The Missouri ENGINEER

THE OFFICIAL PUBLICATION OF THE MISSOURI SOCIETY OF PROFESSIONAL ENGINEERS

Promoting the ethical and competent practice of engineering



A Message From Your MSPE President

by Rachel Goeke, P.E.

Hello! My name is Rachel Goeke. I was installed as your State MSPE President for the 2022-2023 Operating Year at the MSPE Annual Convention on June 9, 2022, and officially took office on July 1, 2022. There are a lot of exciting things happening with MSPE and MSPE needs your help!

MSPE has ten (10) Chapters throughout the State of Missouri.

The State Society is here to support the Chapters and their activities!

In 2017, MSPE's Management transitioned from full-time staff to an Association Management Company: Braden, Heidner, Lowe & Associates, Inc. (BHL). Within MSPE's Contract with BHL, MSPE members have access to many of BHL's resources, including:

- MSPE's Executive Director, Mr. Travis Lowe (tlowe@mspe.org);
- MSPE's Director of Membership, Mr. Blake Murray (<u>bmurray@mspe.org</u>);
- MSPE's Events Coordinator, Ms. Alison Connell (<u>aconnell@mspe.org</u>); and
- BHL's Financial Director, Mrs. Jennifer J. Matzek ("JJ", jj@ bhlandassociates.com)

MSPE's Chapters are encouraged to get

in touch with BHL's staff for assistance with publicizing events via Member Email Blasts, setting up registration and payment for Chapter events, assistance with hosting Chapter websites within MSPE's State Website (www.mspe.org – About Us – Chapters), publicizing events via MSPE's Master Calendar, assistance with Chapter financial reports, and general matters related to MSPE's operations and mission.

MSPE's Members are called on to

serve. The Board for Architects, Professional Engineers, Professional Land Surveyors, and Professional Landscape Architects (APEPLSPLA or "State Registration Board") includes four (4) seats allocated for Professional Engineers (pr.mo.gov/apelsla-boardmembers.asp).

Currently, only three (3) of the four (4) seats on the State Registration Board are filled. All three (3) seats are held by MSPE Members: Mr. Kevin Skibiski, P.E., PLS, Ms. Amy Strauss, P.E., and Mr. Stephen Bubanovich, P.E.

MSPE's Committee on Appointments, led by Immediate Past President Mr. Mitch Krysa, P.E., is actively working to vet a list of candidates for MSPE's official recommendation for the Governor's

consideration for appointment to the State Registration Board, as well as several other State Boards that have seats allocated for Professional Engineers. If you are interested in serving, and would like to pursue MSPE's official recommendation to the Governor's office, additional information is available on MSPE's Website. Of note, the State Registration Board is currently lacking a licensed Professional Engineer with an MEP Background. Please reach out to MSPE's Executive Director, Mr. Travis Lowe (tlowe@mspe.org) if you are interested in this opportunity.

MSPE needs members. MSPE was founded on January 9, 1937, with the objective of passing an engineering licensure law in the State of Missouri. Since its founding, MSPE has remained focused on advocating, promoting, and defending professional engineering licensure to protect public health, safety, and welfare. MSPE represents all professional engineering disciplines, and promotes member engagement with STEM (Science, Technology, Engineering, and Mathematics) activities for the continued growth and future of the engineering profession.

As I have started my year of service as the State MSPE President, I have



INSIDE THIS ISSUE:

Missouri News

MSPE President's Message	1
Advisory Board Volunteers Needed	3
2022-2023 Board of Directors	4
2022-2023 Chapter Presidents	4
Educational Foundation Updates	5
Membership Updates	7
Award Recipients	8
Convention Recap	9
Ozark Chapter Updates	10
Events	11
Sponsors	12



Editor's Message:

Please enjoy this issue of the Missouri Engineer. If you have any engineering-related photos from your work that you would like to see featured in future editions of the ME, please send them to tlowe@mspe.org. Thank you, and enjoy your read!



