spe DETROIT

TRENDS & TOPICS

DETROIT SECTION - SPE INSPIRING PLASTICS PROFESSIONALS - "THE CHARTER CHAPTER"

VOLUME 63 NUMBER 02 • MAY 2019

AUTO EPCON

Pushing the Boundries

MAY 7, 2019

SEE PAGE 7 FOR DETAILS

PRESIDENT'S MESSAGE

Eve Vitale, Series One LLC

Dear Detroit SPE,

This will be my last letter as president as my term ends soon, but what a great spring we've had! Detroit SPE has so much to be proud of and much of it is highlighted in this issue. We were proud spo nsors of ANTEC® 2019 and were able to welcome 1,200+ attendees to Detroit in March. Many folks expressed their appreciation for our support of the conference and their delight at our offsite events at the Punch Bowl Social and the Fowling Warehouse. The technical sessions were enlightening and many of us learned how to "tweet" as we promoted our plastics activities.

Schoolcraft College is graduating its first class of students with a Plastics Technology Associate in Applied Science Degree on May 4th and the College will be presenting an award at Auto EPCON on May 7th to the Detroit Section for the monetary support we have given them and to honor our members who work tirelessly as faculty to make that program a success: Armando Sardanopoli, Peter Grelle, Dr. Sassan Tarahomi, and Dave Okonski.

The winning essays from our annual essay contest are in this issue; you won't want to miss what youth think about the state of plastics. And make sure you check out the article about member Tom Miller. Lyle Beadle's tribute to him is the second in a series of tribute articles to our hard-working volunteers who are making a difference promoting plastics education.

We elected 3 new Directors to the Board: Richard Broo, Laura Correa and Fang Wang, and reelected Wayne Hertlein and Suresh Shah. Their terms will end in June, 2022. Tha ks for your service and commitment to SPE!

Best wishes for a wonderful summer (it should stop snowing soon!),

Eve

IN THIS ISSUE

SPE DETROIT MEMBER TRIBUTE THOMAS MILLER, BASF

Lyle Beadle

"Hey Coach, put me in . . . I'm ready to play!" These are sweet words to Tom Miller. You may wonder what this has to do with Tom's success as a long-standing volunteer for the Detroit Section of SPE. As Paul Harvey used to say, this is the rest of his story.

Growing up in Port Huron where cold temperatures and the wind blowing off Lake Huron created a perfect setting for hockey, Tom started playing at 8 years old. Along with his 4 siblings Tom was exposed to a healthy work ethic of school, sports, and industry. He cut neighborhood lawns, worked at the Johnson family shoe store, and played hockey. When he was 12, Tom became a 'stick boy' for the Port Huron Flags IHL team where the perks of the job included bringing home used sticks and tape rolls after every game. Player Claude Julian, now head coach of the Montreal Canadians, selected Tom as the only one he would sit next to on bus trips. Tom's exposure to numerous hockey coaches served as early inspiration to be a coach, using the lessons he learned along the way.

Aspiring to be a dentist, Tom enrolled at U of M-Flint. He left after 2 years for pharmacy coursework at Ferris State (FSU). His real motivation, however, was hockey and he got in 2 years of club hockey at his alma mater. Tom's rewards for moving to FSU were a job with the Dow Chemical Company (after obtaining his AAS in Industrial Chemistry Technology) and meeting his wife, Christine. While working as a color matcher for Dow Plastics in Midland, Tom took classes at Saginaw Valley State University and obtained a B.S. in Chemistry. He later went on to obtain his MBA from the Keller Graduate School in Chicago. Tom was assigned as the GM Small Car Division Program Manager with Dow Automotive. In that role he received two pieces of advice from his boss, Mike Powers: get a GM Badge and join SPE to get involved with the Education Committee. Tom heeded that advice, and so it goes.

As his career took off, Tom and Christine welcomed two sons. He coached several successful youth hockey teams at the Kensington Valley Hockey Association (KVHA) in Brighton, including a Squirt AA MAHA State Championship in 2006. He was also coaching staff for a U12 USA Select hockey team which won silver medals in international competition in Prague, CZ in 2007. Tom just finished his 5th season as an Assistant Coach with former Detroit Red Wings player, Joe Kocur. One of Tom's KVHA proteges, Joel L'Esperance, is a Dallas Star and recently celebrated his first NHL game goal. Tom is the KVHA Travel Hockey Director with responsibility for hiring coaches who develop young hockey players and serve as role models both on and off the ice. Tom says, *"I love my role as 'Coach', where I can remove politics, recognize potential, develop young players' hockey skills, and play a role in molding these athletes into citizens capable for leadership. It's an easy translation from volunteer youth hockey coach to SPE volunteer. The personnel and audience are different, but as an SPE volunteer it requires the same drive to collaborate, share, lead, inspire, and give back for a long-term benefit."*

Tom's SPE colleague, Bill Windscheif, says, "Tom has always been dedicated to serving our plastics industry and wanting to give something back." This is evident on the Education Committee where he awards scholarships to promising students, directs over 40 PlastiVan® visits a year in Michigan, and coordinates the southern half of a robust essay contest. As President of SPE Detroit in 2005–2006, Tom was able to help plastics professionals with families stay involved when he scheduled Board meetings over lunch, not at the end of the day. Tom also included spouses and children during the SPE holiday recognition activities and events.

