



## Study Guide for Week #9

### Module 9: Defense Mechanism for Physical Systems - Design Secure DMZ, secure firewall, IDS.

#### Material Outline

- (1) Defense mechanisms for physical IT systems
- (2) DMZ
- (3) Firewall
- (4) IDS/IPS
- (5) Relationship of all these concepts with IoT Devices

#### Provided Documents

Documents	Description
Week9-WatchMEfirst	Video explaining the goals of this week
Week9-StudyGuide.pdf	The guiding documents for the materials covered in this week, student work, and learning outcomes of this week.
Week9-Slides.ppt	PowerPoint slides regarding Defense mechanisms for physical IT security
Week9-Lecture	Video Lecture
Week9-PaperReading	Paper about “RPiDS: Raspberry PI IDS. A fruitful Intrusion Detection System for IoT”
Week9-Resources: Reading -> Securing IoT Devices	A 7-page reading about how firewalls and other security measures can be put in place for securing IoT devices
Week9-Resources: Video ->	A 5-minute video talking about how to set up

<b>Documents</b>	<b>Description</b>
Embedded Firewalls for IoT devices	firewalls for securing IoT devices
Week9-Resources: Video -> Network Intrusion Detection for IoT Device	A 6-minute video talking about how to know if devices are under attack and how to apply intrusion detection
Week9-Checklist	A checklist for your reference

## **Student Assignments**

- Digest PowerPoint slides
- Watch the Lecture (or attend the in-person lecture)
- Read the Week 9 Material (All readings and papers provided)
- Watch explicative videos
- Complete Discussion #2

## **Learning Goals**

This module is part of the learning outcomes

- (1) Understand DMZ, firewalls, and IDS for IoT and physical devices