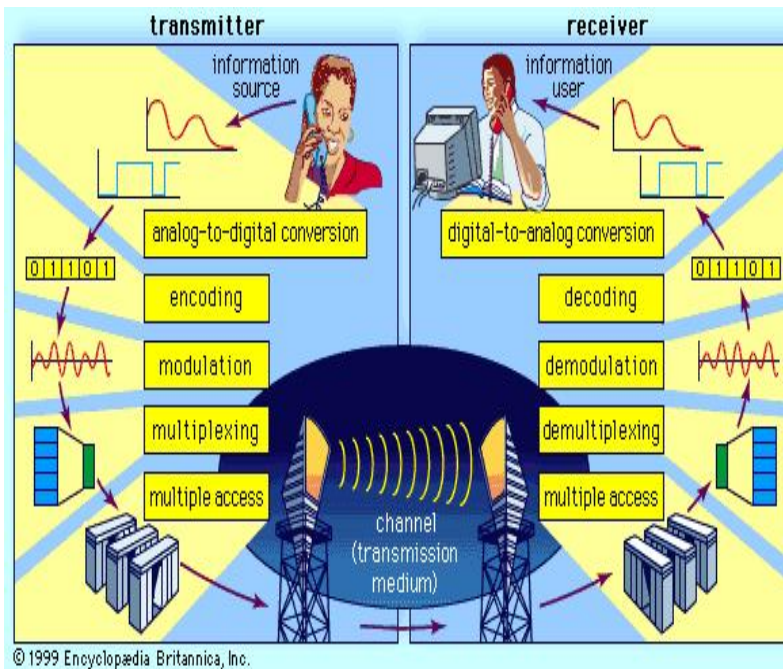


Introduction to Communication Systems



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Why do we need communication systems?

Can you imagine a typical day without using the smart phone, the Internet, radio, TV, YouTube, or the navigation system in your car?

All the information we exchange is transported by some form of electrical or electromagnetic signals through one or more forms of *communication systems* such as Wireless, Satellite, Radio, Optical, Coaxial, etc.

Communication technology has become an integral part of our daily life. It brings us together and helps the world stay connected.

Prerequisites: Signals and Systems, MATLAB

Instructor: Dr. Pankaz Das, EECE, Marquette University

WHAT YOU WILL LEARN FROM THIS COURSE?

- ✓ Overview of Modern Communication Systems
- ✓ Analog and Digital Modulation
- ✓ Performance of communication systems under noise
- ✓ Pros and Cons of Different Modulation Techniques
- ✓ Implementation (using MATLAB) of Complete Communication Systems
- ✓ Tradeoff between bandwidth and signal-to-noise ratio

WHY IS THIS COURSE USEFUL?

- ✓ **With the increasing number of users and limited availability of bandwidth, creative communication engineering is needed**
- ✓ **A solid background in communication systems can open the door for opportunities to solve real problems in the communications industry and make impactful contributions to society**

