

Implementing Delivery Drones in Logistics Business Process: Case of Pharmaceutical Industry

Authors : Nikola Vlahovic, Blazenka Knezevic, Petra Batalic

Abstract : In this paper, we will present a research about feasibility of implementing unmanned aerial vehicles, also known as 'drones', in logistics. Research is based on available information about current incentives and experiments in application of delivery drones in commercial use. Overview of current pilot projects and literature, as well as an overview of detected challenges, will be compiled and presented. Based on these findings, we will present a conceptual model of business process that implements delivery drones in business to business logistic operations. Business scenario is based on a pharmaceutical supply chain. Simulation modeling will be used to create models for running experiments and collecting performance data. Comparative study of the presented conceptual model will be given. The work will outline the main advantages and disadvantages of implementing unmanned aerial vehicles in delivery services as a supplementary distribution channel along the supply chain.

Keywords : business process, delivery drones, logistics, simulation modelling, unmanned aerial vehicles

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020