

# Polymer Valley News

**The Newsletter of the Akron Section of the Society of Plastics Engineers**  
*Our 57<sup>th</sup> Year of Education and Service to the Plastics Industry*

## Newsletter Contents

Meeting Announcement	1
President's Message	2
Meeting Abstract	3
Speaker Biography	3
Meeting Location Map	4
Councilor's Corner	5
Advertiser Index	6
Technical Questions on Plastics	6
Akron SPE Past Presidents	6
Join the Board	7
Vinyltec 2015 information	8
History of PVC in Akron	9
Goals for Akron Section	11
2015-2016 Program	12
Akron Section Board Members	12
SPE Educational Foundation	13
Who Can Help You at SPE	14
Member Benefits Guide	16
Insertion Order form – 2015/16	18
SPE Membership Application	19

## Technical Meeting

**Monday, September 14, 2015**  
**5:30 p.m.**

**Hilton Inn**  
**3180 West Market Street**  
**Akron, Ohio 44333**

# BRIC

BIOMIMICRY RESEARCH AND INNOVATION CENTER

## Costs, Schedules, Reservations

Member and/or guest	\$25
Retired	\$20
Student	\$5
New Member - first meeting	Free

Social / Networking / Bar	5:30 p.m.
Dinner	6:00 p.m.
Program	after dinner - 6:45 p.m.

Reservations must be in by noon on Friday, Sep. 11 and can be made to Bob Wegelin at [robert.wegelin@att.net](mailto:robert.wegelin@att.net) or 330-414-1498

Please be sure to include the company affiliation of each attendee including dietary restrictions.

## Leveraging 3.8 Billion Years of Innovation

Emily Kennedy - Biomimicry Fellow  
University of Akron

The  
University  
of Akron



See page 3 for  
presentation abstract and  
Ms. Kennedy's biography

**Coming Up:**

➤ October 13-15 –  
Vinyltec 2015

Sep. 2015, Page 1



# President's Message

Akron Section SPE Members:

The Board of Directors of the Akron Section and I welcome you to our 2015-2016 professional activities. With the support of Rik Keeley from the Cleveland chapter, we have planned a full program of technical and social meetings for our enlightenment and enjoyment.

We have a great program for our monthly Akron and Cleveland Section members. All meetings will be held jointly with the Cleveland Section except for our separate Award Nights. You will find program details in the pocket calendar sent under separate cover. Note that meetings will be held in the Akron Fairlawn Hilton on West Market Street on the second Monday of each month at 5:30 p.m. unless otherwise indicated.

Some highlights of our coming year:

We start the year on September 14 with an exciting presentation on a new field of study called Biomimicry. We have one of the first three doctoral fellowship students from the University of Akron describing this exciting new field of science that studies how we can learn from the experts in Nature to solve problems.

Starting on Tuesday, October 13, the Akron Section will partner with the Vinyl Plastics Division for the first time to host Vinyltec 2015. Tuesday's workshop will be followed with two days of presentations. You will hear the latest in vinyl materials, applications, processing, design and global marketing.

On January 11 we will host a joint meeting with ACCESS (a consortium of scientific and engineering societies in the Akron area) with a presentation by a former astronaut from NASA on extreme engineering and our plans for Mars.

Our first scheduled meeting is coming up quickly - please call or email Bob Wegelin right away at 330-414-1498 or at [robert.wegelin@att.net](mailto:robert.wegelin@att.net)

If you would like to participate in the leadership and decision making, please join us at the board meetings. This year, board meetings are generally scheduled the first Monday of the month at 5:30 p.m. in the conference room of the UA Polymer Engineering Academic Center. Please contact me for details.

I'm looking forward to meeting you at an upcoming Akron SPE event.

*Keith Pelfrey,*  
*President 2015-2016 Akron Section of SPE*  
330-255-6557 [PelfreyK@GOJO.com](mailto:PelfreyK@GOJO.com)

## Leveraging 3.8 Billion Years of Innovation

Life first appeared on our planet 3.8 billion years ago. Since then, evolutionary processes have been vetting survival strategies. Failures are fossils and successes are represented by the 10+ million species inhabiting Earth today. In essence, nature is a huge pool of free R&D.

Biomimicry – sustainable innovation through emulation of biological forms, processes, patterns, and systems – is based on this idea. Think Velcro, a non-toxic, glue-less adhesive inspired by how burrs stick to animal fur. Emily Kennedy, representing the first cohort of Biomimicry Fellows at the University of Akron, will share how some of nature's best ideas have been repurposed to solve human challenges, and how Northeast Ohio is rapidly becoming a hub for biomimetic innovation thanks in large part to the efforts of Great Lakes Biomimicry Collaborative.

### Speaker Biography

Emily Kennedy - Biomimicry Fellow  
University of Akron

Emily has a BA in International Relations (Minor: Environmental Studies) from Colgate University. She is currently pursuing a PhD in Integrated Biosciences at the University of Akron as a member of the university's first cohort of Biomimicry Fellows.

Emily's graduate studies are sponsored by GOJO, Industries, Inc., and she spends two days a week embedded in GOJO's R&D department supporting sustainable product innovation inspired by nature. She's been an active contributor on numerous innovation projects including development of energy-efficient soap and sanitizer dispensing systems and topical treatments for use in long term care settings. For her dissertation, she is generating and testing theory about best practices for biomimetic innovation; with a particular focus on what works in business contexts. Emily believes a procedural template will channel the biomimetic innovation process in a manner that boosts outcome value.



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## Directions to Akron Hilton, 3180 West Market Street, Akron, Ohio 44333

From Cleveland Hopkins Airport

Take 480 East to I-77 South. Exit at #138 to Fairlawn. Turn right on Ghent Rd. Follow south for two miles. The Hilton is at the intersection of West Market Street (Rt. 18) and Ghent Road. Turn Right on West Market Street. Hotel is located on the left.

