



International Master's Program in Telecommunication Engineering

## **Course Name:**

**Multi-Input-Multi-Output Wireless Communication Systems**

**多重輸入輸出無線通訊系統**

## **Course Objects:**

MIMO systems, composed of multi-antenna transceivers, have been shown to greatly improve the channel capacity of wireless transmissions. It is also helpful to reduce the outage probability due to spatial diversity. Thus, the MIMO systems have been studied extensively in the decade. Through the course, students are expected to learn popular technology.

## **Course Syllabus:**

- Introduction
- Wireless fading channels & Diversity Techniques
- Capacity limit of MIMO systems
- Precoding design
- Space-time coding
- Receiver design
- Multiuser MIMO