ECE-GY 5733 RF and Microwave Systems Engineering


Prerequisite: ECE-UY 3604.

Weekly Outline:

Lecture 1 Phasor, Impedance matching and Two-port Network (pp. 8-9; 78-79; 173-178, 4th edition)

Lecture 2 Transmission line and Scattering Matrix (pp. 48-51; 56-63; 178-184, 4th edition)

Lecture 3 ABCD Matrix (pp. 188-194; 63-72, 4th edition)

Lecture 4 Microstrip and Impedance Matching & Tuning (pp. 147-150; 228-241, 4th edition)

Lecture 5 Double-stub tuning and Quarter Wavelength Transformer (pp. 72-75; 241-249, 4th edition)

Lecture 6 More Impedance Matching & Tuning (pp. 250-261, 4th edition)

Midterm Exam

Lecture 7 Microwave Filter (pp. 399-415, 4th edition)

Lecture 8 Microwave Filters and RLC Resonators (pp. 272-278; 415-426, 4th edition)

Lecture 9 Power Dividers & Directional Couplers (pp. 317-333; 343-347, 4th edition)

Lecture 10 Noise and Nonlinear Distortion (pp. 496-521, 4th edition)

Lecture 11 Microwave Amplifier Design (pp. 558-570, 4th edition)

Lecture 12 More on Microwave Amplifier Design (pp. 571-601, 4th edition)

Lecture 13 Microwave Systems (pp. 658-708, 4th edition)

Final Exam


Grading (Midterm 40%; Final 40%; Homework and Class Participation 20%)

Instructor: I-Tai Lu, Professor, Electrical and Computer Engineering
NYU Tandon School of Engineering, 370 Jay Street, Room 956, Brooklyn, NY 11201
P: 646-997-3041; itl211@nyu.edu