First Practice

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***Abstract*—Text has been one of the most important media through the years; it is one of the most important multimedia that hghg...dsds**

I. Introduction

Here, we will call for the first cite, reference as [1]. So, like in [1], [2], [2] we can establish that the animal behaviour, like the random walk can be modelled. Here you can put a general motivation, the problem, related work or state of art, and a general description of the contents of this document.

II. Objectives

This is the general objective of the practice

A. Specific objectives or tasks

Here you can put bullets to put each objective...

- First task
- 2nd bullet
  - SubFirst bullet
- Second task

Or if you prefer, you can put numbers like this

1) One thing
   a) One thing
   b) Second Thing
2) Second Thing

III. System model or design or how it works

Here you can put the solution to the problem you described in section I. Use diagrams, flow diagrams, tables, figures, describe the technologies, protocols, standards, methods, algorithms, etc. you are using and why. As you can see in the Fig. 2a, there's a lot of ways you can manipulate the Figures.

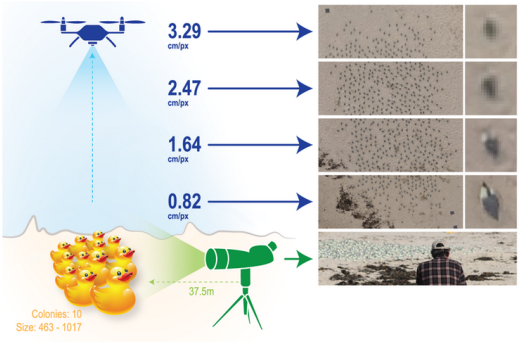
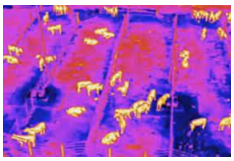


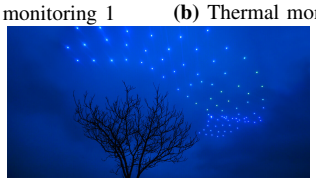
Fig. 1: Experiment scenario

Besides you can include two subfigures at the same time. like in Fig. 2. Here you can see that in figs. 2a to 2c we are

(a) Thermal monitoring 1



(b) Thermal monitoring 2



(c) For swarm

Fig. 2: System implementation of an animal monitoring

TABLE I: UAV Specs

UAV	Size	Type	Range
UAV_1	500 ∼mm	Quadrotor	1000 ∼m
UAV_2	500 ∼mm	Quadrotor	1000 ∼m
UAV_3	500 ∼mm	Quadrotor	1000 ∼m

trying to implement a thermal video footage with a Flir camera to study the vital signs of a cattle using a video and a swarm of unmanned aerial vehicles (UAVs).

then, using the Eq. (1) we'll able to calculate the velocity of the UAVs when they are flying as

$$\nu = \frac{d}{t} \tag{1}$$

where ν is the velocity, d is for distances in meters and t for time in seconds. On table I, it is described the drone specs. In the following section we will describe the development involve in the making of this work.

IV. Development

Based on the system model described in section III, we develop a system that measures the vital signs of a cattle o 10 cows using Flir technology installed in a swarm of drones.

A. The Cattle

The cattle was inside of...

B. The swarm

The swarm of UAvs consists on five quadrotors drones, and each drone has the specfications described on table I.

C. Flir camera

Here the model Flir camera was used and install on every drone...

D. The monitoring system

Here, we integrate all ths subsystems, connecting Flir camera to drone through audio video cable and sending the images to GCS with a video transmitter (VT) attacehd to drones.

V. Results

Here, you can described the scenario, the tests you made and finally the results, with figs.

VI. Conclusions

What did work? what did not? why? What can you fix? What have you learned? and future work, what else can you develop from here?, what can be improved?

References

[1] J. C. van Gemert, C. R. Verschoor, P. Mettes, K. Epema, L. P. Koh, and S. Wich, "Nature conservation drones for automatic localization and counting of animals," in *European Conference on Computer Vision*. Springer, 2014, pp. 255–270.

[2] J. Xu, G. Solmaz, R. Rahmatizadeh, D. Turgut, and L. Bölöni, "Animal monitoring with unmanned aerial vehicle-aided wireless sensor networks," in *2015 IEEE 40th Conference on Local Computer Networks (LCN)*. IEEE, 2015, pp. 125–132.