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S NYDER
& ASSOCIATES

THANKS FOR ATTENDING

WOW!

That's Engineering

We hope you were inspired to consider engineering as an option for your career aspirations with the multitude of opportunities available in engineering and technology. Maybe one is for you!

If you have questions about anything you learned or would like to know more about engineering, feel free to contact the people you met today.

If you would like to do research on your own, check out the links inside.

We are happy you could join us to make this event a success. Please share this experience with your friends who were unable to attend and encourage them to participate in future SWE events.

Best Wishes to
You,



Society of Women Engineers – Eastern Nebraska

** Dream it. See it. Do it.*

WHO DID I MEET TODAY?

WOW! That's Engineering! Emcee & Event Chair



Shannon DeVivo,
PE Olsson
Environmental
Engineer
sdevivo@olsson.com

Shannon DeVivo graduated from UNO with her Bachelor of Science degree in Civil Engineering in 2007 and her Masters of Science in Environmental Engineering in 2009. She currently works at Olsson, completing environmental site investigations in Nebraska; Phase I and Phase II Environmental Site Assessments; and facility compliance and permitting. Shannon is currently the Outreach Chair for the Eastern Nebraska Section of the Society of Women Engineers.

WOW! That's Engineering! Planning Committee

- * Angel McMullen-Gunn
- * Elizabeth Hunter
- * Jeanne Stewart
- * Courtney Keiser
- * Gabriela Ostler
- * Jo Whitaker
- * Cybil Boss
- * Janis Pfingsten
- * Karen Wilson
- * Kate McChesney
- * Rylee Stevenson

Special Thanks

A special thanks to those who made this event possible!

Professional members of Eastern Nebraska SWE
Peter Kiewit Institute, UNO
SWE supporters
Friends, family, and colleagues

WHERE CAN I GET MORE INFORMATION?

Society of Women Engineers – National Homepage

www.societyofwoemenengineers.swe.org

Eastern Nebraska Section—Professional Section

www.swe-nebraska.org

Discover Engineering

www.discovere.org

Engineer Girl

www.engineergirl.org

Try Engineering – Learn about Engineering

www.tryengineering.org

All links can be found at:
www.swe-nebraska.org/links

WHO DID I MEET TODAY?

FRENCH FRIES TO FUEL! BIOFUELS COOPERATIVE

Biodiesel can be produced from used cooking oil (old french fry grease!) to reduce the consumption of fossil fuel petroleum diesel. The properties of the cooking oil are important to the fuel-making reaction. We will measure the acid level of the oil using titration, then use that data to create biodiesel. A hands-on activity for girls and young women scientists of all ages.



Dr. Scott Williams
Omaha Biofuels Cooperative
Managing Director
scott@OmahaBiofuelsCoop.org

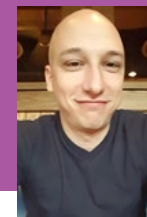
Dr. Scott Williams was born and raised in Omaha, graduating from Westside High School in 2000. He earned his B.S. and Ph.D. in engineering from Iowa State University. Dr. Williams is a former

Postdoctoral Research Fellow at Johns Hopkins University studying advanced algae biofuels, and a former Academic Advisor at NorthStar Foundation. He has worked as a researcher at Helmholtz Center Berlin, as a professor with the Energy Technology Program at Creighton University, and is currently the Managing Director at Omaha Biofuels Cooperative.

WHO DID I MEET TODAY?

LIGHT BRIGHT SOFTWARE ENGINEERING

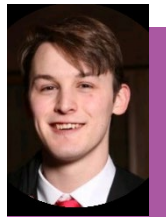
Learn about Software Engineering through two fun activities demonstrating the uniquely creative and demanding field of software development. Explore how to turn everyday items into shareable programs through a Light Bright in Python. Discover how easy and accessible it is to begin programming using Javascript!



Daniel Hanke, CISSP
Northrop Grumman
Software Engineer

Dan is a 2013 graduate of Illinois Institute of Technology, with a B.S. in Computer Engineering. Dan had served as an Air Force officer for five years in Information Technology Operations and now works at Northrop Grumman as a Software Engineer. First introduced to a computer at a very young age, he likes to explore the capabilities of software and how it can help others.

Josef Matulka
Northrop Grumman
Software Engineer



Josef is a software engineer from Northrop Grumman with a specialty in client side coding. He loves helping others learn and is excited to show students how easy it is to pick up and start learning coding!

