

SCHEDULE

WEDNESDAY, MAY 5

8:30 am – 8:35 am	Welcome by Ivan Ivanov, PE, President	
8:35 am – 9:35 am	<p>KEYNOTE: Reaching New Heights in Engineering <i>Speaker Alan Mallory, PE, PMP - New Heights Consulting</i></p>  <p>This engaging keynote combines innovative engineering and project management strategies with captivating mountaineering analogies. The focus is on adopting an agile mindset in order to better adapt to challenges and volatile environments. Alan puts specific emphasis on risk management, strategic planning, maintaining a future mindset, design thinking and adopting an iterative approach.</p>	<p>Sponsored by: </p>
9:35 AM – 9:50 AM BREAK		
9:50 am – 10:50 am Breakout Sessions	<p>Gordie Howe International Bridge Project Update <i>Mohammed S. Alghurabi, PE - Michigan Department of Transportation</i></p> <p>Mohammed Alghurabi P.E., MDOT's Senior Project Manager for the Gordie Howe International Bridge Project, will provide an update on how the project is proceeding. Discussion will include details on all components of the project, including the main bridge, U.S. and Canadian ports of entries, the interchange with Michigan's I-75, and associated aspects of construction.</p>	<p>Addition of 1,4-Dioxane Removal System to Municipal Water Treatment Plant: Pilot to Operation <i>Ali Ling - Barr Engineering Co.</i></p> <p>The municipal water treatment plant (WTP) for the City of New Brighton (City), Minnesota not only supplies potable water, but also operates as an integral remedial component for the Twin Cities Army Ammunition Plant (TCAAP), a 25 square mile Federal Superfund site. This presentation will primarily focus on pilot testing of advanced oxidation processes and technology selection for full-scale design and implementation.</p>
10:50 AM – 11:05 AM BREAK		
11:05 am – 12:05 pm Breakout Sessions	<p>The Road to Autonomous Vehicles <i>Robert Feldmaier PE - Chrysler & Tesla, Macomb Community College</i></p> <p>This presentation will discuss why the interest in autonomous vehicles, how the technology works, and what the remaining challenges to full implementation are. It will also discuss the tie in to electric vehicles and ride sharing.</p>	<p>Ford Airport: Responding to the Pandemic while Completing Multi-Year Improvements <i>Casey Ries, PE, & Clint Nemethy, PE - Gerald R. Ford International Airport</i></p> <p>This presentation is an infrastructure update from the Gerald R. Ford International Airport engineering team. Topics will include a discussion on COVID-19 impacts to the aviation industry and completing a multi-year \$50M investment during the pandemic, then transitioning capital planning and infrastructure to recovery.</p>
12:20 pm	Annual Business Meeting, Installation & Order of the Engineer Ceremony	

THURSDAY, MAY 6

1:00 pm – 2:00 pm

Edenville Dam failure Overview of Events and Response Activity

Troy Naperala, PE - AECOM & Daniel DeVaun, PE - EGLE



This presentation will provide an overview of the conditions that lead to the failure of the Edenville Dam and the actions taken in the aftermath to stabilize the dam. The hydrologic conditions prior to the failure will be reviewed and a description of the failure will be provided. The stabilization plans and benefits to the dam will be reviewed along with the risk and engineering alternatives analysis that was completed to select a design.

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2:00 PM – 2:15 PM BREAK

2:15 pm – 3:15 pm
Breakout Sessions

Dam Safety and Civil Structural Projects Past and Present

Marianne Walter, PE - Generation Planning Environmental & Hydro

The presentation will be a high-level overview of Consumers Energy's Owners Dam Safety Program and the associated civil structural projects that support dam safety. It will review also some historical projects and some current ongoing projects that are a result of the recent dam failures (Oroville).