Tom's continued motivation with SPE to provide educational and scholarship opportunities is more than a business obligation; it is a source of energy that keeps stoking his fire and ultimately benefits young people on their way to meaningful lives. We need more people like Tom Miller. We applaud and thank Tom for his continued dedication and service to our SPE Detroit Section. So 'put me in' Coach Miller! This Tribute is for you!

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THE MICHIGAN MATERIALS SOCIETY AT THE UNIVERSITY OF MICHIGAN

Nathan Ng

The Michigan Materials Society (MMS) serves as the organizational committee for the Materials Science Engineering (MSE) undergraduate students at the University of Michigan. They regularly provide a weekly luncheon with speakers in Materials Science, from leaders in industry to panels on summer opportunities and graduate school. As a result, students are exposed to the numerous opportunities presented to MSE students post-graduation. In addition, the MMS works to bring numerous opportunities to the student body including professional development workshops, social events, outreach to younger students, and connections to professional societies such as SPE and Material Advantage, along with the opportunities they provide.

In October, the MMS hosted Tom Miller to speak at a luncheon about what SPE is and how students can get involved. The MMS has also collaborated with SPE Detroit in outreach, sending UM students to act as volunteers to share the wonders of Materials Science with younger students. At events such as the Dow Great Lakes Bay STEM Festival and the Mind Trekkers event at Schoolcraft College, students managed booths with Materials Science demos, from creating slime to showing off shape memory alloys. These events allow MMS's students to both relive and share the excitement of introductory Materials Science.

MMS at ANTEC 2019

Each day at ANTEC, student volunteers from MMS made the drive to Detroit to attend the conference and contribute to the social media presence, sharing posts on Twitter with the conference hashtags #ANTEC19 and #INSPIREdetroit. The students attended technical sessions, panels, and keynotes, along with exploring other events in the Exhibit Hall and in the foyers. While doing so, they posted ideas, facts, and quotes to the social media walls on display at the conference.

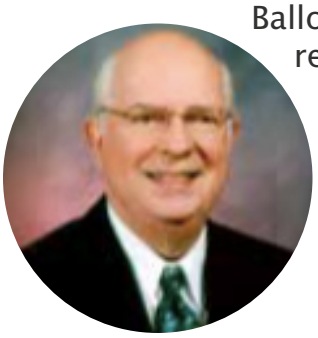
During the technical sessions of the INSPIRE Program, the student volunteers learned about topics ranging from the effects of peroxide loadings on the rheological behavior of bioplastic blends to the lightweighting of automobiles using composites to the development of new flame- retardant technologies. They listened as speakers from around the globe shared what's new and exciting in polymers. "Volunteering during the ANTEC conference gave me the opportunity to listen to lectures by some of the best leading researchers," explained University of Michigan student Mariana Moreno-Nava. On Monday and Tuesday, the student volunteers also attended the student poster session, where dozens of student researchers shared their ongoing work from universities across the US and Canada.

The new INSIGHT Program at the conference included several great additions that student volunteers were able to attend and explore. Live recordings of both Plastics News and the PlastChicks podcast took place in the Exhibit Hall foyer, allowing attendees to listen and watch discussions about the world of plastics. The program also included chances to interact with companies in the Exhibition Hall and with some of the award-winning Plastics for Life parts on display.

All of these opportunities for the student volunteers were made possible by SPE. By providing the registration fee, the organization allowed MMS to participate in a way and to an extent it would not have been able to otherwise. The students are all extremely thankful to get more involved with SPE and the plastics industry.

DETROIT SPE ELECTIONS

Officers and New Directors
Irv Poston, General Motors (retired)



Ballot & Bios were emailed to Detroit Section Members on 3/17/19 with a return deadline of 3/31/19. Officers are automatically Directors for their term of office and do not have to be on the ballot. Our Councilor, who was elected last year, is Dr. Sassan Tarahomi until 6/30/2021.

The following Officers were elected by and from current Directors for the 2019-2020 term.

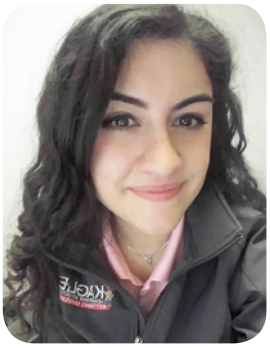
Past President	Eve Vitale
President	Laura Shereda
Pres-Elect	Dawn Cooper
1st VP	Bill Windscheif
2nd VP	Dave Okonski
Secretary	Bob Petrach
Treasurer	Tom Powers

The following Directors were elected by and from current members of the Detroit Section of SPE for a three-year term (7/1/2019 to 6/30/2022)

Richard Broo is the President of True North PMP Consulting Incorporated. He has been actively involved in the plastics and composites raw materials industry for over 40 years in leadership roles involving, sales, marketing, new product development and operations.

He has been president of two plastics companies prior to starting True North PMP Consulting, a company dedicated to teaching the best practices utilized in professional project management, as well as, providing contracted project management services to companies in need of project management expertise.

He earned a Masters of Business Administration degree from Walsh College and a Bachelors of Arts in Economics/Business Administration from Western Maryland College.



Laura Correa was born in Colombia and moved to NYC where her parents raised her. When she was 17, she moved to Michigan to attend Kettering University, a small private school known for co-operative education and engineering excellence. She studied Chemistry and graduated Cum Laude in 2016. She worked in Thermosetting plastics as an Engineer for 3 years and then started at Wellman Advanced Materials as a Key Account Manager.

