

# DAYTON SOCIETY OF PROFESSIONAL ENGINEERS

*DEDICATED TO THE PROMOTION OF THE PROFESSION OF ENGINEERING*

## THE DAYTON ENGINEER

VOLUME 11, ISSUE 2

FEBRUARY 2020

### American Heart Month

National Freedom Day—1st

Boy Scout Day—8th

National Inventors Day—11th



National Battery Day—18th

Love Your Pet Day—20th

National Chili Day—28th

Leap Day—29th

### THOUGHTS FROM THE CHAPTER OFFICERS

#### Random Thoughts With Which to Start 2020:

- Taken from [futureoflife.org](http://futureoflife.org),

90% of all the scientists that ever lived are alive today.

- Taken from [nationalgeographic.com](http://nationalgeographic.com),

- 86% of earth's species are still unknown.

- Taken from a 2017

Congressional Research Service report, in 2016, 23.7% of those employed in the Science and Engineering (S&E) workforce are engineers, while 57.6% are employed in the computer occupations; the remaining 19.8% are employed in Mathematical, Life Science, Physical Science,

and S&E Management occupations.

On the other side of the coin, Deloitte, in a recent article from [www2.deloitte.com](http://www2.deloitte.com), gives the following prognostications:

1. "Engineering & Construction" (E&C) companies must operate much more efficiently;

2. "Digital technologies" are strongly impacting E&C operations";

3. E&C companies will need to find new business partnering models and project management arrangements; and,

4. Municipal design is moving rapidly toward utilizing "smart

technologies".

What do these observations mean to you and me? That may be a tough call for each of us, because we really are quite different. But, as Curly said in City Slickers, "It's all about that one thing." So what is that one thing to you? "That's for you to figure out."

To me, it means we need to invest in our youth and help bring to them an opportunity to learn about engineering while they are young.

—Jon Wheeler, PE, Chapter Secretary

### 2020 ALL OHIO ENGINEER CONFERENCE—HOSTED IN DAYTON!

This is a special appeal to our chapter members for volunteers for our 2020 All Ohio Engineer Conference, hosted in Dayton June 11-13, 2020.

We strongly need volunteers to help with the Registration Desk, Hospitality Room, Technical Speaker identification, Technical and Family Tour identification (OSPE will work all of the contracts and logistics, we just need to identify the tours), and

soliciting sponsors for the various elements of the conference.

Your company will also be able to capitalize on some premium advertising by sponsoring the various elements of the conference.

This is a very important event for the Dayton region, and especially for our DSPE Chapter, so your involvement is crucial for the conference's success.

Those wishing to volunteer for these committees should make your desires known to Aurea Rivera as soon as possible.

We have great need for volunteers to work with registration desk, hospitality room, technical presentation attendance monitors, and even setting up for the conference starting Thursday morning, 11 June. Thank you for your consideration.

## EFO ENGINEER AS LEADER CONFERENCE, 7-8 FEBRUARY 2020

The **EFO Engineer as Leader Conference** will be held at the **Columbus Airport Marriott**, 1375 N. Cassady Avenue, Columbus, OH 43219, 9:00-5:00 Friday, 7 Feb. and 8:00-2:30 Saturday, 8 Feb, 2020. Participants can earn **10.5 CPD hours** by participating in the full, two-day event.

Mr. James G. Dalton will use case studies, as well as his own research on engineering leadership, to teach a systems approach to leadership. He will discuss traits and behaviors of effective leaders, how to develop leadership strategies, and management skills for the engineering leader.

For more information, contact: Mr. Chett Siefing, P.E., President, *Engineers Foundation of Ohio* at (614) 223-1177, or toll free 1-800-654-9481, or email [EFO@OhioEngineer.com](mailto:EFO@OhioEngineer.com).

The Engineers Leadership Institute presents:

The Engineer As Leader



## FEBRUARY DSPE MEETING—13 FEBRUARY 2020

The February 2020 DSPE Chapter meeting will be on 13 February from 12:00 noon to 1:30 PM at the Engineers Club of Dayton, 110 Monument Ave, Dayton, OH 45402. Aurea Rivera, with Imagineering Results Analysis Corporation, will speak on “**Quantifying Risk**”. She will discuss the risk management

function and how we can quantify risk in our engineering work.

A buffet lunch will be served. The cost is \$20 for members, \$30 for nonmembers and \$10 for students. Attendees will receive one (1) Professional Development Hour (PDH).

Those wishing to attend should

make your reservations no later than Tuesday, 11 February 2020 with Ed Schlaack by email at [SchlaackE@mcoho.org](mailto:SchlaackE@mcoho.org) or by phone at (937) 781-2632 (office).



