

The Drawing Board

Reading Chapter, Pennsylvania Society of Professional Engineers



A Publication of the PSPE Reading Chapter

December 2014

Inside the Drawing Board

Chapter Activities	Page 1
Message from the President	Page 2
Chapter Officers & Board Members	Page 3
Call for Volunteers.....	Page 4
Penn State University Berks Campus Tour Summary	Page 5
PSPE Reading Chapter Technology Initiative	Page 6

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MESSAGE FROM THE PRESIDENT

Prepared by: James P. Cinelli, P.E., BCEE

I'd like to wish everyone a happy and safe holiday season. In this busy time of year, I hope that we can all take time to appreciate the many gifts in our lives that we often take for granted. Things like the arch, the I-beam, the transistor, and the internal combustion engine. It's true that Santa couldn't make his annual trip around the globe without his magic reindeer. But as we all saw in the movie Elf, these days he also couldn't distribute his goodies without the jet engine –another technological achievement that makes our lives easier, and for which we have an engineer to thank! So as you're making your own rounds this holiday season, driving your car, crossing bridges, following your navigation system and sending holiday wishes on your smart phone, take a moment to be thankful and proud of your own profession!

The Reading Chapter had some great events in 2014. We had another great golf outing with the Valley Forge Chapter. This year the weather was great and we again raised about \$4,000 for our scholarship and Mathcounts. Many thanks to all of our sponsors and attendees. Most importantly, I'd like to thank Frank Falzone, who put in many hours to make the tournament a success. As the spring approaches, we will be reaching out to our membership to attend or sponsor the 2014 tournament, and we are always looking for volunteers to help out with the planning. Please contact me if you are interested.

We added a few new members to our chapter's roster this year, and we have two new Board Members – Matt Boggs of Entech Engineering and Chris Lincoln of Traffic Planning and Design. We're very appreciative to both of these gentlemen for willingness to serve on the Board.

This year's Mathcounts competition is right around the corner! It will be held on February 1st, and is at a new location this year – Penn State Berks Campus. We again have a good number of teams that are registered for the competition. We are always in need of volunteers, so if you can spare a few hours on a Saturday morning to help a good cause, please contact me or our Mathcounts chairman Eric Mountz.

As part of our continuing efforts to reach out to high school and college students pursuing careers in engineering, we have become involved with the Berks County Intermediate Unit and are actively supporting their programs to advance STEM careers. They'll be looking for volunteers for student competitions, so keep an eye out for invitations to help judge or otherwise participate. I hope that many of our members will be willing to help out.

I hope everyone has a prosperous year in 2015, and I hope to see many of you at the upcoming events. If there is anything that I or any of the Board can do for you, or if you have any suggestions for events or continuing education topics, please don't hesitate to contact us.



James P. Cinelli, P.E., BCEE

2014-2015 PSPE - READING CHAPTER BOARD MEMBERS

James Cinelli, PE	President 2014-2015	Liberty Environmental Inc.	610.375.9301 (W)	jcinelli@libertyenviro.com
Jasen Book, EIT	Vice President 2014-2015	Liberty Environmental Inc.	717.517.5000 (W)	jbook@libertyenviro.com
Jason Shaner, PE	Treasurer 2014 - 2015	Impact Engineering Group	610.743.4861 (W)	jshaner@impacteg.com
Eric Mountz, PE	Secretary 2014-2015	Traffic Planning & Design	610.326.3100 (W)	emountz@trafficpd.com
Michael Hartman, PE	State Director 2013-2016	dH Enterprises	484.663.3487 (W)	mhartman@dh-enterprises.net
Tuan Duong, PE	Board Member 2012-2015	Traffic Planning & Design	610.326.3100 (W)	tduong@trafficpd.com
Frank Falzone, PE	Board Member 2012-2015	Traffic Planning & Design	610.326.3100 (W)	ffalzone@trafficpd.com
Christopher Rickert, PE	Board Member 2014-2017	WorleyParsons	610.855.3620 (W)	christopher.rickert@ worleyparsons.com
Chris Lincoln, PE	Board Member 2014-2017	Traffic Planning & Design	610.326.3100 (W)	clincoln@trafficpd.com
Matt Boggs, PE	Board Member 2014-2017	Entech Engineering, Inc.	610.373.6642 (W)	mboggs@entecheng.com
Mark Stabolepszy	Board Member 2013-2016	Spotts Stevens & McCoy Inc	610.621.2001 (W)	mark.stabolepszy@ssmgroup. com
Karl Peterson, PE	Past President 2014-2015	---	717.445.6626 (H)	aftan@frontiernet.net

CALL FOR VOLUNTEERS

Two STEM competition events are planned for early 2015 at Berks County Intermediate Unit, and volunteers are needed!