In her current role, she is responsible for territories around NAFTA. She works with customers in all departments, engineering to sales, to determine how to best solve injection molding problems and improve the process through material selection.

Laura has always had a passion for plastics and in 2017, she was named one of Plastics News "Women breaking the mold". Laura loves to attend industry events, spend time with her family and friends, and learn new things.

Wayne M. Hertlein – With more than 40 years of experience in the plastics industry, Wayne M. Hertlein currently works as a Tooling Manager for Letica Corporation, Part of RPC Superfos, a multi-faceted packaging company located in Rochester, Michigan. Wayne has previously worked as a Program Manager for Wilbert Plastic Services in Troy, Michigan, and has held leadership positions within such organizations as MMI Engineered Solutions, International Automotive Components (IAC), Collins and Aikman Global Tooling Company (C&A), and Complete Prototype Services (CPS), among others, in the Midwest.

Wayne also served two years as the President of SPE, Detroit Section, from 2016-2017 and from 2017-2018. Then, in September of 2018, Wayne received the award for Outstanding Member of SPE, Detroit Section. He has been a member of SPE since 1981. In addition, Wayne has been the Director of the Detroit Section since 2004 and is currently the Intersociety Liaison and Bylaws Committee Chairman for that section. He also won the coveted Mold Designer of the Year Award from the SPE Moldmaking & Mold Design Division in 2004 and received the President's Award from the SME (PCC) Plastics Composites and Coatings Committee in 2011. Wayne serves on several other boards and committees and has raised significant funds for industry-related scholarships and educational programs as well.

Dr. Suresh Shah has been in automotive industry for more than 30 years, worked for General Motors and Delphi. He is currently SPE Automotive Division board member since 1992 and councilor since 2016. He served as Chairman of SPE Automotive Division for the 1999-2000 year.

Recently, Shah has a recipient of 2017 SPE Automotive "Lifetime Achievement Award". Shah is the 2015 recipient of the most prestigious SPE International's Research/Engineering Technology Award. He is SPE "Fellow of the Society" (2001) and "Honored Service Member (2003).
Dr. Shah holds Ph.D. in Plastics Engineering/Polymer Chemistry (1985)
In 2014, he was inducted to Gold "Innovation Hall of Fame" at Delphi. In 2009, He received "Gold Award" from ESD as "Engineer of the Year" in Michigan. Dr. Shah holds more than 48 intellectual property credits. He has contributed to more than 70 technical papers and presentations.

I, **Fang Wang**, am a Technical Industry Manager of Pigments for Plastics at BASF in Southfield, Michigan. I need to your support for my candidacy as a board member for the SPE Detroit Section to support local activities, to give back to our community, and to be positive representation for our plastics industry.

I was born in China and came to the US to attend Wayne State University in Detroit, graduating with a Ph.D. in Chemistry in December 1997.

I began my career with BASF in Automotive Coatings Resin Group in Southfield, MI in May 1997. Over the last 22 years, I worked in the polymer, pigments, and compounding businesses in R&D, operation, CapEx, quality, sourcing, tech service and marketing functions at Honeywell, Shaw Inc., INVISTA, ACT due to M&A and recruitment, returning to BASF in 2016. These lead me to live in NC, SC, GA, DE, TN, and MI and work with people from varied background and experience, giving me the appreciation for our diverse perspectives and collective strength.

I served on American Chemical Society local chapters and SPE Color & Appearance Division.

I live in Northville, MI with my husband and son with our dog and fish.

Other continuing Directors and Directors Emeritus are listed on our website and on the back page of our newsletter.

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Julie Proctor
PlastiVan® Program Coordinator
jproctor@4spe.org

Tom Miller
thomas.miller@basf.com

Agenda

7:00-8:05 **Registration & Continental Breakfast**

8:05-8:15 **Opening Remarks(Auditorium):** Dr. Gary J. Kogowski, Ravago Holdings Americas, Conference Chair

8:15-8:50 **Conference Executive Chair:** Kevin Quinn, Director General Motors Global Propulsion Systems
KEYNOTE: Engineering Plastics and Additive Manufacturing

8:50-8:55 **Technical Program Overview:** Sandra McClelland, Solvay Specialty Polymers, Conference Technical Chair

8:55-9:00 **Schoolcraft Presentation to Detroit Section**

9:00-9:30 **KEYNOTE: Nylon & Polycarbonate: How We Got Here and What Lies Ahead**
SPEAKER: Brendon Dooley, Global Director Engineering Resins, IHS Markit

