

2017 Middle School Summer Engineering Technology Program

Exploring Electrical Engineering

Learn more about electrical engineering

- Introduction of electrical engineering topics to future engineers
- Learn how electricity is generated and converted
- Understand fore, current, voltage and power with a basic experimental set-up
- Build your own motor and generator
- Build your own radio and alarm system
- Control LED lighting

Offered: Week 3: June 26-30

Coordinator: Ali Zilouchian, Ph.D.

Schedule:

Day	Morning Session	Afternoon Session
Monday	<ul style="list-style-type: none"> • Meet and greet • Overview of electrical engineering and activities planned for the week • Tour of electrical and digital electronics labs 	<ul style="list-style-type: none"> • Learn how electricity is generated • Learn how we can convert electrical energy into other types of energy • Hands-on activity
Tuesday	<ul style="list-style-type: none"> • Relate electrical energy to various technological uses and daily life • Hands-on activity 	<ul style="list-style-type: none"> • Learn what the relationship is between electricity and magnetism • Hands-on activity
Wednesday	<ul style="list-style-type: none"> • Conductors vs. insulators • Activity 	<ul style="list-style-type: none"> • Make an alarm system with an LED • Soldering activity
Thursday	<ul style="list-style-type: none"> • How a radio works • Build your own radio and tune into local stations 	<ul style="list-style-type: none"> • Learn about DC motors and generators • Hands-on activity
Friday	<ul style="list-style-type: none"> • Snap Circuits • Create a sign with LEDs 	<ul style="list-style-type: none"> • Learn how to make music with an electronics circuit • Presentation of certificates