Saturday UAV Quiz

3rd February, 2024

Note:
Those who have missed/want to retake quiz for compensating for marks of earlier quiz and assignments, can opt for this. This is the final chance before your names are shortlisted.

- 20 Marks
- Handmade notes preferred
- Concise answers, no verbosity, use single sentences where necessary
- More credit for maths and equations.
- 3 hrs. (3rd Feb, 9Pm to 4th Feb, 12AM)

Q1. Imagine a quadcopter hovering ideally completely still in space with yaw, pitch, roll, all zero. Now, given that it is fitted with the following components. Assume that the battery is supplying a constant of 14.8 volts.

Q450 Frame

Motor 810Kv

Pixhawk 2.1

30A ESC

4S Battery

10" x 4.5" Propeller

- A) Calculate the total mass.
- B) Find out how much time can it fly with the 4S battery of 5200 mah rating?
- C) Find out how much power/energy would the quadcopter consume?

Answers Format
Supply in asingle PDF, named as [last_name]_[first_name]_UAVRequiz.pdf