WSPE eNews

A monthly publication from the Wisconsin Society of Professional Engineers

March 2017 Edition

Advertisers Wanted:
Help us offset the costs of producing this eNews by placing an advertisement here! If you are interested in advertising your company here, please contact Ed Rodden, WSPE Executive Director, at execdir@wspe.org or (414) 531-1129.
Join these supporting companies and education facilities with your sponsorship to support WSPE:

Gold

Silver

Bronze
In this Month's eNews:

1. WSPE President’s Message  
   By: Angela Hanz, P.E.

2. Project Management Seminar  
   By: Ed Rodden, WSPE Executive Director

3. Upcoming Spring 2017 Courses at MSOE  
   By: Andreana Moody, Program Manager, MSOE

4. Mathcounts Results 2017  
   By: Ed Rodden, WSPE Executive Director

5. Industry-University Partnership
Greetings Everyone,

This was a busy month for WSPE activities. The local chapter MathCounts and State MathCounts competition were held and we also celebrated National Engineers Week (E-week).

Thank you to all of the volunteers who helped make MathCounts a success and thank you to Acuity Insurance for their sponsorship of MathCounts. I would also like to recognize Ed Rodden, the
WSPE Executive Director, for all of his coordination and work he has done for MathCounts. This was a transition year for MathCounts after Norm’s retirement last year as MathCounts Coordinator. We cannot thank Norm enough for all of the work both him and his family have done for the competition over the years.

Locally, we recognized National Engineers Week with the SW Chapter WSPE joint dinner meeting with ASCE. The local chapter presented a scholarship award to Grace Przybyl of Belleville High School, the Engineer of the Year Award to John Brome, P.E., the Engineer of the Year in Industry Award to Andrew Graham, P.E., and the Teacher of the Year Award to ChiLoi Nguyen of Hamilton Middle School. We also enjoyed a continuing education presentation by Judge David Flanagan who spoke about Advising Engineer Witnesses in Preparation of the Deposition Process in Civil Trials.

At my workplace, we celebrated E-week with a variety of “pi” for lunch.

Don’t forget to send in your registration for the upcoming Project Management Course which will be held on Wednesday April 19 at the Milwaukee Marriott West in Waukesha, WI. Registration is limited to 60 attendees so please reserve your spot today! The seminar offers 8.0 PDHs. Chris Butler, P.E., the Central Region Director from the NSPE Board of Directors will be presenting a 1.0 PDH session on Engineering Ethics. I look forward to seeing you there!

2. Project Management Seminar
By: Ed Rodden II, WSPE Executive Director

Project Management Seminar – Wednesday April 19, 2017 (7:30a – 5p)

Register before April 1, 2017
The Wisconsin Society of Professional Engineers (WSPE) is putting on a one day project management overview course based on A Guide to the Project Management Body of Knowledge (PMBOK Guide), fifth edition. The event will consist of presentation and group activities. It will conclude with a board of directors meeting which all members are invited to attend. The event will occur held at the Marriott in Waukesha. Includes network sessions throughout the day, continental breakfast and a full lunch.

By attending you will receive 8.0 PDH, one being an engineering ethics and a hard copy of all PowerPoint slides. WSPE Member price is $250.00 per person. ACEC, ASME, ASCE, and IEEE, members have also been invited.

Electronic brochure where you can register via the links in the pdf and reserve your hotel room: [http://www.wspe.org/pj_seminar.pdf](http://www.wspe.org/pj_seminar.pdf)

3. Upcoming Spring 2017 Courses at MSOE

By: Andreana Moody, Program Manager, MSOE

For more information or questions please contact: gpe@msoe.edu (800) 321-6763

UPCOMING PROFESSIONAL EDUCATION COURSES

March 2017

Green Belt Certificate – March 20-23 and April 17-20, 2017 (Milwaukee, WI) **CEUs: 8**

One of the most popular business credentials today is the Green Belt certificate, the first step in earning your Black Belt. We are offering a discounted price of $3,396 from now through
Green Belt (GB) training is a two week class including a combination of Green Belt and Black Belt (BB) candidates. Candidates wishing to train to the Black Belt level are required to complete the Green Belt training before proceeding to Black Belt training. The GB training provides a solid foundation in Six Sigma methodologies along with reference to Lean tools in the Improve phase.

