

## **ABSTRACT**

The aim of this dissertation is to design an air transport system of grapes in a vineyard. Specifically, it includes the design and selection of various parts required for the system to operate successfully.

Firstly the selection of the geometry was effected and then followed by the design of the system. Out of various companies' lists the parts suitable to fit the geometry of the system were chosen and the parts required for assembling the system were designed. The calculations and simulations were effected with the help of the program SimulationXpress of Solid Work in order to check the endurance of the components. Then the corrections required were effected and the final designs of the components were created with the help of the design program of Solid Work.

Based on the study of this thesis, the conclusion is that the creation of this system required a considerable initial cost. The vineyard in which the system was installed should have high levels of production. But for a smaller vineyard the system could have been installed to the smaller carrier adapted based on the specific needs of the vineyard as a more economical solution.