

External Syllabus on Lab Homepage

2025년 2월 18일 화요일 09:12

<http://cisl.postech.ac.kr/>



Communication and Intelligent Systems Laboratory (CISL)

About CISL

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Research

Teaching

YouTube

Service

Members

Current

Past

Communication and Intelligent Systems Laboratory

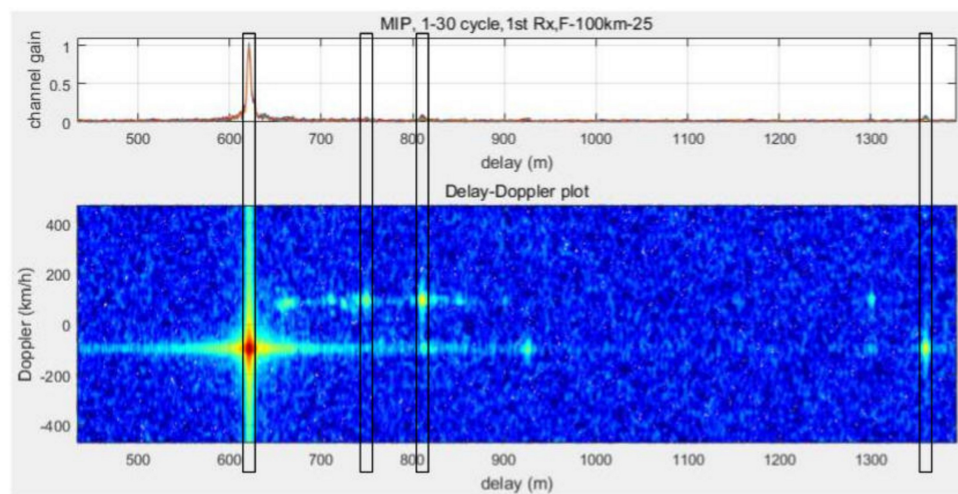
(통신 및 지능 시스템 연구실)

연구분야

1. [통신 분야: 차세대 통신 및 네트워크]

- 차세대 통신 및 네트워크 분야에서 전문가로 성장할 석/박사 및 통합과정 대학원생을 모집합니다.
- 또한 저희 연구실은
 - 포항공대-삼성전자 네트워크 혁신 센터 POSTECH-SNIC (Samsung Network Innovation Center)
 - 포항공대-삼성전자 차세대 통신 및 네트워크 융합부전공
 - 포항공대-삼성전자 반도체 인력양성 프로그램 (PSEP)
 - 참여 연구실입니다.

삼성전자 산학과제를 주도적으로 수행하면서 산학장학생의 기회를 얻을 석/박사 및 통합과정 대학원생을 모집합니다.



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[Home](#) [Research](#) [Teaching](#) [S](#)

Teaching [\[YouTube\]](#)

Undergraduate Courses

- ABCL222-** Freshman Seminar, 전자전기공학이란?: 무선통신분야를 중심으로 (Fall 16, [03 for Spring 16](#), 전자전기공학)
- [EECE199 새내기 연구참여](#) (Fall 21, Fall 20: MATLAB을 이용한 Image Processing)
- XXXX XXX History of Pi and Mathematical Review for Electrical Engineers
- [EECE 233 신호 및 시스템](#) Signals and Systems (Fall 23, Fall 22, Fall 20, Spring 20, Fall 14, Fall 13, Fall 12, Fall 08, Spring 16)
- [EECE 302 전자수학 A](#) (Mathematics for Electronic and Electrical Engineers A) =EECE 490h Probability, Random Variables, and Stochastic Processes
- [EECE 341 정보통신공학개론](#) Introduction to Communication Systems (Fall 24, Fall 17, Fall 16, Fall 15)
- EECE 441 Introduction to Digital Communications
- [EECE 442/NCGN 301 Introduction to Communications and Network](#) ([Spring 25](#), Spring 24, Spring 23, Spring 22)
- [EECE 443/NCGN 302 Laboratory for Communications and Network](#) (Fall 24, Spring 24, Fall 23)
- [EECE 451 Introduction to Digital Signal Processing](#) ([Spring 25](#))
- [EECE 490* Technical Writing and Presentation for Electrical Engineers](#), (Fall 16, Spring 16, Fall 15, Spring 15, Fall 14, Spring 13)

Graduate Courses (The courses enclosed by square brackets are not taught by myself, but are strongly recommended.)

- [EECE 574 Probability and Random Processes](#) ([확률 및 랜덤 프로세스](#)) (Spring 24, Spring 23, Spring 21, Spring 20, Spring 19)
- [EECE 575 Communication and Sensing Systems](#) ([통신 및 센싱 시스템](#)) ([Spring 25](#)) KMOOC 변복조와 전력 스펙트럼 (as a part of the course)
- [EECE 577 Information and Coding Theory](#) ([정보 및 코딩 이론](#)) (Fall 16v, Spring 15v, Spring 13 [한국어 강의 동영상](#), Fall 12v)

Syllabus for Spring 2025 (Last update: 02/14/25)

● **Course Title:**

EECE442/NGCN301 Introduction to Communications and Network (3-0-3)

EECE442/NGCN301 통신 및 네트워크 개론 (3-0-3)

It is an elective course for the Electrical Engineering (EECE) major.

