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ATTITUDE AND ALTITUDE STABILIZATION OF OUTDOOR TETHERED QUAD-ROTOR

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Abstract: *This paper presents an overview of the most effective ideas for the Quad-rotor project. The concept of modelling using different methods is presented. The modelling part discussed the nonlinear model, and the concept of linearization using small disturbance theory. Parameter identifications part explained the most important parameters that affect the system stability and tried to get suitable solutions for these problems and identify some parameters experimentally. The control part incorporates different classical schemes such as PD and PID controllers to stabilize the Quad-rotor. The difference between the indoor and outdoor controller is presented from the mathematical and the experimental techniques.*