	Salon ABC	Salon D	Dennison Salon
	I. Materials	II. PA Opportunities	III. Additive Manufacturing and Design
	Moderator: Allison Podnar University of Michigan	*Moderator: Luis Rangel-DaCosta* University of Michigan	*Moderator: Daniel Pisarski* University of Michigan
9:40 - 10:10	Acetal Solutions in Challenging Materials Market	Twins Among Polyamides: A Comparison of PA6 and PA 66	Additive Manufacturing Fixtures
	James Divita, Applications Business Development Manager, KEP Americas james.divita@kepamericas.com	Dan Knapp, Applications Development Engineer Under the Hood, LANXESS dan.knapp@lanxess.com	Fadi Abro, Sales Executive, Stratasys fadi.abro@stratasys.com
10:10 - 10:40	Next Generation DELRIN Technology for Gears and Safety Systems	Alternatives to PA11 and PA12 for Automotive Critical Applications	Modeling Process and Performance of High Performance Filaments Utilizing Digimat AM Software
	George Rau, Dupont george.rau@dupont.com	Richard Bell, Development Manager DuPont, richard.bell@dupont.com	Greg Costantino, DSM Engineering Plastics, greg.constatino@dsm.com
10:40 - 11:05	**Break Sponsored by Plastic Industry Association**		
11:05 - 11:35	KYRON-MAX The Future of Metal Replacement Thermoplastic Compounds Here Today…	Material And Application Development of New Polyamide Compounds	HP's Digital Manufacturing in Automotive
	Alex Wojtysiak, Mitsubishi Chemicals Advanced Materials alex.wojtysiak@mcam.com	Kazuhiko Hashimoto, Asahi Kasei Plastics NA khashimoto@akplastics.com	David Tucker, HP, Inc. David.Tucker@HP.com
11:35 - 12:05	Development of Novel Self-Healable CFRP Composites	Enhanced Performance of Cooling Applications with EMS Next Generation PPA	Shear Strength of Transmission Laser Welded Polyamides
	Lisha Zhang, University of Michigan zhalisha@umich.edu	Douglas Thornhill, EMS Grivory douglas.thornhill@us.emsgrivory.com	Benjamin Campbell, MECCO ben.campbell@mecco.com
12:05 - 1:00	**Lunch**		

1:00 - 1:25 **KEYNOTE: Is Uncertainty the New Normal in the Automotive Industry**
SPEAKER: Laurie Harbour, President and CEO of Harbour Results Inc.

	Salon ABC	Salon D	Dennison Salon
	IV. Analysis	V. Materials and Electric Vehicles	VI. Materials and Sustainable Products
	Moderator: Nathan Ng University of Michigan	*Moderator: Luis Rangel-DaCosta* University of Michigan	*Moderator: Allison Podnar* University of Michigan
1:35 - 2:00	Understanding and Preventing Creep Failure in Plastics	Pocan HR; Next Generation of Hydrolysis Resistant PBT Grades	Biopolyamide Hybrid Composites for Superior Performance Applications
	Jeffrey Jansen, Senior Managing Engineer Partner The Madison Group jeff@madisongroup.com	Beau Bacho, Application Development Engineer, Electrical & Electronics LANXESS, beau.bacho@lanxess.com	Shaghayegh Armioun, University of Toronto shaghayegh.armioun@utoronto.ca
2:00 - 2:25	CAE Approach to Advance Composites' Manufacturing Solutions	DURANEX® PBT Resins Offer Multiple Solutions in Today's Demanding Market	Green Composites: Bio Based Resins Reinforced with Cotton-gin and Hemp Fibersg
	Alex Baker, Moldex3D alexbaker@moldex3D.com	Ted Largent, Sales Development Manager, Polyplastics USA, Inc ted.largent@polyplastics.com	Areej Almalkawi Michigan State University almalkaw@msu.edu
2:25 - 2:50	**Break**		

2:50 - 3:20 **KEYNOTE: North America Light Vehicle Production Outlook**
SPEAKER: Joe Langley, Associate Director for IHS Markit

3:20 - 3:50	Predict and Solve Stress Marks on Product's Cosmetic Surface Using Controlled Sequential Valve Gating Simulation	Engineering Thermoplastics for Electric Vehicles	Automotive Lightweighting and Sustainability Through Polymer Composites
	Srikar Vallury, Moldex3D srikarvallury@us.moldex.com	Volker Plehn, Director of Business Development Toray Resins Co. volker_plehn@torayresin.com	Dr. Omar Faruk, University of Toronto o.faruk@utoronto.ca
3:50 - 4:20	New ABS/PC for Best Plating Results in Auto Interiors and Exteriors	Material Requirements for Optimized Reflow in Automotive Electronics	Recycled Carbon Fiber Thermoplastic Compounds for Automotive Applications
	Tom Chu, Business & Technology Development Manager, ELIX Polymers tom.chu@elix-polymers.com	Paula Kruger, Application Development, DSM Engineering Plastics paula.kruger@dsm.com	Josh Ullrich, JM Polymers jullrich@jmpolymers.com
4:20 - 4:50	Novel Blend of ASA/PMMA for High Gloss Black Molded in Color Applications	Effect of Polymer Crystal Quality on Structural Color Intensity from Self-absorbed Collodial Crystals	Methodology to Use PCR (Post Consumer Recycled) Polyamide Material as an Alternative Solution to Prime Polyamide in Automotive Applications
	Samar Teli, Lotte Advanced Materials s.teli@lottechem.com	Tianyu Liu, University of Michigan Ann Arbor, ltianyu@umich.edu	Seth Miller, Wellman Advanced Materials LLC, seth.miller@wellmaner.com
4:50 - 6:30	**Networking Reception: Sponsored by SPE Detroit Section, Automotive Division, & Injection Molding Division**		

WAYNE HERTLEIN PLASTICS PIONEERS ASSOCIATION AND ESD GOLD AWARDS

Past President Wayne Hertlein had a busy spring accepting awards. On April 13 Wayne was inducted into the Plastics Pioneers Association (PPA) in recognition of service to the plastics industry with distinction for over 20 years while significantly contributing to its betterment. The ceremony took place in Santa Fe, NM and his sponsors were Glenn Beall and Fred Steil. Wayne is an avid historian with a collection of over 8,000 books about our industry and serves as Detroit SPE's historian as well.

