

The South Dakota Engineer



Presidential Postings

As I jotted down my thoughts for February's newsletter we were battling snow and bitter temperatures. In the last several weeks, many areas of the state are dealing with the flooding, as all that snow melts into our rivers, streams and low areas. As engineers, I'd like to think we are all doing our part to help reduce and alleviate flooding, stormwater and erosion issues now and in the future. Thank you to all our members out there who are working in their communities to assist the flood victims and to repair the damage left behind by the water and ice. Now, as this newsletter reaches you, we are in the middle of another spring snowstorm with more ice and snow, making it treacherous now and resulting in more flooding later. Be safe!

April 3rd was the last day to get the early bird registration rate for the SDES 59th Annual Conference, but there is still plenty of time to register and join us for what looks to be another great conference in Pierre! Hosted by the Central Chapter, this year's conference program exceeds my expectations with a diverse array of speakers and activities. Solid technical presentations on structures, water, pavement and transportation will meet up with topics on 3D printing, patent examiners, connected bicycles and more. I am also looking forward to the tour of the Oahe Dam and the opportunity to learn more about the technical aspects of its structure and operation. And, of course, the chance to cruise the Missouri River and socialize with all of you from across the state is a nice bonus!

Late February and March were busy and rewarding times for our Chapters across the state. There were a variety of volunteer activities, events to promote engineers and opportunities and banquets to celebrate the achievements of our members, firms and agencies. In addition to the many Engineers Week events, MATHCOUNTS competitions were in full swing at the Chapter and State level. Thank you to the many members who worked hard coordinating these events and the members who attended, volunteered and participated in the celebrations that made these activities a success.

The Annual Conference also marks the end of my presidency when a new board of officers is installed. To say I have enjoyed my time serving at the Chapter and State levels is an understatement. Serving gave me an opportunity to meet and network with great people locally, regionally and nationally. It reinforced core values my mother taught me about listening, working with others, respecting different opinions and asking for help when you need it. Ultimately, NSPE/SDES gave me more than I ever gave back and for that I am grateful.

Lastly, there are many volunteers that deserve recognition and thanks at all levels in our society. Thank you all! There are a few people I've had the opportunity to work with that I would like to specifically thank. Phil Gundvaldson, current Past President, who had the difficult task of reviewing and implementing the new NSPE membership model with SDES members. Phil carefully, thoughtfully and respectfully worked through this transition. The society had the right person at the right time for that job. Andy Bruels, current Vice President elect. He's a superstar. Jason Hinds current Vice President. Thanks for stepping in part way through a term when the original candidate moved for new opportunities. Life happens! Gabe Laber current Secretary/Treasurer. Thanks for stepping up. Steve Myer, thanks for your years of service. Lastly, thanks to our Executive Director, Nancy Hoines, for going above and beyond in all aspects of her position. Folks, your society is in great hands!

Ryan Johnson, PE, 2018-2019 SDES President

DON'T MISS THESE CONFERENCE WEEK HIGHLIGHTS!

WEDNESDAY, APRIL 24TH

- 10a-12:30p ACEC Membership and Board Mtg.
- 3-5:00p SDES Board Mtg.
- 5:30-10p Dakota Concrete Pipe Association Hospitality Room

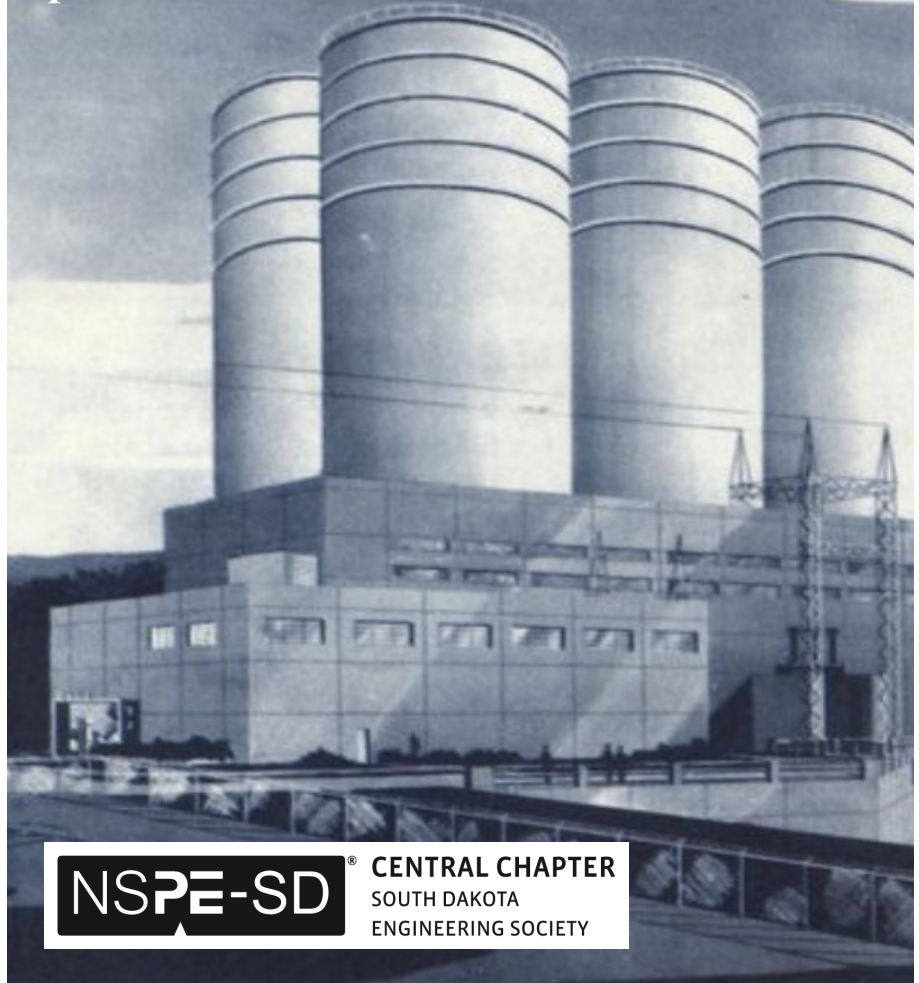
THURSDAY, APRIL 25TH

- 8-8:10a Welcome by Pierre Mayor Steve Harding
- 8a-5p Conference Sessions
- 12:15-1:55p Lunch & Awards w/ U.S. Senator Mike Rounds
- 2-4p Oahe Dam Tour
- 5-5:30p SDES Membership Meeting
- 6p-??? Social Hour and Missouri River Cruise aboard The Sunset

FRIDAY, APRIL 26TH

- 7-8a Breakfast
- 8a-12:30p Conference Sessions
- 12:30-???? Past Presidents' Luncheon

South Dakota Engineering Society 59th Annual Conference April 24th –26th, 2019 Pierre, SD



NSPE-SD

CENTRAL CHAPTER
SOUTH DAKOTA
ENGINEERING SOCIETY

What is the History behind the Conference Graphic?

