COMM1001

Modulation and Coding

Dr. Wassim Alexan

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Course Outline
Reference Books


Course Instructor

- Dr. Wassim Alexan
- Email: wassim.joseph@guc.edu.eg
- Office: C3.216
- Office hours: By appointment
Grading Scheme

- Assignments 15%
- Quizzes 10%
- Project 10%
- Midterm Exam 20%
- Final Exam 45%
Course Prerequisites

- Modulation II
- Channel Coding
- Communication Theory
- Signals and Systems
Why would you be interested in Modulation and Coding?

- Communications: Modulation and Coding constitute two thirds of the soul of digital communications
- Networks: In order to design a communication network, a good understanding of the physical layer capabilities of such a network is of significant importance
What will you learn from this course?

- Refresh your knowledge of the basics of modulation and coding
- Trade-offs of modulation and coding
- State-of-the-art digital modulation techniques
- State-of-the-art coding techniques
- How modulation and coding complement each other in the latest generations of digital communications
What will you need to study this course?

- Understand the physical meaning of things. Digital communications are not just about equations and derivations
- Probability theory
- Problem solving skills
- Wolfram Mathematica programming
- Mathworks Matlab programming
Wolfram Mathematica

- Go to: wolfram.com/egypt

- Make yourself a Wolfram account and download the latest version of Wolfram Mathematica