Lehigh, Northampton, Monroe, and Carbon Counties (Organized 1935)

Valley Engineer Newsletter

FEBRUARY-MARCH 2022

ACTIVITIES

April 26, 2022, Engineer's Week Banquet, Wood Dining Room in Iacocca Hall at Lehigh University

August 1-3, National NSPE PECON 2022 Sheraton Hotel in Philadelphia

September 23-24,2022, PSPE annual conference, Wilkes University, Wilkes Barre.



PENNSYLVANIA SOCIETY
OF
PROFESSIONAL ENGINEERS

LEHIGH VALLEY CHAPTER (ORGANIZED 1935)

CARBON, LEHIGH, MONROE, & NORTHAMPTON COUNTIES

MATHCOUNTS® 2022

The MATHCOUNTS team fielded by Springhouse Middle School and coached by Kevin Hallman ran away with five of the six individual prizes, and the team prize. This is not an unusual position for Coach Kevin Hallman or the Springhouse team. They have been Number 1 or Number 2 in Chapter MATHCOUNTS for many years.

- 1. Springhouse Middle School
- 2. Easton Area Middle School
- 3. Saucon Valley Middle School
- 4. Orefield Middle School (Team 1)
- 5. Orefield Middle School (Team 2)
- 6. The Swain School (Team 1)
- 7. Saint Thomas More School
- 8. Orefield Middle School
- 9. The Swain School (Team 2)
- 10. The Swain School (Team 3)

The competition was on-line, due to COVID issues. Seven area middle schools fielded 80 participants on ten teams. Statewide, over 1,400 students participated.

The four top participants from each Chapter were invited to the state-wide competition, held inperson on March 18-19 in the Harrisburg area.

The Lehigh Valley Chapter was represented by:

Eddy Y. Zhang and Coach Kevin Hallman from Springhouse Middle School. Eddy finished 7th in the competition and was awarded a Medallion for his achievement. Eddy also has the distinction of being one of very few sixth graders in the competition.

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Vidvath Neeraj and Coach Julie Hummel from Easton Area Middle School. Vidvath finished 19th in State.

Harshita Rajeshkumar Keerthi, Springhouse Middle School.

Lucas Y. Yang, Springhouse Middle School.

The State PSPE Column

Angelika Forndran, P.E.

Mark your calendars for 2022!

The National NSPE PECON 2022 will be in person August 1-3 at the Sheraton Hotel in Philadelphia. This is great opportunity to mingle with engineers from other states, understand the diversity of engineering issues across states and cross-state licensure issues for engineers working for companies and traveling across states. There will be numerous technical presentations for PDHs. Watch for registration information on the NSPE and PSPE websites.

The PSPE annual conference will be at Wilkes University September 23-24, 2022 with both inperson events for one day and PDH webinars held virtually similar to last year.

ENGINEER OF THE YEAR 2022

Peter O. Staffeld, Ph.D., P.E., F.NSPE



Peter Staffeld is a Teaching Professor of Chemical Engineering at Villanova University. He received a Bachelors of Science in Chemical Engineering at Michigan State University, then a Masters of Science and a Doctor of Philosophy in Chemical Engineering from the University of Pennsylvania.

Peter joined Mobil Oil Corporation's Central Research Laboratory in 1988 as a Staff Engineer, where he developed processes for upgrading very heavy oils into usable gasoline. He then moved to Mobil's Paulsboro Technical Center where he led a project to optimize refineries. After a few years in the Economics Planning group, he was promoted to Licensing Manager responsible for lubricant technology licensing for North America, Europe, the Middle East, and the Former Soviet Union. He was living in St. Petersburg, Russia in 2000 when Mobil merged with Exxon.

Rather than move to the new ExxonMobil headquarters, Peter accepted a position as Vice President of Polymer Dynamics, based in Allentown, PA. In 2008 he became a registered Professional Engineer and started Staffeld Engineering Services. He joined the Chemical Engineering faculty at Villanova University in 2009 as a Visiting Professor. At Villanova he founded the National Society of Professional Engineers (NSPE) student group and Link #299 of the Order of the Engineer. Since 2017 he has written questions for the Fundamentals of Engineering exam. He was named President of the Pennsylvania Engineering Foundation in 2021 and is expanding the scholarship program. He recently was promoted to full Teaching Professor at Villanova.