K'Nex Design Challenge 2015

51 teams are registered for the K'Nex Design Challenge scheduled for March 25-26, 2014. As a result of the record interest, the competition will be expanded to two days. The grade 4-5 competition will happen on 3/25, and the grade 6-8 competition will happen on 3/26. Judges are needed for both days, but they do not need to be the same people on those two days. Below is the verbiage of the challenge for 2015:

Teams of 4 students will need to create a K'Nex structure that will move a ping pong ball from one side of the table to the other lengthwise. The length that the ping pong ball must travel is 4 feet. Students may create a cup or dish to hold the ping pong ball but all pieces must be made from K'Nex.

JOBS1stPA STEM Competition 2015

This is a new competition this year for students in grades 9-12. 10 teams have registered across Berks County for the competition on Thursday, 2/26/15. Again, judges are needed for the competition. Below is the verbiage of the competition:

Teams of high school students from across the Commonwealth are challenged to select a real-world problem, conduct research, design, build, and present a device that is capable of making the quality of life better for citizens of Pennsylvania. Teams are provided with a \$500 stipend to fabricate a prototype of their device. Throughout the challenge, students engage with their local community to learn about STEM careers and the skills necessary to be employable and successful in STEM-related Pennsylvania industries. Specifically, teams shall collaborate with a local company and work with a mentor employed by the business. To culminate the experience, students present their device and findings to a panel of judges. The challenge will test teams' communication, problem solving, critical thinking skills, and creativity.

Professional engineers make ideal judges! Those who are interested in participating in one or both to these STEM events as judges may contact:

Melissa G. Brewer, Ed.D.
Assistant Director
Office of Professional Development and Curriculum
Berks County Intermediate Unit
610-987-8621

Penn State University Berks Campus Tour

On November 5, 2014, PSU Berks hosted the Reading Chapter of PSPE for a tour of their engineering facilities. The tour was led by Dr. Bob Zambanini and Mr. Ed Sauer, members of the Mechanical Engineering program faculty. Terry Speicher also took some time to provide additional information and answer questions. The tour highlights included classrooms, computer labs, and hands-on manufacturing laboratories.

The students apply their classroom instruction in the computer labs to design projects, including utilizing 3-D printers. The machining labs facilitate the actual fabrication of working machines. One example of a machine that is in the middle of development is a Frisbee launcher or “thrower”. Some bugs still needed to be worked out. PSU participates in competitions for the design of super-efficient vehicles, and one of their prototypes was undergoing renovation in their manufacturing lab. Their electrical/electronics labs facilitate a detailed understanding of controls systems and the building and tweaking of controls for their projects.



Per Dr. Zambanini, the curriculum is evolving to include the practical applications of the engineering design and implementation process. This is a direct response to feedback from the local engineering community. As part of this “practical” application, the students engage in developing solutions to actual needs for local manufacturers. Classes were in session during the tour and it was encouraging to witness the energy and enthusiasm displayed by both the students and professors.

Reading Chapter Technology Initiative

PSPE Reading Chapter – Email Address

PSPEReading@gmail.com

PSPE Reading Chapter - WEBSITE LINK

<http://www.pspe.org/reading/reading.shtml>

Linked In – Search Group Name “Society Of Professional Engineers – Reading Chapter”

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Facebook – “PSPE READING CHAPTER”

<http://www.facebook.com/pages/pspe-reading-chapter/145338222237291?sk=wall>

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In the coming months, each subsequent release of the PSPE Reading Chapter drawing board will be initially available for viewing via the website link above. Then after a period of two (2) days the PDF copy of the Drawing Board will be emailed out to the membership. If you have any questions or will request hardcopy of the Drawing Board please contact Jasen Book, E.I.T., LEED AP at jbook@libertyenviro.com or 717-517-5000.

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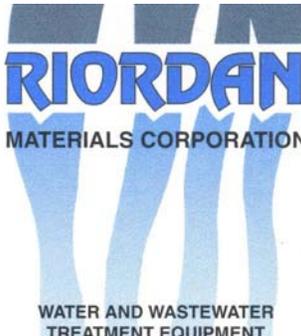
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EMAIL: riordan@riordanmat.com
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Pennsylvania Society of Professional Engineers

Attn: Jasen Book, E.I.T., LEED AP
50 North 5th Street, 5th Floor
Reading, PA 19601
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