## MARCH DSPE MEETING—12 MARCH 2020

The March 2020 DSPE Chapter meeting will be on 12 March 2020 from 12:00 noon to 1:30 PM at the Engineers Club of Dayton, 110 Monument Ave, Enterprise, LLC, Dayton, OH 45402. Mr. Matt Reed, Hydrogeologist with Granite Construction, will speak on “**Introduction to Collector Well Design and Construction**”. Mr. Reed will describe siting, design, and construction of the

Ranney Collector, a patented type of radial well used to extract water from an aquifer with direct connection to a surface water source.

A buffet lunch will be served. The cost is \$20 for members, \$30 for nonmembers and \$10 for students. Attendees will receive one (1) Professional Development Hour (PDH) [Technical/Management].

Those wishing to attend should make your reservations no later than Tuesday, 10 March 2020 with Ed Schlaack by email at [SchlaackE@mcoho.org](mailto:SchlaackE@mcoho.org) or by phone at (937) 781-2632 (office).



## UPCOMING BOARD MEETING (FEBRUARY 2020 BOARD MEETING)

The next DSPE Board meeting will be held on 11 February, 2020, starting at 5:15 PM, in the Conference Room of the Dean’s office, Wright State University, School of Engineering and Computer Science.

All Chapter members are welcome and encouraged to attend and observe the process.



## THANKS TO DR. BRIAN KOWAL, COACH, AFA CYBERPATRIOT.

We want to express our sincere thanks to Dr. Brian Kowal, PE, for his January presentation on “Cyber Education Opportunities”. Dr. Kowal is one of the coaches for the Dayton area Air Force Association (AFA) CyberPatriot competition. The AFA CyberPatriot program is a national high school and middle school cyber defense competition designed to encourage high school students to take up a career in cybersecurity or other STEM disciplines, upon which our nation depends for future infrastructure security.

In a typical cyber competition, teams will be given a set of images representing a virtual network operating system. Their competitive task is to discover any and all vulnerabilities in that system and then “fix” that system to make it resistant to cyber attack, all the while maintaining system operation.



For more information on CyberPatriot, go to the state website at:

<http://oh.makerminded.com/activities/cyberpatriot>

and the national website at:

<https://www.uscyberpatriot.org/>

DAYTON CHAPTER—  
OHIO SOCIETY OF  
PROFESSIONAL  
ENGINEERS

4367 Sillman Pl.  
Kettering, OH 45440-1140



OSPE is dedicated to the advancement of professional engineers in Ohio and is the single most powerful voice representing all disciplines within the engineering

profession. The Dayton Society of Professional Engineers (DSPE) is a chapter of the OSPE serving the local Dayton Region. DSPE aspires to conduct a monthly chapter luncheon meeting that will serve our members by providing an opportunity to come together to share professional experiences, to network, and to gain continuing professional development through interesting presentations on a variety of technical, management, and ethics topics on all engineering disciplines. **Is there anything you would like to see in the Newsletter? Please let me know:** [jon.wheeler@yahoo.com](mailto:jon.wheeler@yahoo.com).

— Jon Wheeler, P.E., DSPE Secretary, Newsletter Editor

## FINANCIAL CONTRIBUTIONS TO HELP MEET CHAPTER MISSION



Our chapter activities are focused on youth education and college scholarships and include (but are not limited to) **2nd Grade Coloring Contest via *ImagineEngineering***, and **Middle School MATHCOUNTS**. These are our Society's flagship events to bring to our youth an awareness

of the value of science, technology, and especially the engineering profession. It requires hands-on participation and financial contributions from our members, that's you and me. Your personal and corporate financial contributions are solicited through our Engineers Foundation of Ohio (EFO) to help us host these events on a local, state, and national level (except for the coloring contest). Please

consider making a personal contribution and soliciting from your company, if they have a community relations department. Contributions through EFO are fully tax-deductible. Please contact us for the tax ID number for your records. Even more important for the success of these events is your hands-on participation. Please contact a board member for opportunities.

## DSPE/OSPE/EFO CALENDAR

7-8 Feb	<b>EFO Engineer as Leader</b> Conference, Columbus Airport Marriott
11 Feb	DSPE Board meeting, 5:15 PM Wright State Univ Engineering Dean's Office
13 Feb	DSPE Monthly meeting, Dayton Engineers Club, 12:00 Noon
16-22 Feb	Engineers Week!
22 Feb	<b>Dayton MATHCOUNTS</b> , University of Dayton, Miriam Hall
7 Mar	Ohio MATHCOUNTS Competition, Columbus State Community College
10 Mar	DSPE Board meeting, 5:15 PM Wright State University Engineering Dean's Office
12 Mar	DSPE Monthly meeting, Dayton Engineers Club, 12:00 Noon
25 Mar	<i>ImagineEngineering</i> 2nd Grade Coloring Contest entries due to OSPE
27 Mar	OSPE/EFO Board and Budget Committee, OSPE Ethics and L&GA Committee meetings, Crown Plaza Columbus North
9 Apr	DSPE Monthly meeting, Dayton Engineers Club, 12:00 Noon
14 Apr	DSPE Board meeting, 5:15 PM Wright State University Engineering Dean's Office