FLORIDA ATLANTIC UNIVERSITY
COLLEGE OF ENGINEERING & COMPUTER SCIENCE

2018 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 force, current, voltage and power with a basic experimental set-up
- Build your own alarm system
- Control LED lighting project with an Arduino Uno microcontroller

Week 3: June 25 - 29

Coordinator: Ali Zilouchian, Ph.D.

Schedule:

Day	Morning Session	Afternoon Session
Monday	• Meet and greet. • Overview of electrical engineering and tour of electrical and digital electronics labs. • Hands-on activity: Circuit Design	Hands-on activity: using a Multimeter to test conductors, insulators, resistors, current, voltage power and light.
Tuesday	• Learn what the relationship is between electricity and magnetism. • Hands-on activity: Inductors and Electromagnets	Hands-on soldering activity: students will build their own IR Light Barrier Alarm.
Wednesday	• Hands-on soldering activity: students will build their own Digital LED Electronic Clock	Introduction to Microcontrollers and embedded systems.
Thursday	• Student Design Project. Each student will design, build and program their own Arduino Uno microcontroller LED blinking light project.	Student Design Project
Friday	• Student Design Project	Student Design Project Presentations