Wayne began his career in 1976 at Armin Tool in Elgin, Illinois, as an apprentice moldmaker and trained at the Tool and Die Institute in Park Ridge, Illinois. He currently works as a Tooling Manager for the RPC/Superfos/Letica Corporation, a multi-faceted packaging company located in Rochester, Michigan.

The PPA is an established organization of seasoned professionals from the plastics industry which exists to "give back" through scholarships and educational program support. PPA members donate time and money toward an industry they believe in and they have fun doing it. To learn more about the PPA please see https://plasticspioneers.org.

Wayne Hertlein with PPA President Al Hodges and Membership Chair Wendy Valka Hoenig

Bill Windscheif presents Wayne Hertlein with his Outstanding Member of the Year Award

On March 20, at the Engineering Society of Detroit (ESD) Gold Awards, Bill Windscheif presented Wayne with his 2017-2018 Detroit SPE Outstanding Member Award. ESD, founded in 1895, represents over 3,000 companies, 86 affiliate societies, and 60,000 engineers. Detroit SPE is an affiliate member which gives our SPE Section and its members certain benefits including:

- One designated society representative to receive ESD's magazine and newsletter publication
- Articles can be submitted for publishing in the ESD newsletter
- One designated individual will be given access to the calendar section of the ESD website to add event information
- Members of Detroit SPE can participate in the ESD Group Homeowners and Auto Insurance programs
- Member societies are eligible to present awards at the Gold Awards Banquet

- Detroit SPE is entitled to be represented on the Affiliate Council Committees of ESD
- We can support educational and community outreach efforts in the Greater Detroit Community to encourage the development of math and science for kids e.g. Future Cities
- Monthly meetings to discuss joint programming opportunities
- Member Societies can take advantage of personal and professional benefit discounts negotiated by ESD
- Publicizing SPE events on the ESD website under "Calendar of Events"

For more information please see www.esd.org.

2019 AUTOMOTIVE TPO KEYNOTES

The 21st annual SPE Automotive TPO Conference will be held at the Detroit – Troy Marriott in Troy, MI from Sunday, October 6th through Wednesday, October 9th. Four keynote speakers have been announced.

Jeevak Badve, Principal + Director of Strategic Growth, Sunberg Ferar Product Innovation Studio

Topic: Occupy your position on the "Design Maturation Spectrum"

Jeevak brings energy, passion & curiosity to his role as VP of Strategic Growth at Sundberg-Ferar, a full service Product Innovation Studio supporting the Product and Vehicle industries from its Metro Detroit location, since 1934.

He helps companies to understand the fundamental role of Industrial Design Thinking: leveraging usefulness, usability, ergonomics & aesthetics as unique and compelling differentiators in your products to aid the sustainable growth of business, and planning for the entire range of use-case scenarios and designing for ideal user experiences. With his unique blend of education and experience in design, engineering and business he is a rallying voice for the alignment and optimal inclusion of end users' un-met needs, unspoken wants, and unarticulated desires in the core value proposition offered by the products & service portfolio, to generate sought-after shareholder value.

He has 23 years of work experience, 7 years in India (Tata Motors ERC, Tata-Johnson, Voltas M&H) and 16 years in the USA (GM Design Center, ASC and now SF studio) and holds a

Bachelor's degree in mechanical engineering from Pune University in India, a Master's in industrial design from Indian Institute of Technology in Bombay, and an Executive MBA from Michigan State University (Go Green!)

He lives in Rochester Hills, a northern suburb of Detroit, MI with his wife and two notoriously curious kids. He loves bird photography, kickboxing, and organic backyard gardening.

ABSTRACT: Some plastics businesses are simply unaware of the power of design. Some intentionally choose to ignore it. Some really want to experiment with it, but for whatever reason just cannot. Some do use it, but only at the end of development work where it becomes merely a decoration element or an attractive form. Some leverage the fundamentals of industrial design and use it for the entire product design cycle. Nevertheless, truly enlightened businesses in the TPO and polymer industries position industrial design thinking at the very core of their strategic initiatives. These businesses apply it as an integral management tool in the boardroom to guide their aspirational business growth in the automotive market and beyond.

Where are you on this spectrum? You have to map out both your starting point and your intended position to achieve this design maturity for your business strategy and materials portfolio. You have to honestly identify the numerous cultural barriers to innovation that are always waiting to threaten your progress. You have to let go of the "build and they will come" notion. You have to immerse yourself in the real world needs, wants, desires and dreams of your chosen target segment. You have to seek out the worth of creating a design methodology for your own business function.

But there is no compulsion. You can stay adrift, just working meticulously on the functional pathway and creating more banal, commodity materials and products, or you can choose to blend in the emotional attributes that are imperative for your product to be truly successful. You can employ industrial design to create materials and plastics products that are sought-after – not only to generate larger profit margins, but ultimately for the betterment of the human condition.