Driving South on I-77

Exit at #138 to Fairlawn. Turn right on Ghent Rd. Follow south for two miles. The Hilton is at the intersection of West Market Street (Rt. 18) and Ghent Road. Turn Right on West Market Street. Hotel is located on the left.

Driving North on I-77 (From Akron/Canton Airport)

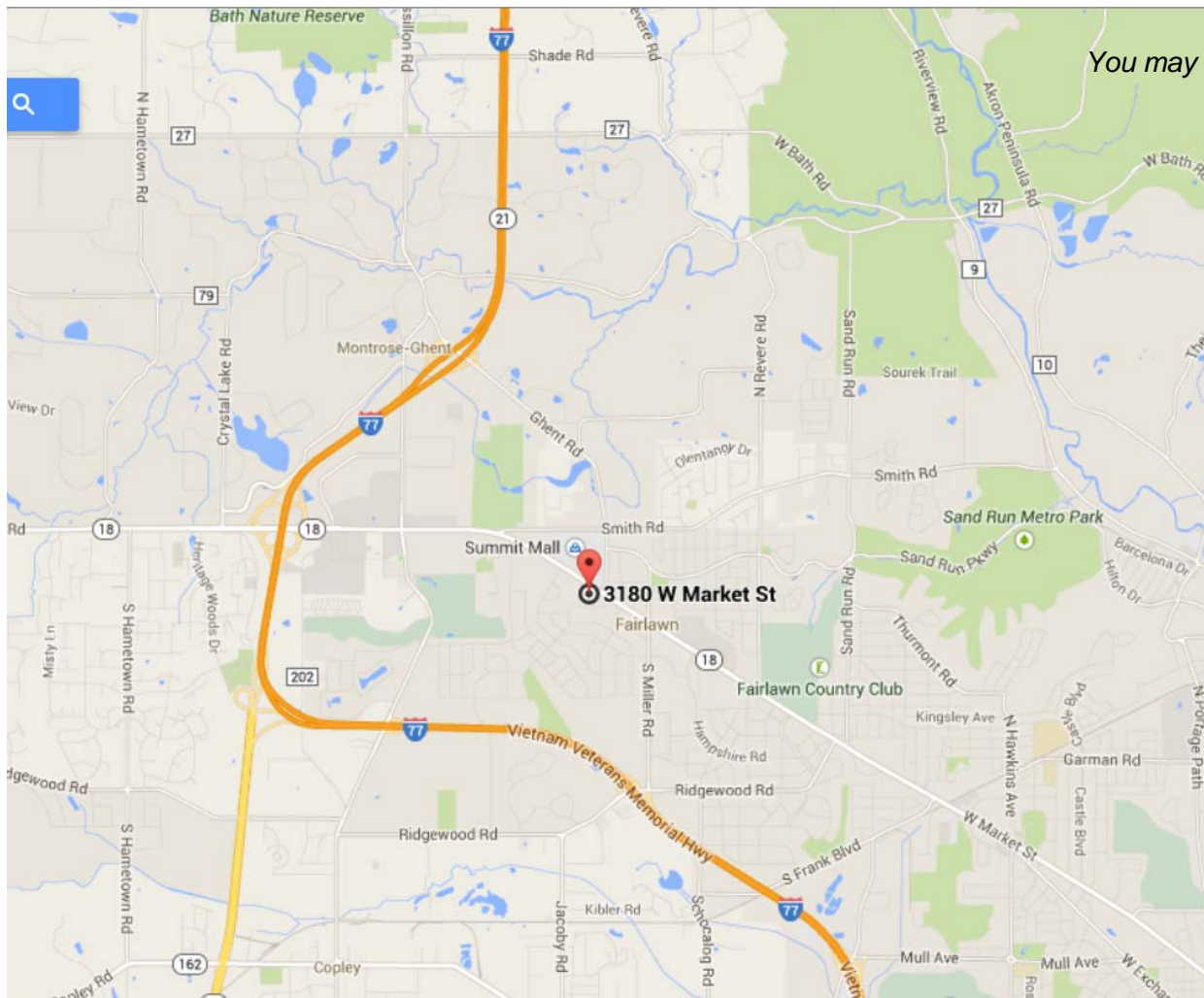
Exit at #133 – Ridgewood/Miller Rd. Go straight through the exit for approximately 2 miles. Turn left on Market Street (2 blocks). The Hotel is located on the left

Driving North or South on I-71

Take Route 18 – Medina Exit #218. Drive east on route 18 approximately 10 miles. The Hilton will be located on the right side opposite the Summit Mall

Ohio Turnpike

Take the Cleveland/Akron I-77 Exit #173 off the Ohio Turnpike. Take I-77 south to exit #138 to Fairlawn. Turn right on Ghent Rd. Follow south for two miles. The Hilton is at the intersection of West Market Street (Rt. 18) and Ghent Road. Turn Right on West Market Street. Hotel is located on the left.



You may zoom in



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## Councilor's Corner

Councilor Update: SPE Councilors meeting at Antec

Global membership growth continues to be a major concern and focus moving forward with special attention on increasing Student Chapter membership and involvement.

Russell Broome is actively visiting sections and Universities around the country to help grow Student Chapter activity.

New Executive Committee members were voted on and confirmed.

Discussion: There was a break-out session to brainstorm “how we would like SPE structured as far as Executive Committee and Councilors”

- Reducing the size of the EC is being considered
- Reducing the number of councilors is being considered – having regional councilors versus every section.

Bylaws were reviewed and updated.

## Advertiser Index

Akron Polymer Training Center	9
David Industrial Sales	3
Dover Chemical	7
Harwick Standard	5
Polysort	7
Struktol	3

Picture your ad here .....

