2024년 9월 23일 월요일 11:16

CM05-240923M

1. Administration
   - Please regularly check your class attendance at https://rollbook.postech.ac.kr/

2. Announcements on HW, Quiz, Exam, and Voluntary Project
   - The handout for Chapter 3 is downloadable from http://cisl.postech.ac.kr/class/eece341/schedule.htm
     - The pasword is …
   - Quiz 1 will be re-graded by hand.
   - hw05 and hw06 will be assigned; available from PLMS; due by 9:30am Mon. Sept. 30th.
     - Ask re-grade when
   - Voluntary Project …

3. Messages from Instructor
   - Simplify and Visualize

4. 지난 강의
   - The links for the last CM video and annotated pdf file are available at the secondary class homepage http://cisl.postech.ac.kr/class/eece341/schedule.htm
     - Please place clickable time stamps to the videos on cisl.postech YouTube channel.

   - Corrections/Clarifications
     - What is the meaning of a negative frequency?

high school
period, T>0
frequency

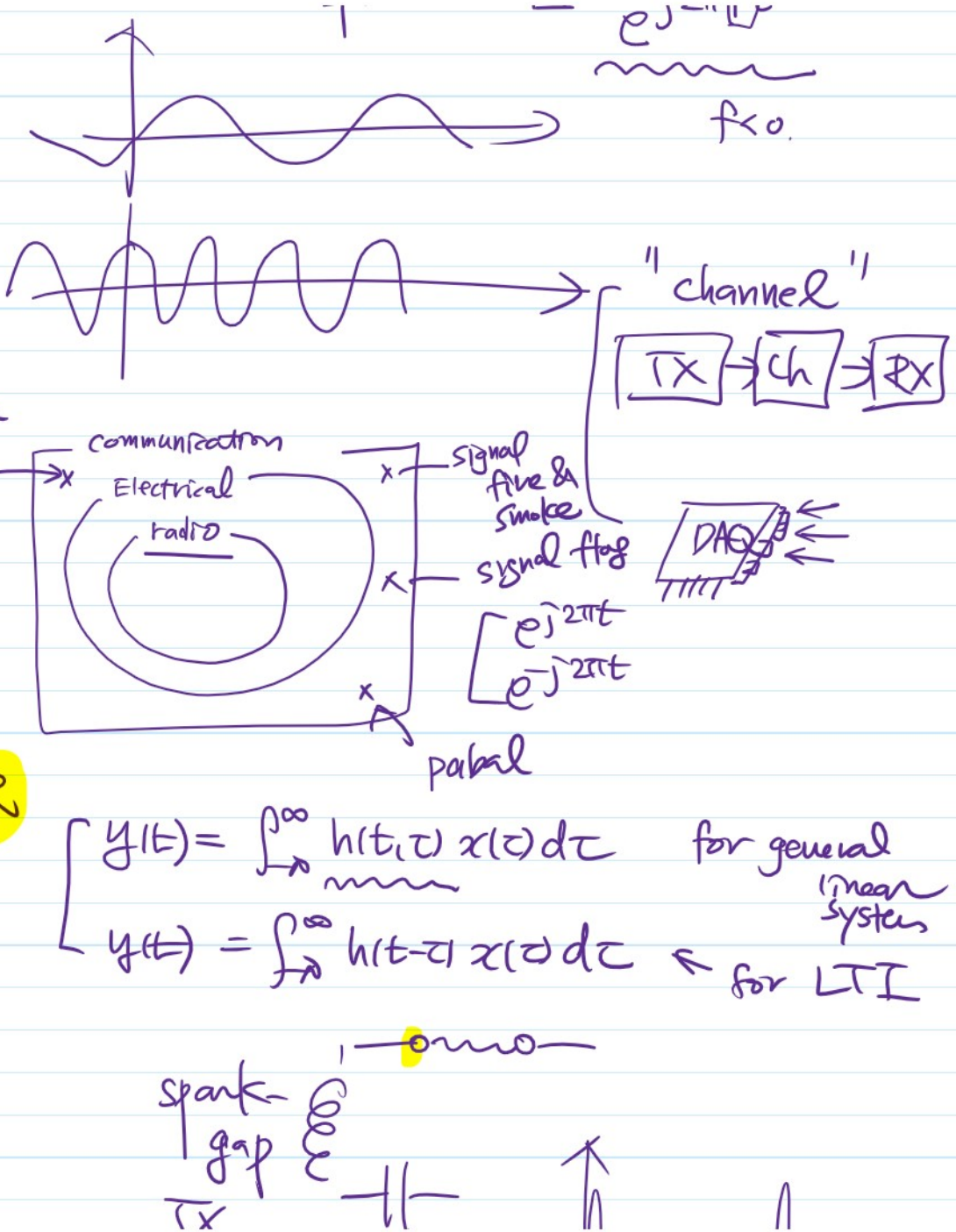
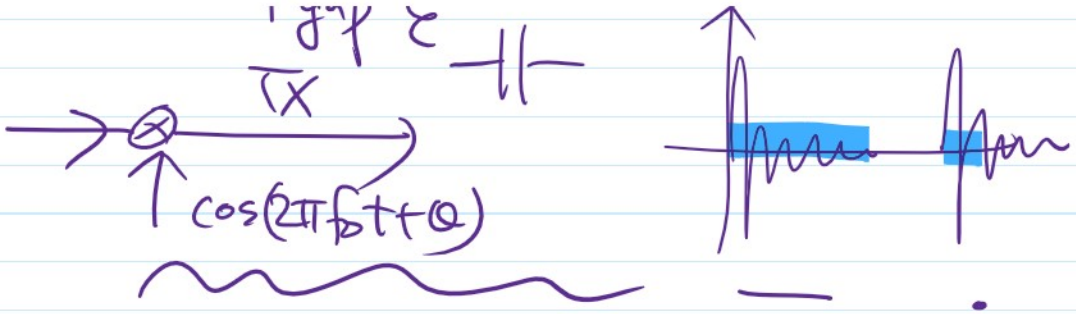
$e^{j2\pi ft}$

5. Course Overview: Where are we? Where do we go?
   1. Brief History of Communications
   2. Signal and Linear System Analysis
   3. Linear Modulation Techniques
   4. Angle modulation and multiplexing

2. Signal and Linear System Analysis
3. Linear Modulation Techniques
4. Angle modulation and multiplexing
5. Baseband Digital Transmission
6. Review of Probability and Random Variable
7. Random Signals and Noise
8. Digital Data Transmission in Noise
9. Optimum Receivers and Signal-Space Concepts
10. Information Theory and Coding

6. Review of Last CM
   Signals and systems

7. Preview
   - Communications
     - Electrical Communications
       - Radio Communications
         - antenna
         - radio wave vs. time function
           - baseband signal
           - passband signal
           - a rule of thumb
         - damped oscillation vs. continuous wave
         - carrier, modulation, demodulation
   - Properties of a real-valued bandpass signal
     - TD
       - amplitude
       - phase angle
     - FD
       - spread around the carrier frequency
       - complex envelope
       - envelope
   - linear modulation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