MISSOURI SOCIETY OF PROFESSIONAL ENGINEERS

The Missouri Engineer is published quarterly by the Missouri Society of Engineers, 200 E. McCarty St., Suite 200, Jefferson City, MO 65101. Opinions expressed by authors herein are not necessarily those of the Society. As a matter of policy, MSPE does not endorse any item, product or advertisement.

Correspondence regarding

advertising, articles and changes of address should be mailed to:

The Missouri Engineer
Attn: Editor
200 E. McCarty Street, Suite
200
Jefferson City, MO 65101
Phone: 573-636-4861
Fax: 573-636-5475
www.mspe.org
info@mspe.org

LIKE, FOLLOW & CONNECT WITH US ON SOCIAL MEDIA









A Message From Your MSPE President, cont.

realized that there are a large number of Professional Engineers who support MSPE with their attendance, service, and even their leadership, but are not official, dues-paying MSPE Members. MSPE needs everyone to sign up as official dues-paying members! Member dues support MSPE's operations, inclusive of BHL's management contract and MSPE's Lobbyist's Contract. A portion of your MSPE dues are allocated directly to the National Society of Professional Engineers (NSPE).

Here's a breakdown of where your MSPE Dues go:

NSPE - \$89 MSPE, State - \$190 MSPE, Chapter - \$15 MSPE, Practice Divisions (PEC, PEG, PEHE, PEI, PEPP) - \$5

I have had a couple great conversations with MSPE members about how MSPE's dues also support NSPE. The portion of your MSPE dues that get allocated to NSPE supports, at least in part, NSPE's efforts to support the States that do not have strong State Societies. This is important because NSPE sees a lot

of "bad" legislation come out of States without strong State Societies. NSPE acts as MSPE's "Watch Dog" in other States, and works to prevent that "bad" legislation from becoming law.

Please help spread the word about the value MSPE provides for its members, and MSPE's need for dues paying members. MSPE membership can be applied and paid for fully online from NSPE's website: www.nspe. org/membership/join-now. If your employer supports your MSPE dues and has multiple MSPE members on staff, please consider becoming an Enterprise Member firm. Enterprise Membership helps streamline the administrative and accounting aspects of MSPE membership, and also helps MSPE's operations by supporting a stable member base. Additional information about Enterprise Memberships can be found here: www.nspe.org/membership/ type-membership/enterprisemembership.

If you have any questions about MSPE Membership, or need additional information, please get in touch with MSPE's Director of Membership, Mr.

Blake Murray at bmurray@mspe.org and at MSPE's Jefferson City Office at 573 636-4861.

<u>Tune in Next Time....</u> As of the time of this writing, I have pushed the envelope on the publication deadline for the Summer 2022 Missouri Engineer. Please tune in again next quarter for a big shout out to MSPE's Mr. Britt Smith, P.E. who was recently installed as the National Society of Professional Engineers (NSPE) President for 2022-2023, and a celebration of the College of Ozarks' Engineering Program's outstanding Fundamentals of Engineering (F.E.) exam pass rate. Hello! My name is Rachel Goeke. I was installed as your State MSPE President for the 2022-2023 Operating Year at the MSPE Annual Convention on June 9, 2022, and officially took office on July 1, 2022. There are a lot of exciting things happening with MSPE and MSPE needs your help!

Interesting in Serving on a State Advisory Board?

The MSPE Past Presidents Committee on Appointments is seeking volunteers who may be interested in serving one of the state commissions or advisory boards listed below. The Committee is collecting a list of volunteers that may be considered for recommendation by MSPE to the Governor's office.

MSPE believes licensed professional engineers should involved in policy making and the Committee regularly reviews more than a dozen statewide boards and commissions that require, by statute, one or more licensed professional engineers to serve.

Depending on the committee, there may be a spot designated for a licensed professional engineer, person with engineering experience or a public member. Please click the links to view committee details and requirements.

To express interest or inquiries, please contact MSPE Staff at info@mspe.org by August 31.

Board For Architects, Professional Engineers, Professional Land Surveyors and Professional Landscape Architects. A licensed professional engineer is needed to fill a vacancy for the engineering section. MSPE will consider recommending professional engineers of any discipline but, to build board diversity, a mechanical or electrical background is preferred.

