



2019 CAAT Conference

Is Electrification the Future?

STEM Activities

in Southeastern Michigan

Apprenti
asbe Foundation
CAAT
DMA
FIRST in Michigan
Girl Scouts of SE Michigan

Macomb Community College
MAGMA
MI Bright Future
Oakland Schools
Square One Education Network
STEM Genius

Center for Advanced
Automotive Technology

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Apprenti



The path, the plan, your career in tech.

- Apprenti is a nationally-recognized, information technology apprenticeship program, supported by the U.S. Department of Labor to help close the talent gap and identify diverse talent to meet tech industry needs.
- Utilized by industry giants like Amazon and Microsoft, this job-training program combines state and grant funding, on-the-job-skill building and higher education for small to large IT/Tech companies.
- Apprenti provides rapid upskilling in web, software development, cybersecurity, cloud support, network security administration, and more!

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asbe Foundation | DMA



In the past year, the asbe Foundation:

- Conducted its 65th High School Design Challenge, capped off with an awards dinner to celebrate student achievement.
- In partnership with DMA, conducted tours for 9 high schools at the GM Heritage Center, where retired GM engineers led students through the facility to aid their understand of the evolution of the automobile
 - In collaboration with local intermediate school districts, instructor tours have also been well received.
- In partnership with DMA, participated in mock interviews at 3 high schools this year to better prepare students to enter the workforce.

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FIRST in Michigan



FIRST in Michigan is a program focused around increasing the knowledge and involvement of kids to concepts like STEAM, Engineering, Business Operation, etc.

The 4 levels of *FIRST* have its own unique sets of game challenges the teams must overcome:

- *FIRST* Lego League Jr. (grades K-3)
- *FIRST* Lego League (grade 4-5)
- *FIRST* Tech Challenge (grades 6-8)
- *FIRST* Robotics Competition (grades 9-12)

Students involved in *FIRST* strengthen skills like teamwork and problem solving, and are introduced to many opportunities including over \$80 million in scholarships, potential future employers, internships, and knowledgeable mentors.

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Girl Scouts of Southeastern Michigan



STEM Activities

Girl Scouts would like every girl to explore different aspects of STEM every year, so they have developed a unique 'fun with purpose' K-12 curriculum to inspire girls to celebrate scientific discovery in their lives.

- Girl Scout STEM badges and Journeys introduce girls to a wide range of skill building opportunities in areas like robotics, programming, science, and technology.
- Girl Scouts sponsors First Lego Leagues, Robotics Expos, and STEM Career Days. This helps girls to connect with STEM role models and explore STEM career paths.

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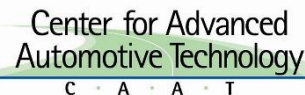




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MCC CAAT



Macomb Community College Center for Advanced Automotive Technology

- The CAAT offers free in-classroom STEM labs to local middle school classrooms, engaging approximately 4,000 middle school students per school year. The CAAT also offers Career Exploration Labs to middle school student groups and their parents.
- In addition, the CAAT supports Macomb Community College's annual Auto STEAM Days event, summer career academies and College for Kids programming.
- Macomb's CAAT also works with other educators/organizations to support and host events like the Girl Scouts Engineering Day, Boy Scouts STEM Adventure Day, Summer STEAM Camps (sponsored by General Motors and Bosch), and Middle School Days.





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MAGMA



Michigan Alliance for Greater Mobility Advancement

- MAGMA convenes auto makers and suppliers, with Michigan's workforce and education systems, to address the skills and training needs for a rapidly changing mobility landscape.
- Industry approved MAGMA short courses exist to quickly up-skill incumbent workers in emerging technologies, including systems engineering for autonomous vehicles, electrification and other advanced vehicle technologies.

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MI Bright Future



- Connects Michigan high school students with local STEM employers and other professionals to learn about STEM careers and find meaningful work-based learning experiences.
- Through direct connections, students receive real-time information about the skills and education currently in-demand in STEM-related fields, which is vital to being successful in today's ever-changing world.
- Partners with other talent initiatives to broaden STEM exposure and ensure students pursue this much needed field.
- Active in 14 counties and currently reaches 150,000+ students in over 190 schools.

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Oakland Schools



Every Student. Career Ready.
OaklandSchools

Oakland Schools Career Focused Education (CFE) provides a variety of STEM-related activities to students, educators and parents in Oakland County and Southeast Michigan.

- Middle School STEM Summer Camps offer hands-on, project-based learning in various areas including engineering, health sciences, and information technology.
- Oakland County Competitive Robotics Association (OCCRA) generates enthusiasm for technical and academic disciplines such as design, engineering, physics, and electronics for students grades 6 - 12.
- The Oakland Schools Technical Campuses (OSTC) offer CTE programs including Mechatronics, Programming, Networking, Cybersecurity, Health Sciences, etc. for juniors and seniors.
- CFE also provides a number of opportunities for educators to connect with business & industry including Teachers in Industry and Pathways to Apprenticeship.
- All of these events foster excitement for STEM-related careers.

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Square One Education Network



- The Square One Education Network serves K-12 students and teachers with hands on projects that integrate science, technology, engineering and math (STEM) with a focus on talent development for tomorrow's mobility industry.
- Join Square One on Saturday, May 11 at Kettering University's GM Mobility Research Center, Flint MI for the 13th Innovative Vehicle Design Competition.





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STEM Genius

STEM Genius inspires and teaches STEM content to kids in pre-K through 12th grade through project-based learning.

STEM Genius has been offering programs for more than 7 years to students both nationally and internationally. Some of their programs include but are not limited to the following:

- * Robotics
- * Underwater Robotics
- * Biomedical Engineering
- * Coding
- * Aerospace Engineering



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Break & STEM Table Visits



Every Student.
Career Ready.
OaklandSchools

