ECE 463 SPRING 2016

Digital Communications Systems

Instructor
Shih-Chun Chang

Office
Engineering 3234

Office Hours
4:30 – 5:30 PM  MW

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Classroom
Engineering 2608

Time
3:00 – 4:15 p.m. MW

Textbook


Prerequisite

ECE460

References


Course Subjects

1. Nyquist Sampling Process
2. Uniform, Optimal, and Vector Quantization
3. Entropy, Huffman, and Lempel-Ziv Source Coding Algorithms
4. Error-Control Coding : Block and Convolutional Codes; Syndrome and Viterbi Decoding
5. Nyquist Pulse Shaping, Raised-Cosine and Partial Response
6. Optimal Filter Design and Baseband PAM System
7. Zero-Forcing, MLSE, and Decision-Feedback Equalization
8. Digital Modulation Techniques : ASK, PSK, FSK, MSK, and CPM
9. OFDM and TCM
10. PLL, Carrier Recovery, and Symbol Synchronization
Schedule (Tentative)

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<td>Source and Channel Coding</td>
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*Week 8 (3/6-3/12) Spring Break – No Class

Grading

(GMU Honor Code is strictly enforced for HW and examinations.)

1. HW 10% (no overdue)
2. Test 1: 3/2 25%
3. Test 2: 4/6 25%
4. Final: 5/9 40%