SDES EASTERN CHAPTER NEWSLETTER



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NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

The Engineering Informer

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WebEx: this month's presentation will be broadcast on WebEx so please plan on tuning in on the web if you can't be here in person! See the instructions on how to use WebEx on page 12 of this newsletter

IMPORTANT NEWS

NEXT MEETING: January 9th 11:30 @ Pizza -Ranch on 41st Street

PRESIDENT'S COLUMN BY JON WIEGAND—PE, PTOE

I would like to thank Lance Weatherly and Andy Berg from the City of Sioux Falls for presenting an overview of their Storm Drainage and Environmental programs at our November meeting. It was a very informative and interesting presentation (even for a traffic engineer) and great to hear about the City's latest projects and areas of emphasis moving into the future.

We hope everyone had a good time at the Winter Social. There was even snow on the ground just in time to set the ambiance for the event. A big thanks to Gabe Laber for organizing the event and everyone that was able to attend.

There are a number of events and volunteer opportunities coming up in January, February, and March. Many of these are described throughout the newsletter. 2018 SDES Annual Conference (April 4-6, 2018) planning is underway and we are still accepting presentation topics. Please reach out to Gabe Laber, Kurt Peppel, and Kari Drake if you have any topics you would like to hear or present at the conference.

Our next meeting is Tuesday, January 9, 2018, at the 41st Street Pizza Ranch, 11:30am lunch with the business meeting starting at 12noon. DJ Buthe, Minnehaha County Highway Superintendent, will be presenting on the Minnehaha County Bridge System. As a reminder, if you are unable to attend in person but would like to participate in the meetings, please login through WebEx. Login instructions are provided within each newsletter.

Happy holidays and safe travels throughout the holiday season! We look forward to seeing everyone at the next meeting in January.



TREASURER'S REPORT BY JOSH PETERSON, PE

Previous General Fund Balance 11/07/2017: \$ 26,161.40

Deposits:

Interest Deposit \$ 5.50

Total: \$ 5.50

Expenses:

Webex Subscription \$ (52.19)

New Check Blanks (8.00)

Board Meeting Refreshments \$ (32.95)

Annual Conf. Board Mtg. Refreshments \$ (118.85)

Winter Social Food \$ (1,253.54)

Total: \$ (1,465.53)

Total General Fund Balance: \$ 24,701.37

Previous Scholarship Fund Balance 11/07/2017: \$ 6,980.15

Deposits:

Total: \$ -

Expenses:

Total: \$ -

Total Scholarship Fund Balance: \$ 6,980.15

Total Account Balance 11/07/2017: \$ 31,681.52







SDES WINTER SOCIAL RECAP GABE LABER, PE SDES EASTERN CHAPTER EVENT COORDINATOR

The annual Eastern Chapter Winter Social was held at Cherry Creek Grill on Tuesday December 5th. The turnout was down a little this year but still had around 25 people attend. Scheduling conflicts caused us to try a Tuesday night. I know there was still a council and public meeting that night which keep people away. Everyone gets pulled in multiple directions this time of year which is always hard. This event is a great opportunity to enjoy good food, a cold beverage and to visit with your colleagues. Thanks to everyone that was able to attend. Merry Christmas and Happy New Year!



Holiday Jokes

What do you get when Jack Frost turns on the radio?

Really cool music

Why don't lobsters give presents? Because they're shellfish.

Why did the snowman need dandruff shampoo?

Because he had snowflakes.

UPCOMING EVENTS

IMPORTANT

CALENDAR

ITEMS



EASTERN CHAPTER MEETINGS:

January 9th 11:30 am

@ Pizza Ranch on 41st Street

OTHER EVENTS

- Watch for nominations forms in your email for Engineer of the Year, Young Engineer of the Year and Outstanding Engineering Achievement to be presented at the Engineering Awards Banquet
 - Tuesday, December 19th—E-week Outreach Planning Meeting at Leonardo's Café from noon to 1pm
 - Wednesday, February 21st—Volunteer to serve at the Banquet (meal ministry)
 - Thursday, February 22— Volunteer at Mathcounts
 - Saturday February 24—Engineering Awards Banquet
 - Wednesday April 4 to Friday April 6—SDES Annual Conference in Sioux Falls

