

LEARNING OBJECTIVES - Lecture 17 (Source-Channel Separation)

After attending lecture and completing the associated readings, you should be able to:

1. Extend the channel coding theorem to the case with cost constraints.
2. Discuss finding the capacity-achieving input distribution for channels, as well as the inverse approach of finding the cost function for which a given channel and input distribution are optimal.
3. State and prove the source-channel separation theorem, especially the converse part.
4. Discuss the architectural benefits of modular design in engineering.