



## 19<sup>th</sup> Annual Conference - October 26, 2022

### Conference Agenda

<b>7:30-8:30 AM</b>	Registration/Networking and Continental Breakfast
<b>8:30-8:45 AM</b>	Welcome & Remarks <span style="float: right;">R. Merkel, STEM Forward</span>
<b>8:45-9:15AM</b>	Morning General Session Speaker <span style="float: right;">Laurie Rosatone, <i>Smithsonian Science Education Center</i></span>
<b>9:15-9:30 AM</b>	Break
<b>9:30-9:50 AM</b>	Breakout Sessions – Round 1 <i>Greater MKE Hour of Tech</i> <i>How IT and Esports are Working Together to Create Tech Career Pathways</i> <i>STEM in the Civil Air Patrol (CAP)</i> <i>Follow Up with Laurie Rosatone</i>
<b>10:30-11:20 AM</b>	Breakout Sessions – Round 2 <i>Code the Hoan: Creating Authentic STEAM Experiences through Community Partnerships</i> <i>Family-Centric STEM Outreach: Lessons from the ROSE Project</i> <i>Real-Time STEM Challenges in High School Add Value to Business</i>
<b>11:30-12:00 PM</b>	Lunch
<b>12:00-12:30 PM</b>	The <i>Stemmy</i> (Excellence in STEM) Awards Presented in 4 Categories
<b>12:30-1:15 PM</b>	Luncheon Speaker <span style="float: right;">Alex Kotran, <i>The AI Education Project</i></span>
<b>1:15-1:30 PM</b>	Break
<b>1:30-2:20 PM</b>	Breakout Sessions – Round 3 <i>Making Project Base Learning Work</i> <i>Phenomenal Science: More than a Hook</i> <i>Society of Women Engineers (SWE) Club in High Schools</i> <i>Follow Up with Alex Kotran</i>
<b>2:30 PM</b>	Conference Adjourns



## 19<sup>th</sup> Annual Conference - October 26, 2022 | Breakout Sessions

Round 1: 9:30-10:20

### Greater MKE Hour of Tech

*Intended Audience: Business, Education, Community*

The Greater MKE Hour of Tech Challenge will be held during computer science week Dec. 5-11. Our regional challenge is to collectively provide over 35,000 hours of mentorship to students across southeastern Wisconsin to help them understand the impact of technology on the world around them and their potential to be part of it. By starting early, students will have a foundation for success in any career path. In this session, you will learn about the MKE Tech Hub Coalition, how Hour of Tech is important to regional goals, and why you should learn into the effort.

Presenters: **Kenge Adams** | *Founder / CEO, Connect Business Consulting*  
**Jasmin Treske** | *Manager, Tech Programs & Community Outreach, MKE Tech Hub Coalition*

### How IT and Esports are Working Together to Create Tech Career Pathways

*Intended Audience: Business, Education, Community*

Learn about the exciting new world of Esports and its connectivity to Information Technology careers. Based off the success of an adult workforce development program and several scholastic camps across WI – learn from the team at New Horizons, the Milwaukee Esports Alliance and Verizon on how these unique elements have come together.

Presenters: **Brandon Tschacher** | *MKEsports Alliance*  
**Abbey Diedrich** | *New Horizons Wisconsin*  
**Steve Shaw** | *Verizon*  
**Wendel Willis** | *MPS Board Foundation*

### STEM in the Civil Air Patrol (CAP)

*Intended Audience: Education, Community*

The Civil Air Patrol is one of the best kept secrets around. CAP has three main missions including Emergency Services, Cadet Development Programs, and Aerospace Education. The presenters will discuss the structure and three missions of CAP as well as how to participate as an adult and a cadet. The main focus will be on the STEM program in Aerospace Education, including community outreach. STEM topics include aviation, astronomy, cybersecurity, hydraulics, drones, electronics, meteorology, robotics, rocketry, mechanics, and buoyancy. CAP STEM kits will be present for viewing. CAP has a special program for educators to participate in their STEM outreach.

Presenters: **Captain Erik Wolbach** | *Assistant Aerospace Education Officer, Milwaukee Composite Squadron 5*  
**Major Rick Pretsch** | *Deputy Commander of Cadets, Milwaukee Composite Squadron 5*  
**Lieutenant Colonel Julie Sorenson** | *Commander and Aerospace Education Officer, Waukesha Squadron*



*Round 1: 9:30-10:20 (Continued)*

## **Follow Up with Laurie Rosatone**

*Intended Audience: Business, Education, Community*

A follow-up session with the morning keynote, Laurie Rosatone. Additional time for presenting information and Q&A.