MECHANICAL AND MATERIALS ENGINEERING



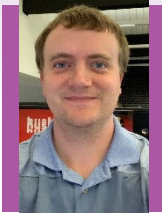
Courtney Keiser
Nebraska College of Engineering
Postdoctoral Student

Courtney Keiser is a fourth-year mechanical and materials engineering Ph.D. student at the University of Nebraska-Lincoln. Her research focuses on manufacturing femoropopliteal bypass grafts and aortic stent grafts that exhibit similar mechanical properties to native artery for cardiovascular surgery. Additionally, Courtney served as the Activity Coordinator for this year's Wow! That's Engineering Event.

WHO DID I MEET TODAY?

REACTION MAGIC! AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (ASHRAE)

Chemical reactions are the most important types of events in the universe. Chemical reactions are at the heart of every biological process in the universe. Stars form because of chemical reactions; our sun ignited because of chemical reactions in its core. Even our ability to think and move is a result of chemical reactions that occur in our bodies. During this session, you will explore endothermic and exothermic reactions. This session also includes a bonus activity focused on pressure. It's easy to blow bubbles with a straw in a cup, right? This activity will have you thinking twice about how easy it is when pressure is involved.



Tyler Winnike
Leo A. Daly
Mechanical Engineer

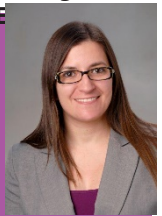
Tyler Winnike is a mechanical engineer at LEO A DALY. Tyler attended the University of Nebraska's Peter Kiewit Institute where he got a Bachelors and Masters degree in Architectural Engineering. He has worked at Leo A. Daly since graduation and has designed HVAC systems for a multitude of building types including office buildings, schools, apartments, and hospitals.

Sarah Poursharafeddin
Environmental Quality Experts
Owner

Sarah Poursharafeddin is the owner of Environmental Quality Experts. She is a LEED-Accredited Professional, and has an MBA from Bellevue University. Sarah is an active member of ASHRAE, and works with engineers and contractors to create healthy, efficient buildings.



Abby Brophy, PE
Trane
Controls and
Intelligent Services



Abby Brophy is a Controls and Intelligent Services Engineer at Trane. Abby attended the University of Nebraska-Lincoln for her Bachelors in Mechanical Engineering. Following graduation Abby worked in the aviation industry for about 5 years with Duncan Aviation. After some time Abby realized her true passion was working with schools and hospitals trying to improve occupant comfort while also reducing energy loads through building automation systems and analytics of data.

Grant Wieseler
Mechanical Sales, Inc.
Sales Engineer



Grant Wieseler recently graduated from The University of Nebraska-Lincoln in 2018, where he got his B.S in Mechanical Engineering. Right out of college he got a job in the HVAC field at Mechanical Sales, Inc. There he is on the sales side and works closely with engineers and contractors.

WHO DID I MEET TODAY?

OIL DISASTER RECOVERY! SOCIETY OF HISPANIC PROFESSIONAL ENGINEERS (SHPE)

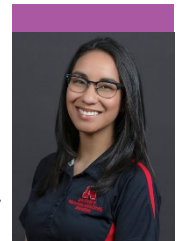
What will your team do when disaster strikes in the form of a large oil spill? What materials will you need to clean up the oil? How will you use those materials to complete oil cleanup in the most efficient way possible? During this session, students will work in teams to respond to an oil spill. Each team will have a budget to use for materials and will work together to identify what materials to purchase and how to attempt the cleanup. At the end, each team will measure how much oil they were able to remove from the environment during the cleanup. How will you respond when disaster strikes?



Ashleigh Herrera

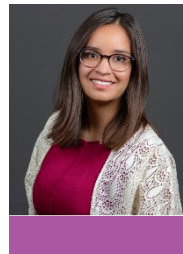
Ashleigh Herrera is a senior Chemical Engineering major from San Antonio, Texas. She serves as the UNL Society of Hispanic Professional Engineers (SHPE) Vice President and SHPE region 3 regional student representative. She is also involved in the McNair program and works in Dr. Cornelius' lab in the chemical and biomolecular engineering department.

Luz Sotelo



Luz Sotelo is a doctoral student in Mechanical Engineering and Applied Mechanics. A music enthusiast and former singer, Luz studies wave propagation and its applications in materials characterization with a focus in additively manufactured materials. In her spare time, Luz likes reading fantasy books and dancing to Latin music. She is also an activist and advocate for supporting inclusive excellence and diversity in academia.

Karen Sotelo



Karen Sotelo is a senior in Mechanical Engineering with a minor in Art. Karen lived in Mexico, but she lived in South Texas before starting college at the University of Nebraska-Lincoln. Karen is the president of the Society of Hispanic Professional Engineers and a member of the Aerospace Club. She has been working on research to understand better the interaction that happens between plants and parasitic plants. She likes to draw, paint, thrift shop, and play videogames with her younger brother.