Study Guide for Week #1

Module 1: Overview of Physical IT Systems

Material Outline

(1) Understanding Cyber-Physical Systems (CPS)
(2) CPS Concept
(3) Application Domains
(4) Contradictions in CPS
(5) CPS and IoT
(6) Concerns in CPS
(7) Discussion from students

Provided Documents

Documents	Description
Week1-WatchMEfirst	Video explaining the goals of this week
Week1-StudyGuide.pdf	The guiding documents for the materials covered in this week, student work, and learning outcomes of this week.
Week1-Slides.ppt	PowerPoint slides regarding the overview of Physical IT Systems
Week1-Lecture	Video Lecture
Week1-Video -> "What CPS means?"	Short YouTube video with an explanation of what means Cyber-Physical Systems.
Week1-PaperReading	Paper Reading for this week: A Comprehensive Overview of Cyber-Physical Systems: From Perspective of Feedback System

Documents	Description
Week1-Discussion	A discussion you must complete
Week1-Checklist	A checklist for your reference

Student Assignments

- Read the Week 1 Material (All readings and papers provided)
- Digest PowerPoint slides
- Watch the Lecture (or attend the in-person lecture)
- Complete Discussion #1

Learning Goals

This module is part of the learning outcomes

(1) Describe basic security concepts and threats within common physical IT systems such as IoT and mobile systems.
(2) Describe secure physical IT system architecture, application, packaging, and delivery.