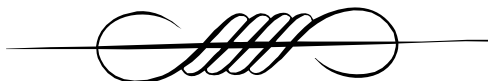
And also on our updated web site:  
[www.akronspe.org](http://www.akronspe.org)

## Technical Assistance Initiated On Akron SPE Web Site

*Do you have a technical question on plastics, polymers, rubbers, etc. Our web site now has a place where you can detail your question and the Akron SPE Board will use their collective knowledge and resources to answer your questions. Check it out at <http://akronspe.org/contact/>. If you post a question we will post it in the following newsletter along with the answer.*

## Akron Section SPE Past Presidents

*57 years of  
excellence*



1959-1960	Donald F. Siddall	1987-1988	Judith A. Fallon
1960-1961	Milan Krajcik	1988-1989	William E. Tosko
1961-1962	Foster J. Young	1989-1990	Robert C. Wegelin
1962-1963	Dickson L. Stoker, III	1990-1991	Geraldine R. Stromquist
1963-1964	Edward L. Hillier	1991-1992	Spencer Kreiser
1964-1965	John R. Russell	1992-1993	Robert C. Wegelin
1965-1966	John R. Russell	1993-1994	Anthony F. Dean, Jr.
1966-1967	Clyde H. Jones	1994-1995	Wayne Decamp
1967-1968	Alan Corry, Jr.	1995-1996	Melanie Stewart
1968-1969	Bernard M. Saffian	1996-1997	Kevin Hershfield
1969-1970	Harold R. Schick	1997-1998	David Schultz
1970-1971	Robert G. Hills	1998-1999	John Raab
1971-1972	John J. Satterfield	1999-2000	Gary Taylor
1972-1973	Alexis M. Gross	2000-2001	Kevin Malpass
1973-1974	Francis J. Maurer	2001-2002	Kenneth L. Sharp
1974-1975	Leverett A. Anderson, Jr.	2002-2003	Joseph E. Pfeiffer
1975-1976	Robert M. Hershey	2003-2004	Robert C. Wegelin
1976-1977	Richard L. Fleshman	2004-2005	Joseph Mattingly
1977-1978	David Curtis	2005-2006	Lloyd A. Goettler
1978-1979	John A. Zelek, Jr.	2006-2007	John Woodside
1979-1980	Gerald W. Whitnoble	2007-2008	Vivian Malpass
1980-1981	Kathleen N. Bechter	2008-2009	Joseph Mattingly
1981-1982	Victor E. Giuffrida	2009-2010	David A. Katz
1982-1983	James Steiner	2010-2011	Lloyd A. Goettler
1983-1984	Robert G. Hills	2011-2012	David Schultz
1984-1985	Anthony F. Dean, Jr.	2012-2013	Kevin Malpass
1985-1986	Gene Buser	2013-2014	Dan Jones
1986-1987	Harry J. Barth	2014-2015	Vivian Malpass
		2015-2016	Keith Pelfrey





**The Akron Section is in  
need of New Board Member.**

**Please consider becoming a  
Board Member  
to help support your Section.**

**Contact anyone currently  
on the board (see page 12)**

**if you are interested.  
Thank You!**

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Phone: 330-243-6158; Fax 330-365-3929

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Visit  
<https://www.etches.com/ehome/122014>

**Personal Registration:** Submit form or copy for EACH person registering. Mailed advance registration must include full payment and be postmarked by September 25, 2015.

	Before Sept. 25	After Sept. 25
Vinyltec Pre-Conference PVC Compounding Workshop & FULL Conference - October 13-15		
Member	\$700.00	\$775.00
Nonmember *	809.00	884.00
Vinyltec Conference - October 14-15		
Member	\$500.00	\$575.00
Nonmember *	609.00	684.00
Vinyltec Pre-Conference PVC Compounding Workshop ONLY - October 13		
Member	\$250.00	\$325.00
Nonmember *	359.00	434.00

*Lunch will be provided for all at Tuesday Workshop*

**Emeritus/Student**

\$225 for Pre-Conf. Workshop & Full Conference  
\$150 for Full Conference Only  
\$75 for Pre-Conference Workshop Only

**Speaker/Moderator**

No charge on day of presentation  
\$150 for remainder of Conference

\*Non-members registration fee includes one year membership dues

**Tabletop or Sponsorship Reservations:**

These MUST include full payment and be postmarked or received online by September 25, 2015. Sponsors are appreciated and will be well recognized.

You can register at

<https://www.etches.com/ehome/122014>  
or contact Sue - [swojnicki@4spe.org](mailto:swojnicki@4spe.org)  
203-740-5420  
or Kevin - [kevin.malpass@diebold.com](mailto:kevin.malpass@diebold.com)  
330-490-4743

Tabletop Exhibitor - 30 available \$1,000  
Tabletop for Full Conference includes 1 person to Vinyltec Conference and Lunch  
Additional Conference registrations are \$200 each

Platinum Sponsorship - 2 available \$6,500  
Includes evening reception/cocktails, table, includes additional signage and recognition Tabletop exhibit  
\*\* Free Advertising  
Akron SPE Newsletter and web site\*\*

Gold Sponsorship - 2 available \$2,500  
Lunch Sponsorship on Wednesday, 10-14 includes  
Lunch Sponsorship on Thursday 10-15 Tabletop exhibit  
Includes signage on each table  
where the Luncheon is held plus additional signage and recognition  
\*\* Free Advertising  
Akron SPE Newsletter and web site \*\*

Silver Sponsorship - 2 available \$1,500  
Food Break on Wednesday, 10-14 includes  
Food Break on Thursday 10-15 Tabletop exhibit  
Includes signage on each  
Nutrition Center (2 total)  
plus additional signage and recognition  
\*\* Free Advertising  
Akron SPE Newsletter and web site \*\*

Bronze Sponsorship - 1 available \$500  
Includes signage & recognition for  
Pre-Conference Workshop ONLY Tuesday, 10/13

Many sponsorships have already been assigned – a few are still available.



The Akron Section of the Society of Plastics Engineers, along with the Vinyl Plastics Division of the SPE, will be hosting a conference this fall that highlights a most ubiquitous polymeric material. This conference will be held at the Hilton hotel in Fairlawn on October 13-15, 2015. The subject of this conference will be *Vinyl*, more commonly known as PVC. This material was front and center in Akron, Ohio in 1926 with the advent of *Plasticized or Flexible PVC* by B.F. Goodrich's, Dr. Waldo Semon, who at that time was in the process of pioneering an industry.

