



Course Name	Robots and industrial systems
Major	Computer Software, Electronic Information Science and Technology, Electrical Engineering
Objective	To make the students understand and grasp the basic concept of the industrial robot, principle, drive, principle and structure of control system, the development of industrial robots and the trend in the future.
Semester	6 th
Language	English
Learning/Teaching methods	Course teaching, demonstration and exercises
Hour	48h
Credit	3.0
Prerequisite	Digital electronic technique, MCU , C programming, PLC, NC machining process
Content	<ol style="list-style-type: none"> 1. Introduction (6h) 2. Industrial robot mechanism (8h) 3. Robot kinematics and dynamics 4. Environmental sensing technology for industrial robots 5. Industrial robot control 6. Industrial robot programming 7. Industrial robot system and examples
Grade/Exam	exam80%+performance in class (experiment + homework) 20%
Reference	<p>[1] S. K. Saha, Introduction to Robotics, China Machine Press, 2010,ISBN: 9780070140011</p> <p>[2] CAI Zi-xing, Robotics. tsinghua university press , 2000.</p> <p>[3] XIONG You-lun. Robot technology foundation. Central China University of science and Technology Press , 1996.</p> <p>[4] ZHANG Jian-ming. Industrial robot. Beijing Institute of Technology press , 1988.</p> <p>[5] GUO Hong-hong. Technology of industry Robots. Xidian University Press , 2006.</p>