



Technology learning opportunity through the Appalachian STEM Enrichment Academy

This spring the Voinovich School of Leadership and Public Service will offer a 2-week Appalachian STEM Enrichment Academy (ASEA) program for the Appalachian counties **middle and high school students grades 8-12** to participate in an interactive learning opportunity focused on the fourth industrial revolution digital transformation: the mentioned technologies (or rather groups of technologies) such as Internet of Things, Artificial Intelligence (AI), Drone, Virtual and Augmented Reality. Limit of 22 students.

The learning objectives for the fourth industrial revolution digital transformation ASEA Cohort are shown below.

- 1.) What are the main characteristics of Artificial intelligence (AR)? What are the applications of augmented reality AR in manufacturing?
- 2.) What are the advantages of Artificial Intelligence (AI)? What is the purpose of AI?
- 4.) What is an Unmanned System? Learn about drones and how they are used in the real world. How are Aerial Drones applied today and in the industry?
- 5.) Learn to build robots! Play and experiment with the world's most popular open-source robot to develop hardware and software tech skills.

SCHEDULE

WEEK 1

Session 1: What is augmented reality (Metaverse)?

Wednesday, April 5, 2023, 4:00 – 5:00 p.m.

Session 2: What is primary purpose of a drone?

Friday, April 7, 2023, 4:00 – 5:00 p.m.

WEEK 2

Session 3: What is artificial intelligence?

Wednesday, April 12, 2023, 4:00 – 5:00 p.m.

Session 5: Build Internet of Things (IoT) Otto Bot

Friday, April 14, 2023, 4:00 – 5:30 p.m.



INSTRUCTORS



Elkan Kim, Senior IT Project Manager and Computer Software Engineer, Ohio University's Voinovich School of Leadership and Public Service

- **Ohio University Electrical Engineering and Computer Science Students**

Internet of Things Otto Bot Kit:

Participants can use this kit to build and program using a visual programming language based on Blockly from Google. A Bluetooth module allows the student to remote control via the mobile App. We will ship the Otto Kit to their home addresses.



FREE! REGISTER NOW!
rb.gy/dugfdz

Funding supporting the ASEA platform and development of the lesson materials are in part from: AEP Fund of the Columbus Foundation, DOE PORTS Future PPO EM, Ohio Environmental Protection Agency, and Voinovich School Appalachian New Economy Partnership. Direct funding to support Water Quality cohort instructors and kits are provided from AEP Fund of the Columbus Foundation and Voinovich School Appalachian New Economy Partnership.



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