**無線區域網路概論**

教學目標:

本課程完整介紹各無線網路之相關技術與協定，包括 Mobile Computing, IEEE 802.11, Mobile Ad Hoc Networks 以及 Mobile IP & Mobile IPv6 之原理及細部架構。並藉由專題報告來深入了解其技術與原理.

授課方式:

Lecture, Discussion and Presentation

課程進度及綱要:

1.Introduction to Wireless Networks

(1)Computer Networks

(2)Wireless Links and Network Characteristics

2.Local Area Networks

(1)802.3 Ethernet and the OSI Model

(2)802.3u FastEthernet

(3)Gigabit Ethernet

3.WiFi 802.11 Wireless LANs

(1)The 802.11 Architecture

(2)The 802.11 MAC Protocol

(3)The IEEE 802.11 Frame

4.802.11 MAC Layer Operations

(1)Station Connectivity

(2)802.11 MAC Frame Formats

5.Wireless Physical Layer Concepts

(1)Frequency Hopping WLANs

(2)Direct Sequence Spread Spectrum WLANs

6.Secure 802.11 WLANs

(1)The Authentication Framework

(2)The Authentication Algorithm

(3)Data Privacy

7.QoS for 802.11 Wireless LANs-802.11e

(1)QoS Mechanism

(2)HCF in Contention Mode

(3)HCF in Controlled Access Mode

參考書籍:

1. Wireless Local Area Networks: The New Wireless Revolution ,Benny Bing, Leonard Kleinrock, Wiley-Interscience. ISBN 047122474X

評分方式:

平時 20%

報告 10%

期中 30%

期末 40%