To add a calendar item please contact Abby Nelson @ Abby.Nelson@hdrinc.com





















SAVE THE DATE - ENGINEERING AWARDS BANQUET FEBRUARY 24, 2018 AT THE STARLITE BALLROOM, HOLIDAY INN WES PHILIPS, PE

Mark your calendars for this year's SDES/ASCE Awards Banquet, which will be held on the evening of **Saturday, February 24, 2018 in the Starlite Ballroom** at the top of the Holiday Inn Sioux Falls-City Centre.

We will have great food, Casino Night entertainment and the opportunity to enjoy an evening with others in the Engineering profession.

Nomination forms for Engineer of the Year, Young Engineer of the Year and Outstanding Engineering Achievement will be coming out later in December. Start thinking now about recognizing someone's hard work and performance in the Engineering field.

E-WEEK OUTREACH AT THE KIRBY SCIENCE DISCOVERY CENTER ERIN STEEVER, PE

All are welcome to attend a planning meeting at Leonardo's Café from 12 noon to 1pm on Tuesday December 19, 2017. SDES volunteers will be meeting with events coordinators from the Kirby Science Discovery Center in order to start planning for February outreach.

Send RSVPs for the December 19th meeting to Erin Steever at erins@bannerassociates.com so we can reserve adequate space at the Café. Lunch will not being provided, however you are welcome to purchase a meal from Leonardo's to partake in during the kickoff meeting. If you are not able to attend the kickoff meeting but are still interested in being on the planning committee also send an email to Erin.

LOOKING AHEAD ENGINEERS WEEK IS FEBRUARY 18-24, 2018



FEBRUARY 18-24, 2018



Save the Date

When: Wednesday, February 21, 2017 Who: 5-6 volunteers at 5:30am 20 volunteers 6:30-8:30am Where: The Banquet

Volunteer Sign-up sheet will be available at January's and February's lunch meetings.

Free will donation to cover the cost of the meal will be taken at February's meeting.

Contact Kurt Peppel at kpeppel@siouxfalls.org with questions.

MATHCOUNTS°

Save the Date

When: Thursday, February 22, 2017 at 2pm

Where: Southeast Technical Institute

Volunteer Sign-up sheet will be available at January's and February's lunch meetings.

Contact Krista May at kristam@infrastructuredg.com with questions.

2018 SDES ANNUAL CONFERENCE APRIL 4-6, 2018 IN SIOUX FALLS

2018 SDES Annual Conference Call for Topics!

The Eastern Chapter of the South Dakota Engineering Society is now accepting presentation topics for consideration for the 2018 SDES Annual Conference, being held April 4-6 in Sioux Falls, SD.

The Annual Conference often attracts over 200 professional engineers from across South Dakota. The agenda often provides multiple tracks of presentations and technical tours with topics ranging across many different engineering disciplines.

If you are interested in presenting on topics of interest to professional engineers, please contact the planning committee chairs.

Gabe Laber gabriel.laber@dgr.com
Kurt Peppel kpeppel@siouxfalls.org
Kari Drake Kari.Drake@ads-pipe.com

Thank you for your consideration, 2018 SDES Annual Conference Planning Committee

STATE OF BRIDGE INFRASTRUCTURE IN MINNEHAHA COUNTY BY: DJ BUTHE, P.E., HIGHWAY SUPERINTENDENT

Nationwide, we have seen a number of catastrophes in recent years related to bridge failures. Often times these catastrophes are due to poor maintenance practices or simply not replacing structures due to funding or political issues. ASCE's 2017 Infrastructure Report Card rates the condition of bridges across the nation as a C+. That same report states that 9.1% of the nation's bridges were Structurally Deficient in 2016, and each day, approximately 188 million trips are taken across those bridges.

The Minnehaha County Highway Department has focused largely on improving the overall condition of its bridge infrastructure over the last five years. The nationwide and statewide statistics are alarming, yet it took two major events locally for the Department to put an increased emphasis on bridge condition.