Peter has been active in the Upper Saucon Township community as a founding member of the Environmental Advisory Board and as an alternate for the Zoning Hearing Board. He was President of the Lehigh Valley Chapter of the Pennsylvania Society of Professional Engineers (PSPE) for two years, State Treasurer for PSPE for five years, and has served on several committees for the national NSPE organization. He was named a Fellow of NSPE in 2014. He and his wife Leslie are currently Co-Chairs of the Lehigh Valley Chapter of the American Wine Society.

As I hurtled through space, one thought kept crossing my mind - every part of this rocket was supplied by the lowest bidder.

-John Glenn

SCHOLARSHIP SPONSORS

A great way to be involved in the LVPSPE Chapter is to contribute to the **LVPSPE SCHOLARSHIP FUND**. Please Contact the Valley Engineer Editor to sponsor scholarships for the remainder of the calendar year.

If you would like to contribute <u>any amount</u> – please send your TAX-DEDUCTIBLE donation to PA ENGINEERING FUND. Donations should be mailed to:

PA Engineering Foundation % LVPSPE P.O. Box 195 Northampton, PA 18067

Please note "LVPSPE Scholarship Fund" on the comment line.

Or you may also contribute via the LVPSPE website http://www.lvpspe.org/Donations.

Scholarship application is at http://www.lvpspe.org/Scholarships. Any questions regarding scholarships can be directed to

Alex Dezubay, PE 610-597-2007 Scholarship@LVPSPE.org

PEF SCHOLARSHIPS

The Pennsylvania Engineering Foundation oversees the Pennsylvania MATHCOUNTS program and PEF Scholarships. The purpose is to help nurture future engineers.

2020 - 2021 LVPSPE SCHOLARSHIP DONORS

Graduate

American Society of Civil Engineers
Lehigh Valley ASCE, Bethlehem, Pennsylvania.
Lutron Electronics Co., Inc.
Coopersburg, PA
Victaulic Company
Easton, PA

Senior

FLSmidth, Inc. Bethlehem, PA

<u>Junior</u>

Barry Isett & Associates

Allentown, Phoenixville, Hazleton, Wilkes-Barre, Mechanicsburg, Wyomissing, Stroudsburg, PA

Mary Rooney/EnviroAce

Allentown, PA

The Pidcock Company

Allentown, PA

Alfred Gruenke, PE

Wescosville, PA

H.T. Lyons

Allentown, PA

Bridge Gap Engineering

Northampton, PA

Sophomore

Jeffrey Johnson, P.E., FLSmidth Inc Allentown, PA

Morgan Stanley

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Freshmen

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Allentown, PA

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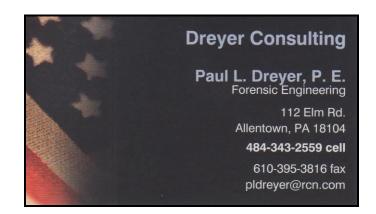
Contributors

Mike Basta, PE. F-NSPE William Erdman, PE Keystone Consulting Engineers Bethlehem, Wescosville, Kresgeville, PA Ray Szcuzucki PE









Patricia Peoples, CFP®, ChFC®, CLU® Wealth Management
Vice President
Financial Advisor

Toth Floor
Allentown, PA 18101
direct 610 398 6505
fax 610 395 0694
toll free 800 433 4200

NMLS # 1285326 www.morganstanley.fa.com patricia.peoples@morganstanley.com

Jeffrey Johnson, PE FLSmidth Inc.