Training is action-oriented, using the model of Plan, Train, Apply and Review throughout the event and project work. Simulation exercises, experiential training, team projects and case studies give students a hands-on learning experience.

Navigating and Understanding Competing Views – March 21, 2017 (Milwaukee, WI) **CEUs: 0.4**

In all aspects of life, and especially in corporate life, there are triggers that push us into "fixed mindsets" that result in defensive and non-collaborative work environments. This session is designed to help identify and understand the sources of our competing views so that we can more effectively work collaboratively and productively with others.

*In this course you will learn to:*

- Understand sources of conflict and create strategies to reframe and leverage the conflict in a productive manner
- Create strategies to identify, appreciate and leverage competing views
- Use a "debate format," to promote the transfer of knowledge

UPCOMING PROFESSIONAL EDUCATION COURSES

April/May 2017

**Applied Statistics for Professionals** – April 19, 2017 (Milwaukee, WI) **PDHs: 7**

This class will provide participants with an overview of statistical concepts and techniques for analysis with a real-world emphasis, using software. The focus will be on tools that the participant can take back to their workplace and implement to help solve formerly unanswerable problems.

**Practical Application of Materials Science and Metallurgy** – April 25, 2017 (Milwaukee, WI) **PDHs: 7**

This course will review fundamental structure, processing, and property relationships in Materials Science and Metallurgy. Audience participation will be required as we will take a “hands-on” approach to understanding different materials.

A variety of materials testing approaches will be reviewed, to demonstrate how to quantitatively assess material structure and properties. Specific case studies will also be presented to highlight how...
Sigma Black Belt Certificate – May 1-4 and May 22-25, 2017 (Milwaukee, WI) CEUs: 8

One of the most sought-after business credentials today, the Six Sigma Black Belt certificate helps you ask the right questions and get the right answers. We offer you the discounted price of $3,425 from now through April 7, 2017.

Six Sigma is a strategic approach to implementing quality, process and business improvement through the use of statistical and other analytic tools. Our training program is an in-depth examination of these tools as applied to the Define, Measure, Analyze, Improve and Control (DMAIC) methodology; a customer-focused, fact and data-driven methodology that guides continuous improvement and operations excellence.

Visit [http://msoe.edu/gpecourses](http://msoe.edu/gpecourses) to learn more and register for any of the courses listed above.

---

4. Mathcounts Results 2017

By: Ed Rodden II, WSPE Executive Director

2017 WI MATHCOUNTS
March 4, 2017 – Acuity Insurance (Sheboygan, WI)

The 34th year the Wisconsin Society of Professional Engineers has been administering the event, which is when the National organization began the Competition Series in 1983. A BIG thank you to Norm Arendt, Ph.D & Darwin Behlke, P.E. who both put this program on the map when it first began. Many of the volunteers have been around nearly as long these two great past state coordinators.

This year we had 42 different schools and 144 mathletes compete. Being the first time in Sheboygan, WI at our title sponsor facility, Acuity Insurance it introduced new venue, location and staff to work with.

WSPE would like to thank all the volunteers that helped this year and Acuity staff and facility seemed overall well received with verbal feedback at the event. A couple surveys have been sent for volunteers and mathlete coaches, parents and guardians feedback. The results of these surveys will be used to help improve the program for next year.
There will be a conference call feedback later this month including all regional coordinators to see what suggestions they are hearing to increase attendance for 2018 in the event. WSPE hopes to offer special subsidies to the schools, coaches and mathletes in forms of reducing the registration fees, and hotel accommodation reduction.