Kristin Dziczek, Vice President – Industry, Labor & Economics, Center for Automotive Research Center for Automotive Research

Topic: A Focus on the Automotive Rules of Origin in U.S. Trade Negotiations

Kristin Dziczek joined CAR in 2005, and has more than 25 years of experience as a researcher policy analyst. She is globally recognized as an expert on automotive labor, employment, and talent issues, especially on the topic of labor union relations and contracts, and she regularly presents at conferences and industry events throughout North America.

Kristin leads the ILE team – a group whose expertise includes economic analysis, forecasting and modeling, policy, and economic development. The ILE team's research portfolio is focused on developing a better understanding of the connections between the automotive industry, technology, the economy, society, and public policy, and is home to CAR's Automotive

Communities Partnership program. Kristin's research includes analyzing the competitive cost position of the U.S. automotive industry, and evaluating how different tax, trade, or industrial policies and incentives could impact overall automotive sales, production, and employment.

Prior to joining CAR, Kristin served as the associate director of the Michigan Manufacturing Technology Center, and has worked for the U.S. Congress, International Union UAW, and General Motors Corporation. She has published articles in the Monthly Labor Review, Industrial and Labor Relations Review, the Journal of Technology Transfer, and the Journal of Policy Analysis and Management, among others. She earned her B.A. in economics, M.P.P. in public policy, and M.S. in industrial and operations engineering, all from the University of Michigan.

ABSTRACT: Whether it be the United States Mexico Canada Agreement (USMCA), trade talks with China, Japan, the European Union, and the United Kingdom, or the national security trade investigations, policies aimed at improving the position of the U.S. automotive industry have been a primary focus of the current Administration. This keynote will provide an overview of the USMCA trade deal and its potential impact on North American supply chains, as well as an examination of the status of ongoing U.S. trade negotiations related to auto and parts trade.

Dr. Arash Kiani, CEO, Alterra Holdings

Topic: Global Automotive Elastomers Innovation and Outlook

Dr. Kiani, is a well-known entrepreneur, scientist and a global compounding expert with 35 years of experience in the plastics industry. He was the Head of Computational Fluid Mechanics for Coperion for many years and left the company to start his own business "Compounding Engineering Solutions" in 1999. He joined his resources with Beaconhouse Capital and started Alterra in 2016. He is the CEO and majority shareholder of Alterra which acquired Metabolix, Trellis Earth, CES and Harmony Plastics and Polymerixx. Dr. Kiani, has many interests in the world of compounding including compounding bio-based material. He is the leading authority in this area and has presented technical papers on this topic in many conferences globally. He is a great supporter of SPE and the TPO Conferences. He holds a B.S., M.S. and a Ph.D. in Chemical Engineering from Stevens Institute of Technology.

ABSTRACT: The global automotive industry is changing faster than many predicted. The presence of China and India in the global market, development of autonomous vehicles, conversion of IC engines to electric and hybrid, air pollution and strict emission standards, massive growth of mega cities and addressing the needs of Gen Y & Gen Z are transforming the auto industry.

Automotive OEMs are going through major transformations of their vehicle design and capabilities and they need materials that exceed the current material properties with lower density which are very cost effective. Elastomers are expected to play a larger role in the vehicles of the future. This speech will address the innovation in the elastomer technology and provides an outlook of future products.

Joel Morales, Executive Director Polyolefins Americas, IHS Markit

Topic: Global PP Update: What a Difference a Year Makes!

Joe-el joined IHS Markit in March 2013 to cover PE and PP in North America. He is currently the service leader of three market advisory subscription services: The Global Plastics and Polymers Report, the North American PE Report and the North American PP report. He brings a wealth of industry knowledge to IHS Markit through multiple stints along the plastics' value chain. He began his career with polyolefins manufacturer, Solvay Polymers, which later became Ineos, in technical services and product development before he was moved into field sales. After 5 years at Solvay Polymers, Joe-el moved into resin distribution sales for both Muehlstein and then United Polychem as a Product Manager where he managed and sold polyethylene and polypropylene resins into various customer segments. In his most recent role prior to joining IHS, Joe-el was a purchasing manager for Silgan Plastics, a major, blow-molding and injection molding plastics converter. Joe-el graduated from The Massachusetts Institute of Technology in 1999 with a Bachelor of Science in Chemical Engineering and a minor in psychology.

ABSTRACT: The world of Polypropylene has seen some significant changes since last year's presentation. As we indicated last year, new investment in global PP capacity has come onto the scene at the same time global PP demand has slowed down a bit. Adding capacity while removing demand has transitioned a tight market to one more balanced. This talk will elaborate on what has changed and what the near term future looks like given these evolving dynamics.

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Now entering its third decade, the show is the world's leading engineered polyolefins forum featuring 70+ technical presentations, keynote speakers, networking, receptions, & exhibits that highlight advances in polyolefin materials, processes, and applications technologies as well as a growing range of thermoplastic elastomers (TPEs) and thermoplastic vulcanizates (TPVs). This year's conference will be held **October 6-9, 2019** at the Troy Marriott (Troy, Michigan) in the suburbs of Detroit.

