



Learning Guide Unit 3

Overview

Unit 3: The Physical Layer (continued) and the Data Link Layer

Topics

- Evolution of Wireless Communication Technologies
- Hamming Code Implementation
- Carrier Sense Multiple Access with Collision Avoidance and Collision Detection (CSMA/CD)
- Error Correction vs. Retransmission in Data Link Layer

Learning Objectives

1. Describe the differences and evolution of the mobile phone technology generations
2. Analyze and correct a message with a single bit error by use of Hamming code
3. Give an example of a multiple sender hidden-node problem in wireless communications
4. Explain when to use Error Correcting Codes instead of Error Detection and Retransmission

Checklist

- Peer-assess Unit 2 Assignment
- Read through the Learning Guide and the Reading Assignment
- Complete the Discussion Assignment by posting in the Discussion Forum
- Respond to and rate three of your fellow classmates' posts in the Discussion Forum
- Complete and submit the Written Assignment
- Complete and submit the Learning Journal
- Take and submit the Self-Quiz
- Take and submit the Graded Quiz

