

„Are delivery-drones a solution for the last-mile problem in urban areas?“

Keywords:

E-commerce, Urban areas, last mile, drones

Abstract

The higher volume of parcel deliveries caused through the rise of e-commerce companies and the increased customer requirements over the past years have intensified the so called last mile problems and challenges in urban areas. These problems/challenges include high delivery costs, pollution or the realization of fixed delivery times. Mainly based on a literature review this paper will look into the possibility of using drones for the last mile delivery in urban areas. To create an understanding of last mile problems in cities the current realization of parcel deliveries is explained. On this basis and under consideration of successful drone deliveries by Amazon in the UK or DHL in Germany possible scenarios for including delivery drones in the existing delivery process and network will be discussed. The practicability of this scenarios as well as their ability to solve or decrease last mile problems will be assessed taking into account the legal, technological and social constraints of delivery drones. This examination will show that drones seem to be unsuitable for every day deliveries in urban areas at the moment and should rather be considered for the delivery of special goods like medicine in cities or for the transportation of parcels to remote areas.