<u>Elevator Safety Board.</u> Mechanical engineer is needed to fill a vacancy.

<u>Air Conservation Commission.</u> This commission offers spots for public members.

Thank you in advance, MSPE Staff

NSPE-MO

MISSOURI SOCIETY OF PROFESSIONAL ENGINEERS

2022-2023 BOARD OF DIRECTORS











etary/Executive Director avis Lowe, CAE





















Director Charles Morris, P.E. Hydro Engineers

Central Chapter

Jefferson City Chapter Director

St. Louis Chapter Director

Director Tim Klein, P.E. eCo WorldGroup





Director ob Bradley, PE.

















P.E.s in Industy Chair Bob Becnel

2022-2023 CHAPTER PRESIDENTS

Central Chapter Josh Lehman, P.E.

Jefferson Chapter

Bryan Gregory, P.E.

Northeast Chapter

<u>email</u>

email

email

Ozark Chapter

Bethany Forrester, P.E.

email

Rolla Chapter

Joel Burken, P.E., PhD

email

St. Louis Chapter

email

Northwest Chapter

Kelvin Underwood, P.E.

Kenneth Epperson, P.E.

email

Mike Rademacher, P.E.

Southeast Chapter

Benji Philpot, P.E.

email

Southwest Chapter Nic Jessip, P.E.

email

Western Chapter

Tim Scott, P.E.

email



59th Annual NSPE President Visit to Kansas City

Featuring NSPE President Britt Smith, P.E., F. NSPE



EDUCATIONAL FOUNDATION UPDATES



by Marie Collins, P.E.

During this past year, through the hard work and dedication of its Board of Directors and staff support, the MSPE Educational Foundation has strengthened its financial position and implemented fiscally responsible policies that will enable it to provide continued support to STEM programs throughout the state while also promoting the engineering professional and engineering licensure for many years to come. The following are some of the highlights of the Foundation's efforts this year.

In **October 2021**, the Board authorized the distribution of \$15,000 in grant funds budgeted for fiscal 2021-22. Grants were awarded to five chapters that met the qualifications and deadlines established by the Educational Foundation. College of the Ozarks Student Chapter - \$2,900 for subscriptions to the Fundamentals of Engineering study material and practice exams.

- St. Louis Chapter- Awarded \$4,300 for MATHCOUNTS, used \$327.55, and returned \$3.982.55 (shortfall in expenditure due to COVID pivot to remote event).
- Ozark Chapter \$4,150 to assist in the purchase of 7 Bridge testing equipment for the Model Bridge Contest.
- Jefferson City Chapter \$1,800 for Model Bridge Contest, \$300 MATHCOUNTS, \$900 Lincoln University Student Chapter support
- **Southwest Chapter** \$650 for MATHCOUNTS

All funds were expended for their intended purpose, except for \$3,982.50 of the \$4,300 awarded to the St. Louis Chapter for MATHCOUNTS. These funds were not utilized due to having to "pivot" to a remote MATHCOUNTS competition event. The unused funds were returned to the Foundation for future use.

In **November 2021**, the Foundation received a purchase offer for the building at 200 E. McCarty St, Jefferson City, Missouri. Following four months of negotiations, Board President, Marie Collins executed the contract on **March**

31, 2022. After closing costs and fees, the Foundation netted \$473,179.95. These funds were then invested per the Foundation's Investment Management Policy.

In February 2022, the Board approved the establishment of the William R. and Mila Kimel Graduate Scholarship at the University of Missouri – Columbia. This \$10,000 scholarship is being funded through the Kimel Endowment and offered on an annual basis to students in an engineering master's or doctorate program who have an interest in pursuing a career as an educator and who have expressed an intent to get licensed as a professional engineer. The Board committed to funding the scholarship for a minimum of 5 years. The final agreement between the Foundation and the University was executed in June 2022.

In May 2022, the Board adopted a Spending Policy that will serve as a guidance document during the annual budgeting process to ensure that the Foundation remains financially solvent through a fiscally responsible balance of asset spending and investment growth.

