

ECE 4350A - Fall 2020

Electromagnetic & Microwave Applications

Location: College of Business 223 / Hybrid

Schedule: T/Th 3:30-4:45p

Suggested Advanced Textbook: "Fields and Waves in Communication Electronics",

S.Ramo, J.R.Whinery and T.Van Duzer, J.Wiley Inc., 1994

Suggested Preliminary Reading (Close to the Notes): "Fundamentals of Applied

Electromagnetics", F.T.Ulaby et al., Prentice Hall Eds., any edition

Additional Reading: "Electromagnetics, Microwave Circuit and Antenna Design for

Communications Engineering", P.Russer, Artech House, 2003

Instructor: Prof. Manos M. Tentzeris

Office: TSRB 539

Office Hours: T/Th 3:30-4:45 on GT Teams*

Phone: (404) 385-6006

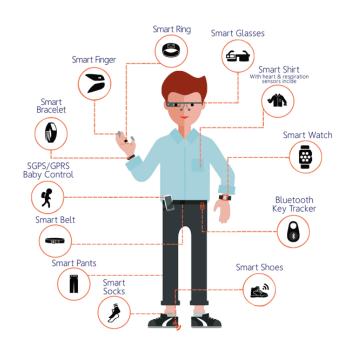
E-Mail: etentze@ece.gatech.edu Secretary: Mrs. Alison Kaiser

Office: TSRB 543 **Phone:** 404-894-8327

TA: TBA

E-Mail: alison.kaiser@ece.gatech.edu







Overview



- Transmission Lines
- Plane Waves
- Dielectric Interfaces
- Waveguides
- Cavities
- Microwave Circuits (Couplers, Filters)
- Antennas (Dipoles, Yagi-Uda, Log-Periodic, Arrays)
- Optical Waveguides, Optical Fibers
- Wireless Communication Standards and Devices
- Commercial CADs for EM/RF Applications
- Wireless communication platforms/Wireless Sensors
- Internet of Things/"Smart Skins"
- Large-Area Inkjet Printed RF Electronics
- RF Applications of Nanotechnology

E-Mail List

ece4350a@lists.gatech.edu

Grading Policy

10% Homework 25% QUIZ 1 25% QUIZ 2 40% FINAL 10% Group projects
[Bonus Points]

Homework Policy

Problems/Homeworks will be posted on GT Canvas and will be due on the assigned dates.

Late Homework will not be accepted without justification.

Exams

There will be 2 (two) exams on October 6 (Tuesday) and November 5 (Thursday).

The final will take place on a date to be announced.

Online Lectures, Office Hours and In-Person Meetings

All lectures will be posted online on GT Canvas. There will be 4 In-person meetings (8/18, 9/15, 10/20 and 11/24) to discuss questions about class and have presentations/discussions on state-of-the-art topics. The remaining scheduled class time slots will be dedicated on online office hours to be held on GT Teams.

If you have questions or comments about this course, please send e-mail to etentze@ece.gatech edu