The Oahe Dam, one of the largest earth-rolled dams in the world, was authorized by the Flood Control Act of 1944. Started in 1948, it was producing hydroelectric power by 1962, when it was dedicated by President John F. Kennedy. This artist's rendition of the Powerhouse was used on the program for the dedication ceremony.

The Oahe Dam is one of the six Missouri River mainstem dams that provide hydropower generation, irrigation, flood control, navigation and recreation. Lake Oahe, formed by the dam, stretches over 230 miles north to near Bismarck, North Dakota.

Find out much more about the Oahe Dam at the Oahe Dam tour during the Annual Conference. There's still time to sign up for the tour!

**South Dakota Engineering Society
59th Annual Conference
Ramkota Hotel & Conference Center
Pierre, SD**

April 24th, 2019

- 1:00 - 3:00p Registration
- 3:00 - 5:00p **SDES Board Meeting**
- 5:00 - 6:00p Registration
- 5:30 - 10:00p **Dakota Concrete Pipe Association Hospitality Room**

April 25th, 2019

- 7:00 - 8:00a Registration
- 8:00 - 8:10a Welcome Mayor Steve Harding
- General Session #1 PDH Value 1.0**
- 8:10 - 8:35a Ethics in Engineering - Part 1
Tom Roberts, PE, NSPE Past President
- 8:40 - 9:05a Keystone Wye Rehabilitation
Steve Johnson, PE, SDDOT

Concurrent Session #1 PDH Value 1.0

- 9:10 - 10:00a The Big Sioux River Flood Information System
Tim Cowman, SD DENR
- Sioux Falls Outfall Interceptor Sewer Replacement
Dan Graber, PE, HDR Engineering

Break and Vendor Exhibits

Concurrent Session #2 PDH Value 1.5

- 10:30 - 11:20a Sioux Falls Parallel Force Main Project
Mike Johnson, PE, HDR Engineering
- The Role of Engineers as Patent Examiners
Mark Radtke and David Le, United States Patent and Trademark Office

- 11:25a - 12:15p Pierre Water Treatment Plant
Dr. Delvin DeBoer, Ph.D., PE, AE2S
- SDSU Raven Precision Agriculture Center
Leap Chear, AIA, and Shawn Crowley, AIA, EAPC Architect Engineers

- 12:15 - 1:55p **Lunch and Awards**
Keynote Address:
U.S. Senator Mike Rounds
- State of NSPE
Tom Roberts, PE, NSPE Past President
- Installation of Officers and Presentation of Awards

Tour #1 PDH Value 1.5

- 2:00 - 4:00p US Army Corps of Engineers Oahe Dam Tour

Concurrent Session #3 PDH Value 1.0

- 2:00 - 2:50p Big Sioux River TMDL Updates
Cindie McCutcheon, RESPEC
- Pierre Regional Airport: FAA Airport Improvement Program and Recent Projects
Rod Senn, PE, KLJ

General Session #2 PDH Value 1.0

- 2:55 - 3:45p LIDAR Data in Civil Engineering
Derek McTighe, PE/LS, Brosz Engineering, Inc.

Break and Vendor Exhibits

Concurrent Session #4 PDH Value 0.5

- 4:30 - 4:55p High Friction Surface Treatment on Horizontal Curves in the Black Hills
Andy Vandel, PE, SDDOT
- Ethics in Engineering - Part 2
Tom Roberts, PE, NSPE Past President

- 5:00 - 5:25p **SDES Membership Meeting**
- 6:00 - ?????? **Social Hour and Missouri River Cruise aboard The Sunset**

April 26th, 2019

Breakfast

General Session #3 PDH Value 1.5

- 8:00 - 8:25a 3D Printing Technology
Ryan Koontz, Ph.D., SD Mines
- 8:30 - 9:25a Engineering in a Deployed Environment
Todd J. Mergen, PE, HDR Engineering and South Dakota Air National Guard

Concurrent Session #5 PDH Value 0.5

- 9:30 - 9:55a Drones in Engineering
Nathan Nielson, PLS, Banner Associates
- CAMP Presentations
Kimberly Osberg & SD Mines Students

Break and Vendor Exhibits

Concurrent Session #6 PDH Value 0.5

- 10:25 - 10:55a Impacts of Electric, Connected & Automated Vehicles
Dave Huft, PE, SDDOT
- Update on the Pierre Solar Project
Brad Palmer, City of Pierre

General Session #4 PDH Value 1.5

- 11:00 - 11:25a Connected Bicycles
D. Jonathan Huft, SRAM LLC/Quarq
- 11:30a - 12:25p TransCanada
TBD, TransCanada

12:30p Conference Adjourns

- 12:35p - ??? **Past Presidents Luncheon**
All SDDES Past Presidents Invited

SDES 59th Annual Conference (continued)

In order to assist in planning for meals and presentation space, please register in advance.

Register in one of the following ways:

Online at www.SDES.org

Click on the 59th Annual Conference under Upcoming Events to register online and access the program and speaker biographies. Online registrants must pay by credit card at time of registration. Vendor and sponsor opportunities may also be selected and paid for online.

U.S. Mail

Please make your check payable to SDES and mail with the completed registration form to our **new mailing address:**

South Dakota Engineering Society
P.O. Box 1076
Pierre, SD 57501

Agencies/Organizations with Multiple Registrants

Please contact Nancy Hoines at 605.951.1004 or sdengineeringsociety@gmail.com for assistance.

Vendor and Sponsorship Opportunities

See the last few pages of the newsletter for additional information on vendor and sponsor opportunities.

Lodging Information

A room block is reserved at the Ramkota Hotel Pierre at \$101 for the evenings of April 24th and 25th. Individual reservations may be made by calling 605.224.6877 and requesting the South Dakota Engineering Society room block. The conference rate is still available, but rooms may be limited. Other hotels in the area include:

Days Inn 605.223.1336
ClubHouse Hotel and Suites 605.494.2582
AmericInn, Fort Pierre 605.223.2358
My Place, Fort Pierre 605.494.2090

Registration Questions? Please contact:

Nancy Hoines, Executive Director
605.951.1004

sdengineeringsociety@gmail.com

MAIL IN REGISTRATION FORM

NAME: _____

COMPANY: _____

EMAIL: _____

ADDRESS: _____

Registration for SDES Members

Includes Lunch 4/25 & Breakfast 4/26 ____ \$180

Registration for non-SDES Members

Includes Lunch 4/25 & Breakfast 4/26 ____ \$275

Oahe Dam Tour

____ Free

This is a walking tour, including going up and down stairs. Please wear comfortable shoes.

Missouri River Cruise & Social Hour

____ \$20

Conference Attendee only.

Missouri River Cruise & Social Hour (Guest)

If space allows, I would like to bring a guest on the cruise. ____ Yes ____ No

Luncheon tickets for students/guests ____ \$20

Registration for students w/o lunch ____ Free

Vendor and Sponsor Opportunities can be registered using the Vendor and Sponsor Form found at the back of the newsletter or online at SDES.org

Substitute attendees will be accepted. Refunds will be given for cancellations requested prior to April 10th. Registration fees from cancellations made after April 10th will be donated to the Central Chapter Scholarship Fund.

