

# UNIVERSITY OF SOUTH FLORIDA

## Defense of a Doctoral Dissertation

*A Point Cloud Approach to Object Slicing for 3D Printing*

by

*William E. Oropallo, Jr.*

*For the Ph.D. degree in Computer Science & Engineering*

*Object slicing is a fundamental component in the 3D printing preprocess. This dissertation presents an alternative to the traditional tessellation strategy for object slicing. The proposed algorithm uses point clouds generated from an original model's definitions to calculate intersections of slicing planes with an object's surfaces. This algorithm avoids the complications introduced by tessellating an object for slicing.*

*Tuesday, February 27, 2018*

*12:00 PM*

*ENB 313*

THE PUBLIC IS INVITED

*Examining Committee*

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