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 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

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