Michael F. Basta, PE, F.NSPE

Dezubay Engineering Services



William Erdman, PE

Ray Szcuzucki, PE



♠ EnviroAce

Certified WBE

Mary Rooney, P.E. **Environmental Consultant**

2940 Fairfield Drive Allentown, PA 18103 Rooney@EnviroAce.com

610-437-0701 (fax) 610-437-0703

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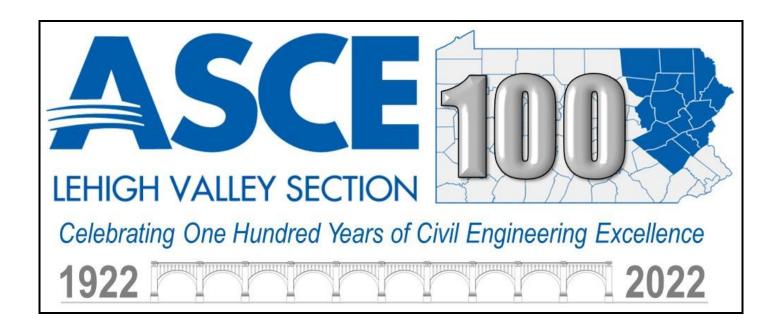
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Engineering is what we do at FLSmidth. As a world leader in providing equipment and services to the cement and minerals industries, our success begins with our engineers who plan and design the systems and equipment for which our customers rely.

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Internet Addresses

National Society of Professional Engineers www.NSPE.org

Pennsylvania Society of Professional Engineers

www.PSPE.org

Lehigh Valley Chapter - PSPE www.LVPSPE.org

2021 - 2022 State Officers

State officers

State Director – Michael Basta PE. F-NSPE <u>Directors@LVPSPE.org</u>

Alt State Director – Angelika Forndran, PE Directors@LVPSPE.org

VP Northeast:

Marleen Troy, PE, PhD

570-408-4615

Board of Direction Meetings

The monthly Board of Direction meetings are 6:00 PM on the second (2nd) Monday of each month. Open to all members; they are held via Zoom meetings in 2021 until further notice.

2021 - 2022 Chapter Officers

Chapter officers

President – Jeff Kutz, EIT President@LVPSPE.org

215-325-1303

Vice President – Alexa Rooney, EIT <u>VicePresident@LVPSPE.org</u> 610-774-6011

Treasurer – Ray Szczucki, PE

<u>Treasurer@LVPSE.org</u> 610-614-1245

Secretary – Chris Williams, PE, LEED AP Secretary@LVPSEP.org 610-398-0904

Past President – Al Dezubay, PE
PastPresident@LVPSPE.org 610-597-2007

Chapter Directors

Director - Mary Rooney, PE Directors@LVPSPE.org

Director - Frank Walsh, PE Directors@LVPSPE.org



Congratulations to all the Scholarship Award recipients.

You are about to enter a most noble profession, Engineering.

We are the past and the present, you are the future.

Alfred Gruenke PE

Young Engineer of the Year: Audrey Wood Karnatski



Audrey Wood Karnatski has been named the Pennsylvania Society of Professional Engineers – Lehigh Valley Chapter Young Engineer of the Year for 2022.

Audrey earned a Bachelor of Science in Environmental Engineering with a Minor in Geology from Wilkes University in 2018. During her time there she was actively involved in the Wilkes University chapter of the Society of Women Engineer's (SWE), serving as the Treasurer and President. She also held the Secretary position of the Engineering Activities Club. In both clubs she was a key role in coordinating fundraising and student outreach events. She continues her commitment to SWE and currently serves as the Lehigh Valley Section Secretary and Professional Liaison to the Collegiate SWE Chapter at her Alma Mater. Through these roles she provides mentorship and guidance to the Collegiate SWE students and keeps the Professional Section up to date on their activities and requests for mentorship.

Within one week of graduation, Audrey started working at Cowan Associates, Inc.,

Continued on page 13

an engineering consulting firm in Quakertown, PA offering services in the fields of Civil, Structural, Environmental, Land Development, Municipal Engineering as well as Surveying and Construction Management.

At Cowan Associates, Inc. she is involved with design, construction administration, construction inspections, flow monitoring and regulatory permit application projects. main responsibilities focus environmental/civil engineering, seeing a project through from the initial proposal, de-sign, permitting, construction specifications, and inspections, to final project closeout. She has obtained her Engineer in Training license and multiple technical certifications, including Certified Sewage Enforcement Officer and ACI Concrete Field Test Technician. Other professional society's she is involved in include Eastern PA Water Pollution Control Operators Association and Pennsylvania Water Environment Association.