Now for the results. Pictures are being processed as we speak but the details of which top teams, top individuals and who is advancing to the national event in Orlando, FL mid-May, 2017 representing Wisconsin.

Top Four Teams in rank order:
1. Velma Hamilton Middle School (Madison, WI)
2. Kromrey Middle School (Middleton, WI)
3. Eagle School (Madison, WI)
4. Glacier Creek Middle School (Cross Plains, WI)

Top Ten Individuals in rank order:
1. Joseph Cai, Velma Hamilton Middle School (Madison, WI)
2. William Jin, Eagle School (Middleton, WI)
3. Tim Li, Velma Hamilton Middle School (Madison, WI)
4. Akshay Joshi, Eagle School (Middleton, WI)
5. Frank Li, Velma Hamilton Middle School (Madison, WI)
6. Michael Yao, Jefferson Middle School (Madison, WI)
7. Jonah Guse, Kromrey Middle School (Middleton, WI)
8. Ethan Wang, Lake Shore Middle School (Mequon, WI)
9. Hansen Jin, Kromrey Middle School (Middleton, WI)
10. David Valdes, Saint Jude The Apostle School (Wauwatosa, WI)

The top 4 after the Countdown Round:
1. William Jin, Eagle School (Middleton, WI)
2. Joseph Cai, Velma Hamilton Middle School (Madison, WI)
3. Tim Li, Velma Hamilton Middle School (Madison, WI)
4. Ethan Wang, Lake Shore Middle School (Mequon, WI)

These four Mathletes above will make up the Wisconsin Team for National. They will be coached by Loi Nguyen from first place team Velma Hamilton Middle School (Madison, WI).
By: Rathindra DasGupta, Adjunct Professor, MSOE

Industry-University Partnership Matters!

The interaction between industry and academia is critical for education and training (for the next generation workforce), innovation, knowledge (technology) transfer, and entrepreneurship (spin-offs). After having been involved in industry-university partnerships for over twenty five years, I thought I would share what I had learned from/about facilitating collaboration between academia and industry. This paper is, therefore, the first of a series of articles on why and how industry-university partnerships matter.

WHY INDUSTRY-UNIVERSITY PARTNERSHIPS MATTER:

The benefits of industry-university collaboration (either through creation of a consortium and/or through sponsored research) to both university faculty and industry are well known.

For example, benefits to academia may include:

- Faculty/students can help demonstrate impact though implementation of work developed at the institution
- “New” funding streams for faculty who may otherwise be too dependent on funds from various federal agencies
- Potential internships/job prospects for students
- Both faculty and students have access to real world problems (thus, connecting theory with practice)

On the other hand, benefits to industry may include:

- Academia as a powerful engine for innovation and economic growth
- Opportunities for networking with other industry reps (especially in the presence of a consortium)
- Access to resources and facilities (undertake projects that cannot be done in-house)
- Access to students (potential recruits)

In the next article, I will discuss the barriers to industry-university collaborative efforts, and steps that can be taken to minimize/eliminate such barriers.

6. The Entrepreneur's Journey
By: Rathindra DasGupta, Adjunct Professor, MSOE
According to Wikipedia, an entrepreneur is traditionally defined as "a person who starts, organizes and manages any enterprise, especially a business, usually with considerable initiative and risk.” Numerous articles have been published citing how entrepreneurs and entrepreneurial thinking have the potential to drive social and economic change than ever before.

These days, many universities continue to play an important role in helping advance entrepreneurship by offering faculty and students an innovation ecosystem that nurtures innovation and entrepreneurship. Examples include the University of Michigan (http://cfe.umich.edu/), Stanford University (https://www.gsb.stanford.edu/faculty-researchcenters-initiatives/ces) and many others.