Presenter: **Laurie Rosatone** | *Smithsonian Science Education Center*



Round 2: 10:30-11:20

## Code the Hoan: Creating Authentic STEAM Experiences through Community Partnerships

*Intended Audience: Business, Education, Community*

The Beyond the Classroom - Code the Hoan Scholars Program was designed to teach 5th and 6th graders critical STEAM and coding skills using the Hoan bridge lights as teaching and learning tools. In this session we'll share the story of the project and our program reflections after year one. Participants will also become the student by completing coding tasks, engaging with our interactive Hoan Bridge Model, and trying out our immersive VR lesson. This project is in partnership with Light the Hoan, MSOE's Create Institute, and Foresight Studios

Presenters: **Britni Whitty** | *Manager of Innovation & Technology*  
**Becky Olsen** | *SHARP Educator*

## Family-Centric STEM Outreach: Lessons from the ROSE Project

*Intended Audience: Education, Community*

Since 2009, the Edgewood College Office of Science Outreach has partnered with community organizations serving underrepresented groups in STEM (Science, Technology, Engineering, Math) to increase access to science education via our family-centric ROSE (Resources and Opportunities in Science Education) Project. This session will explore some of the lessons learned throughout the implementation of our project and will offer an opportunity for attendees to share their own experiences around family-centric STEM outreach. We will also lead an interactive activity whereby attendees will work in groups to reimagine what family-centric STEM outreach can and should look like in Milwaukee and southeastern Wisconsin.

Presenters: **Bernardo Traversari** | *Director of Science Outreach*  
**Sara Stoehr** | *ROSE Project Coordinator*

## Real-Time STEM Challenges in High School Add Value to Business

*Intended Audience: Business, Education, Community*

In what ways might you make required courses relevant to all students? How might businesses benefit from high school students solving their current challenges? One Chemistry teacher and one medium sized manufacturer in Germantown have partnered to find a way to make curriculum engaging for all students while creating value to the business. Together they have found a way to meet common core requirements and equip students with essential life-long skills. Join this session to hear how they did it, lessons learned and how their formula for success can be replicated.

Presenters: **Leslie Fee** | *Talent Manager – Development, J.W. Speaker Corporation*



Round 3: 1:30-2:20

## Making Project Base Learning Work

*Intended Audience: Business, Education, Community*

Project Based Learning can be intimidating if you don't know where to start. This session will break down the benefits of project-based learning, talk about ways you can organically work it into your already existing curriculum, and some starting resources for educators. For business partners/corporations we will talk about ways how you can help sponsor classrooms with projects.

Presenters: **Claire Bernatz** | *7<sup>th</sup> Grade Science Teacher, Shorewood Intermediate School*

## Phenomenal Science: More than a Hook

*Intended Audience: Education, Community*

This session will take a closer look at how to establish an anchoring phenomenon routine to a science unit. The purpose of the anchoring phenomenon routine is to build a shared mission for a learning community to motivate students in figuring out phenomena or solving design problems. It serves to ground student learning in common experience(s) and then use that experience to elicit and feed student curiosity. This is also a critical place to capture students' initial ideas as a pre-assessment opportunity. In this session, participants will:

- Experience an abbreviated version of an anchoring phenomenon from an existing middle school science unit.
- Understand the four steps of the routine and how they support a classroom culture where all students have access and are engaged in sense-making.
- Brainstorm and begin to plan for how to use this routine within a new or existing unit they teach

Presenters: **Kim Lemberger** | *Director of Learning, Einstein Project*

## Society of Women Engineers (SWE) Club in High Schools

*Intended Audience: Business, Education, Community*

SWENext is a way for girls to become a part of the SWE engineering and technology community as students through the age of 18. SWENext is free to join and provides students access to programs, mentors, and resources designed to develop leadership skills and self-confidence. Although the program focuses on girls, all students are encouraged to join. The presenters will discuss the Wisconsin SWE organization and how SWENext is supported. Discussion will include how to start a club as a school advisor. Student leaders from the Union Grove Broncos SWENext Club will present their ideas for the coming school year.

Presenters: **Erik Wolbach** | *Engineering Teacher and Advisor for SWE Next Club at Union Grove High School*  
**Heidi Balistreri** | *Vice President of Outreach for Society of Women Engineers in Wisconsin*  
**Students from Union Grove High School SWE Next Club**



*Round 3: 1:30-2:20 (Continued)*

## **Follow Up with Alex Kotran**

*Intended Audience: Business, Education, Community*

A follow-up session with the luncheon keynote, Alex Kotran. Additional time for presenting information and Q&A.

Presenter: **Alex Kotran** | *The AI Education Project*