

UNIVERSITY OF SOUTH FLORIDA

Defense of a Master's Thesis

*Determining the Effectiveness of Soil Treatment on Plant Stress using
Smart-phone Cameras*

by
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For the MSCS degree in Computer Science & Engineering

A critical aspect, which decides the sustainability of plant growth is the quality of soil. All other things being fixed, the quality of soil greatly impacts the plant stress, which in turn impacts overall health. Although plant stress manifests in many ways, one of the clearest indicators are colors of the leaves. In this thesis, we conducted an experimental study in a greenhouse for detecting plant stress caused by nutrient deficiencies in soil using smart-phone cameras, coupled with image processing and machine learning algorithms. We see applications in the emerging area of urban farming in terms of empowering citizens with tools and technologies for enhancing quality of farming practices.

Thursday, March 31, 2016

11:00 AM

ENB 313

THE PUBLIC IS INVITED

Examining Committee

Sriram Chellappan, Ph.D., Major Professor

Srinivas Katkoori, Ph.D.

Paul Rosen, Ph.D.

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

*Dwayne Smith, Ph.D.
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