The conference has been titled **"Enabling Technologies for the Future of the PVC Industry"** which includes a Pre-Conference Program on **"PVC Compounding Technology and Materials"** and will be presented by the Vinyl Plastics Division.

We are excited to provide a short history of how this great industry has morphed over the last many years, and how pivotal Akron was during this development with the aid of Dr. Waldo Semon, and the B.F. Goodrich Company.

It all started in 1870, on the soil here in Akron, Ohio when Dr. Benjamin Franklin Goodrich founded the B.F. Goodrich Company. Shortly thereafter, an engineer from the Northwest Territory, Dr. Waldo Semon, was highly instrumental in jump-starting the vinyl industry. Dr. Waldo Semon, known as "A Man of Ideas" is credited as the inventor of Plasticized Polyvinyl Chloride, even though PVC had been discovered in Europe at a much earlier date. Dr. Semon was able to bring a practical nature to the use of PVC and developed the cotton covered fire hose, and later, around 1926, the waterproof rain coat and PVC coated umbrella. Dr. Semon informed that even though scientists had been studying vinyl polymers for more than 50 years, no commercial use had ever been developed for these compounds, because process and handling was of the utmost importance. He informed in a historical facts book that "he was much happier when he could see practical results of his labor". Innovation, according to Waldo Semon, "is not just one thing from one person. It is not just research. It is not just development. It is not just marketability. It is a combination of all these things and it's a dedicated group of people all contributing to an idea."

During 1930-1970's, the B.F. Goodrich Company continued on with a reduced interest in PVC. They instead focused on their tire expertise during the big war periods (WWI & WWII), which Dr. Semon also played a large role in. It was not until the late 60's and early 70's that the focus again shifted to vinyl. The early markets found vinyl being used in electrical insulation, flooring tiles, garden hose, draperies and luggage. At that time, all other tire companies located in Akron had limited involvement in the PVC market. This included Goodyear, which in 1968 promoted the "instant do it yourself floor" and Neothane roofing, that supplemented their flooring business. In addition, Goodyear had a full line of household products including vinyl garden hoses, shower curtains, garment bags and rain coats made of Pliofilm. They also promoted their Pliotuf line of nitrile PVC products, all supplied from vinyl from their Niagara Falls, NY plant. In the 1970's and 1980's, General Tire jumped in with both feet and augmented their tire business as GenCorp and developed their business dealing in flooring and wall covering, which was all supported from their own vinyl plant in Niagara Falls, NY. Firestone also promoted their own offerings in the 1990's, with their Building Products Company, that marketed PVC roofing membrane and vinyl monofilament.

It is easy to understand that all the tire factions jumped on the band wagon in those early days and found their own niche market so they too could be listed as experts in this new polymer. It is surprising to note that for the most part, B. F. Goodrich, who started this fray, ended up being the company with the most longevity in the PVC business.

In the late 1980's, B.F Goodrich went into a joint venture with Uniroyal Tire that would leave PVC, specialty chemicals, and aerospace to expand their own horizons. Once again, B.F. Goodrich continued further development of compounds and processes and jumped into action during the late 80's and developed improved PVC compounds for the pipe, siding, and floor covering markets.

In 1993, after a wild run at these booming markets, Geon spun off from B.F. Goodrich and became the 3<sup>rd</sup> largest PVC resin supplier in North America. Today, Geon Performance Materials is owned and operated by PolyOne, after a merger between Geon and M.A Hanna in 2000. They are headquartered in Avon Lake, Ohio. Shortly after PolyOne purchased Geon, the resin-producing portion of their business was spun off.

The PVC industry owes a great debt of gratitude to the man, Dr. Waldo Semon, who filed for US PVC Patent #1,929,453, and who stated he, "at his heart - an engineer interested in science" was ultimately nicknamed the "man who wrapped the world in Vinyl".

David R. Schultz, Technical Director  
Harwick Standard Distribution Corporation  
Co-Chair – Vinyltec 2015 – Akron, Ohio

### Vinyltec 2015 sponsor preview



## Goals for Akron Section SPE for 2015/2016

- Work closely with the Cleveland Section to promote attendance at Joint Section meetings and develop a diversified Program for 2015-16
- Increase involvement with U Akron Student Chapter to attend Section Meetings and functions and achieve better use of our website, Linked In and Face Book
- Give better recognition to new members
- Increase Section membership by at least 1% by better promotion of Section value
- Work closely with the Vinyl Plastics Division to run a very successful Vinyltec TOPCON in October 2015
- Continue and expand on joint Society meetings and activities, such as ACCESS, ACS and others
- Continue our recruitment efforts to add new Board members

**The Akron Polymer Training Center (APTC)**  
at The University of Akron provides short courses  
for the plastics, rubber, medical, corrosion,  
and adhesives and coatings industries.



### APTC plastics courses include:

- Understanding Plastic Material Properties in Analyzing and Preventing Product Failures
- Making Properties and Profits: Twin Screw Extrusion Seminar
- Complete Injection Molding
- Polymer Compounding, Formulating and Testing of Plastics, Rubber, Adhesives and Coatings
- Rubber and Plastics Failure Analysis – Physical and Chemical Analysis Techniques
- Plastic Material Selection and Testing
- Plastic Part Failure Analysis
- Chemistry and Technology of Polymeric Materials used in Medical Devices
- Validating Medical Molding Processes and Parts
- Color Theory and Applications

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Visit [uakron.edu/aptc](http://uakron.edu/aptc) for a complete list of APTC courses.

