Mobility localization. By gathering data from multiple sensors, the air vehicles (AVs) will be able to better estimate the airspace view and improve their route planning. The performance of IoT protocols within the context of a 6G system will be assessed. The study also seeks to evaluate the impact of network performance factors, such as delay and packet loss, on the accuracy of the fusion data. Additionally, the thesis will investigate the impact of a semantic-aware transport layer on the performance of the fusion system. Ultimately, the research not only contributes to the advancement of UAM technology but also aligns with the emerging 6G paradigm, offering a more connected and efficient solution for tactical deconfliction in airspace navigation, making it safer and more reliable.

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