Mindluster Platform

About the course Digital communication fundamentals

Digital communication course, in this course you will delve into the fundamental principles and techniques that underlie modern digital communication systems. The course begins with an overview of communication theory, emphasizing key concepts such as signal representation, transmission methods, and noise impact. You'll explore various digital modulation techniques, including amplitude shift keying (ASK), frequency shift keying (FSK), and phase shift keying (PSK), learning how these methods enable effective data transmission over different channels. The course also covers error detection and correction techniques, essential for ensuring data integrity in communication systems. Practical applications will be discussed, including digital communication in wireless networks, satellite systems, and fiber-optic communication. Through hands-on projects and simulations, you will gain experience in analyzing and designing digital communication systems, preparing you for real-world challenges in the field. By the end of the course, you will have a solid understanding of digital communication principles and the skills needed to succeed in this dynamic area of technology.

Computer Science Category's Courses

Course Lesson(13)

Lesson 1 : **Frequency Shift Keying FSK Modulation Demodulation**

Lesson 2 :
Quadrature Amplitude Modulation Explained QAM Transmitter and Receiver Block Diagram Examples

Lesson 3 : **Oversampling ADC Anti Aliasing Filter A D Converter**

Lesson 4 : **Phase Shift Keying PSK Modulation and Demodulation BPSK and QPSK**

Lesson 5 : **Amplitude Shift Keying ASK Modulation and Demodulation Part II**

Lesson 6 : **Amplitude Shift Keying ASK Modulation and Demodulation Part 1**

Lesson 7 : **Channel Equalization and Inter Symbol Interference ISI in Digital Communication**

Lesson 8 : **Zero forcing ZF Equalizer MMSE Equalizer Zero Forcing Receiver Examples**

Lesson 9 : **Inter Symbol Interference ISI in Digital Communication Part II**

Lesson 10 : **Inter Symbol Interference ISI in Digital Communication Part 1**

Lesson 11 : **ML Detection in Digital Communication Part 1**

Lesson 12 : **ML Detection in Digital Communication Part 2**

Lesson 13 : **Eye Diagram Basics Examples Digital Communication Explanation**

Related courses

Linear Algebra for Computer Scientists

Insertion Sort

Bubble Sort

GCSE Computer Science

Random Access Memory

Binary Trees

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