In June 2022, the Board approved the budget for the fiscal year 2022-2023 which included \$19,500 in Chapter Grant funding. Notifications were sent to each Chapter of the available funding with a request to submit all applications by July 31, 2022. The Board is scheduled to take action on the Grant Committee's recommendations at its August 29, 2022 Board meeting.

At the June meeting, the Board also welcomed Ron Zitterkopf as its newest member as a replacement for Tom Greer, whose Board term had expired.

Ongoing Foundation activities include:

Monthly meetings of the Donor Development Committee to identify ways to encourage MSPE member financial support of the Foundation. The committee also focused on the creation of a virtual "Donor Wall" on the Foundation's webpage to ensure that building renovation donors continue to receive the recognition they deserve for their past support. In addition, the Committee is focusing on the development of a program to recognize current and

EDUCATIONAL FOUNDATION UPDATES



future donors on an annual and lifetime cumulative basis on the Foundation web page. Donations to the Foundation can be made through the MSPE website here. • Investment Management Committee continues to monitor the actions of the financial advisor to confirm that the funds were invested per the guidelines of Investment Management Policy which was adopted in spring 2022.



HOW TO GIVE

What are you doing to support the profession that helped you take care of everyone else, including yourself? The time is now to "pay it forward" and say "thank you" to the engineering profession that helped make it possible to take care of all of these.

The MSPE Educational Foundation needs your help to increase our funding for future engineering student scholarships and for supporting current valuable programs such as MATHCOUNTS and Future Cities. Consider contributing by filling out a **DONATION FORM**. For more information, <u>email Greg Braden</u> or <u>go online</u>.

Also, consider contributing to the MSPE Educational Foundation by using your Required Minimum Distribution (RMD) from your IRA.





New Membership Goal

MSPE has a little less than 800 members, including student and lifetime members. To achieve a balanced budget for 2022-2023, MSPE's President has set a goal to increase MSPE's membership rolls by a net of 120 members.

Individuals can register as individual members on MSPE/NSPE's

Firm leaders – consider becoming an Enterprise Member of MSPE and streamlining your administrative efforts – see this link or contact Blake Murray (bmurray@mspe.org) for additional information.

Welcome New Members!

Central Chapter

Michael Benson, P.E. Benson Engineering, LLC

Lee Schuman, P.E. Miller Companies

Jefferson City Chapter

Glenn Smith, P.E.

Ozark Chapter

Logan Harper Crawford, Murphy, & Tilly, Inc.

Southwest Chapter

Jacob Bradley, P.E. Olsson

Timothy Fogle College of the Ozarks

Joe Western, EI/EIT Allgeier, Martin and Associates, Inc.

Western Chapter

Mary Bordner Tanck, P.E.

Bordner Engineering Services, LLC



2022 Award Recipients



PEPP Professional Development Award

Geotechnology received the Private Practice Professional Development Award. This award is presented to the nominated engineering firm that has made outstanding contributions to the advancement and improvement of the engineering professional through its employment policies and practices.



Extra Mile Resolution

Anika Careaga, P.E. received the Extra Mile Resolution award. The MSPE President chooses the individual they believe has exerted tremendous efforts during his/her term.



Young Engineer of the Year Award

Colten Harris, P.E. received the Young Engineer of the Year Award. This award recognizes young members of MSPE who have made outstanding contributions to the society, the engineering profession and their communities during the early years of their careers.



NSPE Fellow Award

Ron Black, P.E., F.NSPE, was recognized as an NSPE Fellow. The Fellow membership grade honors those active NSPE members who have demonstrated exemplary and devoted service to their profession, the Society, and their community. Requirements for the designation include holding at least one elected office at any level and active involvement at the national level.

2022 Annual Convention Recap



Our outgoing MSPE Board of Directors- we appreciate their support and guidance over the last year.



2022-2023 MSPE officers are installed! President Rachel Goeke, P.E., President-Elect Kelsie Clark, P.E., VP Anika Careaga, P.E., Treasurer Michael Buechter, P.E., At-Large Julie Hawkins, P.E. & Lisa Douglas, P.E., YE Rep Colten Harris P.E. and Past President Mitch Krysa, P.E.



MSPE President Mitch Krysa, P.E. officially passes the gavel to Incoming President Rachel Goeke, P.E.



