

# UNIVERSITY OF SOUTH FLORIDA

## *Defense of a Master's Thesis*

*Autonomous Monocular Obstacle Detection for Avoidance in Quadrotor UAVs*

by  
*Panos Valavanis*

*For the MSCS degree in Computer Science & Engineering*

*The problem of autonomous UAVs is one which must be solved before full integration into the National Airspace can be achieved. This thesis deals with the real-time obstacle detection problem using a monocular vision-based approach. A software package implementing a simulated environment to be used for educational/research-based purposes is presented, using contour detection to solve the problem of obstacle detection for avoidance in quadrotor UAVs.*

Thursday, May 16, 2019

11:00AM

ENB 337

THE PUBLIC IS INVITED

### Examining Committee

Alfredo Weitzenfeld, Ph.D., Major Professor

Dmitry Goldgof, Ph.D.

Sriram Chellappan, Ph.D.

*Robert Bishop, Ph.D.*  
*Dean, College of Engineering*

*Dwayne Smith, Ph.D.*  
*Dean, Office of Graduate Studies*

### **Disability Accommodations:**

*If you require a reasonable accommodation to participate, please contact the Office of Diversity & Equal Opportunity at 813-974-4373 at least five (5) working days prior to the event.*