UNIVERSITY OF SOUTH FLORIDA

Defense of a Master's Thesis

Secure Communication Scheme in Smart Home Environment

by

Hari Krishna Jonnalagadda

For the MSCS degree in Computer Science & Engineering

With advancements in sensor capabilities, miniaturization of sensors and advancements in networking, Internet of Things (IoT) has accelerated its penetration in to industry. Smart Home is one such application of Internet of Things. Existing technologies such as Z-wave, One-Net, ZigBee, Insteon, had already occupied the Smart Home communication. However, these technologies face the problem of identifying the smart devices uniquely and also exhibit security vulnerabilities. Proposed scheme exploits accelerometer fingerprinting to identify the smart devices uniquely. Security vulnerabilities of existing protocols are addressed by encrypting the data on move with CCM mode of AES encryption.

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10:00 AM
ENB 313

THE PUBLIC IS INVITED

Examining Committee

Yao Liu, Ph.D., Major Professor
Jay Ligatti, Ph.D.
Yicheng Tu, Ph.D.

Robert Bishop, Ph.D.
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Dwayne Smith, Ph.D.
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