Customized training programs are also available. Contact APTC at 330-972-8303 or [lbettinger@uakron.edu](mailto:lbettinger@uakron.edu)



# Programs for 2015 / 2016

Sept. 14	<b>University of Akron</b> Biomimicry - Leveraging 3.8 Billion Years of Innovation -- <i>Hilton Fairlawn – Akron*</i>	Jan. 11	<b>NASA</b> To Mars and Back – Extreme Eng. -- <i>Hilton Fairlawn – Joint with ACCESS*</i>
Oct. 12	<b>SIPA of Italy</b> Extreme Syncro, The World's First Injection-Compression-Stretch-Blow Molding (ICSBM) System -- <i>Hilton Fairlawn – Akron*</i>	Feb. 8	<b>RTP</b> VLF – Very Long Fiber – Metal to Plastic Replacement -- <i>Hilton Fairlawn – Cleveland*</i>
Oct. 13-15	<b>Vinyltec TOPCON</b> -- <i>Hilton Fairlawn – Akron*</i>	Mar. 14	<b>Case Western Reserve Univ., Tour</b> Solar Power -- <i>Cleveland*</i>
Nov. 9	<b>Baumont Technologies</b> True Melt Flow of Polymers -- <i>Hilton Fairlawn – Cleveland*</i>	Apr. 11	<b>Industry / Teacher Collaboration</b> SPE / University of Akron What do Polymer Engineers Do? How Do We Get the Word Out to Students -- <i>Hilton Fairlawn – Akron*</i>
Dec. 7	<b>Holiday Celebration</b> SPE – History and Plans for the Future -- <i>Taverne of Richfield – Joint*</i>	May 9	<b>Akron Section Awards Night</b> -- <i>Hilton Fairlawn – Akron</i>

*Meetings are joint with Cleveland  
Section with host section denoted by \**

## Akron Section Board of Directors

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Newsletter Editor



# Akron Section Society of Plastics Engineers Educational Foundation



1-16

The Akron Society of Plastics Engineers Educational Foundation operates exclusively for the benefit of and to carry out the purposes of the Akron Section of the Society of Plastics Engineers, which is to promote scientific and engineering knowledge relating to plastics by making educational scholarship grants to deserving students in the field of plastics engineering and related subjects. The Organization is supported primarily by contributions from the Akron Society of Plastics Engineers, the Society's individual members and corporations like yours affiliated with the polymer industry.

Since the inception in 1988, the Akron Society of Plastics Engineers Educational Foundation has grown to its current position through the hard work of many volunteers and the generosity of the local business community. Over the twenty-seven years that the foundation has been in existence, it has provided scholarships to over 250 young men and women totaling in excess of \$320,000 to assist them in furthering their careers in the polymer industry.

Our goal is to continue to grow the assets of the Foundation in order to increase the number of scholarships awarded, as well as the size of the awards, and to do so in perpetuity. In doing this, we hope to be able to contribute to the supply of well-trained individuals to support the growth of the polymer industry in the Northeast Ohio area today and well into the future.

When the Foundation began its fund raising activities in 1988, we offered those companies who contributed \$30,000 a scholarship in their name. To date we have five named scholarships, Newell/Rubbermaid, Goodyear, Ken Sharp Memorial and Jim Steiner Memorial scholarships. We are asking your company to help with the growth of well-trained individuals in the local polymer industry. Please print this page, fill out the information and mail it to Bob Wegelin, 13206 Kaufman Ave. NW Hartville, OH 44632.

## Akron SPE Scholarship Donation Commitment

- ☐ \$30,000 lump sum. \_\_\_\_\_
- ☐ \$10,000/yr. next 3yrs. \_\_\_\_\_
- ☐ \$5,000/yr. next 6 yrs. \_\_\_\_\_
- ☐ Other: \_\_\_\_\_

Company name: \_\_\_\_\_

Contact person: \_\_\_\_\_

Ph. # or email: \_\_\_\_\_

Our named scholarship donors are recognized at the annual Awards Night of the Akron Society of Plastics Engineers. We invite you to present your tax deductible donation at our Awards Night, which is scheduled on May 9, 2016.

We are looking forward to your support of this very worthwhile cause by your fine company. Please contact me at (330) 414-1498 with any questions. Thank you for your consideration.

Sincerely,  
*Bob Wegelin, Foundation Chair*  
*Akron Section Society of Plastics Engineers, Educational Foundation*





## Who Can Help You Society of Plastics Engineers

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Dues Renewals and New Members	Customer Relations	+1 203.775.0471	<a href="mailto:customerrelations@4spe.org">customerrelations@4spe.org</a>
Employment Advertising	+1 888.491.8833 At prompt please press 4. The extension is 1063		<a href="mailto:customerservice+64639@support.boxwoodtech.com">customerservice+64639@support.boxwoodtech.com</a>
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Pinnacle Award	Kathy Schacht	+1 203.740.5430	<a href="mailto:kschacht@4spe.org">kschacht@4spe.org</a>
<i>Plastics Engineering</i> magazine advertising	Roland Espinosa	+1 201.748.6819	<a href="mailto:respinosa@wiley.com">respinosa@wiley.com</a>



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SPE Foundation / Scholarships & Grants	Gene Havel	+1 203.740.5457	<a href="mailto:ghavel@4spe.org">ghavel@4spe.org</a>
SPE Industry Resource Guide		+1 800.816.6710	<a href="mailto:spe@multiview.com">spe@multiview.com</a>
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Topical Conference Planning	Sue Wojnicki	+1 203.740.5420	<a href="mailto:swojnicki@4spe.org">swojnicki@4spe.org</a>
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Event Registrations	Customer Relations	+1 203.740.5403	<a href="mailto:customerrelations@4spe.org">customerrelations@4spe.org</a>
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# SPE MEMBER BENEFITS GUIDE