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- Jeff Crist, Ford Motor Company

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- Sarah Gatzek, Ford Motor Company
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PROCESS DEVELOPMENTS & SIMULATIONS
- Kurt Anthony, Washington Penn Plastic Co., Inc.
- Dr. Suresh Shah, SPE Fellow
- Dr. Li Lu, Ford Motor Company

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- Mike Shoemaker, Borealis Compounds
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- Susan Kozora, IAC Group
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- Dr. Laura Shereda, Asahi Kasei Plastics North America

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- Kurt Anthony, Washington Penn Plastic Co., Inc.
- Dr. Suresh Shah, SPE Fellow
- Nihir Bhuva, Asahi Kasei Plastics North America

SUNDAY, OCTOBER 6, 2019 – TWO TECHNICAL WORKSHOPS: 3:00PM & 4:00PM

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A block of rooms has been reserved at the Marriott Troy for the SPE TPO Automotive Engineered Polyolefins Conference.

DETROIT SPE IS A CORPORATION

Patrick Farrey, CEO SPE - Inspiring Plastics Professionals

Dear Section & Division Leaders:

There have been several requests lately related to the "corporate paperwork" for Sections & Divisions. Let me offer some clarity:

- **Sections & Divisions are corporations**, organized independently from HQ. No one from HQ sits on any Section or Division Board, so we have neither legal authority nor corporate responsibility for compliance with any of the requirements of operating those corporations.
- As members of your Section or Division Board, you are a Director of the corporation which is your Chapter. This comes with the **significant personal responsibility** that you ensure all of the tasks required of a corporation are carried out.
- For all U.S.-based Sections & Divisions:
  - **Your Section or Division is a CT corporation.** In 2001, a decision was taken to move all corporate domiciles to CT.
  - **HQ files your CT annual reports.** But HQ cannot file your annual report if you do not provide the information required in the Ongoing Responsibilities paragraphs of SPE Policies 13 and 14.
  - You may also be required to **file additional documentation** in the state(s) in which you conduct business. This may include:
    - Application for "foreign qualification," receiving permission to operate in a state other than the state of incorporation;
    - Registration as a "charitable organization" in the state(s) you're soliciting contributions;
    - An annual report in the state in which you operate;
    - Licenses or permits for the activities you wish to undertake.
  - You are required by law (not by HQ) to maintain your Articles of Incorporation, Bylaws, list of your Board of Directors and meeting minutes, past and current. This is typically the **role of your Board Secretary**.
    - **SPE HQ does not maintain records on your Section's or Division's behalf.**
    - The only exception is that **HQ has your CT Certificate of Incorporation and copies of your CT Annual Report**. Contact kschacht@4spe.org for a copy.
  - By virtue of your Sections & Divisions status as an Affiliate Group of SPE, you are recognized as a **not-for-profit corporation**, exempt from most taxes under IRS Section 510(C)(3). The attached document is sufficient evidence of this status.
  - If you are asked to provide your **"organizing documents," "corporate papers" or "business filings,"** you are likely being asked to produce copies of one or more of the following:
    - Articles of Incorporation (filed at the inception of your Chapter)
    - Certificate of Incorporation (available from HQ)
    - Annual Report (available from HQ)
    - Bylaws (your Chapters', not HQ's)
    - List of Chapter Board of Directors (including contact info)
    - IRS Determination Letter of not-for-profit status (attached)
    - Your tax return (typically some version of IRS Form 990)
    - IRS W9 (including your EIN)
    - All other filings required for the location and activities of your corporate business.
  - **With the exception of those above, HQ cannot obtain any of the documents on your behalf. Hence, it is strongly suggested that you maintain a current file of all these in the event they are needed.**

- For all Sections & Divisions outside the U.S.:
  - Your Section or Division is also a corporation, and you as a Board member also have corporate responsibilities.
  - Your Board is responsible for compliance with all applicable federal and local requirements.
  - Because laws vary greatly country by country, SPE HQ cannot offer specific advice on the matters for all parts of the world.

Failure to meet your corporate obligations can result in significant fines and penalties, as some of our Sections and Divisions have recently discovered. You are strongly encouraged to familiarize your Board with the requirements and obligations of being a corporate Director, and to ensure compliance with these requirements.

I am available to discuss and support your specific needs. Should your Section or Division need professional advice, we have SPE General Counsel available as additional support. (Of course, legal costs incurred are the responsibility of the requesting Section or Division.)

WHY ARE YOU AN SPE MEMBER?

Dr. Sassan Tarahomi, SPE Detroit Section Councilor

There are so many reasons to be an SPE member. I listed a few below. What are your reasons for joining SPE? Email them to our editor (eve.vitale@series1one.com) to be published in the next newsletter.

Why I'm an SPE Member:

- To give back to our country and citizens
- Great opportunity to make a better future for everyone.
- Be part of a recognized group of people and enjoy the comradery
- Enjoy attending conferences, technical meetings and events related to plastics
- To plan events and activities and enjoy seeing them happen
- Have fun doing what I love to do
- It's the best way to learn leadership if you are willing to volunteer for key positions and do the work
- Connect with the right people in industry
- Learn more about plastics
- Access tons of difficult-to-find information about plastics
- To be a mentor, a coach or a teacher to colleagues, friends and the younger generation
- Change the negative perception about plastics.

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WHAT EVERY COUNCILOR SHOULD KNOW

Dr. Sassan Tarahomi, SPE Detroit Section Councilor

SPE Governance and Operations

There are many committees that oversee SPE Governance and Operations. All business is conducted under Robert's Rules of Order.