Early Registrants will receive a Personalized Gift!

DENR Unveils New Interactive Water Quality Database Map

The DENR has launched a new interactive database map, providing the public access to water quality data for South Dakota's lakes and streams.

The Water Quality Monitoring Access Portal map provides water quality data collected during the past 50 years from DENR's Statewide Water Quality Monitoring Network, intensive water quality monitoring surveys, Total Maximum Daily Load assessments, regional lake surveys and citizen monitoring. Altogether, the Water Quality map contains data for 3,593 water quality-monitoring stations and includes results for more than

140,000 water chemistry samples, 2,500 algae samples and 8,400 fish flesh samples. If all of this data were collected today, it would cost about \$20 million just in laboratory costs alone. In addition, the portal provides easy one-stop access to 234 Total Maximum Daily Load reports and 175 water quality documents.

"Governor Noem supports transparency in state government," said DENR Secretary Steve Pirner. "Following her philosophy, the new Water Quality Monitoring Access Portal map is another online product to make DENR more open and expand our e-government services."

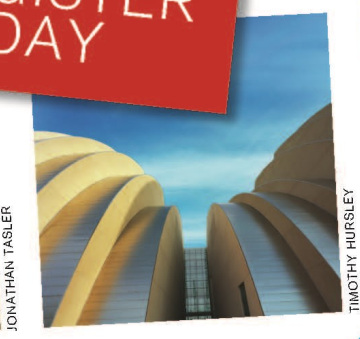
The Water Quality Monitoring map allows the public to search DENR's water quality database 24-hours a day, seven days a week. With this addition, DENR's GIS Interactive Map Dashboard now includes the following 14 searchable maps, allowing the public access to thousands of environmental data records across South Dakota:

- Water Quality Monitoring Access Portal
- Sand, Gravel and Construction Aggregate Mining Database
- Dry Draw Locations
- Spills Reports
- Tanks Database Viewer

- Regulated Air Quality Facilities
- Recycling Facilities
- Waterbodies Eligible Under the Buffer Bill
- Big Sioux River Flood Information System
- Water Well Completion Reports
- Oil and Gas Resources
- Permitted Solid Waste Facilities
- Observation Wells
- Measured Lakes

The interactive maps can be accessed by selecting "Data & Mapping" on DENR's homepage at <https://denr.sd.gov/> under the "One-Stop Shops" heading.

#PECON19



REGISTER TODAY

Early Bird Rates End April 30th!

PROFESSIONAL ENGINEERS CONFERENCE

JULY 17-21, 2019

KANSAS CITY

MARRIOTT DOWNTOWN

register today >> www.nspe.org/pe-conference

Have you ever thought about attending PECON, the NSPE Professional Engineers Conference? If so, this year's conference in Kansas City is a great opportunity!

Legislative Update

The 2019 South Dakota Legislative Session has come to a close and although we (engineers, consultants, business owners, citizens) may not have gotten all we wanted, hopefully we saw some legislative action that will make our lives in South Dakota even better. The three bills the Design Professionals Coalition was the most involved with are HB1111, HB1123 and SB166, however there are a number of other bills SDES tracked throughout session. Below is the final update, including a link you can click on to access more information on each bill. Some folks take a breather after session ends, but in reality – being active in the political process is a year-around commitment. We'll be reaching out to you over the next several months for your input, thoughts and ideas of how we prepare for the next session. In the meantime, get to know your local legislators. Let them know you are an engineer and start building a relationship.

Bill	Title
HB 1020	Revise certain provisions regarding state building committees for capital improvement projects. Signed by the Governor on February 14th.
HB 1021	Revise certain provisions regarding bid bonds for public improvement contracts. Signed by the Governor on March 1st.
HB 1022	Revise certain provisions regarding the limitations on indemnification by the state. Signed by the Governor on March 20th.
HB 1036	Revise provisions related to the Board of Technical Professions. Signed by the Governor on February 8th.
HB 1037	Authorize the Board of Regents to contract for the construction of a regional sports complex at Northern State University and to make an appropriation therefor. Signed by the Governor on February 8th.
HB 1038	Authorize the demolition of a South Dakota State University building and to make an appropriation therefor. Signed by the Governor on February 13th.
HB 1111	Provide for professional or occupational licensure for certain active duty military personnel and spouses. Signed by the Governor on March 21st.
HB 1119	Make an appropriation to the aeronautics commission. House Transportation Committee referred to the House Committee on Appropriations who deferred to the 41st day.
HB 1123	Provide for the verification of hours worked on computers for certain government contracts. House State Affairs Committee referred to the 41st Legislative day. Was not hoghoused.
HB 1161	Revise certain provisions regarding the issuance of temporary permits for the use of public water. Withdrawn at the request of the prime sponsor.
HB 1239	Revise certain provisions regarding temporary permits for the use of public water. Referred to the House Agriculture and Natural Resources Committee who deferred to the 41st day.
HB 1240	Revise certain provisions regarding water permits. Referred to the House Agriculture and Natural Resources Committee who deferred to the 41st day.
HB 1254	Make appropriations from the water and environment fund and its revolving fund subfunds for various water and environmental purposes and to declare an emergency. Signed by the Governor on March 27th.
HB 1255	Make an appropriation from the coordinated natural resources conservation fund to the State Conservation Commission, and to declare an emergency. Signed by the Governor on March 5th.
HB 1258	Create the clean air act settlement fund, to make an appropriation from the fund, and to declare an emergency. Signed by the Governor on March 5th.
SB 34	Make an appropriation for the replacement of the Elm Lake Dam spillway and to declare an emergency. Signed by the Governor on March 7th.
SB 86	Provide for calculations of sales tax revenues from sellers located outside of the state. Passed the Senate. Tabled by the House of Representatives.
SB 102	Make an appropriation for gas well cleanup in Harding County. Referred to the Joint Committee on Appropriations and was tabled.
SB 103	Provide for an annual transfer of certain unobligated state general funds into the local bridge improvement grant fund. Amended and failed in the Senate.
SB 120	Modify the time period allowable for certain covenants not to compete. Amended and failed on the Senate floor.
SB 166	Revise certain provisions regarding occupational licensing. Tabled. Prime sponsor committed to bring back in 2020.
SB 184	Revise certain provisions regarding certification of utility permits. Deferred to 41st legislative day.

ONE EASY WAY TO DO YOUR PART IN PROTECTING THE PUBLIC

Log in to SDES.org and add or verify your home address. If you know your legislative district — add that, too.

This one easy step, by you, allows SDES to present legislators with specific data — such as how many engineers live in their district — that can be vital as we work to protect the health, safety and welfare of the public through licensure.

WASN'T THAT EASY?

Access the full benefits your SDES and NSPE Memberships have to Offer!

Have you noticed that you haven't received your PE magazine for a while? Were you unable to get the member rate for the annual conference — even though you're a member? These are just a few of the membership benefits you may be missing out on if your membership information is out of date.