In Audrey's spare time, she enjoys singing in her church choir and her own acoustic duo band as well as camping with her friends and family.

ON-LINE PRESENTATION BY
JOHN WANNER

On Wednesday, March 23, John Wanner CAE, President of Wanner Associates, presented a live webinar on state legislation that can impact the engineering community.

Wanner Associates is the lobbying firm which represents the PSPE in our state legislature. As such, he scrutinizes many bills introduced in the State House and Senate for possible impact to the professional engineering society

He was introduced by Michael Basta, P.E., F.NSPE, past PSPE President.

Three categories of bills before our state legislature that are of concern are:

STEM Licensing Infrastructure

PSPE's contribution to STEM (Science, Technology, Engineering, Math) is the annual MATHCOUNTS competition, which is financially supported via a grant from the PA Department of Education. John makes sure that funds are allocated and do not fall through the cracks of the legislative process. Also, PSPE sponsors a scholar-ship program, as well as individual chapters around the state.

John listed various bills that are presently in the legislative pipeline. He explained the purpose of these bills, and their impact on the engineering community.

It is fortunate that there is someone of John's caliber to scrutinize these bills since the actual language is a combination of bureaucratic and legalese verbiage.

The Pennsylvania licensing structure was inaugurated in 1945 and updated in 1979. There are periodic modify licensing, definitions, or procedures

Periodically there are bills that modify such procedures, definitions, or procedures. For example, should home inspectors be licensed? Or, if there is no specific design activity, is it still engineering? Another issue that arose is, should there be a separate license for structural engineers?

An ongoing issue is industry exemption. An industrial exemption covers unlicensed engineers who design products such as automobiles that are sold (or have the potential to be sold) outside the state where they are produced, as well as the equipment used to produce the product.

Continued on page 14

One of the dangers our profession faces is the continual call for eliminating licensing altogether. Fortunately, the movement is not widespread. It occasionally comes up in the Pennsylvania legislature, but John reassured us that the movement has not gained much of a foothold here.

Of particular interest is changes in infrastructure funding. Pennsylvania is getting billions from the federal government for infrastructure. This is in addition to the tax on gasoline. Taxing gasoline may be out of date; however, with the increasing number of hybrid and electrical vehicles and reduced gasoline usage due to increasing prices and the Coronavirua pandemic. State agencies and the legislature are trying to find alternative sources of funding. One option is to increase driver licensing fees or have such fees dependent on mileage. Another alternative is more bridge and road tolls.

Engineers tend to be insular, sometimes ignoring politics that may have a deleterious impact on our profession, and subsequently on the community. It's good for engineers to step outside our comfort zone and shown a glimpse of what it takes for us to be able to do what we do. John Wanner and PSPE work diligently to prevent the erosion of engineering standards, for which we thank him, and for this presentation.

MORE FOSSILS FROM THE DESERTS OF EGYPT

What one finds around the house when putting away Christmas decorations! After writing last year's article on fossiling in the desert of Egypt I found more fossils around the house.



Petrified whale poop?



More petrified wood



Close-up of petrified wood



Minutes for the February 7, 2022 BOARD OF DIRECTORS MEETING 6:00 pm at Bridge Gap Engineering Office

Attendees: Frank Walsh, Ray Sczucki, Jeff Kutz, Al Gruenke, Mary Rooney, Alexa Rooney,

and Chris Williams. Call to Order: **6:03**

Programs:

- Activities Alexa Rooney
 - February Alexa emailed John Wanner, waiting for reply. Mike will discuss with him as well. We'll invite some other organizations to solicit more attendees.
 - o February Could instead invite our members to online ASCE event February 18th.
 - March Alexa to reach out to grist mill contact again. Exploring other options for March as well.
 - Banquet date April 26th, Lehigh University, Wood Dining Room, speaker from Intel
 - o Al suggested reaching out to Steve Ressler or Eric Tappert about a future event.
- Newsletter Al Gruenke Jeff owes Al a report to issue the next newsletter.
- Angelika confirmed that Al received report from the state.

