

# ECE 8760: Optical Communications

Introduction to fiber and free space optical communication systems from a discrete and system perspective. Topics include : fiber optics waveguides, pulse dispersion and bandwidth computations, PIN and APD detectors. LED and LD optical sources, optical receiver designs, bit error rate estimation, and transmission link analysis. Also examined` are system requirements for space-based laser communication systems which include communication bandwidth as well as acquisition and pointing considerations. Prerequisites: Undergraduate electromagnetic theory, differential equations.

**Credits:** 3.0