

# Motion planning of a fixed wings Uav through an hybrid approach based on artificial potential fields and RRT.

EDOARDO GHINI

ghiniedoardo@gmail.com

GIANLUCA CERILLI

gianlucer@gmail.com

Dipartimento di Ingegneria dell'Universita di Roma La Sapienza

May 7, 2018

## Abstract

*This is the abstract, try to be concise !*

## I. INTRODUCTION

**W**<sup>E</sup> will present a work made for an international challenge<sup>1</sup> that every year involves several accademic teams. This article has the following structure : in section 2, we will present the problem statement and in section 3 we will give tecnical informations on the hardware at our disposal, finally in section 4, the adopted solution will be discussed.

## II. PROBLEM STATEMENT

Maecenas sed ultricies felis. Sed imperdiet dictum arcu a egestas.

---

<sup>1</sup>The challenge is the AUVSI-SUAS hosted in united states in summer 2018.

## III. HARDWARE COMPONENTS

### i. Structural design

Maecenas sed ultricies felis. Sed imperdiet dictum arcu a egestas.

### ii. On board computing

Maecenas sed ultricies felis. Sed imperdiet dictum arcu a egestas.

### iii. Sensing instruments

Maecenas sed ultricies felis. Sed imperdiet dictum arcu a egestas.

### iv. Communication devices

Maecenas sed ultricies felis. Sed imperdiet dictum arcu a egestas.

v. Auto pilot framework

Maecenas sed ultricies felis. Sed imperdiet dictum arcu a egestas.

IV. HYBRID PLANNER

i. RRT

Maecenas sed ultricies felis. Sed imperdiet dictum arcu a egestas.

ii. Artificial potentials

Maecenas sed ultricies felis. Sed imperdiet dictum arcu a egestas.

iii. Implementation

Maecenas sed ultricies felis. Sed imperdiet dictum arcu a egestas.

V. CONCLUSION

$$e = mc^2 \quad (1)$$

REFERENCES

[Figueredo and Wolf, 2009] Figueredo, A. J. and Wolf, P. S. A. (2009). Assortative pairing and life history strategy - a cross-cultural study. *Human Nature*, 20:317–330.