



**OPENING THE PATHWAYS TO
CAREERS BY CONNECTING
INTEGRATED STEM, CAREER
TECHNICAL EDUCATION, & THE
ROLE OF ARTIFICIAL
INTELLIGENCE**

STEM LEADERSHIP ALLIANCE SUMMIT 2023 AGENDA

JULY 9-13 2023

LOEWS PORTOFINO BAY HOTEL, ORLANDO, FL

WWW.STEMLEADERSHIPALLIANCE.ORG

STEM education is essential for all careers, not just those in science, technology, engineering, and mathematics fields. The skills taught in STEM courses are crucial for success in the 21st century workforce. In fact, according to the World Economic Forum, basic literacy and numeracy are no longer enough to secure employment. Additionally, scientific literacy and information and computer literacy are now recognized as two of the six foundational skills for workers in the 21st century. It's important to explore the intersection of STEM and career technical education to fully prepare for the demands of today's job market.

7:00-8:15 AM TUSCAN IV	Breakfast
8:30 AM TUSCAN III	Welcome Kelli List, Founder & Executive Director of STEM Leadership Alliance Dr. Sal Fernandez, President, STEM Happens Network
8:50 AM TUSCAN III	Cradle to Career: How Challenger Center Inspires the Workforce of the Future Dr. Lance Bush, President & CEO of Challenger Center
9:20 AM TUSCAN III	Challenger Center's Virtual Missions are digital space-themed missions that allow students to practice teamwork, collaboration, and problem-solving skills while establishing a presence on Mars and the Moon. During the STEM Leadership Alliance Summit, you'll experience a Virtual Mission and become an astronaut and researcher through Destination Moon.
10:40 AM	Break
10:55 AM TUSCAN III	Understand the Challenges and Solutions of Careers and Technical Education Dr. Amy Loyd, Assistant Secretary of Career, Technical and Adult Education, US Department of Education
11:40 AM TUSCAN III	ED TALK: Encouraging STEM Integration Across the Philippines 7,000 Islands Dr. Gonzalo "Al" Serafica, Board Chairman and Acting Executive Director for the Center for Integrated STEM, Philippines
11:55 AM TUSCAN III	Perspective from Industry about the Skills Necessary for the Workforce Maria Spina, Manager PSEG Foundation
12:15 PM TUSCAN IV	Lunch
1:15 PM TUSCAN III	Leading Associations' Perspectives and Approaches to Integrative STEM Kevin Dykema, President of the National Council of Teachers of Mathematics Kelly Dooley, Executive Director, International Technology and Engineering Educators Association
2:00 PM TUSCAN III	ED TALK: The Journey of Designing Integrated STEM Units Bea Fuller Rogers Intermediate School 528, New York City Carlos Pichardo, Principal; Noemi Brito, Parent Coordinator; Alexa Edwards, Math and SPED Teacher; Stanley Gutierrez, Science and SPED Teacher; Angelic Lagares, ELA and ENL Teacher; Kirk McLean, Science and Technology Teacher; Darimir Perez, Guidance Counselor; Cristian Vasquez, Art and Technology Teacher
2:15 PM	Break
2:30-3:30 PM LIGURIAN I TUSCAN I TUSCAN II	Breakout Sessions Breakout 1: Lessons from the Philippines Breakout 2: Green Fuel, Clean Fuel, Biofuels: Designing an Integrated STEM Unit Breakout 3: Integrative STEM in Action: Creating Connections Between S,T,E, and M
3:30-4:30 PM	Showcase and Network Reception Raffle Prizes

There is a significant shortage of skilled workers in STEM fields worldwide, with the U.S. projected to have a shortage of up to 3.5 million STEM workers by 2025 according to the National Association of Manufacturing and Deloitte. Germany also faces a shortage of around 320,000 STEM specialists as of April 2022 by the German Economic Institute, while the Philippines Department of Labor and Employment states the Philippines need around 800,000 to 1 million skilled workers in engineering, architecture, and construction to address the labor shortage. This shortage has been attributed to a focus on rote learning and memorization, which has not provided students with enough opportunities to apply their learning and recognize the skills necessary for the workforce.