Michigan Professional Engineers Administrative Rules and Licensing Update

Alexandra Bestwick - Bureau of Professional Licensing & Weston MacIntosh - Michigan Department of Licensing and Regulatory Affairs

The latest revisions to the Michigan Professional Engineers administrative rules were promulgated on December 10, 2020. The rules update will include a summary of those changes, as well as the opportunity for questions and answers as the subject matter and time permits. In addition, a member of the Licensing Team will provide a walk-through of the renewal process within the new Licensing database - Michigan Professional Licensing User System (MiPLUS).

3:15 PM – 3:30 PM BREAK

3:30 pm – 4:30 pm
Breakout Sessions

Medical Facility Design and Planning for "What If"

Sam Reed, PE - BSA LifeStructures

What is the next "What if?" In 2020 it is COVID-19, in 2014 it was Ebola, what's next? How can you, as a Professional Engineer, play a critical role in protecting your clients, their patients, even the United States from the next threat whether it's chemical, biological, radiological, nuclear, or the next emerging infectious disease.

City of Bemidji PFAS Water Treatment: Concept Development through Full-Scale Design and Implementation

Becca Vermace & Katie Wolohan, PE - Barr Engineering Co.

Per- and polyfluoroalkyl substances (PFAS) have been detected in the water of multiple drinking water supply wells that serve the City of Bemidji, Minnesota. This presentation will provide detailed results of a granular activated carbon accelerated column test and an ion exchange pilot test, with two different single-pass resins, to evaluate PFAS water treatment effectiveness and inform full-scale treatment system design. It will also cover the current status of full-scale PFAS treatment system operations, after start-up in February 2021.

4:45 pm – 5:45 pm

MSPE Trivia Night

Grab a drink and a snack before joining MSPE for an evening of fun and trivia. All attendees will be able to participate, and prizes will be awarded!

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FRIDAY, MAY 7

MSPE ENGINEER OF THE YEAR AWARD PRESENTATION

8:30 am - 9:30 am

NSPE Update: Best Practices for Increasing Diversity in Your Organization

Tricia Hatley, PE, NPSE President - Freese and Nichols, Inc. & Rick Guerra, PE, F.NSPE, NPSE President-Elect - Jose I. Guerra, Inc.



For any future-focused, proactive profession or organization, diversity is increasingly a strategic imperative. But there needs to be an acknowledgement of the missed opportunities created by the biases in our personal, professional, and societal lives. In this session, the presenters will:

- Define Diversity, Equity, and Inclusion (DEI)
- Discuss NSPE's strategic focus on diversity
- Challenge your unconscious bias and perspectives
- Identify best practices for organizations and individuals to advance DEI

9:30 AM - 9:45 AM BREAK

9:45 am - 10:45 am
Breakout Sessions

A Professional Engineer's Perspective Regarding the U.S. Energy Industry Over the Past 100 Years

Daniel G. Sovinski - Ferris State University

The Changing Perspectives of the Supply and Demand-side Energy Industry over the Past 100 Years.

Engineering Excellence and Engineer Exemplars: lessons Learned for Pes

Stu Welsh - S. G. Welsh Consulting

The presentation uses selected engineering projects, drawn from various disciplines, to illustrate American engineering excellence and then examines the lives of varied engineer exemplars. Drawing on that background, the presenter identifies and describes practical lessons immediately applicable by today's PEs, in both their work and community lives.

10:45 AM - 11:00 AM BREAK

11:00 am - 12:00 pm

Legislative Update

Join us as we welcome **Senator Erika Geiss, Representative Jack O'Malley, and Representative Scott VanSingel** in a panel discussion to discuss Michigan's ongoing infrastructure needs moderated by **MSPE Legislative & Government Affairs Chair, Rob Wheeler**. Sen. Geiss, in addition to many leadership roles serves on the Senate Transportation & infrastructure Committee, Rep. O'Malley is the Chairman of the House Transportation Committee, and Rep. VanSingel is Chairman of the House Transportation Appropriation subcommittee.

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