FREE TO MEMBERS

SAVINGS TO MEMBERS

BENEFIT		DESCRIPTION	WEBSITE LINK
NETWORKING	Business Networking Resources	Connect to industry experts	<a href="http://www.4spe.org/cc">www.4spe.org/cc</a>
	Local Section Affiliation	Network with members locally in over 75 countries	<a href="http://www.4spe.org/communities/sections">www.4spe.org/communities/sections</a>
	Online Membership Directory	Unlimited access provides the link to fellow members	<a href="http://www.4spe.org/membercenter">www.4spe.org/membercenter</a>
	Technical Affiliation	24 Divisions represent major industry specialties	<a href="http://www.4spe.org/communities/divisions">www.4spe.org/communities/divisions</a>
MEDIA	Newsletters	News & events about specific local & technical affiliations	<a href="http://www.4spe.org/communities/newsletters">www.4spe.org/communities/newsletters</a>
	<i>Plastics Engineering (PE)</i>	The official monthly publication of SPE	<a href="http://www.4spe.org/pub">www.4spe.org/pub</a>
	SPE Online	Your 24/7 source for Society information	<a href="http://www.4spe.org">www.4spe.org</a>
	Tech Focus	Monthly electronic newsletter offering society & industry news	<a href="http://www.4spe.org/membercenter">www.4spe.org/membercenter</a>
TECHNICAL	Online Technical Library	Searchable database of technical articles & conference papers	<a href="http://www.4spe.org/membercenter">www.4spe.org/membercenter</a>
	Message Forums	Online question & answer forum	<a href="http://www.askpip.com">www.askpip.com</a>
	Special Interest Groups	Emerging areas not currently covered by technical Divisions	<a href="http://www.4spe.org/communities/divisions/#sig">www.4spe.org/communities/divisions/#sig</a>
	SPE Journals	Read abstracts from our three technical journals	<a href="http://www.4spe.org/pub/journal">www.4spe.org/pub/journal</a>
CAREER	American Management Association	Through a partner alliance, access AMA's educational resources	<a href="http://www.4spe.org/membercenter">www.4spe.org/membercenter</a>
	Awards	Outstanding contributions recognized	<a href="http://www.4spe.org/awards">www.4spe.org/awards</a>
	Leadership Development	The opportunity to improve professionally & personally	<a href="http://www.4spe.org/communities/leadership">www.4spe.org/communities/leadership</a>
	Online Career Development	Career enrichment, job openings & resume database	<a href="http://www.4spe.org/membercenter">www.4spe.org/membercenter</a>
	Professional Recognition	Distinguished grades of membership recognize accomplishments	<a href="http://www.4spe.org/membercenter">www.4spe.org/membercenter</a>
	Scholarships & Grants	Awarded by The SPE Foundation	<a href="http://www.4spe.org/foundation">www.4spe.org/foundation</a>
	Student Benefits	Over 100 Student Chapters in nine countries	<a href="http://www.4spe.org/membercenter">www.4spe.org/membercenter</a>
Unemployment Services	Benefits for the unemployed member	<a href="http://www.4spe.org/membercenter">www.4spe.org/membercenter</a>	
BENEFIT		DESCRIPTION	WEBSITE LINK
TRAINING	ANTEC	Largest annual technical conference in the industry	<a href="http://www.antec.ws">www.antec.ws</a>
	Career Coaching	For-a-fee services for career enhancement	<a href="http://www.4careersolutions.org">www.4careersolutions.org</a>
	e-Learning Center	Online self-paced courses, live & archived presentations	<a href="http://www.4spe.org/elearning">www.4spe.org/elearning</a>
	In-plant Training	Seminar instruction at member's company	<a href="http://www.4spe.org/training/seminars">www.4spe.org/training/seminars</a>
	Seminars	Expert instruction on current plastics topics	<a href="http://www.4spe.org/training/seminars">www.4spe.org/training/seminars</a>
	Technical Journals	Subscribe to peer-reviewed articles. Available online and in print	<a href="http://www.4spe.org/pub">www.4spe.org/pub</a>
	Topical Conferences	Targeted at specific technical & management disciplines	<a href="http://www.4spe.org/conf">www.4spe.org/conf</a>
	Training Products	Developed by SPE & other leading providers. Some Spanish titles	<a href="http://www.4spe.org/training/products">www.4spe.org/training/products</a>
OTHER	Career Transition Services	Outplacement program offered to member's company	<a href="http://www.4careersolutions.org">www.4careersolutions.org</a>
	Group Health Insurance	Health, disability & life insurance at attractive group rates	<a href="http://www.4spe.org/membercenter">www.4spe.org/membercenter</a>
	Online Job Posting	A source for companies to find qualified staff	<a href="http://www.4careersolutions.org">www.4careersolutions.org</a>
	SPE BookStore	Discounts on 250+ reference books & training products	<a href="http://www.4spe.org/training/products">www.4spe.org/training/products</a>
	SPE/MBNA Credit Card	SPE Platinum Plus Mastercard® (US & Canada only)	<a href="http://www.4spe.org/membercenter">www.4spe.org/membercenter</a>



WEBSITE LINKS SUBJECT TO CHANGE - CHECK [WWW.4SPE.ORG](http://WWW.4SPE.ORG) FOR FULL BENEFITS

## **WHY JOIN ?**

*It has never been more important to be a member of your professional society than now, in the current climate of change and volatility in the plastics industry. Now, more than ever, the information you access and the personal networks you create can and will directly impact your future and your career.*

### **Active membership in SPE:**

- **keeps you current**
- **keeps you informed**
- **keeps you connected**

***The question really isn't "why join?" but***

## **WHY NOT?**





## Akron Section Society of Plastics Engineers

Tony Dean, Advertising Manager

330-929-9916

### Website, E-Blast & Newsletter Advertising

#### Insertion Order 2015-16

Polymer Valley News: Akron Section SPE Newsletter

Delivered via email, stored at <http://www.akronspe.org/newsletter.htm>

Please check ad size wanted. One column is 3-7/8" wide.

This is the 57<sup>th</sup> year of the Akron SPE Section and rates are for entire season, September 2015 – Summer 2016. **Payable in Advance. Please let me know if you need an invoice.**

Ad format must be electronic (but we can scan your original artwork). File size should be limited based on the size of the ad ordered. Oversized ads will be charged an additional fee. Acceptable formats are .bmp, .pcx, .jpg, .tif, .gif, or MS PowerPoint or Word (if you have any issues with format, please email us and we can provide assistance). **Color is Free! Color helps your ad stand out!** All ads included in newsletter, email blast and web site.