2022-2023 MSPE Educational Foundation Board of Director members

Ozark Chapter 2022-2023 Officer Installation in Springfield



Ozark Chapter Annual Shrimp Feed



Left: A trio of presidents! It was great to have MSPE President Rachel Goeke, P.E., Ozark Chapter President Bethany Forrester, P.E. and NSPE President Britt E. Smith, P.E., F.NSPE at the 2022 Ozark Shrimp Feed (pictured left to right).





Left: MSPE Executive Committee members enjoying the 2022 Ozark Shrimp Feed with NSPE President Britt Smith!

UPCOMING STATE EVENTS

AUG **19** **MSPE Summer P.E. Ceremony**

Missouri State Capitol

August 19, 2022

OCT **26-28** **MSPE Fall PDH Days Conference- Virtual** Zoom

October 26-28, 2022

UPCOMING CHAPTER EVENTS

Southwest Chapter



Annual BBQ Dinner

Christ's Church of Oronogo

September 22, 2022

Western Chapter



59th Consecutive Meeting with the NSPE President

Grand Street Cafe, Kansas City, MO September 29, 2022



72nd Annual Engineer's Week Celebration

Downtown Marriott, Kansas City, MO February 23, 2023

Ozark Chapter



Monthly Membership Lunch Springfield, MO

September 1, 2022



Monthly Membership Lunch Springfield, MO

October 6, 2022



Monthly Membership Lunch Springfield, MO

November 3, 2022

THANK YOU 2022 MSPE Annual Partner Sponsors

PLATINUM SPONSORS









GOLD SPONSORS





SILVER SPONSOR









FRIENDS



Bartlett & West



MSPE Professional Engineers in Government (PEG)









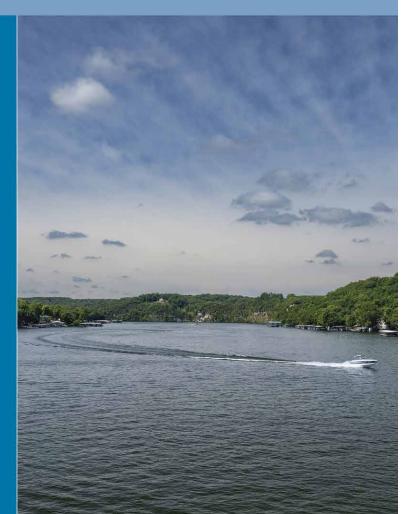
JUNE 7-9, 2023

Old Kinderhook Resort
Lake of the Ozarks



MISSOURI SOCIETY OF PROFESSIONAL ENGINEERS

For questions, contact us at info@mspe.org or 573-636-4861





NSPE'S STUDENT MEMBERSHIP IS <u>FREE</u> AND COMES WITH AMAZING RESOURCES:

- Complete access to the digital version of PE magazine, covering news and commentary on issues like engineering ethics, employment, current events, and engineering education;
- Free access to a number of web seminars on topics such as ethics and professional development;
- Deep discounts on FE/PE Exam Prep Courses and other services offered by our benefit partners; and
- Visit the NSPE Job Board to search for jobs by location, salary, engineering discipline, and receive a biweekly newsletter of the latest openings.

You can find more benefits, and join online, by visiting us at www.nspe.org/students

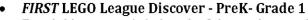


From the machines that move us to the food that sustains us to the wireless technologies that connect us, energy plays an essential role in keeping our world running. During our 2022-2023 robotics season, FIRST ENERGIZE presented by Qualcomm, FIRST teams across our programs will reimagine the future of sustainable energy and power their ideas forward. To empower young people to be leaders and innovators, this year's energy theme addresses global challenges related to United Nations Sustainable Development Goal #7 -- focused on ensuring access to affordable, reliable, sustainable, and modern energy for all. This is the moment to get energized to innovate.

The FIRST Family of Programs

FIRST LEGO League -Pre-K to Grade 8

In the **SUPERPOWERED**SM challenge, *FIRST* LEGO League teams will explore where energy comes from and how it is distributed, stored, and used – and then put their superpowered creativity to work to innovate for a better energy future.



