UNIVERSITY OF SOUTH FLORIDA

Major Research Area Paper Presentation

Hardware Oriented Security and Trust:
Anti-Theft and Attack Countermeasures
by

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For the Ph.D. degree in Computer Science and Engineering

As technology continues to advance more companies have sought less costly manufacturing practices offshore. As offshoring has shown to be beneficial in lowering consumer prices and enabling these companies to bring their products affordably to the hands of millions, from curious beginners to hardware enthusiasts, this shift in business practices has not only left intellectual property susceptible to theft or misuse during the manufacturing process, but has also potentially enabled these millions to rapidly prototype systems aimed to either enhance or exploit the vast plethora of hardware or smart devices becoming ever so common. In this presentation, we propose an enhanced method for watermarking intellectual property in the efforts to thwart such theft or misuse, while providing a countermeasure to a major vulnerability of hardware based cryptographic systems. We will also present an enhancement to cryptographic hardware architectures that will further secure and increase resilience against potential attacks.

Thursday, December 5, 2019
4:00 PM
ENB 313

THE PUBLIC IS INVITED

Examining Committee
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