# UNIVERSITY OF SOUTH FLORIDA

*Defense of a Doctoral Dissertation*

*Offensive and Defensive Security for Everyday Computer Systems*
*by*
*Ian Markwood*

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

This research treats a variety of topics in the computer security domain which have direct impact on everyday life. The first extends false data injection attacks against state estimation in electric power grids and then provides a novel power flow model camouflage method to hamper these attacks. The second deals with automotive theft response, detailing a method for a car to identify when it has been stolen, based on collected behavioral traits of its driver. The third demonstrates a new attack against the content integrity of the PDF file format, causing humans and computers to see different information within PDF documents. This research lastly identifies and tests some potential vulnerabilities in the automated enforcement of audio copyright protection.

*Tuesday, April 24, 2018*
*10:30 am*
*ENB 337*

## THE PUBLIC IS INVITED

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