

# Digital Communications

## Fall 2018



Wireless Information Transmission System Lab.  
Institute of Communications Engineering  
National Sun Yat-sen University

# Course Information



- ◇ Slides: <http://wits.ice.nsysu.edu.tw/> => 開設課程
- ◇ Class Room: EC 3012
- ◇ Lecture: Monday 09:10-12:00.
- ◇ Office Hour: Mon. 14:00~16:00 and Thu. 10:00~12:00.
  - ◇ You are suggested to make the appointment before you stop by my office.
- ◇ Office: F8038; Phone: 4480;
- ◇ Email: [cpli@faculty.nsysu.edu.tw](mailto:cpli@faculty.nsysu.edu.tw)
- ◇ 助教 : TBD (Lab: EC9011 ; Phone:4481)
- ◇ Midterm I: 30%; Midterm II: 35%; Final: 35%.

# Recommended Books



- ◇ Digital Communications / Fifth Edition (Textbook)  
-- John G. Proakis and Masoud Salehi, McGraw Hill
- ◇ Communication Systems / 4th Edition  
-- Simon Haykin, John Wiley & Sons, Inc.
- ◇ Digital Communications – Fundamentals and Applications / 2nd Edition  
-- Bernard Sklar, Prentice Hall
- ◇ Principles of Communications / Fifth Edition  
-- Rodger E. Ziemer and William H. Tranter, John Wiley & Sons, Inc.
- ◇ Modern Digital and Analog Communication Systems  
-- B.P. Lathi, Holt, Rinehart and Winston, Inc.

# Schedule



Date	Content	Date	Content
2018.09.10	Introduction	2018.11.12	Optimum Receivers for AWGN Channels
2018.09.17	Deterministic and Random Signal Analysis	2018.11.19	Optimum Receivers for AWGN Channels
2018.09.24	Mid-Autumn Festival	2018.11.26	Introduction to Information Theory
2018.10.01	Deterministic and Random Signal Analysis	2018.12.03	Introduction to Information Theory
2018.10.08	Deterministic and Random Signal Analysis	2018.12.10	Midterm II
2018.10.15	Digital Modulation Schemes	2018.12.17	Digital Communication Through Band-Limited Channels
2018.10.22	Midterm I	2018.12.24	Digital Communication Through Band-Limited Channels
2018.10.29	Digital Modulation Schemes	2019.12.31	Holiday
2018.11.05	Digital Modulation Schemes/ Optimum Receivers for AWGN Channels	2019.01.07	Final

# Examinations



- ◇ Midterm 1: Monday October 22, 2018 (30%)
  - ◇ Introduction
  - ◇ Deterministic and Random Signal Analysis
  
- ◇ Midterm 2: Monday December 10, 2018 (35%)
  - ◇ Digital Modulation Schemes
  - ◇ Optimum Receivers for AWGN Channels
  
- ◇ Final: Monday January 07, 2019 (35%)
  - ◇ Introduction to Information Theory
  - ◇ Digital Communication Through Band-Limited Channels