



**ST. MARY'S** *Catholic High School, Dubai*

**AUS** | الجامعة الأميركية في الشارقة  
American University of Sharjah

The College of Engineering (CEN) at the  
American University of Sharjah (AUS) has launched the

# SPRING 2023 DISCOVER ENGINEERING CAMPAIGN

which includes camps and workshops related to the various  
engineering disciplines.

μElectronics For AI Computing and Digitization

16th AUS High School Computing Camp (Online)

Robot Navigation Workshop

Introduction To Drone Design and Manufacturing

AI Workshop

Python for AI & Data Analytics Virtual Camp

Engineering Shadow Program

The activities are open to students in Grades 8-12.

All activities are FREE and will run on a competitive basis.

Seats are limited.

# μELECTRONICS FOR AI COMPUTING AND DIGITIZATION

A hands on  
and  
fun-filled  
lab workshop



**Calling all engineers of tomorrow!**  
**Join this FREE workshop**  
**at the Department of Electrical Engineering**

- Design and make your own Printed Circuit Board (PCB)
- Learn Soldering Techniques and build your PCB
- What is an AI Accelerator?
- How we use fast chips for computer gaming and graphics

**Here are the details:**

**Date:** March 4, 2023

**Time:** 9:30 AM - 12:30 PM

**Venue:** Engineering and Sciences Building (ESB),  
American University of Sharjah

**Participants:** Grades 10-12

**Seats are limited.**  
**REGISTER NOW!!!**

<https://forms.aus.edu/230448738542865>



In this event, you will learn, at the same time enjoy the following:

- Design and make your own Printed Circuit Board (PCB)
- Learn Soldering Techniques and build your PCB
- What is an AI Accelerator?
- How we use fast chips for computer gaming and graphics

**Grades 10 - 12**

<https://forms.aus.edu/230448738542865>

**COST: FREE**  
**VENUE: ONLINE**

## JOIN THE 16TH AUS HIGH SCHOOL COMPUTING CAMP!

LEARN ALL ABOUT ENGINEERING DESIGN AND INNOVATION THROUGH FOUR DAYS OF FUN ACTIVITIES AND COMPETITIONS.

**MARCH 11TH, 12TH, 18TH, AND 19TH 2023 | 10:00 A.M. – 05:00 P.M.**

SEATS ARE LIMITED SO SIGN UP NOW AT: [WWW.AUSCSE.COM/CAMP](http://WWW.AUSCSE.COM/CAMP)

- PROGRAMMING
- WEB DEVELOPMENT
- GAME DEVELOPMENT
- MOBILE APPS
- COMPUTER NETWORKS
- SMART HOMES AND IOT
- CYBER SECURITY
- MACHINE LEARNING

**CSE** | COMPUTER SCIENCE & ENGINEERING  
American University of Sharjah  
United Arab Emirates

The 16th AUS High School Computing Camp is an online educational and entertaining event, targeted at UAE resident students between grades 10-12. During the camp, students will engage in a series of experiments and hands-on activities, related to various topics in Computer Science and Engineering. Students will also explore new grounds of science, and develop essential skills necessary for their future University life

**Grades 10 – 12**

<https://auscse.com/camp>

# ROBOT NAVIGATION WORKSHOP

What does it take to make  
a robot autonomously  
navigate ?

Want to find out?



Join this **FREE** workshop at the  
Department of Electrical Engineering

- Embark on this journey with world-class faculty from the AUS department of Electrical Engineering to find out how Artificial Intelligence plays a role in robotic navigation.
- Get a peak into navigation techniques common in warehouse logistics robots.
- Build your own robot that can follow a path.

**Here are the details:**

**Venue:** Engineering and Sciences Building (ESB),  
American University of Sharjah

**Date:** March 11, 2023

**Time:** 9AM - 5PM

**Participants:** Grades 10-12

Seats are limited.

**REGISTER NOW!!**

<https://forms.aus.edu/230449186299064>



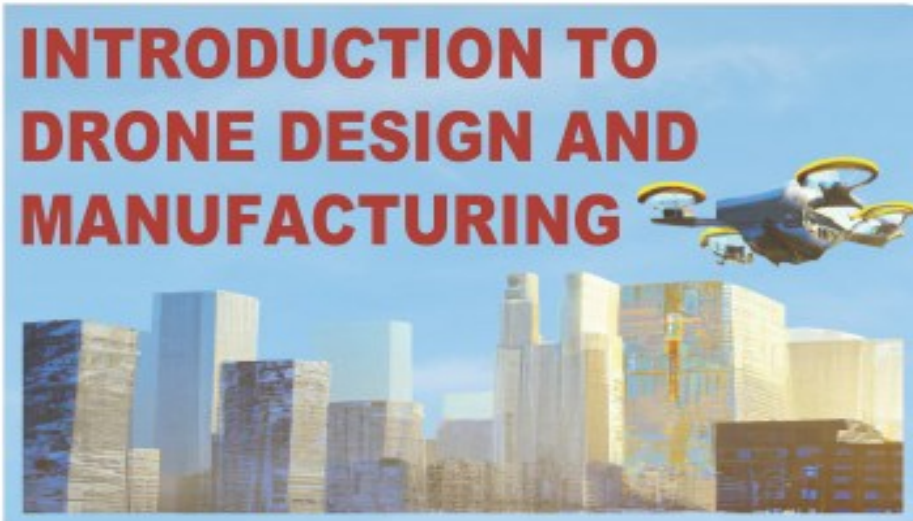
This event will introduce students to the key elements required for enabling a robot to navigate autonomously in its surroundings. It will talk about common methods for localization of a robot and how this helps with navigation. Following this, students will be given all the tools and directions to create their own simple robot that can navigate down hallways of the engineering building at AUS.