As we've been sending out mailers and emails for the Annual conference, we continue to receive notice of undeliverable emails and letters returned by the USPS as undeliverable. As Nancy

has been tracking down lost members, she's heard amazing responses, such as "I haven't lived there in 12 years!" Or, for members who only include a work email, phone and address, she's received responses saying "He hasn't worked here in two years!"

"Please take a minute to log in to your SDES account at SDES.org and make sure all your information is current."

We also have revised some of the information we are asking for in the

database and would like additional information to help us provide better benefits and more timely information.

"If you find your information was out of date, please drop an email to sdengineeringsociety@gmail.com and let Nancy know. She will, in turn, update your Chapter and NSPE of the changes."

If you have any problems logging in, don't hesitate to call Nancy at 605.951.1004 for assistance.

South Dakota Capitol and Capitol Complex Access

For those of you who haven't visited the Capitol Complex recently and may be headed to training at the SDDOT Becker-Hansen Building, a Board of Water and Natural Resources meeting at the DENR's Foss Building or a meeting at the Capitol or other state office building, please be aware that many Capitol Complex buildings, including the Capitol have changed over to card reader access.

In most situations, only the main doors of the building are accessible without a key card. For example, access to the Departments of Game, Fish and Parks and Environment and Natural Resources is only available through the north doors. The four main doors and the wheelchair accessible door on Capitol Avenue will be open for general use with a security card from 7:30 a.m. to 5:15 p.m. Monday through Thursday and 7:30 a.m. to 5:00 p.m. on

Friday. All other doors in the Foss Building will be locked at all times and will require a security card for entry.

If unsure about which entrance is accessible, contact the person you are meeting or other building staff.

Are you interested in being a SDES Officer? Or, do you know someone who is Officer Material?

One of the many benefits of being an SDES member is the opportunity to develop and grow leadership skills that will serve you well in both your personal and professional lives. As President Ryan Johnson stated in his opening letter, being part of the SDES leadership team “taught me about listening, working with others, respecting different opinions and asking for help when you need it”.



SDES Needs YOU!

Candidates Needed

The **Vice President** position is up for nomination every year and SDES is always on the lookout for emerging leaders. The Vice President position typically rotates by Chapter, however if a candidate is not found at the Chapter level, nominations may be open to the entire state membership. In the absence of, or in case of the inability of the President or President Elect to serve, it shall be the duty of the Vice President to perform the duties of the President. The Vice President may be assigned supervision over committees or task forces. After completing the one year term of Vice President, the Vice President moves on to serve as President-Elect, President and Past President, resulting in a four year term.

This year it is the Eastern Chapter’s ‘turn’ to nominate a Chapter member for Vice President and the Nomination Committee, led by SDES Past President Phil Gundvaldson, has received an excellent nomination for the ballot. Next year, the nomination will first be opened to the Central Chapter and the next year the Black Hills Chapter will be given first preference. If you are interested in the office or know anyone who you think would be a good candidate for Vice President in the future, please reach out to your Chapter Officer Team, the SDES Executive Team or Nancy Hoines.

After serving as **Secretary/Treasurer** for multiple terms, Steve Myer passed the torch, due to other professional commitments, to Gabe Laber midway through this year. Thank you to both Steve and Gabe for their commitment to this office. Gabe has agreed to continue on as Secretary/Treasurer, however an election must be held to confirm. If anyone else would like to be considered for the role of Secretary/Treasurer, the Nomination Committee, led by Phil Gundvaldson is accepting nominations for this office. Secretary/Treasurer has multiple responsibilities which are outlined in detail in the SDES Operating Procedures found in the Members Only section of the SDES website. The office of Secretary/Treasurer is a one year term. If you are interested in this position, contact Phil Gundvaldson at PhilG@infrastructureddg.com by April 15th.

Committee Opportunities

SDES also has nine standing committees. Seven of these committees are led by volunteer leaders, with the Membership Committee led by the Executive Director and the Nominations Committee led by the Past President. These committees are:

- Awards
- Design Professionals Coalition
- Endowment Promotion
- MATHCOUNTS
- Licensure
- SD Local Transportation Assistance Program
- University and Public Relationships

These committees each have a current Chairperson, but if you are interested in being a future Committee Chairperson, a Committee Co-Chair or part of a committee, please reach out to Phil Gundvaldson at PhilG@infrastructureddg.com

“To say I have enjoyed my time serving at the Chapter and State levels is an understatement. Serving gave me an opportunity to meet and network with great people locally, regionally and nationally.”

*Ryan Johnson
2018-2019 President*

SDES 2018-2019 Leadership Team

2018-2019 OFFICERS

Past President: Phil Gundvaldson, PE
President: Ryan Johnson, PE
President-Elect: Andrew Bruels, PE
Secretary/Treasurer: Gabe Laber, PE
Black Hills Chapter State Director: Vacant
Black Hills Chapter President: Rick Bell, PE
Central Chapter State Director: Brian Gustafson, PE
Central Chapter President: Kyle Kurth
Eastern Chapter State Director: Aaron Norman, PE/LS
Eastern Chapter President: Lance Weatherly, PE

2018-2019 COMMITTEE CHAIRPERSONS

Awards: Bradley Ludens, PE
Design Professionals Coalition:
 Laurie Schultz, PE and Ray Pierson, PE
Endowment Promotion: TJ Yerdon, PE
Licensure: Brian Jenner, PE
MATHCOUNTS: Jesse Morris, PE
Membership: Nancy Hoines, RLA
Nominations: Phil Gundvaldson, PE
SD Local Transportation Assistance Program:
 Jason Kjenstad, PE
University and Public Relations:
 Duane Boice, PE, and Christopher Shearer, Ph.D.

EXECUTIVE DIRECTOR

Nancy Hoines, RLA



**SOUTH DAKOTA
ENGINEERING
SOCIETY**

Welcome New Members!

On July 1, 2018, the new NSPE Membership Model went into effect, which means all our new members from that day forward receive full membership in NSPE, SDES and their local Chapter.

Please extend a warm welcome to all the following new members who have joined NSPE/SDES during the 2018-2019 year so far:

Black Hills Chapter

Sophie Brogdon, Student, SD Mines
 Rachel Caesar, EIT, HDR Engineering
 Akshay Chowdu, Graduate Student, SD Mines
 Ashlee Dikoff, Student, SD Mines
 Haley Linnig, Student, SD Mines
 Allan Stratman, PE, SD Science & Technology Authority

Central Chapter

Adam Mathiowetz, PE, SD DENR
 Kyrik Rombough, PE, SD DENR
 Jacob Rosecky, EIT, SD GFP

Eastern Chapter

Gunnar Ensz, EIT, HDR Engineering
 Cole Gebhart, EIT, Sayre Associates
 Erik Hall, PE, Interstates Control Systems
 Lynn Hardy, PE
 Tyson Hasz, PE, Sayre Associates
 Jacob Hedman, EIT, Burns and McDonnell Engineering Co.
 Shane Heier, PE, Interstates Control Systems
 Scott Kelly, PE, American Engineering Testing
 Todd Mergen, PE, HDR Engineering
 Jason Scheffert, Student, SDSU
 Branson Tolliver, EIT, Sayre Associates
 Kody Weiss, EIT, Infrastructure Design Group, Inc.

