Design of PID and Fuzzy-PID Controllers for Controlling Quadrotor Attitude and Altitude

***Abstract*—The main purpose of the paper is to develop conventional proportional integral derivative (PID) controller for quadrotor and show the inability of PID controller to handel the uncertainty in the system and so a fuzzy-PID controller is proposed to handle the uncertainty. The mathematical model of the quadrotor is developed using matlab simulink platform and the developed PID controller is used to controll the attitude and altitude without any uncertainty in the system. Then uncertainty is added to the system in the form of disturbance in the input controll signal and it is shown that PID controller can not handle that disturbance. So, a fuzzy-pid controller is designed and the conventionnal pid controller is substituted with the fuzzy-pid controller. And from the simulation it is clearly shown that fuzzy-pid is quite immune to uncertainty.**

***Index Terms*—PID, Fuzzy-PID, Simulink.**

I. Introduction

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mds
August 26, 2015

A. Subsection Heading Here

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II. Conclusion

The conclusion goes here.

Appendix A
Proof of the First Zonklar Equation

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Appendix B

Appendix two text goes here.

Acknowledgment

The authors would like to thank...

References

[1] H. Kopka and P. W. Daly, *A Guide to LaTeX*, 3rd ed. Harlow, England: Addison-Wesley, 1999.

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Michael Shell Biography text here.

John Doe Biography text here.

Jane Doe Biography text here.