It is a mandatory course for the Next Generation Communications and Network (NGCN) minor.

- [Curriculum](#)
- [Industry-Academy Scholarship Program](#)

It is an open course for undergraduate students in military service.

● **Instructor:** Professor Joon Ho Cho

Office) LG 409

Phone) +82-54-279-2377

E-mail) jcho (at) postech (dot) ac (dot) kr

Office Hours: by appointment

● **Graduate TA:** 박지원, 이현석, 문진혁

Office) LG 000, 000

Phone) TBA

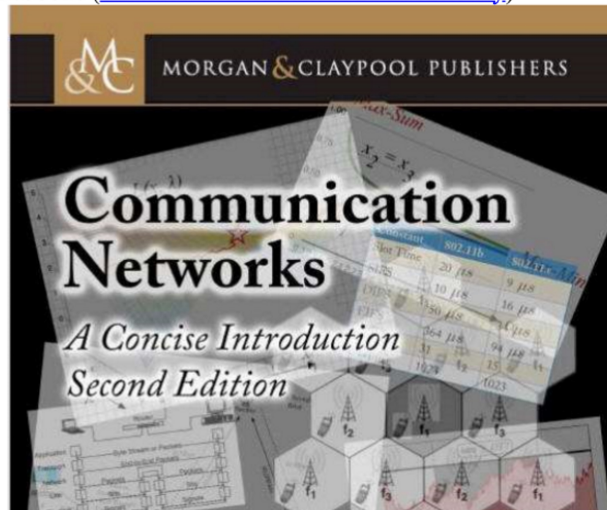
E-mail) jw0815 (at) postech (dot) ac (dot) kr

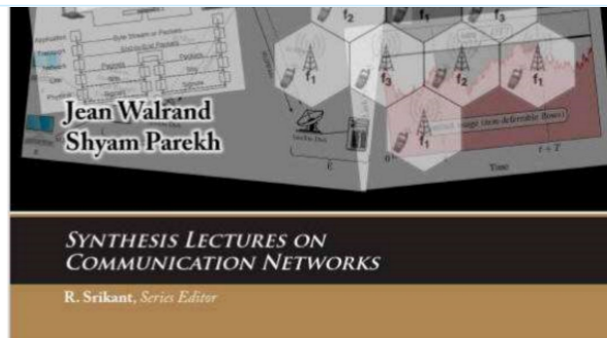
Office Hours: TBA

● **Course Objectives:**

This course provides the foundations on the theory and practice of communications and network for undergraduate EECE/CSed/NGCN students.

● **Textbook:** ([available online via POSTECH library](#))





- [Jean Walrand](#) and [Shyam Parekh](#), *Communication Networks: A Concise Introduction*, 2nd Ed. Morgan & Claypool, 2018

● Course Outline

1. The Internet
2. Principles
3. Ethernet
4. Wi-Fi
5. Routing
6. Internetworking
7. Transport
8. Models
9. LTE, NR
10. QoS
11. PHY
12. Additional Topics

● Prerequisites:

- While there are no official prerequisites, some basic knowledge of Electrical Engineering and Computer Science and Engineering would be very beneficial for success in this course.
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● Companion Undergraduate Courses:

EECE233 Signals and Systems
 EECE302 Mathematics for EE Engineers A
 EECE341 Introduction to Communication Systems
 CSED352 Data Communication
 CSED353 Computer Networks
 EECE441 Introduction to Digital Communication
 EECE443/NGCN302 Laboratory for Communications and Network
 EECE451 Introduction to Digital Signal Processing

● Additional Administrative Information on PLMS:

- Link to [PLMS](#)
- [Syllabus on PLMS](#)
 - Course Requirements
 - Important Dates
- [POSTECH Electronic Attendance System](#)
- Lecture handouts, videos, and notes will be provided on the lab website:
<http://cisl.postech.ac.kr/class/eece442/schedule.html>
- YouTube **playlist**:
 You can also find the lecture playlist on the following YouTube channels.
 Please place clickable time stamps to each video.

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Please place clickable time stamps to each video.

- [24-1](#)
- Video lectures for other courses are also available, such as 233 Signals and Systems, 302 Math for EE A, Introduction to Optimization, Information Theory, Digital Communications, Estimation and Detection Theory, etc.

- **Policy on Academic Dishonesty**

If the instructor suspects academic dishonesty, the instructor will notify the student(s) and follow the procedure to report to the school without any exception. Students have the responsibility to be knowledgeable about the consequences of dishonesty.