Way to go Sayre Associates!!!

Just a quick shout out to Sayre Associates who added THREE new NSPE/SDES members in the last few months! Existing SDES members at Sayre Associates took a look around their office and realized they had a few relatively new team members who had not yet joined SDES and encouraged them to do so. Now, 75% of Sayre's PE and EIT staff members are enjoying the benefits of being SDES Members.

Who do YOU know who isn't a Member?

Are you interested in joining The Order of the Engineer?

Many of you may already belong to the Order of the Engineer having participated in the ceremony, through your college or university, in which you accepted the Obligation of the Engineer. Others of you may recognize members of The Order of the Engineer by the stainless steel ring they wear on the fifth finger of their working hand. Since Tom Roberts, Past President of NSPE, will be attending our conference, he has offered to perform the ceremony for those engineers who would like to belong to the Order. The information below, taken from the Order of the Engineer website, explains the Order and the ceremony. If you are not a member of the Order and would like to join through the ceremony, [please let Nancy Hoines know by Monday, April 15th.](#)

The Order of the Engineer was initiated in the United States to foster a spirit of pride and responsibility in the engineering profession, to bridge the gap between training and experience, and to present to the public a visible symbol identifying the engineer. The first ceremony was held on June 4, 1970 at Cleveland State University. Since then, similar ceremonies have been held across the United States at which graduate and registered engineers are invited to accept the Obligation of the Engineer and a stainless steel ring. The ceremonies are conducted by Links (local sections) of the Order.

The Order is not a membership organization; there are never any meetings to attend or dues to pay. Instead, the Order fosters a unity of purpose and the honoring of one's pledge lifelong. The Obligation is a creed similar to the oath attributed to Hippocrates (460-377 B.C.) that is generally taken by medical graduates and which sets forth an ethical code. The Obligation likewise, contains parts of the Canon of Ethics of major engineering societies. Initiates, as they accept it voluntarily, pledge to uphold the standards and dignity of the engineering profession and to serve humanity by making the best use of Earth's precious wealth.

For more information, visit www.order-of-the-engineer.org



&



Study

The University of Kansas and Arizona State University are partnering to conduct a study about **Best Practices of Organizational Change for Adopting New Technologies** (such as implementing new Software, Hardware, Data Platforms, Cloud Platforms, and/or Mobile Technologies) and have invited members of SDES to participate.

The information gathered through the survey will be compiled on a national basis, but can also be broken down into state and organization response groups. If you do participate in the survey, you will see a question at the end that asks how you heard about the survey. Please click on NSPE and, in the 'Other' box, type in South Dakota Engineering Society, so your information can be shared with NSPE and SDES.

The survey takes 4-8 minutes to complete and offers prizes for those completing the survey, including \$100 Amazon gift cards.

[Click here to access the survey.](#)

News from NSPE

Mark Golden, Executive Director & CEO of NSPE shares the following updates:

Championing the PE License: Beware of ‘Consumer Choice’ Legislation. Would you be willing to regularly drive over a bridge that wasn’t designed or inspected by a qualified licensed engineer? Well, that may be one possible risk to consider with the introduction of “consumer choice” bills into state legislatures. These “Occupational Licensing Consumer Choice Act” bills are being pushed by the American Legislative Exchange Council and they seek to allow unlicensed individuals to practice licensed professions, provided they disclose that they are unlicensed. Additionally, most versions of the bill prohibit states from imposing education or experience requirements on those who are unlicensed. Now what if the consumer is a state or local government or public entity looking to procure engineering services?

In the [March/April issue](#) of *PE* magazine, NSPE Manager of Government Relations Stephanie Hamilton pointed out that legislators who support these bills are likely trying to open up the market for individuals who provide less technical services, like hair styling or manicures. However, she says, there is potential for disastrous, unintended consequences with consumer-choice bills because the definition of “consumer” is left open to interpretation and not all the bills detail how the unlicensed disclosure should be made.

NSPE continues to work with state societies and in coalitions to stop the erosion of licensure by educating legislators and the public on the consequences of these bills and the value of licensure. [Learn how you can get involved in the latest fight against threats to licensure.](#)

Interesting Op-Eds on Autonomous Vehicle Safety: The [first](#) points to our tendency to blame humans when technology fails, which means those who develop the technology can avoid taking responsibility when their technology causes injury. The [second](#), written by an emergency room physician, centers on the “first do no harm” commitment that doctors and nurses make, and asks why companies developing autonomous vehicles aren’t expected to meet a similar standard.

Registration Now Open for 2019 PE Conference: Join your colleagues July 17–21, 2019, at the Kansas City Marriott Downtown, Kansas City, Missouri. The early-bird registration deadline is April 30. The online [Conference At-A-Glance](#) includes information on all sessions, tours, and activities. Find out about the speakers, their presentations and the professional development hours offered. Browse an overview of the daily schedule by dates, or browse by tracks.

Engineering Employment Growth: The US Bureau of Labor Statistics projects that engineering fields will add more than 135,000 jobs to the current 1.6 million jobs through 2026. Engineering fields are projected to have 122,000 openings each year through 2026.

A Closing Thought as NSPE Continues its Comprehensive Strategic Planning: As NSPE continues the process of updating its strategic plan to more fully leverage the society’s strength as a unified and integrated network of national and state elements, we are pursuing an open, comprehensive and intensive effort to ensure a planning and operational framework that maximizes strategy, business and operations, branding and messaging and value propositions. This planning effort explicitly recognizes the three core customer bases that NSPE must satisfy in order to fulfill its mission: NSPE members, and potential members; NSPE state societies; and NICET certificants, their employers, and potential certification services customers.

Today this is done through NSPE and its state partners’ lines of business that include: membership; mission-driven activities; non-dues revenue generation activities including NSPE programs and NICET; and a variety of other activities. The overarching intent is to drive growth: growth through increased membership and participation (engaging more people and engaging them more fully); growth through increased profitability for national, state societies, and NICET; and growth in mission impact at all levels. NSPE’s updated strategic plan will identify and define the value the organization can provide to its customer bases that result in the greatest mission impact and growth opportunity at all levels: national, state and chapter. We are doing this through market and member intelligence gathering, analysis that reveals challenges and opportunities, assessing the capabilities of the current organization, and national and state leader discussion and decision-making.

And the Award goes to...

One of the highlights of Engineers Week is the opportunity to, in the words of Wes Phillips, “acknowledge the accomplishments of the engineering profession and recognize engineering achievements that capture the innovative and dynamic spirit of a profession dedicated to public service”. The Chapter awards celebrations vary from Chapter to Chapter, but one element rings true whether you attend the Black Hills, Central or Eastern Chapter event – the passion for engineering. The Chapter awards celebrate the up and comers with the Young Engineer Award, the wise mentors with the Engineer of the Year Award, and our collective accomplishments with the Outstanding Engineering Achievement Award. Congratulations to all the Chapter Award Winners!

