進階行動通信網路

Advanced Mobile Communication Network

Syllabus

- **Department / grade**
  - 資科三、資科四、資碩工一、資碩計一
- **Prerequisite**：Computer Network
- **Time**
  - Wed. 1:00-4:00 pm.
- **Classroom**
  - 大仁樓 200102

- **Instructor**
  - 張宏慶
  - Office: 大仁樓 #200212
  - Tel：2938-7639 (campus x67639)
  - E-mail：jang@cs.nccu.edu.tw
- **Teaching assistant**
  - 王聖泰
  - Office：Mobile Computing and Data Communication Laboratory (III) (大仁樓 #200208)
  - Tel：29393091 x 62290 (campus x62290)
  - E-mail：110753147@nccu.edu.tw

- **Importane dates**
  - 3/29/2023 助教實驗課(請帶筆電)
  - 4/5/2023 民族掃墓節放假一天
  - 5/24/2023 第一次文獻報告(1/2)
  - 5/31/2023 第一次文獻報告(2/2)
  - 6/7/2023 第二次文獻報告(1/2)
  - 6/14/2023 第二次文獻報告(2/2)

- **Course outline**

  - Introduce the advanced topics of system, architecture, technology, and application of the 5G/6G mobile communication network.

- **Course content**

  - Instructor lecture

  - Student literature presentation

  - Lab assignments

- **Grading**

  - Lab assignments：30%

  - Literature presentations：70%

- **Lecture schedule**

  - [Week 1] Overview of 5G/6G Network (1/2)

  - [Week 2] Overview of 5G/6G Network (2/2)

  - [Week 3] 5G Spectrum Utilization and Spectrum Management (1/2)

  - [Week 4] 5G Spectrum Utilization and Spectrum Management (2/2)

  - [Week 5] NR Protocol Stack (1/2)

  - [Week 6] NR Protocol Stack (2/2)

- ❖ [Week 7] Wireless Relaying in 5G (1/2)

- ❖ [Week 8] Wireless Relaying in 5G (2/2)

- ❖ [Week 9] Labs

- ❖ [Week 10] Small Cells

- ❖ [Week 11] Non-terrestrial Networks (1/2)

- ❖ [Week 12] Non-terrestrial Networks (1/2)

- [Week 13] 5G Security (1/2)

- [Week 14] 5G Security (2/2)

- [Week 15] O-RAN

- [Week 16] Operations, Administration, and Management

- [Week 17] Student presentation

- [Week 18] Student presentation