### Georgia Institute of Technology



#### **Linear Circuits**

**Dr. Bonnie H. Ferri**Professor and Associate Chair School of Electrical and Computer Engineering

An introduction to linear electric components and a study of circuits containing such devices.

**School of Electrical and Computer Engineering** 

## Georgialnstitute of Technology



# Lab Demo: Applications of Capacitance

**Dr. Bonnie H. Ferri**Professor and Associate Chair
School of Electrical and
Computer Engineering

Show common applications of capacitance

**School of Electrical and Computer Engineering** 

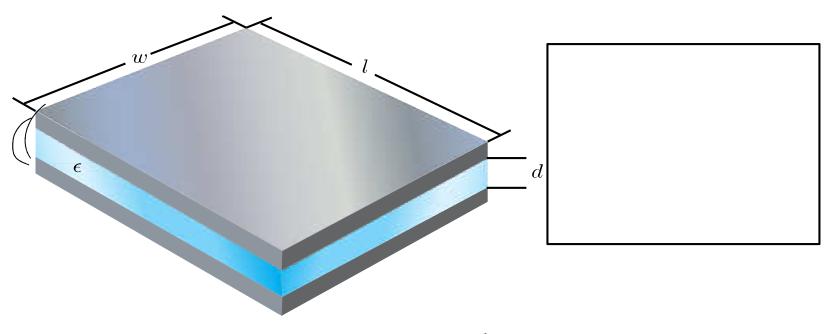


#### **Module 3: Reactive Circuits**

- Capacitance
- Inductance
- First-Order Differential Equations
- RC and RL Circuits
- Second-Order Differential Equations
- RLC Circuits
- Applications

Georgia School of Electrical and Tech Computer Engineering

#### **Applications of Capacitance**



$$C = \frac{\varepsilon w l}{d}$$



# Lab Demo: Applications of Capacitance



#### **Summary**

 Showed capacitive sensors such as touch pads and capacitive microphone, and antenna tuner



#### **Credits**

Thanks to Allen Robinson, James Steinberg, Kevin Pham, and Al Ferri for help with demonstration ideas.

Thanks to Marion Crowder for videotaping the demonstration.

Capacitance drawings done by Nathan Parrish.