



Study Guide for Week #12

Module 12: Autonomous Vehicle Overview

Material Outline

- (1) What is an autonomous vehicle?
- (2) Why is it important?
- (3) How does autonomous vehicles operate?

Provided Documents

Documents	Description
Week12-WatchMEfirst	Video explaining the goals of this week
Week12-StudyGuide.pdf	The guiding documents for the materials covered in this week, student work, and learning outcomes of this week.
Week12-Slides.ppt	PowerPoint slides regarding autonomous vehicle overview
Week12-Lecture	Video Lecture
Week12-PaperReading	A paper regarding what is CAN (Controller Area Network) and autonomous vehicle. Please read
Week12-Resources: Video -> Autonomous Vehicle Demo	Demo of an autonomous vehicle
Week12-Resources: Reading -> Car Hacking	A demo about how car hacking works. Some things are going to be reproduced in our lab
Week12-Resources: Reading -> In-vehicle networking	Reading showing how is the network inside an autonomous vehicle

Documents	Description
Week12-Resources: Reading -> CAN Bus in Autonomous Vehicle	A paper about “Implementation of CAN bus in an autonomous All-terrain Vehicle”
Week12-Checklist	A checklist for your reference

Student Assignments

- Digest PowerPoint slides
- Watch the Lecture (or attend the in-person lecture)
- Read the Week 12 Material (All readings and papers provided)
- Watch explicative videos
- Complete Lab #5

Learning Goals

This module is part of the learning outcomes

- (1) Understand terminology in autonomous vehicles
- (2) Perform an autonomous vehicle hacking