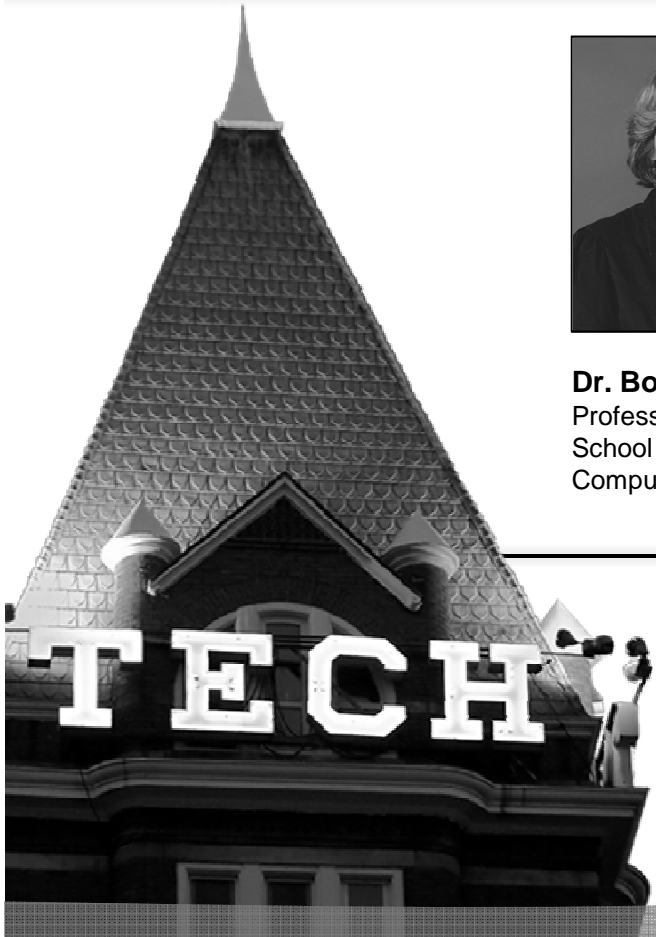




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# Linear Circuits



*An introduction to electric circuit elements and a study of circuits containing such devices.*

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# Lab Demo: RLC Circuit

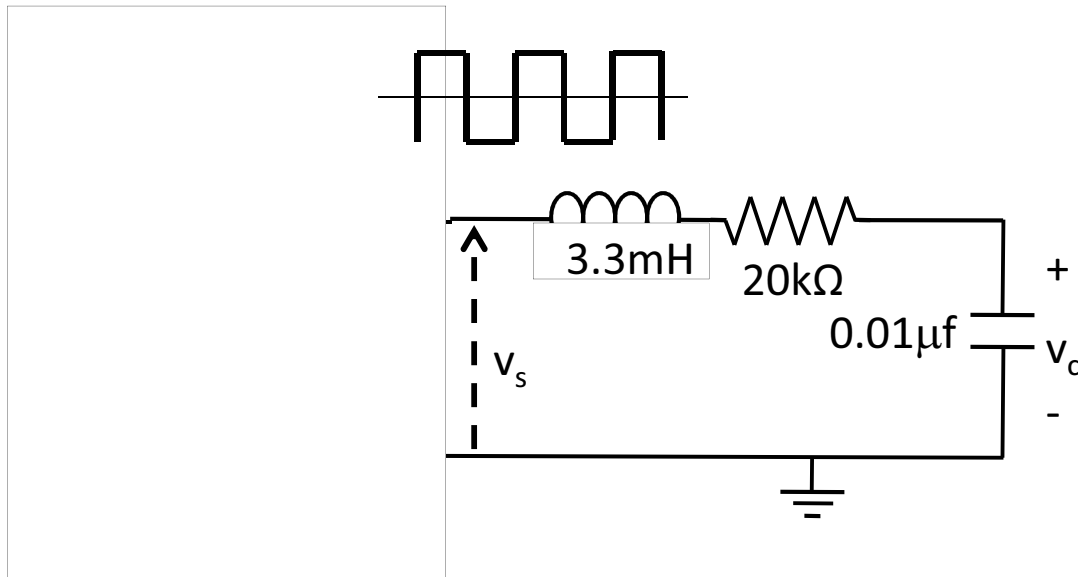
*Transient response of an RLC circuit*



## Module 3: Reactive Circuits

- ⦿ Capacitors
- ⦿ Inductors
- ⦿ First-order differential equations
- ⦿ RC Circuits
- ⦿ RL Circuits
- ⦿ Second-order differential equations
- ⦿ RLC Circuits
- ⦿ Applications

# RLC Circuit Measurements



# Lab Demo: RLC Circuits

# Summary

- ⦿ An underdamped RLC circuit has a small  $R$  value and results in large peaks
- ⦿ An overdamped RLC circuit has a large  $R$  value

## Next Lesson

- ◎ Applications of inductors and capacitors that exploit mechanical components