

COURSE DETAIL

MOBILE AND PERVASIVE INTELLIGENCE

Country

Taiwan

Host Institution

National Taiwan University

Program(s)

National Taiwan University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Electrical Engineering Computer Science

UCEAP Course Number

105

UCEAP Course Suffix**UCEAP Official Title**

MOBILE AND PERVASIVE INTELLIGENCE

UCEAP Transcript Title

MOBILE INTELLIGENCE

UCEAP Quarter Units

4.50

UCEAP Semester Units

3.00

Course Description

Mobile and pervasive intelligence enables diverse smart applications in our daily life. It provides new insights into unstructured and uncertain information from a variety of sensors, data sources, user devices, and mobile platforms. The lecture covers theoretical fundamentals in sensing, communications, computing, and autonomy techniques; how to apply them in practical systems, and design principles in mobile and pervasive applications. The content includes the following topics:

A: Sensation and perception of mobile platforms

Section 1-Sensing: Wireless, visual, acoustic, and privacy-preserving sensing techniques

Section 2-Communications: Advanced communication and networking technologies to connect hardware and software components in one or more pervasive systems.

B: Intelligence creation

Section 3-Computing: Context-aware computing, serverless computing, and distributed intelligence

Section 4-Autonomy: Autonomous coordination and collaboration techniques between mobile platforms (e.g., drones or robots)

C: Hands-on tutorials

Language(s) of Instruction

English

Host Institution Course Number

CSIE5411

Host Institution Course Title

MOBILE AND PERVASIVE INTELLIGENCE

Host Institution Course Details

https://nol.ntu.edu.tw/nol/coursesearch/print_table.php?course_id=922%20U4890&c...

Host Institution Campus

Host Institution Faculty

College of Electrical Engineering and Computer Science

Host Institution Degree

Host Institution Department

Graduate Institute of Computer Science and Information Engineering

Course Last Reviewed

2023-2024

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