Stabilization of a Quadcopter

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Abstract—**Abstract goes here.**

I. INTRODUCTION

- Present topic - uses of drones in reality context, chosen because it is a control challenge, rather than revolutionary. In the last years, the interest for quadcopters has increased due to the great possibilities offered by these type of machines. Among these, the most well-known ones are surveillance, inspection of big structures and search and rescue missions in difficult environments.
  The quadcopter constitutes a control challenge due to its naturally unstable and coupled behavior. Commonly, the system is controlled by controlling the position and the attitude of the quadcopter, giving at least 6 variables to regulate. It is also important to remark that the quadcopter is an under-actuated system as only four motor velocities can be used to control these variables.TO BE FINISHED, WE NEED SOME COOL STUFF
- Previous Approaches - examples of what others have done to obtain similar goals of stabilization like we pursue. What have others done differently than we plan to do to obtain the same end result.
  The control of a quadcopter has been addressed many times in the recent years. REFER TO PAPERS
- Describe our approach shortly.

- Structure of the paper. What comes in what order, and what the reader can expect to be presented with

II. METHOD

- Model - Drawing, equations, linear equations.
- Controller - Diagram of controller.
- Angle controller - include observer, linear controller.
- Network effect on the system - Analysis of delay in the system.

III. RESULTS

Simulation vs. reality.
Comment on the results and how that correlates with reality, without discussing possible issues or improvements.

IV. DISCUSSION

Discussing possible issues or improvements of the above results.

V. CONCLUSION

Summary - what we want the reader to remember.

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