To help translate research from the academic lab to the market place, federal agencies (National Science Foundation, National Institute of Health, and others) too are contributing to the innovation ecosystem via the Innovation Corps Program (https://www.nsf.gov/pubs/2012/nsf12602/nsf12602.htm, https://sbir.cancer.gov/programseducation/icorps).

Having been involved in innovation and entrepreneurship programs/initiatives for many years, I want to share in this article (the first of a series of articles to follow) my thoughts on what an individual must possess to participate in (and to successfully complete) an entrepreneurship curriculum that is hands-on and immersive:

1. **BE A GOOD LISTENER**

2. **ACCEPT CONSTRUCTIVE CRITICISMS FROM INSTRUCTORS**

3. **HAVE THE MINDSET TO FOLLOW THROUGH**

4. **BE RESILIENT, PATIENT AND PERSISTENT**

5. **NOT BE AFRAID OF FAILURE (NOT RISK AVERSE)**

6. **BELIEVE IN EVIDENCE-BASED ENTREPRENEURSHIP**

7. **BE WILLING TO GET OUT OF THE BUILDING, AND INTERVIEW POTENTIAL CUSTOMERS**
9. BE WILLING TO PIVOT

10. MUST BE A TEAM PLAYER

7. Milton F. Lunch Ethics Contest 2017
By: NSPE Legal Department

Take the 2017 Milton F. Lunch Ethics Contest Challenge!

All current NSPE individual members through their NSPE state societies and NSPE chapters are invited to participate in the 2017 NSPE Milton F. Lunch Ethics Contest. Match your wits and knowledge of engineering ethics with experienced professional engineers and engineering students throughout the country.

New this year, the winning entry will receive a certificate, recognition in PE magazine, and an award of $1,000 to the author!

How to Participate

NSPE’s Board of Ethical Review is furnishing you with four different fact situations to choose from regarding the ethics of engineers. Contestants can choose any one out of the four situations and develop an essay, video, photo essay, poster, or PowerPoint presentation which could include embedded videos/sound, etc. to demonstrate their understanding of the facts and the NSPE Code of Ethics.

Contestants are asked to read the facts of the case, then develop a discussion and conclusion to respond to the included question(s). Contestants should also provide references, citing specific sections of the NSPE Code of Ethics for Engineers. Contestants may also want to check the NSPE Board of Ethical Review’s Web site for additional cases decided by the BER.

All entries must be received by Friday, April 28, 2017. E-mail or mail entries to:

2017 NSPE Milton F. Lunch Ethics Contest
NSPE Legal Department
8. Other Important Information

ARE YOU ACTIVE ON TWITTER?

If so, we encourage you to follow our new Twitter account @WISPE_Comm for information about WSPE and our upcoming events & conferences!

FREE 6-Month Trial Membership!

Interested in WSPE but not sure if you want to join? Try a 6-month FREE trial membership, courtesy of WSPE.

Click here: www.wspe.org/WI%206%20months%20Free%20Membership%20Application.pdf to download an application. Contact Ed Rodden, WSPE Executive Director, at ExecDir@wspe.org for details.

We Need Your News!

Is your chapter hosting an event? Did your chapter get some new members? Have you started your own business? Is your company taking on a really challenging project? If you said "yes"
To any one of these questions, or would like to share anything even remotely newsworthy with the rest of WSPE, let us know! We’d also like to include an article in the next eNews summarizing any recent changes or accomplishments to inform your fellow WSPE members.

Please contact Jordan Rasmussen, WSPE Communications Intern, at communications@wspe.org to share any news. We look forward to including your news in our monthly updates!

---

**WSPE Mission Statement**

WSPE is an organization of licensed Professional Engineers (PEs) and Engineering Interns/Engineers in Training (EIs/EITs). WSPE enhances the image of its members and their ability to ethically and professionally practice engineering through education, licensure advocacy, leadership training, multi-disciplinary networking, and outreach.

Copyright © 2017 Wisconsin Society of Professional Engineers, All rights reserved.