**Email artwork and this Insertion Order (completed) as an attachment to [francis@neo.rr.com](mailto:francis@neo.rr.com)**

If you don't include your email address, we have no way of sending you each issue!

(please X)	Ad Size	Dimensions	Price for year
	Business Card	One column by 2" high	\$100
	Double	One column, 2 to 4" high	\$150
	Triple	One column, 4 to 6" high	\$200
	Half Page	One column, 10" high	\$250
	Half Page	Page width (7.5"), 5" high	\$250
	Hotlink to company website	N/A	No Charge

**The cost on a per issue basis will be calculated by dividing the "Year" price by 10**

Contact Person	Billin	g Information:
Company:		
Name:		
Address:		
Phone #:		
Fax #:		
Email address:		

#### Mail checks, payable to AKRON SECTION SPE, to:

Akron Section SPE  
c/o Tony Dean  
Akron SPE  
250 S. Forge Street  
Akron, OH 44325-0301



# Society of Plastics Engineers

13 Church Hill Road  
Newtown, CT 06470 USA

## Membership Application

PH: 203-775-0471 • Fax: 203-775-8490

www.4spe.org • membership@4spe.org

### Contact Information *Please print clearly*

First Name (Given Name) \_\_\_\_\_ Middle Name \_\_\_\_\_

Last Name (Family Name) \_\_\_\_\_

Company Name/University Name (if applicable) \_\_\_\_\_

Mailing Address is: ☐ Home ☐ Business Gender: ☐ Male ☐ Female (for demographic use only)

Address Line 1 \_\_\_\_\_

Address Line 2 \_\_\_\_\_

Address Line 3 \_\_\_\_\_

City \_\_\_\_\_ State/Province \_\_\_\_\_

Country \_\_\_\_\_ Zip/Postal Code \_\_\_\_\_ Phone \_\_\_\_\_

Preferred Email (This will be your member login and is required for usage of online member services) \_\_\_\_\_

Alternate Email \_\_\_\_\_

Date of Birth (Required for Young Professional membership) \_\_\_\_\_

Graduation Date (Required for Student membership) \_\_\_\_\_ Job Title \_\_\_\_\_

### Membership Types *Check one*

- ☐ **Student: \$31** (Graduation date is required above)  
☐ **Young Professional: \$99** (Professionals under the age of 30. Date of birth is required above)  
☐ **Professional: \$144.00 \$129** (Includes \$15 new member initiation fee)

Choose 2 free Technical Division and/or Geographic Section Member Groups. →

1. \_\_\_\_\_ 2. \_\_\_\_\_

Additional groups may be added for \$10 each. Add Special Interest Groups at no charge.

1. \_\_\_\_\_ 2. \_\_\_\_\_

3. \_\_\_\_\_ 4. \_\_\_\_\_

Dues include a 1-year subscription to *Plastics Engineering* magazine-\$38 value (non-deductible).  
SPE membership is valid for 12 months from the date your membership is processed.

### Payment Information *Payment must accompany application. No purchase orders accepted.*

☐ Check Enclosed Amount \_\_\_\_\_

Charge: ☐ Visa ☐ Mastercard ☐ American Express Expiration Date: \_\_\_\_\_

Account Number: \_\_\_\_\_

Amount Authorized: \_\_\_\_\_ CSC#: \_\_\_\_\_ Last 3 digits from the back of MC/Visa.  
4 digits from the front of AMEX.

Cardholder's Name (as it appears on card): \_\_\_\_\_

Signature of Cardholder: \_\_\_\_\_

### Payment by Wire Transfer Instructions

You **must** include account number +ABA  
we may apply payment to the correct person.

**USD:** WELLS FARGO: 108 Federal Road, Danbury, CT 06811 USA  
ACCT #2040607562129 ABA #121000248 SWIFT CODE #WFBUS66

**EURO:** HSBC Bank: 9 Penn Road, Beaconsfield, Buckinghamshire HP9 2PT UNITED KINGDOM  
ACCT #70841841 IBAN #GB03MIDL40051570841841 SWIFT CODE #MIDLGB22 SORT CODE #400515

The SPE Online Member Directory is included with membership. Your information is automatically included unless you indicate otherwise.

\_\_\_\_\_ Exclude my email address from the Online Membership Directory

\_\_\_\_\_ Exclude my address from 3rd party mailings

By signing below, I agree to be governed by the Bylaws of the Society and to promote the objectives of the Society. I certify that statements made in the application are correct and I authorize SPE and its affiliates to use my phone, fax, address and email to contact me.

Signature \_\_\_\_\_ Date \_\_\_\_\_

### Technical Division Member Groups - Connect with a global community of professionals in your area of technical interest.

- |   |  |
|---|--|
| <input type="checkbox"/> Additives & Color Europe - D45         | <input type="checkbox"/> Injection Molding - D23               |
| <input type="checkbox"/> Automotive - D31                       | <input type="checkbox"/> Medical Plastics - D36                |
| <input type="checkbox"/> Blow Molding - D30                     | <input type="checkbox"/> Mold Making & Mold Design - D35       |
| <input type="checkbox"/> Color & Appearance - D21               | <input type="checkbox"/> Plastics Environmental - D40          |
| <input type="checkbox"/> Composites - D39                       | <input type="checkbox"/> Polymer Analysis - D33                |
| <input type="checkbox"/> Decorating & Assembly - D34            | <input type="checkbox"/> Polymer Modifiers & Additives - D38   |
| <input type="checkbox"/> Electrical & Electronic - D24          | <input type="checkbox"/> Product Design & Development - D41    |
| <input type="checkbox"/> Engineering Properties Structure - D26 | <input type="checkbox"/> Rotational Molding - D42              |
| <input type="checkbox"/> European Medical Polymers - D46        | <input type="checkbox"/> Thermoforming - D25                   |
| <input type="checkbox"/> European Thermoforming - D43           | <input type="checkbox"/> Thermoplastic Materials & Foams - D29 |
| <input type="checkbox"/> Extrusion - D22                        | <input type="checkbox"/> Thermoset - D28                       |
| <input type="checkbox"/> Flexible Packaging - D44               | <input type="checkbox"/> Vinyl Plastics - D27                  |