Young Engineer of the Year—Chapter Awards



Amy DiRienzo, PE
RESPEC
Black Hills Chapter



Kyle Kurth
City of Pierre
Central Chapter



Krista May, PE
Infrastructure Design Group, Inc.
Eastern Chapter

Engineer of the Year—Chapter Awards



Rick Bell, PE, CEM
SEE Engineering, LLC
Black Hills Chapter



John Ullmann, PE
South Dakota Game, Fish and Parks
Central Chapter



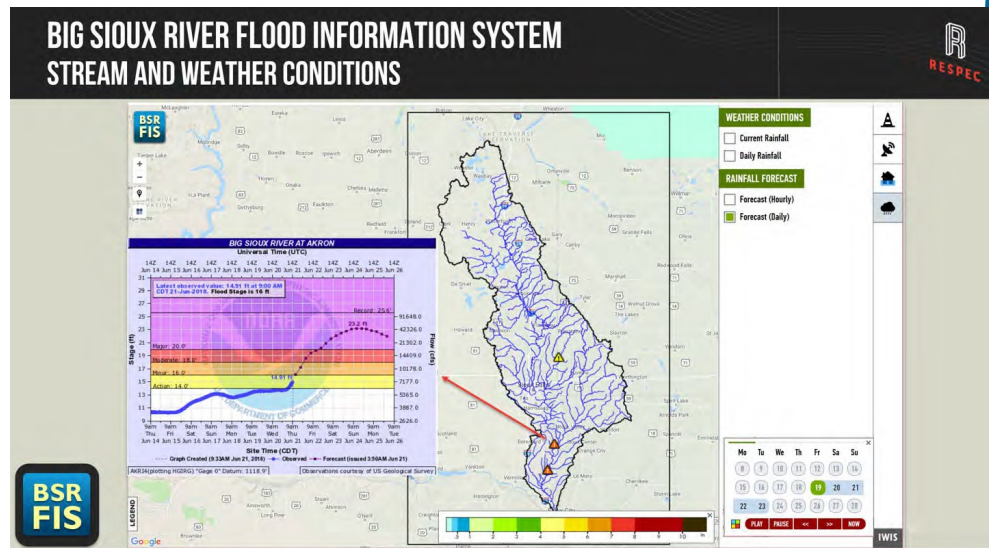
Lance Weatherly, PE, MBA
City of Sioux Falls
Eastern Chapter

Outstanding Engineering Achievement—Chapter Awards



City of Dell Rapids Wastewater Treatment Facility Improvements
 Engineering Firm: DGR Engineering
 Contributing Firms: Associated Consulting Engineering, Inc. and Rietz Consultants, Ltd.
 Project Ownership: City of Dell Rapids
 Project Location: Dell Rapids, SD

Eastern Chapter



Big Sioux River Flood Information System
 Engineering Firm: RESPEC
 Contributing Firms: Banner Associates, David Ford and the Iowa Flood Center
 Project Ownership: SD DENR
 Project Location: Eastern South Dakota

Eastern Chapter



Regenerative Community Development

Engineering Firm: KIJ
 Contributing Firms: BNIM, Pyatt and American Engineering Testing, Inc.
 Project Ownership: Thunder Valley Community Development Corporation
 Project Location: Pine Ridge Reservation

Black Hills Chapter

Engineers Week Events

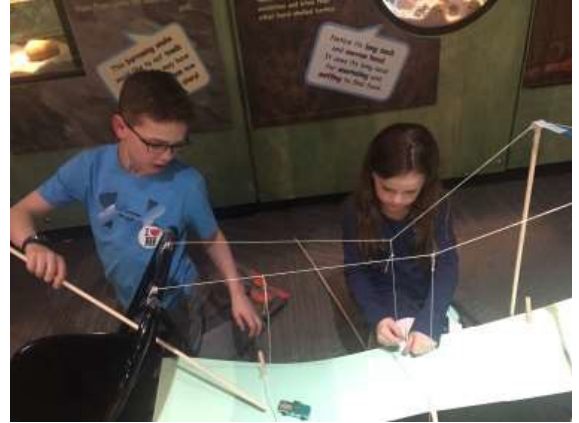
Engineers Week was a busy one for all three SDES Chapters, with members volunteering for worthy community causes and activities, sharing their passion for engineering with kids across the state, awarding scholarships to future engineers and many other activities. The next few pages share just a few of the week's activities.



President Rick Bell introduced Darren Clabo, Ph.D, SD State Fire Meteorologist and SDSMT Research Scientist, to a full house at the Black Hills Chapter Luncheon and Awards Gala. Dr. Clabo's presentation on Wildfire and Climate examined historical wildfire patterns, discussed wildfire-climate interactions and considered the potential impacts of climate on local fire regimes.



Lee Kaffar and Nick VanWye of the Eastern Chapter share their knowledge on drainage with after school program students through the Action Arts and Science Program.



The Eastern Chapter brought four engineering activity stations to assist with Free First Friday's at the Kirby Science Discovery Center in Sioux Falls. Volunteers included Deidra Beck, Kari Drake, Aaron Fagerness, Lee Kaffar, Krista May, Abby Nelson, Jedidiah Reimnitz, Erin Steever, Nick VanWye and Lance Weatherly. The stations included a Suspension Bridge building activity and a Diverging Diamond Interchange model.



The Central Chapter Blood Drive, chaired by Patrick Wellner, collected a record setting 46 units of blood. In addition to Patrick, Central Chapter volunteers included: Kathleen Grigg, Kelli Buscher, Patrick Engels, Drew Huiskens, Tim Schaal, Kayla Fawcett, Kyle Kurth, Brian Gustafson, Jeanne Goodman, Laurie Schultz and Kristen Hendricks.

Mark Your Calendars
for Engineers Week
2020!

DISCOVER
ENGINEERS WEEK
FEBRUARY 16-22, 2020



SCHOLARSHIPS

Scholarships were awarded at both the Black Hills and Eastern Chapter Banquets, including:

Top: Jody Page Leadership Scholarship Winner Ashlee Dikoff

Bottom Left: Eastern Chapter Scholarship Winner Cassidy Sjoval

Bottom Right: Eastern Chapter Scholarship Winner Logan Wolf



Central Chapter volunteers shared engineering with over 125 kids and 75 adults during the Discovery Center Free-Day Saturday in Pierre. Many groups stayed for several hours and the Chapter received many compliments on the even from the parents. Activities included:

- Chocolate Asphalt
- Waterscapes Pollution Runoff Model
- Spaghetti Marshmallow Bridges/Structures
- First Tech Challenge Robot Team Demonstration
- Robot Simulators displayed by FLL Representatives

Thanks to all the volunteers who made this an excellent day!

