

# DAYTON SOCIETY OF PROFESSIONAL ENGINEERS

*DEDICATED TO THE PROMOTION OF THE PROFESSION OF ENGINEERING*



## THE DAYTON ENGINEER



VOLUME 8, ISSUE 1

JANUARY 2017

**National Mentor Month**  
New Year's Day—1st  
Fruitcake Toss Day—3rd



*Dayton Chapter*

**Ohio Society of  
Professional Engineers**

*A state society of the National Society of Professional Engineers*

Thesaurus Day—18th  
Data Privacy Day—28th  
National Puzzle Day—29th

### INTERESTING

Happy New Year! What is one of the most commonly performed activities for people starting out a new year? Setting a New Year's Resolution, of course! Why? It's almost like getting a second chance or a new start on life. Let's face it, "Today is the first day of the rest of your life", right? You are where you are in life right now because of a combination of your actions and decisions, as well as those made by other people. So what will you do now? What one or two or three actions will you take in 2017 that might improve your technical, management, or maybe even your people skills?

Know one thing for sure, as Mr. Pat Sweet says in his article, "An Engineer's Resolution Revolution", found at: <http://www.engineeringandleadership.com/an-engineers-resolution-revolution/>, most resolutions don't work simply because a resolution is not enough. If you want to make a change, a resolution to do something is only step one. Sweet goes on to say, to make true, long-lasting, positive change, the professional needs to 1) "**Set Your Vision**" and write it down. Kick the resolution into motion. 2) "**Turn Your Vision into a Goal.**" Make it "Specific, measurable, achievable, realistic, and time-bound". Again, make sure you write it down. 3) "**Break Your Main Goal into Smaller Milestones.**" Or, as Sweet says, "Turn your meal into bite-size chunks". As you work through the Milestones, you will feel like you are truly accomplishing something. 4) "**Using Your Milestones as a Guide, Create an Action Plan.**" Specify how you will meet those milestones. 5) "**Act!**" Work your Action Plan. And 6) "**Measure, Correct, and Re-evaluate.**" Fix it if it's broken; strengthen and repeat it if it works!

- Best wishes for a successful 2017! **Jon Wheeler, P.E., DSPE Vice President**

#### In This Issue:

- **Upcoming Chapter Meetings**
- **MATHCOUNTS**
- **OSPE/DSPE Calendar**

We are expanding our distribution list, so if you are receiving this newsletter for the first time, welcome to our DSPE digital family! We hope you enjoy the newsletter and hope that you will communicate with us to let us know how we can make it better serve your needs. Are there timely items we should emphasize within our mission? Is there a particular topic area that we can pursue for your interest? Maybe some investigative cubby reporting? Licensure questions we can pursue with our State Board? Most importantly, please see pages two and three of this newsletter for information on DSPE's upcoming Chapter Meetings and Annual Christmas Party. The Christmas Party is just days away and RSVPs are still being accepted!

## UPCOMING CHAPTER MEETINGS

### JANUARY DSPE MEETING—12 JANUARY 2017

The January 2017 DSPE Chapter meeting will be on 12 January from 12:00 noon to 1:30 PM at the Engineers Club of Dayton, 110 Monument Ave, Dayton OH 45402. Ms. Aimee Pergalsky, National Business Development Manager with Euclid Chemical, will present a discussion on **concrete admixtures**. 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, 10 January 2016 with Ed Schlaack by email at [SchlaackE@mcoho.org](mailto:SchlaackE@mcoho.org) or by

phone at (937) 781-2632 (office).



### FEBRUARY DSPE MEETING—9 FEBRUARY 2017

The February 2017 DSPE Chapter meeting will be on 9 February from 12:00 noon to 1:30 PM at the Engineers Club of Dayton, 110 Monument Ave, Dayton, OH 45402. USAF Captain Naseem Ghandour, AFIT Civil Engineer School, will present "OSHA Construction Safety for Supervisors". He will discuss the basics of OSHA and

the top 4 OSHA areas and how to develop a safety program at your workplace.

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, 7 February 2017 with Ed Schlaack by email at [SchlaackE@mcoho.org](mailto:SchlaackE@mcoho.org) or by phone at (937) 781-2632 (office).



### MARCH DSPE MEETING—9 MARCH 2017

The March 2017 DSPE Chapter meeting will be on 9 March from 12:00 noon to 1:30 PM at the Engineers Club of Dayton, 110 Monument Ave, Dayton, OH 45402. Mr. David R. Cole, P.S., Senior VP for Professional Services with So-Deep, will present an Overview of Subsurface Utility Engineering (SUE) for subsurface utility

location and mapping.

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, 7 March 2017 with Ed Schlaack by email at

[SchlaackE@mcoho.org](mailto:SchlaackE@mcoho.org) or by phone at (937) 781-2632 (office).



### UPCOMING DSPE BOARD OF DIRECTORS MEETING

The next DSPE Board meeting will be on 10 January 2017 from 5:15 to 6:30 PM at the Wright State University Engineering Dean's office conference room.

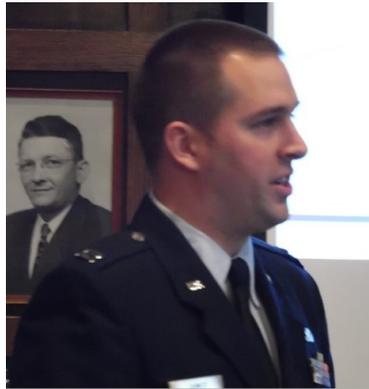
# THANKS TO MR. BRIAN ALLEN AND CAPTAIN SHANDON JAMES

We wish to express our thanks to Mr. Brian Allen and Captain Shandon James, from the Air Force Institute of Technology at Wright-Patterson AFB, for presenting an overview of their graduate theses at our December chapter meeting.

