COURSE DETAIL

INTELLIGENT ROBOTICS
Country Singapore
Host Institution Singapore University of Technology and Design
Program(s) Singapore University of Technology and Design
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Mechanical Engineering Electrical Engineering Computer Science
UCEAP Course Number 128
UCEAP Course Suffix
UCEAP Official Title INTELLIGENT ROBOTICS
UCEAP Transcript Title INTELLIGENT ROBOTIC
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course provides an overview of robot mechanisms, dynamics, and intelligent controls. Topics include planar and spatial kinematics, and motion planning; mechanism design for manipulators and mobile robots; multi-body dynamics; control design, actuators, and sensors; sensing and perception to enable intelligent behavior; and computer vision. Weekly laboratories provide experience with servo drives, real-time control, task modelling and embedded software. Students will build working robotic systems in a group-based term project.

Language(s) of Instruction
English

Host Institution Course Number
30.119

Host Institution Course Title
INTELLIGENT ROBOTICS

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Engineering Product Development

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