

EL 445 - RF & Microwave Circuits for Wireless Communication w/Lab

4 Credit Hours

This course covers a review of electromagnetics, Maxwell's equations, plane wave solutions, and transmission lines. This course introduces AWR/ADS microwave CAD software. There will be an investigation into the types of transmission lines and their properties, including coaxial lines, microstrip/stripline, network analysis, scattering matrix, and transmission matrix formulations. This course incorporates aspects of matching networks, including lumped element designs and limitations, single and double-stub tuned designs, active microwave circuit design, and amplifier design, which takes into account gain, stability, and noise.

Prerequisites

[EL 420](#)