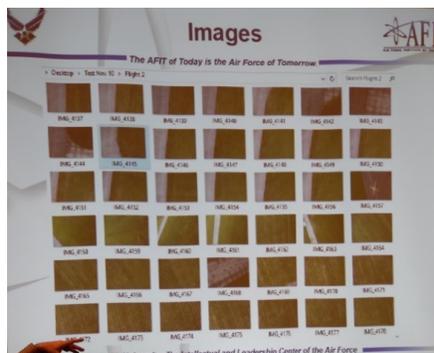


Mr. Allen discussed his methodology for “Developing a Point-of-Use UV-LED Water Purification Device Using

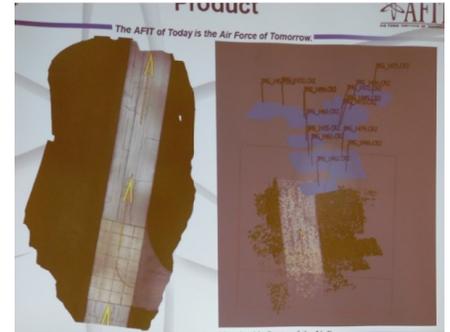
Computational Multiphysics Modeling Software”. He also brought some example devices used in the types of water purification he discussed for our benefit.



Captain James presented some results of his experiments to develop “Actionable Images from a Unmanned Aerial System (UAS)”.



The software suites used were able to stitch together large numbers of pictures taken by overflights of the UAS to develop a large mosaic of the overall target image, showing a composite photograph with actionable utility.



We are excited to see some of the academic pursuits at the Air Force Institute of Technology that help expand the technical envelope of high-tech capabilities.



## MATHCOUNTS BY CHRIS BROWN

Plans for the 2017 Dayton Chapter MATHCOUNTS competition are underway and it won't be long before mathletes from middle schools around the region will be squaring off to find out who receives top honors and advances to the state competition.

The 2016 Dayton Chapter MATHCOUNTS competition hosted seventeen area middle schools with 127 6th, 7th and 8th grade Mathletes competing for top individual and team honors. We hope to grow the competition this year with more schools participating and more mathletes exploring their love of mathematics!

The competition consists of three official scoring rounds and the un-official Countdown Round. In the Sprint Round, students work individually to answer 30 questions in 40 minutes. In the Target Round, students work independently to answer four pairs of questions with only six minutes to answer each pair. The final competition is the Team Round where students work in teams of four to answer 10 questions in 20 minutes. The Countdown Round is a fast-paced round where the top twelve students face off head-to-head in a test of speed and accuracy. The Countdown Round is held for fun and does not determine the overall competition winner nor advancement to the State Competition.

The 2017 event will be held at the **University of Dayton** on **Saturday February 25th**. Volunteers are needed to help organize and prep the exam materials for the competition, helpers to administer the exams and scorers to grade. Volunteers don't need to be limited to DSPE members. Please share the call for volunteers with co-workers, friends, spouses or any of the local college engineering or math student organizations who may be interested in getting involved. It is a great way to support the DSPE chapter and help our future engineers and scientists develop their math skills.

We also need help getting the word out to the local middle schools about the MATHCOUNTS program. If you know a middle school (6th, 7th or 8th grade) math teacher or school administrator who may be interested in learning more about MATHCOUNTS, please point them to the DSPE Chapter MATHCOUNTS coordinator.

Finally, MATHCOUNTS can use your financial support. If you or your organization would like to make a donation to support MATHCOUNTS at either the state or local level, please contact the DSPE Coordinator. Your donation will go directly to support costs of the testing materials and other expenses such as lunch, student t-shirts and awards. All donors will be recognized at the MATHCOUNTS event.

For more information about MATHCOUNTS, to volunteer or donate, please contact the DSPE MATHCOUNTS coordinator, Chris Brown at [chris.brown@bwsc.net](mailto:chris.brown@bwsc.net) or 937.428.5234. Also visit the MATHCOUNTS website at [www.mathcounts.org](http://www.mathcounts.org)

**MATHCOUNTS®**  
**FOUNDATION**

## 2016 DSPE CHRISTMAS PARTY

We extend our thanks to the Amber Rose restaurant for hosting our 2016 DSPE Christmas Party. The weather proved to be a bit of a dampener by keeping our attendance a bit low, but those who attended appeared to enjoy the event (even though few smiled when the camera lurked nearby!). We are also grateful for the fellowship we enjoyed with our friends from the American Society of Plumbing Engineers. Thank you!



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WE'RE ON THE WEB!  
WWW.DSPE.ORG



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, 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 Vice President, Newsletter Editor

## FINANCIAL CONTRIBUTIONS TO HELP MEET CHAPTER MISSION



Our chapter activities are focused on youth education and scholarships and include **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

12 Jan	DSPE Chapter Meeting, Dayton Engineers Club
13 Jan	OSPE Membership and EFO Fundraising Committee Meetings
3-4 Feb	Engineer Leadership Institute: <i>The Engineer as Leader</i> , Columbus Airport Marriott
9 Feb	DSPE Chapter Meeting, Dayton Engineers Club
19-25 Feb	Engineers Week
25 Feb	Dayton MATHCOUNTS, University of Dayton; Volunteers Needed, See Chris Brown
11 Mar	Ohio MATHCOUNTS, Columbus State Community College, Check in 8:30 AM
15 Mar	Imagine Engineering Contest Entries due to EFO
17 Mar	EFO/OSPE Board and Committee Meetings
18 Mar	Ohio Engineering Certificate Ceremony, 10:00 AM, Ohio Statehouse Atrium