Eastern Chapter members and friends purchased, cooked and served breakfast at The Banquet in Sioux Falls for approximately 200 adults and children. Chapter volunteers donated \$460 to cover the \$400 meal cost, plus an additional \$60 for future unsponsored meals. Thank you to everyone who donated their time or dollars to this significant community need.

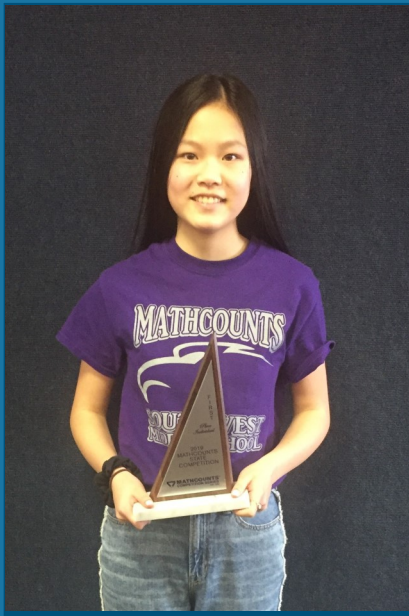


MATHCOUNTS®

A team of middle school Mathletes® from George S. Mickelson Middle School in Brookings took top honors in the South Dakota State MATHCOUNTS® Competition in Pierre on March 23rd. The top individual was Megan Zhu, an 8th grader from Southwest Middle School in Rapid City. Members of the winning team were: Sampada Nepal (7th grade), Vanessa An (7th grade), Albert Shore (7th grade) and Rebecca Michna (8th grade), coached by Shannon Renkly. The Second Place team was from Edison Middle School in Sioux Falls and the Third Place team was from Southwest Middle School in Rapid City.

The top four individuals from the State Competition will represent South Dakota at the 2019 Raytheon MATHCOUNTS National Competition in Orlando, Fla., May 12-13. The four team members are Megan Zhu of Southwest Middle School in Rapid City, Sampada Nepal of George S. Mickelson Middle School in Brookings, Vanessa An of George S. Mickelson Middle School in Brookings, and

Gianna Stangeland of Georgia Morse Middle School in Pierre, led by coach Shannon Renkly of George S. Mickelson Middle School in Brookings.



1ST STATE INDIVIDUAL

Megan Zhu, Mathlete®
from Southwest Middle
School, Rapid City, SD.



1ST STATE TEAM

George S. Mickelson Middle School
Mathletes® from Brookings, SD.

The state program is sponsored by the South Dakota Engineering Society and 3M - Aberdeen. Leadership at the local levels of the MATHCOUNTS Competition Series is provided by members of the South Dakota Engineering Society of the National Society of Professional Engineers.

The National Sponsors of MATHCOUNTS are Raytheon Company, U.S. Department of Defense, Northrop Grumman Foundation, National Society of Professional Engineers, CNA Insurance, Texas Instruments Incorporated, 3Mgives, Phillips 66, Art of Problem Solving and NextThought. MATHCOUNTS was founded by the National Society of Professional Engineers, National Council of Teachers of Mathematics and CNA Insurance.

A big thank you to SDES MATHCOUNTS Chair Jesse Morris, the Central Chapter and other volunteers for their commitment to the state competition – especially this year, for powering through the rescheduling of the state competition, due to the blizzard on the original competition date.

For more information on MATHCOUNTS or to volunteer contact Jesse Morris at 605.391.6449 or jesse.morris@dgr.com

Chapter MATHCOUNTS

Before the Mathletes® make it to the state competition, there are months of preparation for the teams and the competitions at the Chapter level. While coaches and Mathletes® are studying hard, Chapter MATHCOUNTS Chairs and volunteers are soliciting sponsors and preparing for the Chapter level competitions. **Thank you to Southeast Chair Krista May, Northeast Chair Jason Unruh and Black Hills Chair Seth Keene and all the volunteers and sponsors across the state who make the Chapter competitions a success.**

Congratulations to the Chapter Level Winners and their Coaches!

Black Hills Chapter

- 1st Place Team: Southwest Middle School, Rapid City. Team Members: Megan Zhu, Luther Busching, Jessica Ketel and Ethan Meyer. Coach Crystal McMachen.
- Top Individual: Megan Zhu, Southwest Middle School, Rapid City.

Southeast Chapter

- 1st Place Team: Edison Middle School, Sioux Falls. Team Members: Ben Kvale, Callum Coots, Sam Newitt and Christopher Post. Coach Michael Gerszewski.
- Top Individual: Sam Newitt, Edison Middle School, Sioux Falls.

Northeast Chapter

- 1st Place Team: George S. Mickelson Middle School, Brookings. Team Members: Vanessa An, Rebecca Michna, Sampada Nepal and Albert Shore.
- Top Individual: Vanessa An, George S. Mickelson Middle School, Brookings.

About the MATHCOUNTS Foundation

MATHCOUNTS is a nonprofit organization that strives to engage middle school students of all ability and interest levels in fun, challenging math programs, in order to expand their academic and professional opportunities. Middle school students exist at a critical juncture in which their love for mathematics must be nurtured or their fear of mathematics must be overcome. For more than 30 years, MATHCOUNTS has provided free, high-quality resources to educators and enriching extracurricular opportunities to students to lay a foundation for future success. Materials and information are available at www.mathcounts.org. Follow @MATHCOUNTS on Twitter.



Southwest Middle School Mathletes, Rapid City



Edison Middle School Mathletes, Sioux Falls

SDES 59th Annual Conference: Sponsor & Vendor Opportunities

CONFERENCE BROCHURE ADVERTISEMENTS:

Advertising space is available in the conference brochure at the rates listed below. Please provide payment and print ready advertisement by April 3rd, 2019.

Cost:	¼ Page	\$50.00	2" x 3 ½" (Business Card)
	½ Page	\$75.00	4" x 3 ½"
	Full Page	\$150.00	8" x 3 ½"

EXHIBITOR BOOTH:

Exhibitor's space will include one table, two chairs and electricity, if needed. Name badges will be provided for all exhibitors.

Cost: \$300.00 on or before April 3rd, 2019 or \$325.00 after April 3rd, 2019

SECURITY: The vendor area will be secured when the exhibit is closed.

SETUP: Wednesday, April 24th from 2:00 PM until 6:00 PM
Thursday, April 25th from 7:00 AM until 10:00 AM

TAKE DOWN: Friday, April 26th from 10:30 AM until 12:30 PM

MEAL INFORMATION:

There will be a lunch and awards ceremony on Thursday, April 25th, including Keynote Speaker U.S. Senator Mike Rounds. Sponsors and vendors will be recognized during the luncheon. A breakfast will be served on Friday morning, April 26th. We encourage everyone to attend these functions as an opportunity to interact with conference attendees.

Cost: Lunch @ \$20.00 each and Breakfast @ \$9.00 each.

SPONSOR INFORMATION:

This year, we have a variety of sponsor opportunities and invite you to participate in one or more of these events: three refreshment breaks, Thursday lunch, Friday Breakfast, door prizes, a variety of speakers, the Oahe Dam Tour and the Thursday evening social and Missouri River Cruise aboard the Sunset. We encourage firms, vendors and individuals to sponsor and attend these events as an opportunity to visit with your colleagues and promote your firm, company or products.