In September, 2012, during a routine bridge inspection, engineers had to close a large bridge over the Big Sioux River due to structural concerns. That bridge served the town of Baltic and was located adjacent to a grain elevator. The closure was not exactly a popular decision. However, the bridge was replaced and the road was reopened approximately ten months after the closure. Also in 2012, bridge inspections identified an additional 7 structures that were either structurally deficient or functionally obsolete, and 4 structures that required reduced load limits. Furthermore, the historical records on hand at the Department did not include the information required to maintain an asset management system.

Since 2013, the Department has maintained an aggressive improvement schedule by replacing 20 bridges and completing countless preservation projects. Typical preservation work includes deck washing in the spring, deck repair or replacement, concrete deck sealing, removing asphalt overlays over concrete decks, cleaning deck drains, replacing or lubricating bearings, rip rap and scour repair, and jacketing pile to name a few. The bridge replacement projects are completed by contractors, while the majority of the preservation work is completed by in-house staff. Staff engineers and maintenance workers complete training each winter to learn more about bridge preservation and bridge system management. Pictured below are Minnehaha County Bridge Maintenance Team Members installing a silane seal on a new bridge deck.

The efforts of the Department are beginning to show. Of the 197 bridges currently on the system, the percent of structures that are open without restrictions is 87%. Statewide, 69% of county structures are open without restrictions. Minnehaha County structures have an average federal sufficiency rating (0-100 condition rating) of 81.9. This compares to 73.7 statewide. The average age of Minnehaha County structures is 38 years, compared to 51 statewide. Roadway safety is truly paramount in all things that we set out to accomplish at the Minnehaha County Highway Department and having a safe bridge system gets us one step closer to achieving Transportation Excellence.

For more information about the Minnehaha County Highway Department, "Like" the @MCHighwayDepartment Facebook page.



GETTING TO KNOW YOU



Melanie Raap-Eitreim MAP Engineering 7708 W. Marlis St Sioux Falls, SD 57106 605-941-2805

Melanie.Raap@MAPengin.com

College: SDSU, Major: EE

Favorite Quote: Engineers like to solve problems. If there are no problems hand-

ily available, they will create their own problems – Scott Adams

Melanie Raap-Eitreim is an Electrical Engineer and President of MAP, Inc in Sioux Falls, SD. Melanie lives in Sioux Falls with her husband Jeremy, and their 4 children. Melanie grew up as the youngest of 7 children on a farm in Montrose, then attended SDSU for Engineering, and has pursued her career in Sioux Falls since graduating. Melanie helps coordinate Financial Peace University classes at her church and loves helping people get out of debt and laying the foundation for a solid financial future.

Family: Husband Jeremy and 4 children: Aeriel 12, Sydni 9, Oliver 7, and Nevaeh 3

Hometown: Montrose, SD

Job Title and Years With Firm:

President, 1 year

Favorite Room in My House and Why: The kitchen. It's where everything happens. It's full of energy.

My Normal Breakfast: 2 fried eggs
Last DVD Purchased: The Christmas
Story

Hobbies: playing chauffeur, coaching softball, coordination Financial Peace classes, and teaching JA

What do you collect: Decorative Santas

My Best Personality Trait: Straightforward

Pets: Soon to have a turtle Pet peeves: Bitter coffee

Favorite beverage: Pina Colada
Favorite TV Show: Wheel of Fortune

Favorite Season: Spring

I hate it when...I lock my keys in my

What made you want to be an engineer? My oldest brother is an engineer.

What do you like best about being an engineer? The wide variety of people that I get to meet and work with.

Describe an achievement from the past year you are proud of. Hiring my first employee.

What are you looking forward to in the next year? The EMBE Women's Leadership Program.

Favorite Place to Visit and Why: Las Vegas because of the immense scale of the architecture, and the grand feel of everything.

