COURSE DETAIL

ROBOTICS

Country
United Kingdom - England

Host Institution
Imperial College London

Program(s)
Imperial College London

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Computer Science

UCEAP Course Number
140

UCEAP Course Suffix
N

UCEAP Official Title
ROBOTICS

UCEAP Transcript Title
ROBOTICS

UCEAP Quarter Units
5.00

UCEAP Semester Units

3.30

Course Description

This course focuses on mobile robotics, emphasizing practical algorithms for navigation, all based around real hardware and tested in the real world. Key elements are: wheeled locomotion, motor control, and motion calibration; outward-looking sensors for behavioral control loops; probabilistic localization using particle filtering; advanced use of sensors for place recognition, occupancy mapping and planning; and an introduction to Simultaneous Localization and Mapping. The course is intensively practical, and all the key methods students learn are tested on robots they build.

Language(s) of Instruction
English

Host Institution Course Number
COMP60019

Host Institution Course Title
ROBOTICS

Host Institution Course Details
https://www.imperial.ac.uk/computing/current-students/courses/60019/

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Computing

Course Last Reviewed
2024-2025

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