READ ME FIRST

Welcome to the Raspberry Pi kit designed by the **School of Electrical Engineering and Computer Science** at Ohio University. We want to thank the sponsors of this project – Russ College of Engineering at Ohio University and Assured Digital Microelectronics Education & Training Ecosystem (ADMETE) grant from Air Force Research Laboratory's (AFRL). Several faculty from the School of EECS, Prof. David Juedes (Chair), Prof. Avinash Karanth, Prof. Savas Kaya, Prof. Harsha Chenji, Prof. Chad Mourning and Prof. Frank Drews were involved with this effort.

As computers and embedded systems have become essential to business and commerce, they have also increasingly become a target for attacks. Security and trust in today's computing systems have become essential at both hardware and software levels. Hardware security primitives play an important role in ensuring trust, integrity, and authenticity of integrated circuits (ICs) and electronic systems. Similarly, the software running on the hardware should also protect and defend against cyber-attacks. The lack of trusted, U.S.-based foundries has become a significant concern for the U.S. Department of Defense because commercial state-of-the-art foundries for defense-related application-specific integrated circuit development may not meet security and trusted computing requirements. The Air Force must ensure that microelectronics and software systems are trusted, assured, and protected. To meet this demand, a thriving workforce of digital design engineers and software cyber security experts, well familiar with assured and trusted systems, is critically required. **The School of EECS is well poised to meet this demand by having an ABET accredited academic program well versed in digital microelectronics and trusted computing systems.**

In this kit, there are few exercises that teach and test the security concepts. We expect some of the exercises to run slowly due to limited memory, so please have patience. We will discuss some of these during the interactive sessions posted below:

March 17: 6-8 pm   March 31: 6-8 pm   April 14: 6-8 pm   April 21: 6-8 pm

>> To get started, please double click on the Jupyter Browser link on the Desktop. In the main window, you will see exercises listed from 1-6. You may need to know python (https://www.python.org/) to solve some of the exercises. All the work is designed in Jupyter Notebook. *Note: some exercises need a Blinkt! add-on board which may not be available in all kits.*

>> More exercises or updates will be available at the repository: https://github.com/ADMETE-OHIO/pi-gen/releases (to download the SD card image which will need to be flashed onto your micro SD card using etcher or rufus). For more information on raspberry pi, please visit: https://www.raspberrypi.org/

The default username and password (should you need them) for this Raspberry Pi are "pi" and "pi" respectively, without the quotes.

Have fun & Welcome to OHIO University!

Go Bobcats!!!