### Geographic Section Member Groups - Network with local industry colleagues.

- |  |   |
|--|---|
| <input type="checkbox"/> Alabama/Georgia-Southern          | <input type="checkbox"/> New York                               |
| <input type="checkbox"/> Australia-New Zealand             | <input type="checkbox"/> New York-Rochester                     |
| <input type="checkbox"/> Benelux                           | <input type="checkbox"/> North Carolina-Piedmont Coastal        |
| <input type="checkbox"/> Brazil                            | <input type="checkbox"/> Ohio-Akron                             |
| <input type="checkbox"/> California-Golden Gate            | <input type="checkbox"/> Ohio-Cleveland                         |
| <input type="checkbox"/> California-Southern California    | <input type="checkbox"/> Ohio-Miami Valley                      |
| <input type="checkbox"/> Caribbean                         | <input type="checkbox"/> Ohio-Toledo                            |
| <input type="checkbox"/> Carolinas                         | <input type="checkbox"/> Oklahoma                               |
| <input type="checkbox"/> Central Europe                    | <input type="checkbox"/> Ontario                                |
| <input type="checkbox"/> Colorado-Rocky Mountain           | <input type="checkbox"/> Oregon-Columbia River                  |
| <input type="checkbox"/> Connecticut                       | <input type="checkbox"/> Pennsylvania-Lehigh Valley             |
| <input type="checkbox"/> Eastern New England               | <input type="checkbox"/> Pennsylvania-Northwestern Pennsylvania |
| <input type="checkbox"/> Florida-Central Florida           | <input type="checkbox"/> Pennsylvania-Philadelphia              |
| <input type="checkbox"/> Florida-South Florida             | <input type="checkbox"/> Pennsylvania-Pittsburgh                |
| <input type="checkbox"/> France                            | <input type="checkbox"/> Pennsylvania-Susquehanna               |
| <input type="checkbox"/> Hong Kong                         | <input type="checkbox"/> Portugal                               |
| <input type="checkbox"/> Illinois-Chicago                  | <input type="checkbox"/> Quebec                                 |
| <input type="checkbox"/> India                             | <input type="checkbox"/> Southeastern New England               |
| <input type="checkbox"/> Indiana-Central Indiana           | <input type="checkbox"/> Spain                                  |
| <input type="checkbox"/> Iowa                              | <input type="checkbox"/> Taiwan                                 |
| <input type="checkbox"/> Israel                            | <input type="checkbox"/> Tennessee-Smoky Mountain               |
| <input type="checkbox"/> Italy                             | <input type="checkbox"/> Tennessee Valley                       |
| <input type="checkbox"/> Japan                             | <input type="checkbox"/> Texas-Central Texas                    |
| <input type="checkbox"/> Kansas City                       | <input type="checkbox"/> Texas-Lower Rio Grande Valley          |
| <input type="checkbox"/> Korea                             | <input type="checkbox"/> Texas-North Texas                      |
| <input type="checkbox"/> Louisiana-Gulf South Central      | <input type="checkbox"/> Texas-South Texas                      |
| <input type="checkbox"/> Maryland-Baltimore-Washington     | <input type="checkbox"/> Tri-State                              |
| <input type="checkbox"/> Mass/New Hampshire-Pioneer Valley | <input type="checkbox"/> Turkey                                 |
| <input type="checkbox"/> Mexico-Centro                     | <input type="checkbox"/> United Kingdom & Ireland               |
| <input type="checkbox"/> Michigan-Detroit                  | <input type="checkbox"/> Upper Midwest                          |
| <input type="checkbox"/> Michigan-Mid Michigan             | <input type="checkbox"/> Utah-Great Salt Lake                   |
| <input type="checkbox"/> Michigan-Western Michigan         | <input type="checkbox"/> Virginia                               |
| <input type="checkbox"/> Middle East                       | <input type="checkbox"/> Washington-Pacific Northwest           |
| <input type="checkbox"/> Mississippi                       | <input type="checkbox"/> West Virginia-Southeastern Ohio        |
| <input type="checkbox"/> Nebraska                          | <input type="checkbox"/> Western New England                    |
| <input type="checkbox"/> New Jersey-Palisades              | <input type="checkbox"/> Wisconsin-Milwaukee                    |

### Special Interest Groups - Explore emerging science, technologies and practices shaping the plastics industry. Choose as many as you would like, at no charge.

- |   |   |
|---|---|
| <input type="checkbox"/> Advanced Energy - 024                  | <input type="checkbox"/> Non-Halogen Flame Retardant Tech. - 030    |
| <input type="checkbox"/> Alloys and Blends - 010                | <input type="checkbox"/> Plastic Pipe & Fittings - 021              |
| <input type="checkbox"/> Applied Rheology - 013                 | <input type="checkbox"/> Plastics Educators - 018                   |
| <input type="checkbox"/> Bioplastics - 028                      | <input type="checkbox"/> Plastic in Building and Construction - 027 |
| <input type="checkbox"/> Composites Europe - 026                | <input type="checkbox"/> Process Monitoring & Control - 016         |
| <input type="checkbox"/> Extrusion Europe - 025                 | <input type="checkbox"/> Quality/Continuous Improvement - 005       |
| <input type="checkbox"/> Failure Analysis & Prevention - 002    | <input type="checkbox"/> Radiation Processing of Polymers - 019     |
| <input type="checkbox"/> Joining of Plastics & Composites - 012 | <input type="checkbox"/> Rapid Design, Eng. & Mold Making - 020     |
| <input type="checkbox"/> Marketing & Management - 029           | <input type="checkbox"/> Thermoplastic Elastomers - 006             |
| <input type="checkbox"/> Nano/Micro Molding - 023               |   |

Recommended by (optional) \_\_\_\_\_ ID# \_\_\_\_\_

INTRO-JL