Cost:	Break Sponsor	\$100.00	Door Prize Sponsor	\$50.00
	Lunch/Breakfast Sponsor	\$200.00	Oahe Dam Tour Sponsor	\$200.00
	Speaker Sponsor	\$100.00	Social Hour/Missouri River Cruise Sponsor	\$300.00

DOOR PRIZES:

In addition to sponsoring the conference door prizes, we also invite vendors, agencies or firms to bring a door prize for give away during the conference. Please indicate your plan to do so on your registration and we will coordinate gathering and announcing the door prizes during the conference.

PROFESSIONAL DEVELOPMENT HOURS (PDH):

Vendor representatives who would like to attend the conference and receive the available PDHs may do so by paying full conference registration, which includes the cost of the meals.

OTHER OPPORTUNITIES:

A variety of vendor and sponsor opportunities are described below. If you have other ideas on how your company would like to participate, please contact Executive Director Nancy Hoines at sdengineeringsociety@gmail.com or 605.951.1004.

SDES 59th Annual Conference: Vendor and Sponsor Form

South Dakota Engineering Society 59th Annual Conference
April 24-26, 2019, Ramkota Hotel & Conference Center, Pierre, South Dakota

*You may also register for vendor and sponsor opportunities on line at SDES.org

Company Name: _____

Contact Name: _____

Mailing Address: _____

Contact Email: _____ Contact Phone: _____

Name for Name Badge(s): _____

Will you need a table at your booth? Yes _____ No _____

Will you need electricity at your booth? Yes _____ No _____

VENDOR/SPONSOR OPPORTUNITIES:

Advertisement Fee (\$50, \$75 or \$150) = _____

Exhibitor Booth (\$300 before 4/3 or \$325 after) = _____

Lunch Ticket (\$20.00 each) = _____

Breakfast Ticket (\$9.00 each) = _____

Break Sponsor (\$100.00) = _____

Lunch Sponsor (\$200.00) = _____

Breakfast Sponsor (\$200.00) = _____

Speaker Sponsor (\$100.00) = _____

Door Prize Sponsor (\$50.00) = _____

Oahe Dam Tour Sponsor (\$200.00) = _____

Social Hour/Missouri River Cruise Sponsor (\$300.00) = _____

TOTAL VENDOR AND SPONSORSHIP = _____

Please check the following box if you plan to donate a door prize:

If registering by mail, please make checks payable to South Dakota Engineering Society and mail with completed form to:
South Dakota Engineering Society
P.O. Box 1076
Pierre, SD 57501

From the Society's Desk

As I'm wrapping up this April edition of the newsletter, we are just a few short weeks away from the 59th Annual Conference, sponsored by the Central Chapter. The Central Chapter's Planning Committee has done such an excellent job of planning the event, that I can't wait to see you all in Pierre — gaining your professional development hours, touring the Oahe Dam and catching up with old friends and colleagues. If you haven't registered for the conference yet, I encourage you to do so. To date, 136 of your favorite engineers are registered to be in Pierre, plus another 21 speakers and 11 vendors. I must say I'm pretty eager to get the event underway!

If you are coming to the conference, I have a Top 10 Must Do items to improve your conference experience:

1. If we haven't met yet, please stop by the registration table or SDES booth and introduce yourself. I'd love to meet you!
2. If we have met, then you better stop by and say hello!
3. Take a minute to introduce yourself to a new member. You'll be able to pick them out by the NEW MEMBER ribbon on their name badge.
4. Take another minute to introduce yourself to a non-member and encourage them to join NSPE/SDES. They'll have a huge void on their name badge where a MEMBER ribbon should be.
5. Take some time to visit with our Vendors and to thank our Vendors and Sponsors. Without these folks, our conferences would not be possible.
6. Stop by the SDES booth and let's make sure all your information is up to date and your membership is current.
7. Tour the Oahe Dam.
8. Join us in the Hospitality Room on Wednesday night to catch up with old friends and build new relationships.
9. Climb aboard The Sunset for the river cruise and social. I love this boat!
10. Learn lots and have fun!

See you all in Pierre!

Nancy Hoines, SDES Executive Director

Career Opportunities



FMG ENGINEERING

CIVIL - GEOTECHNICAL - SURVEYING - TESTING - ENVIRONMENTAL

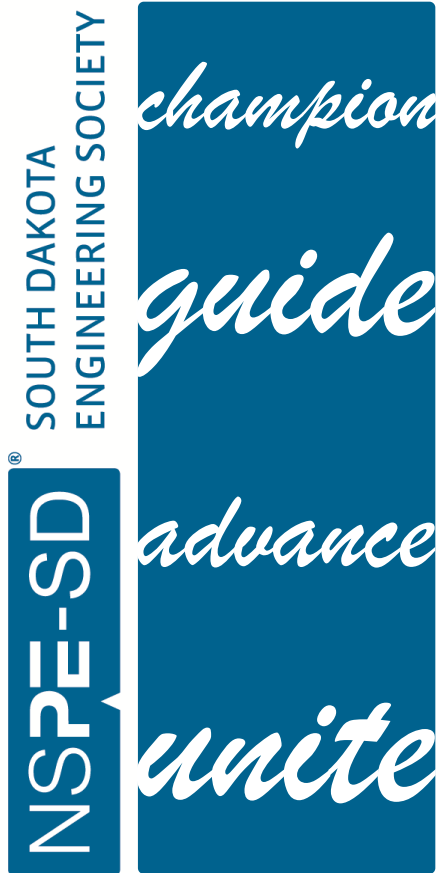
3700 Sturgis Road • Rapid City, SD 57702 • www.fmgengineering.com • 605-342-4105

FMG Engineering, a leading multi-disciplinary consulting engineering firm in Rapid City, SD, is currently accepting applications for two engineering positions, a Civil EIT and a Civil PE. Candidates interested in either of the two positions should click [here](#) or visit the Job Openings page at SDES.org for additional information. Interested candidates should refer to the [FMG website](#) for information on the firm and should send a resume and cover letter to info@fmgengineering.com.



KTM Design Solutions, Inc., a full service, multi-disciplinary firm specializing in civil engineering, land planning, land surveying, project management and construction administration, is located in Rapid City, South Dakota. KTM is currently accepting applications for four engineering and survey related positions, including: Civil Engineer/Project Manager, Civil Engineer-in-Training (EIT), Civil Engineering Technician and Survey Technician.

Candidates interested in any of the four positions should click [here](#) or visit the Job Openings page at SDES.org for additional information and instructions on how to apply.



SDES is the state society of engineers from all disciplines that promotes the ethical and competent practice of engineering, advocates licensure, enhances the image of its members and advocates legislation and public policy for the betterment of human welfare and the profession.

South Dakota Engineering Society
Nancy Hoines, Executive Director
PO Box 1076, Pierre SD 57501
sdengineeringsociety@gmail.com
605.951.1004