**Grades 10 – 12**

<https://forms.aus.edu/230449186299064>



# INTRODUCTION TO DRONE DESIGN AND MANUFACTURING



Join this **FREE** workshop at the  
Department of Electrical Engineering

- Get a peak into drone design and manufacturing.
- Use a professional drone simulator.
- Get a peek into designing autopilots.

### Here are the details:

Date: March 18, 2023

Time: 9AM - 5PM

Venue: Engineering and Sciences Building (ESB),  
American University of Sharjah

Participants: Grades 10-12

Seats are limited.  
**REGISTER NOW!!!**

<https://forms.aus.edu/230448623977870>



This event will introduce students to what it takes to build their own drone and get it flying. They can see first hand the different parts that go into building a drone. The different systems that go into locating and controlling a drone. They can experience what it takes to fly a drone in a simulator. And also be introduced to how autopilots are programmed.


**Grades 10 – 12**

<https://forms.aus.edu/230448623977870>

**WORKSHOP ON  
ARTIFICIAL  
INTELLIGENCE**


By Dr. Imran Zualkernan  
Head of Department and Professor at the  
Computer Science and Engineering Department

Learn about:  
**MACHINE LEARNING  
DEEP LEARNING  
ROBOTICS**

 March 18th and 19th, 2023  
10:00am - 5:00pm

**OPEN FOR HIGH  
SCHOOL STUDENTS  
GRADE 8-10**

For registration and more information, visit  
[auscse.com/aiworkshop](https://auscse.com/aiworkshop) or scan the QR code



The AI Workshop is an educational and entertaining event targeted at school students between grades 8 and 10. Over two days, students will engage in a series of experiments and hands-on activities related to robotics, machine learning, and neural networks & deep learning. Students will explore new grounds of artificial intelligence and develop essential skills necessary for their future University life. The workshop includes a hackathon where students will apply their AI to develop novel solutions and win prizes.

**Grades 8 - 10**

**<https://auscse.com/aiworkshop/>**



## **CALLING ALL FUTURE ELECTRICAL ENGINEERS & DATA SCIENTISTS!**

**JOIN US FOR THE PYTHON for  
AI & DATA ANALYTICS virtual  
camp!**

**Wednesday, April 05 | 9:00 a.m.–3:00 p.m.**

**In the comfort of your own home, virtual**

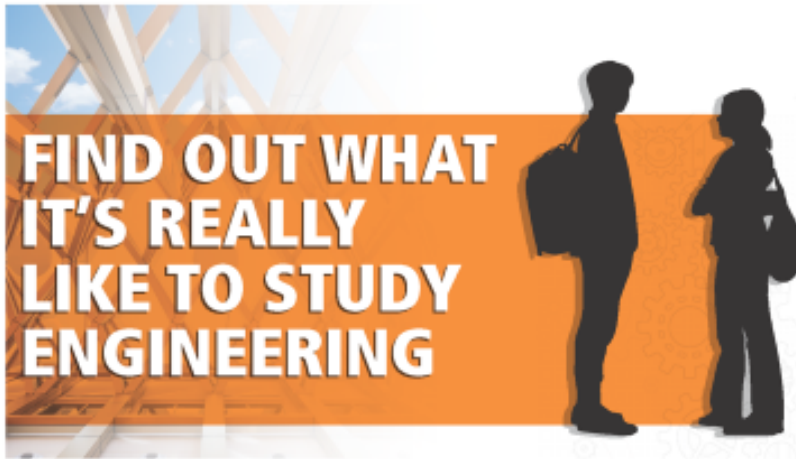
**Open to all high school students in grades 10, 11 and 12**

If you are interested in learning what is AI? what is Python? why is it famous for AI applications? How is AI related to Electrical Engineering, then this virtual camp is for you.

What is AI? Are machines taking over? Are machines out of our control? What is Python? Why is it famous for AI applications? We discuss all this and the applications of AI algorithms to digital signals derived from electrical devices, such as images, videos, speech signals, brain signals and so on. In this virtual camp you will grasp the basics of Python, grasp the basics of AI algorithms, make your own neural network, and make a bot that connects to a social networking / video sharing website and gather data for further analysis..

**Grades 10 - 12**

<https://forms.gle/1tvk9KNyRVNCKuDf6>



**Spend the day as a university student through the  
AUS Engineering Shadow Program.**

- attend classes
- meet professors and students
- talk to admissions advisors
- experience campus life

Open to high school students in grades 11 and 12.

Participation is free but admission is competitive.

Find out more at [www.aus.edu/cen/engineering-shadow-program](http://www.aus.edu/cen/engineering-shadow-program).



Experience university life as an AUS engineering student. Through this program, high school students in grades 11 and 12 get to experience a day in the life of an AUS engineering student. Your guide for the day will be a student in your major of interest, and as their “shadow,” you will attend classes, meet our engineering students and professors, and experience some of our on-campus facilities.

**Grades 11 - 12**

<https://www.aus.edu/cen/engineering-shadow-program>