18 March 2021

Electromagnetic Side-Channel Analysis Attacks and Potential Countermeasures (1:00 – 1:50 pm EST)

Automotive Security: Trends, Problems, Solutions, and Future Work (2:00 – 2:50 pm EST)

Mark your calendars and come join your friends in the CAE community for a Tech Talk. CAE Tech Talks are free and conducted live in real-time over the Internet so no travel is required. Capitol Technology University (CTU) hosts the presentations using Zoom which employs slides, VOIP, and chat for live interaction. Just log in as "Guest" and enjoy the presentation(s).

Below is a description of the presentations and logistics of attendance:

Topic: Electromagnetic Side-Channel Analysis Attacks and Potential Countermeasures

Time: 1:00pm – 1:50 pm EST

Location: https://captechu.zoom.us/j/664120328

Just log in as "Guest" and enter your name. No password required.

Presenter(s): Tristen Mullins, University of South Alabama

Description: Side-channel attacks involve using the physical behavior of cryptoprocesses to derive secret keys. In this presentation, we will go over the general steps for obtaining traces needed for electromagnetic side-channel attacks as well as potential countermeasures for reconfigurable hardware devices.

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Topic: Automotive Security: Trends, Problems, Solutions, and Future Work

Time: 2:00pm – 2:50 pm EST

Location: https://captechu.zoom.us/j/664120328

Just log in as "Guest" and enter your name. No password required.

Presenter(s): Dr. Gedare Bloom, University of Colorado - Colorado Springs

Description: The security of every vehicle on the road is necessary to ensure the safety of every person on or near roadways, whether a motorist, bicyclist, or pedestrian. Features such as infotainment, telematics, and driver assistance greatly increase the complexity of vehicles: top-of-the-line cars contain over 200 computers and 100 million lines of software code. With rising complexity comes rising costs to ensure safety and security. This talk discusses methods to improve vehicular security by detecting remotely launched cyber attacks against a moving automobile, and identifies challenges inherent in responding to those attacks in a manner that ensures the safety of humans in close proximity to the vehicle.

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