

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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