First-in-Pinellas-County Initiative, Eagle Works, Offers Advanced STEM Studies in Applied Artificial Intelligence and Autonomous Vehicles at East Lake High School

New MIT Collaboration Provides Advanced STEM Program for East Lake High School students

Tarpon Springs, FL – A new Science, Technology, Engineering, and Math (STEM) initiative, Eagle Works, is aiming to provide advanced STEM studies in Applied Artificial Intelligence and Autonomous Vehicles to East Lake High School (ELHS) students. Eagle Works is based on the Beaver Works Summer Institute (BWSI) at the Massachusetts Institute of Technology's (MIT). The program will teach skills that enable and empower students to solve tomorrow's transportation problems today by applying artificial intelligence.

"MIT Beaver Works is incredibly pleased to be collaborating with the East Lake High School to help the Eagle Works students to develop skills in machine learning and advanced programming using courses from the Beaver Works Summer Institute (BWSI). The courses were developed by MIT faculty and Lincoln Laboratory scientists to provide opportunities for high school students that didn't exist. We have been developing project-based courses in advanced topics, that include autonomous robotics and machine learning. Students learn engineering principles working as a team to implement advanced software concepts creating self-driving model cars, drones, as well as applications that can make the world a better place. Fly high Eagle Works!", **said Joel Grimm, Beaver Works Manager at MIT**.

"The engineering program at East Lake High School has developed a keen interest and understanding of science and technology in their students. That interest will be further developed through the partnership with MIT and connections to advanced educational opportunities and careers in refining the use of science and technology across the Country," **says Mark Hunt, Executive Director, Career, Technical and Adult Education, Pinellas County Schools.**

"This new opportunity at East Lake High School is a step toward bridging the advanced technology equity gap for students in Pinellas County. The skills students learn will help them advance their academic and career goals," **says Carmela Haley, Principal of ELHS.** "In the engineering academy, our goal is to create the right environment for innovation with advanced programs rather than serve ready-made knowledge. Collaborating with MIT will allow our students to escalate their talent to a new level, learn cutting-edge technology, and develop advanced skills in STEM," **said Kris Toscani, Assistant Principal in charge of the ELHS Engineering Academy.**

MIT Beaver Works is committed to offering BWSI course content and providing a list of materials for building MIT-designed robot, the RACECAR (**R**apid **A**utonomous **C**omplex **E**nvironment **C**ompeting **A**ckermann stee**R**ing). This collaboration is the first of its kind establishing an educational linkage between MIT and a Pinellas County public high school. The Eagle Works sessions will begin in Fall 2020.

"I'm thrilled to implement the Eagle Works program at East Lake Engineering Academy. Autonomous robots, autonomous drones, and many other applications of artificial intelligence are going to play ever increasingly important roles in our lives, and I want our students not just to follow this trend but be prepared to lead it. Eagle is our school mascot and collaborating with MIT BWSI program will empower our student-eagles to fly high and fly far in the world propelled by advanced technologies," **says Malay Bhatt, Program Manager of Eagle Works at ELHS**.

In collaboration with MIT-BWSI, Eagle Works will offer a hands-on, project-based, students-led, and faculty-facilitated learning experience at East Lake High School. It is designed for the high school students with a keen interest in engineering, robotics, electronics, software, and applied artificial intelligence. In this program, students will use Linux, Robot Operating System (ROS), and Machine Learning algorithms in Python programming language, build a robotic vehicle and apply artificial intelligence to make it drive itself using computer vision.

East Lake High School is among top 5 high schools in Pinellas County and among top 100 high schools in the state of Florida in the year 2020, according to the US News and World Report. The high school provides both rigorous academic classes and career and technical training to ensure students have the skills to pursue and succeed in post-secondary and career opportunities.