7:00-8:15 AM TUSCAN IV	Breakfast
8:30 AM TUSCAN III	Welcome Kelli List, Founder & Executive Director of STEM Leadership Alliance Jeff Huart, NAACP Connect All Kids Initiative Dr. Hazel Dukes, President, NAACP NY State Chapter
8:45 AM TUSCAN III	Challenger Center’s Classroom Adventures is a suite of digital experiences that delivers STEM content in the context of real-world scenarios. During the STEM Leadership Alliance Summit, you’ll experience a Classroom Adventure and become an aquanaut through the Aquatic Investigators Adventure.
9:45 AM TUSCAN III	Co-Creating the Future of Workforce Learning Dr. George Westerman, Senior Lecture at the MIT Sloan School of Management & Founder of the Global Opportunity Forum
10:30 AM	Break
10:45 AM TUSCAN III	Changing the World through Human Leadership and Psychological Safety Paul Hylenski, Aerospace Composites Manufacturing Operational Leader
11:15 AM TUSCAN III	Dive into Innovative Career and Technical Programs That Prepare Students with the Advanced Skills Necessary to Enter the Workforce CJ Williams, Director of Business Development and Government Affairs, Western Maricopa Education Center, West-MEC
11:30 AM TUSCAN III	Bringing Career Technical Education into Every School Adam Couturier, Manufacturing Education Director at The Center for Advanced Manufacturing
12:00 PM TUSCAN IV	Lunch
1:00 PM TUSCAN III	Education Leaders are Discussing the Changes Happening in the Education Landscape <ul style="list-style-type: none"> • Angelica Infante-Green, Commissioner of Education, Rhode Island • Dr. Alexandra Estrella, Superintendent, Norwalk Public Schools • Brent McKim, President, Jefferson County Teacher's Association
2:00 PM TUSCAN III	ED TALK: Encouraging Confidence and Building Skills to Blend STEM and Industry Dan Kitchen, President & CEO of Make Stuff Move
2:15 PM TUSCAN III	Leading Innovators from the Philippines Share Their Success with Integrated STEM, CTE, and AI Melvin Magsayo, Center for Integrative STEM, Philippines
2:30 PM TUSCAN III	Breaking Down the Barriers in STEM Education Ken Hecht, President, National STEM Honor Society
3:00 PM	Break
3:15 PM-4:15 PM LIGURIAN I	Breakout Sessions Breakout 1: Makers of a Better Future: Advanced Manufacturing Curriculum for ALL High Schools.
LIGURIAN II	Breakout 2: West-MEC: Exploring the Pathways of CTE
TUSCAN I	Breakout 3: Make Stuff Move: Hands on Activity Resources
TUSCAN II	Breakout 4: National Parent Teacher Association: Resources for Parents

AI technologies such as chatbots and machine learning have revolutionized numerous industries, including education. Using AI can improve the learning process for both students and educators. Discover how AI can enhance the learning experience.

7:00-8:15 AM TUSCAN IV	Breakfast
8:30 AM TUSCAN III	Welcome Kelli List, Founder & Executive Director of STEM Leadership Alliance Melvin Magsayo, Center for Integrative STEM, Philippines
8:45 AM TUSCAN III	Challenger Center's Classroom Adventures digital experiences also include pre- and post-lesson activities for your students to dive deeper into STEM. During the STEM Leadership Alliance Summit, you'll experience a hands-on, Classroom Adventure engineering activity around the Aquatic Investigators Adventure.
9:45 AM TUSCAN III	Computer Science and AI in K-12: Learning, Teaching and Building Jeremy Bhatia, Director of Product, Kira Learning
10:15 AM TUSCAN III	ED TALK: Using STEM to Connect Social-Emotional Learning Dr. Pam Davis, Founder of Wellbotics - Robotics & Mindfulness for Kids
10:30 AM	Break
10:45 AM TUSCAN III	Why Education Must Become a Straighter Path for Students Dr. Stephen Pruitt, President & CEO of the Southern Regional Board of Education
11:30 AM TUSCAN III	Integrating Community-Based Workforce Development Programs Kevin Houchin, President: Houchin Consulting & Applied Workforce Logistics
12:00 PM TUSCAN III	ED TALK: Learn How to Apply Coding into Real World Scenarios Kyle Boyko, CEO of Inspire Tech
12:15 PM TUSCAN IV	Lunch
1:15 PM TUSCAN III	The AI Classroom: The Ultimate Guide to Artificial Intelligence in Education Dan Fitzpatrick, Best Selling Author
2:15 PM TUSCAN III	STEAM Learning Architecture: A Framework for Educational Innovation Dr. Claudia Urrea, Senior Associate Director, J-WEL pK-12, Abdul Latif Jameel World Education Lab
2:55 PM TUSCAN III	ED TALK: AI Platform for Learning Marcus Jeffery, Vice President, Free Fuse
3:05 PM	Break
3:15 PM LIGURIAN I LIGURIAN II	Breakout Sessions Breakout 1: Robotics and Mindfulness - Dr. Pam Davis Breakout 2: STEAM Learning Architecture: A Framework for Educational Innovation Claudia Urrea, MIT
TUSCAN II	Breakout 3: AI Exemplar - Jeremy Bhatia
4:15 PM	End of day

**"Children must be taught how to think, not what to think."
- Margaret Mead**

Artificial Intelligence has the potential to revolutionize the way we teach and learn. AI can personalize the learning experience for each student based on their strengths, weaknesses, and learning style. This can lead to better engagement, retention, and academic performance. AI can provide real-time feedback to students and teachers, enabling them to adjust their approach and improve outcomes. AI can assist teachers in developing and delivering content that is tailored to the needs and interests of their students. By integrating STEM, career technical education, and AI, we can prepare students for the jobs of the future and equip them with the skills they need to succeed in a rapidly changing world.

7:00-8:15AM TUSCAN IV	Breakfast
8:30 AM TUSCAN III	Welcome Kelli List, Founder & Executive Director of STEM Leadership Alliance
8:45 AM TUSCAN III	Transforming Learning and Education in the Era of AI Dr. Cynthia Breazeal, MIT Dean for Digital Learning Director, Professor of Media Arts and Science, Director of the MIT-wide Initiative on Responsible AI for Social Empowerment and Education.
9:45 AM TUSCAN III	Fastworks Training for Action Planning Group Planning
12:00 PM	End of Summit

**"Education in the most powerful weapon
which you can use to change the world."
– Nelson Mandela**

**Thank you for joining us this year at the STEM Leadership Alliance Summit!
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