

# **Study Guide for Week #5**

## **Module 5: Containers Security in Physical Systems**

#### **Material Outline**

- (1) Refreshing what is a container
- (2) Benefits of enabling container security
- (3) Container Security Mechanisms
- (4) Guide to Container Security Best Practices
- (5) Summarizing Container Security

#### **Provided Documents**

Documents	Description
Week5-WatchMEfirst	Video explaining the goals of this week
Week5-StudyGuide.pdf	The guiding documents for the materials covered in this week, student work, and learning outcomes of this week.
Week5-Slides.ppt	PowerPoint slides regarding containers security in Physical Systems
Week5-Lecture	Video Lecture
Week5-PaperReading	A paper that talks about "Container Security: Issues, Challenges, and the Road Ahead"
Week5-Resources: Reading - > Docker Container for your Raspberry PI	A reading that shows the challenges of using docker containers inside a Raspberry PI infrastructure
Week5-Resources: Video -> How to secure your Docker	Video to show 5 practical tips with example DockerFiles for secure dockers

Documents	Description
containers	
Week5-Resources: Video-> Container Security Explained	Video to show ways to secure containers and avoid attacks
Week5-Checklist	A checklist for your reference

#### **Student Assignments**

- Digest PowerPoint slides
- Watch the Lecture (or attend the in-person lecture)
- Read the Week 5 Material (All readings and papers provided)
- Watch explicative videos
- Start working on Lab #2
- Present your project option to be approved by the instructor

### **Learning Goals**

This module is part of the learning outcomes

- (1) Describe the best practices for docker container security
- (2) Perform deployment of docker in Raspberry Pi Operating System