

# UNIVERSITY OF SOUTH FLORIDA

## *Defense of a Master's Thesis*

Initial Comparative Empirical Usability Testing for  
the Collaborative Authentication System

by  
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*For the MSCS degree in Computer Science & Engineering*

The CoAuthentication system is an authentication system that relies on some or all members of a pre-registered set of secure hardware tokens being concurrently present to an authentication server at the moment of authentication. Previous researchers have compared various embodiments of the CoAuthentication system to each other including using Quick Response (QR) codes/cellphone cameras and Near Field Communication (NFC) between tokens. This Thesis concerns the initial design and implementation of empirical comparative testing mechanisms between the CoAuthentication system and other commonly used authentication systems. One contribution is a simulated standard user ID and password login and a simulated RSA SecureID(R) one time password (OTP) login with embedded usability testing mechanisms. Another contribution is the development and implementation of a new Bluetooth communication functionality between tokens. A third contribution is the addition of usability testing mechanisms to two versions of this functionality.

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12:00 PM

ENG 313

THE PUBLIC IS INVITED

Examining Committee

Jay Ligatti, Ph.D., Major Professor

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