

THE BRINE

ISPE-SALTCREEK.ORG

SALT CREEK CHAPTER

FEBRUARY 2020

VOLUME 45 ISSUE 3

SAVE THE DATES

March 7, 2020

MATHCOUNTS

February 19, 2019

FEBRUARY MEETING

February 22, 2020

STEM Expo

Join us at the Mathcounts state finals to cheer on your team and help deliver the test on March 7. We need help with set up, proctoring, scoring, sorting, registration, and ushering. Our new home this year:

Joliet Junior College
1215 Houbolt Road
Joliet, IL 60431

We will send out confirmations with parking details a week before the event.

Name:

Phone:

Address:

E-mail

Approximate times you plan to attend:

What would you like to do? (set up 7:30 – 8:30, proctor 9:45 -12:30, score 9:15 -1, results distribution/clean up 1 – 2:30)

I will also bring along friends and family:

Email above information to
mailto:lmcgovern@benesch.com

Each volunteer will receive continental breakfast, lunch, and one PDH certificate. Thanks, and we hope you can make it!

Laura McGovern, State Mathcounts Chair

FEBRUARY MEETING

Date: February 19th, 6:30-9:00 pm
Hydroponic and Solar Solutions

About the Speaker:

Shawn M. Odneal, Ohio farming native, graduate from Bowling Green State University with an advanced degree in Biotechnology and Chemistry. Moved to Chicagoland area in 2001. Worked for many labs and fortune 500 companies before starting his own companies, OHASS INC. and Root 66 Aquaponic Garden Shop. Has also helped designed and install over 255 Solar Homes.

Bohemian Crystal Restaurant
639 N. Blackhawk Drive
Family Style, Cash Bar

Cost: \$35

RSVP:

[CLICK HERE](#)

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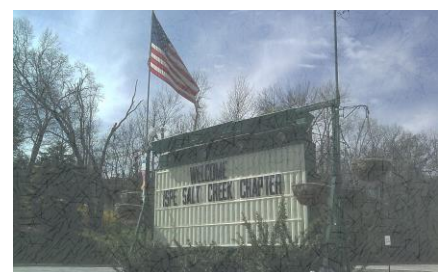
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AND NOW, A WORD ABOUT OUR SPONSOR...

Bud Hurley received the Illinois Award, the highest award conferred by I.S.P.E., for his many years of service to the profession and to the society at the national, state, and chapter levels.

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Dinner Meeting Presentation - January 22, 2020

The guest speaker was Mr. David Alvarez, Senior Project Manager for ComEd. He is currently employed in the research and development group for the ComEd “Smart Grid”

Currently, ComEd has 3.9 million customers. Its service territory is northern Illinois. The company is owned by the Exelon Corporation, which owns 4 utilities.

Several years ago, legislation was passed for ComEd to begin constructing the “Smart Grid.” The legislation was passed to provide a different rate structure to allow a large increase in funds for capital improvements to the physical plant, including new poles, wire and transformers, as well as construction of the grid. The grid forms a mesh, which operates in the 900 MHz frequency band. Within the grid, smart meters can “talk” to each other as well as an access point, which transmits local data to a remote data center. Remote meters have a “last gasp” provision, allowing them to communicate with the access point to advise of a power interruption, before shutting down. This feature allows ComEd to locate outages quickly and determine if the outage is one customer, a group or block of customers, or a larger area.

The grid also allows for continuous monitoring of transformers and other equipment. It can advise if a piece of equipment is not operating as designed and allow corrective action before failure occurs. Previously, the operational condition of most of the equipment could only be determined by physically inspecting each piece of equipment.

The system allows rerouting of local electrical supply. If, for example, a power line comes down in a residential neighborhood, nearby customers can be switched to a different feeder, minimizing the blacked-out area.

ComEd investigate the possibility of extending the smart grid to other uses, such as water metering. This has been done for one community, as a test, and it worked well for both ComEd and the municipality.

The smart grid has also been tested with smart LED streetlights. Streetlight intensity and color can be controlled. If a “smart” streetlight fails, the system may be able to identify the cause and allow the repairman to come with the proper repair equipment.

Illinois Institute of Technology is being used as a test case for a microgrid. Its electrical distribution system is older (1960’s) and the campus suffers several power outages each year. The microgrid is expected to improve reliability and even reduce peak usage demand on ComEd.

At the end of the meeting, there was some discussion about using electricity for transportation, including automobiles and buses. Several members noted that they felt electric service has become much more reliable with the use of the smart grid.



ENGINEERS CREED

As a Professional Engineer, I dedicate my professional knowledge and skill to the advancement and betterment of human welfare.

I pledge to:

Give the utmost of performance.

Participate in none but honest enterprise.

Live and work according to the laws of man and the highest standards of professional conduct.

Place service before profit, the honor and standing of the profession before personal advantage and the public welfare above all other considerations.

In humility and with need of Divine Guidance, I make this pledge.

ENGINEERS WEEK 2020

Bring your children and grandchildren to the STEM Expo at Illinois Tech in Wheaton on Saturday, February 22

Tallon worked at Vassar College in the Department of Art. Tallon c

STEMExpo_2020_poster (1 page) — Edited

36th Annual DuPage Area
STEM₄
EXPO
 SCIENCE • TECHNOLOGY • ENGINEERING • MATHEMATICS

FEBRUARY 22, 2020
10:30am–3:30pm
201 East Loop Road
Wheaton, IL 60189

FREE Family Fun!

Join Illinois Tech, in conjunction with National Engineers Week, for free family fun and interactive exploration into science, technology, engineering, and math. Over 50 displays, presentations, and projects to take home and activities for school age children, grades K-12.

appliedtech.iit.edu/stemexpo

ILLINOIS INSTITUTE OF TECHNOLOGY
 School of Applied Technology