Annotation

In recent years, the topic of flying machines powered by flapping wings has become a subject of interest. These miniature vehicles aim to mimic small birds and insects to achieve unprecedented agility in flight. This renewed interest has brought many new problems in vehicle dynamics and control to study.

During the design special attention was paid to optimizing the load capacity, accident survival and repair capabilities in the field. This dissertation covers the design process of both mechanical and electrical UAV systems. It was also shown that it is possible to stabilize the machine with a simple PD controller through experimental testing.