MATHCOUNTS:

MATHCOUNTS coordination – Online Competition – No update

Lehigh Valley EOY/YEOY & Scholarships

- Fundraising Frank Walsh
 - o \$8,800.00 pledged
 - \$7,350.00 received
 - o PPL has their own scholarship now, so may not receive support in the future.
 - Frank discussed several past contributors who have disappeared the last couple years. Suggested reaching out to any contacts we have at these companies.
- Scholarships Requests should go out next week, same schedule as last year. Jeff has someone updating contacts at all schools.
- EOY/YEOY Nominees are in order for both.
 - EOY is Peter Staffeld
 - YEOY is Audrey Kamatski
 - Awards presented at banquet on April 26th. Jeff will coordinate plaques for banquet.
 - Mary mentioned LVEC is hoping for LVPSPE to be a gold sponsor \$650 with eight seats.

Treasurer

- Treasurer Report Ray Szczucki
 - Typical monthly Wild Apricot fee through Afinipay. Received a 1099K form, odd charge through Cynergy Data for small fee, Ray will investigate.
 - Balances as of January 31st:
 - Checking \$1,669.99
 - Savings \$10,266.62

State Director – Angelika Forndran

• Ray summarized State Director's report received from Angelika. Report is attached to end of these minutes for reference.

Past President

• Past President Report - Al Dezubay - No report

Old Business/New Business

- Website update Jeff looking into other options for website redesign through Bridge Gap contacts.
- Jeff updated on social media progress.
- Next Board of Directors Meeting is March 14th.

Adjournment on motion by Frank, seconded by Mary at 6:42.

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Minutes for the March 14, 2022 BOARD OF DIRECTORS MEETING 6:00 pm at Bridge Gap Engineering Office

Attendees: Frank Walsh, Ray Sczucki, Jeff Kutz, Al Gruenke, Mary Rooney, Al Dezubay, Mike Basta, Angelika Forndran, Alexa Rooney, and Chris Williams.

Call to Order: 6:04

Programs:

- Activities Alexa Rooney
 - March John Wanner presentation, various groups invited. Mike and Alexa have been coordinating. Need to send out invite for 3/23 at 5:30pm. Will send announcement with link to presentation.
 - April 26th Banquet Lehigh University, Wood Dining Room, speaker from Intel. PSPE-LV will purchase gold sponsorship. Eight seats (\$650), four for recipients/guest, four for officers. Jeff will coordinate plaques.
- Newsletter Al Gruenke Jeff will provide a report to issue the next newsletter.

MATHCOUNTS:

• MATHCOUNTS coordination - Online Competition - No update

Lehigh Valley EOY/YEOY & Scholarships

- Fundraising Frank Walsh
 - \$10,000.00 pledged
 - \$9,100.00 received
 - Frank discussed some past contributors who have disappeared the last couple years.
- Scholarships Applications were due on Sunday 3/13. Only received 10 applications. Jeff will reach back out to guidance counselors extending the deadline to end of week. Will also reach out to confirm information received.

Treasurer

- Treasurer Report Ray Szczucki
 - Reviewed scholarship donation checks.
 - Typical monthly Wild Apricot fee through Afinipay on 22nd.
 - Balances as of January 31st:
 - Checking \$1,604.99
 - Savings \$13,266.71

State Director – Angelika Forndran

Angelika discussed items to be included in upcoming newsletter.

Past President

Past President Report – Al Dezubay – No report

Old Business/New Business

- Website update No action at this time.
- Jeff has been posting scholarships, EOY/YEOY.

- Next Board of Directors Meeting is April 11th.
- Al Dezubay will introduce John Wanner if Jeff is unable to attend 3/23 event.
- Jeff discussed holding May banquet. Leaning towards holding scholarship event inperson. Unsure about indoors/outdoors. Will need to start planning event details soon.

Adjournment on motion by Al D., seconded by Mary at 6:48.