For children ages 4-6, this playful introductory STEM program ignites their natural curiosity using LEGO® Duplo bricks. *FIRST* LEGO League Discover is a self-contained classroom program. No volunteer opportunities.

• FIRST LEGO League Explore - Grades 2-4

In Explore, teams of students ages 6-10 focus on the fundamentals of engineering as they explore real-world problems, learn to design and code and create unique solutions made with LEGO bricks. *FIRST* LEGO League Explore events are in the spring – usually February and March.

• FIRST LEGO League Challenge - Grades 4-8

Friendly competition is at the heart of Challenge, as teams of students ages 9-14 engage in research, problem-solving, coding and engineering – building and programming a LEGO robot that navigates the missions of a robot game. Teams also participate in a research project to identify and solve a relevant real-world problem. *FIRST* LEGO League Challenge Qualifiers are held November through December with the Championship in January.

FIRST Tech Challenge - Grades 7-12

In the **POWERPLAYSM** presented by Raytheon Technologies challenge, *FIRST* Tech Challenge teams will compete in an energy-driven game and test the limits of performance, efficiency, and endurance as they power their innovations forward. *FIRST* Tech Challenge has a multi-tiered competition structure that runs through the months of November and February with the Championship in March.

FIRST Robotics Competition - Grades 9-12

In the **CHARGED UPSM** presented by Haas challenge, *FIRST* Robotics Competition teams will unlock the power of engineering to transform renewable energy and power a better future. *FIRST* Robotics Competition are usually in March.

















FIRST LEGO League Challenge Grades 4 - 8

In the **SUPERPOWERED**SM challenge, *FIRST* LEGO League teams will explore where energy comes from and how it is distributed, stored, and used – and then put their superpowered creativity to work to innovate for a better energy future.

Event Locations – Missouri Excluding KC Area	Event Dates
Strafford High School, Strafford	Saturday, November 12, 2022
MICDS, Ladue	Saturday, November 12, 2022
MICDS, Ladue	Sunday, November 13, 2022
SEMO, Cape Girardeau	Saturday, November 19, 2022
Jefferson Middle School, Columbia	Saturday, November 19, 2022
Brittany Woods, University City	Saturday, November 19, 2022
Brittany Woods, University City	Sunday, November 20, 2022
Camdenton High School, Camdenton	Saturday December 03, 2022
St. Rose Philippine Duchesne School, Florissant	Saturday, December 03, 2022
St. Rose Philippine Duchesne School, Florissant	Sunday, December 04, 2022
Gateway STEM HS, St. Louis Public Schools	Saturday, December 10, 2022
Lutheran High School, St. Charles	Saturday, December 10, 2022
Lutheran High School, St. Charles	Sunday, December 11, 2022
Championship - Liberty High School, Lake St. Louis	Saturday, January 21, 2023
Event Locations – Kansas City Area	
Troost Elementary (Hosted by Honeywell)	Saturday, November 12, 2022
Olathe Northwest High School	Saturday, November 19, 2022
Penn Valley Community College	Saturday, December 3, 2022
Lawrence High School	Saturday, December 10, 2022
Championship – Crown Center	Saturday, January 28, 2023

VOLUNTEER OPPORTUNITIES

Subject Matter Experts – Contact information and area of expertise will be noted on the *FIRST* in Missouri website and Facebook page. Teams may contact you to gain better knowledge and understanding about the ENERGY problem they are researching and the innovative solution they are developing.

Event Judge or Referee – Judges serve on a three-person panel evaluating the Team's Innovative Solution and Robot Design Process. Referees serve on two person teams, scoring team performance on the competition field. Training for each role via ZOOM will be provided prior to the events. Volunteers needed for any and all events.

TO VOLUNTEER - TAKE THE NEXT STEP!

1. Create an account at https://my.firstinspires.org
2. Click the Volunteer Registration tab & follow the prompts

OUESTIONS?

In Missouri, outside the KC Area: Contact <u>volunteer@firstinmissouri.org</u>
In the KC Area: Contact <u>https://www.kcfirst.org/volunteer/</u>