



Course Name	Intelligent Vehicles and Human-Machine Cooperative driving
Major	Computer Software, Electronic Information Science and Technology, Electrical Engineering
Objective	To make the students master the basic principles of intelligent vehicles, to learn intelligent vehicle technical system, environment perception, planning decision, vehicle control and other core technology, and understand the basic concept of Human-Machine co-driving.
Semester	7 th
Language	English
Learning/Teaching methods	Course teaching, lectures and group discussion
Hour	32h
Credit	2.0
Prerequisite	Automotive architecture, Microcontroller, C+ +, Automotive Electronics
Content	<ol style="list-style-type: none"> <li>1. Intelligent Vehicles (6h)</li> <li>2. Smart car environment perception technology (8h)</li> <li>3. Planning and decision technology for Intelligent Vehicle</li> <li>4. Intelligent Vehicle control</li> <li>5. Human-Machine co-driving</li> </ol>
Grade/Exam	exam80%+performance in class (experiment + homework) 20%
Reference	<p>[1] Cheng Hong, Autonomous Intelligent Vehicles. Springer,2011,ISBN : 9781447122791.</p> <p>[2] Zhang Xiu-bin, Ying Jun-hao. The principle of auto intelligent technology . Shang hai jiao tong University Press, 2011,3.</p> <p>[3]Ozguner, Umit; Acarman, Tankut; Redmill, Keith. Autonomous Ground Vehicles. Artech House Publishers , 2011-08-01;</p> <p>[4]H. Hebert, Martial; E. Thorpe, Charles; Stentz, Anthony. Intelligent Unmanned Ground Vehicles: Autonomous Navigation Research at Carnegie Mellon, Springer, 2012-10-12.</p>