

UNIVERSITY OF SOUTH FLORIDA

Defense of a Master's Thesis

Trilateration-Based Localization in Known Environments with Object Detection

by
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For the MSCP degree in Computer Engineering

Many strategies for localization have been proposed, the majority of which rely on distance calculations and estimates. The proposed approach is a method that combines image-based single-camera localization techniques and the principle of trilateration to perform localization in a known indoor environment. By using a camera, the proposed system can detect custom objects using object detection in an indoor environment and calculate an approximation of the camera's position. To recognize the location, some input data such as the size of the environment and the coordinates and sizes of the objects in the environment were given as input to the system together with the distance to such objects that was calculated by a previously calibrated distance detection algorithm

Friday, October 22nd, 2021

11:00 AM

Online (Microsoft Teams)

Please email for more information

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THE PUBLIC IS INVITED

Examining Committee

Alfredo Weitzenfeld, Ph.D., Major Professor

Shaun Canavan, Ph.D.

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Dwayne Smith, Ph.D.

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