LEARNING OBJECTIVES - Lecture 17 (Orthogonal Frequency Division Modulation (OFDM) and Capacity of the Wireline Channel)

After lecture, you should be able to:

1. Explain how complex exponentials are eigenfunctions of linear systems.
2. Discuss how the eigenfunction property implies the use of DFTs to perform OFDM.
3. Carry out OFDM encoding and decoding, including cyclic prefix.
4. Carry out packaging and unpackaging to meet conjugate symmetry requirements.
5. Explain relationship between DFT and DTFT.
6. State the Shannon capacity of a channel with ISI.