THANK YOU NOTE

Eastern Chapter South Dakota Engineering Society P.O. Box 1512 Sioux Falls, SD 57101

Dear Eastern Chapter South Dakota Engineering Society,

Thank you very much for your generous contribution of \$1000 in support of the James H. Barnett Scholarship in support of the Jackrabbit Guarantee for which I am the proud recipient. I grew up in Tea, SD, and am grateful to be attending SDSU. This scholarship is very important to me as I work towards completing my BSEE degree with anticipated graduation of May! I am entering my senior year after completing a very challenging set of junior EE courses, including, electronic devices, electronics, microcontrollers, signals and systems, electromagnetics, and control systems. This past summer I have been working at Raven Industries as a summer intern responsible for designing and testing user interfaces for field computers. While at SDSU I have been granted numerous opportunities to be involved with the Pride of the Dakotas and the IEEE-HKN student organization. My plan after graduation is to continue my job at Raven.

The support SDSU alumni have shown their alma mater is wonderful. I can't express enough my appreciation for your dedication to SDSU and it students. I do hope to be able to contribute back to SDSU in the same way once I establish myself in industry.

Sincerely,

Tyler Panek

Senior EE Student

THANK YOU NOTE

Dear Eastern Chapter South Dakota Engineering Society,

I am writing this letter to you in gratitude for the scholarship you have blessed me with. I am extremely grateful for this honor, and cannot express my thankfulness in words. My name is Jacob Gangelhoff, and I am a junior at SDSU perusing a mechanical engineering degree. I grew up in New Ulm, MN (a small town much like Brookings). I spend my time working as a student engineer at Daktronics during the school year, while focusing on my grades, which are of the utmost importance to me. Someday I hope to work somewhere in the Midwest as a successful engineer. I am interested in manufacturing engineering or design work, but I most definitely want to be challenged in my job someday; I enjoy a challenge and thrive in difficult situations. Again, thank you so much for this great scholarship; I am very grateful.

Thank you,

Jacob Gangelhoff

Jacob Dangelhoff

2017-2018 OFFICERS AND CHAIRPERSONS

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President Jon Wiegand, PE

President Elect Lance Weatherly, PE

Vice President Krista May, PE

Secretary/Treasurer Josh Peterson, PE

Chapter Director(2nd term) Joshua VandenBos, PE

Chapter Director(1st term) Aaron Norman, PE

State Director Ben Scholtz, PE
Past President Kurt Peppel, PE

Committees

Nominating Committee Lee Kaffar, BA

Mathcounts Krista May, PE

Scholarship Lance Mayer, PE

Events Coordinators

eWeek Erin Steever, PE

Free First Fridays Erin Steever, PE

Winter Social Gabe Laber, PE

Golf Outing Gabe Laber, PE

Awards Wes Philips, PE

Audio/Visual IT Chad Stensland, PE

Newsletter Abby Nelson, PE

Membership List Myron Adam, PE

SDES MISSION STATEMENT

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.

Webex Login Instructions

- Navigate your internet browser to:
- 2. https://sdes-eastern.webex.com
- 3. Select the meeting date from the calendar in the "Browse Meetings" Window.
- 4. Click the "Register" link by the monthly meeting.
- 5. Fill in your first name, last name, email address and hit the "Register Now" button at the bottom.
- 6. A registration email will be sent with all the information to log into the meeting.

For any and all newsletter articles, additions, edits, corrections, and important dates contact:

Abby Nelson, PE

HDR,

6300 S. Old Village Place

Suite 100

SIOUX FALLS, SD 57108-2102

605.977.7753

Abby.Nelson@hdrinc.com

For all *State Society* membership information and other business, contact:

Gail Boddicker,

Executive Director

SDES

Rapid City, SD 57709

605-394-6674

Gail.Boddicker@sdsmt.edu

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Engineers Supporting the SDES Eastern Chapter: Ken Allender, Shannon Ausen, Andy Berg, Nick Borns, Tallon Cazer, Dennis Clark, Mark Cotter, Jeff DesLauriers, Kerry Ellis, Rod Harms, Heath Hoftiezer, Chad Huwe, Ryan Johnson, Dena Knutson, Brad Ludens, Jacob Maras, Troy Miller, John Osman, Kurt Peppel, Mark Perry, Josh Peterson, Wes Philips, Dustin Posten, Tim Stefanich, Joe Stonesifer, Curt Struck, Josh VandenBos, Shannon VerHey, Lance Weatherly, Raed Yousef



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