1. Annual Awards Committee
2. ANTEC Advisory Board
3. ANTEC Technical Program Chairs
4. Divisions Committee
5. Events Committee
6. Fellows Election Committee
7. Finance Committee
8. Honored Service Member Election Committee
9. Next Generation Advisory Board
10. New Technology Committee
11. Nominating Committee
12. Sections Committee

Role of a Councilor

- Mandatory duties:
  - Helping to ensure effective bi-directional communication; you are the person to report to your Section or Division and HQ.
  - Voting on Executive Board (EB) candidates and bylaw changes
  - General oversight and support of governance activities
  - Attending 4 or 5 Council and Council Committee of the Whole meetings.
- Volunteer duties:
  - Join other committees (volunteer)

Resources available to the Councilors

- Website
- VP Sections (Scott Eastman) or VP Divisions (Jason Lyons)
- SPE Staff, Title (Kathy Schacht)

Communications – The Chain

- SPE online private community platform
- Leadership Lane for Councilors and Chapter Board Members
- Industry Exchange

Council Meetings

- Agenda is set by president
- 4 meetings per year.
  - Council 1 and 2 at ANTEC
  - Fall meeting
  - End-of-Year meeting

JUNE
25

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SPE DETROIT ANNUAL GOLF OUTING

JUNE 25, 2019

BAY POINTE GOLF CLUB

4001 Haggerty Rd. West Bloomfield, MI

WHEN: Tuesday, June 25, 2019
TIME: 11:00am – Shot Gun Start!
FORMAT: Four person scramble & best ball.
INCLUDES: 18 Holes & Cart, Door Prize, Grilled Lunch & Dinner (Full Service Sit Down), Prizes and More!

COST:
$110/Person
$525/Foursome, includes Hole Sponsor
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Reserve Your Spot:
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DETROIT SPE ESSAY WINNERS
2019

Under the direction of Tom Miller, BASF, in the south, and Todd Hogan, Dow Chemical Company, in the north, Detroit SPE held its annual essay contest. We received 29 essays from 5 different schools: Warren Mott High School, Boulan Park Middle School, Hamilton High School, Freeland High School, and H.H. Dow High School.

DETROIT SPE 2019 ESSAY CONTEST WINNERS

North

First Place
Drowning in Plastic – Cultural not Material
by Shane Hogan, H.H. Dow High School
12th grade

Second Place
Giant Steps for Mankind
by Noah Mell, Freeland High School
12th grade

Third Place
The Impact of Plastics on the Automotive Industry
by Savannah Fiorenze, Freeland High School
12th grade

Fourth Place
Advantages of Plastic in Food Packaging
by Jimmy Wayne, Freeland High School
12th grade

Fifth Place
How Plastics Have Changed My Life
by Keeley Folts, Freeland High School
11th grade

South

First Place
The Benefits of Plastic
by Ritta Mouayed, Warren Mott High School
10th grade

Second Place
Plastics How They Propel our Society Forward
by Fardin Chowdry, Warren Mott High School
10th grade

Third Place
Advantages Plastic in Food Packaging
by Ishanya Saini, Boulan Park Middle School
7th grade

Fourth Place
The Significance of Plastics in our Society
by Karalynn Cryderman, Warren Mott High School
10th grade

Fifth Place
Convenience of Plastic in Food Storage
by Dina Toma, Warren Mott High School
10th grade

SOUTHERN ESSAY CONTEST WINNER

THE BENEFITS OF PLASTICS

Ritta Mouayed

Warren Mott High School

Plastic is one of the most common household items in today's society. It is versatile, strong, and long-lasting. For these reasons, plastic is commonly utilized in many products people use every day. Although they may not realize it, people use plastic when they go to the doctor's office, open a cleaning product, or drive their car. Plastic is very beneficial to humans, due to its role in the many advancements that have either created more comfortable lives for people, or in some cases even saved lives. Without the invention of plastic in 1907, many of today's technological advancements would not have been possible.

Without plastic, modern medicine would not be what it is today. From pace makers, to disposable needles, plastic is used in life saving machinery to keep people healthy and safe. One of the most important medical advancements using plastic are known as prosthetics. Prosthetics, which are artificial limbs used to help amputees, are made from plastic. They have improved the quality of life for many people who have lost their limbs and given back their mobility. "A company named Robohand® is using Makerbots® to create prosthetic hands that are significantly cheaper than traditional prosthetics. This discount is especially useful for children who may need many different prosthetics as they grow" (Craft-tech Industries). In addition to prosthetics, plastic is also used in the creation of pace makers. Pace makers allow people with heart problems to continue living somewhat normal lives, rather than being confined to a hospital bed until they get their life-saving surgery. Although they may not be seen as important, vaccination needles are made of plastic. Without them, humanity would not be able to prevent diseases, draw blood for testing, or distribute medications intravenously. If it weren't for the plastics industry, many of the groundbreaking medical advancements humanity has made would not have been possible.

Walking into any home, it is clear that plastic is used in almost every product inside. Cleaning products, plastic bottles, and food packaging are all household products that are made of plastic. "Strong, lightweight, and moldable, plastics are used in thousands of products that add comfort, convenience, and safety to our everyday lives" (Connecticut Plastics). Plastic is an extremely versatile product, which makes it possible to create many thing humans use in their everyday lives. Without plastic packaging many food items would rot much quicker, and therefore could not be sold. Plastic is also used to make products such as water bottles portable, so anyone can take them wherever they go. Plastic can be shaped and molded into many of the household products commonly used in modern society. Plastic allows people to live the lives they are accustomed to and makes everyday life much easier.

When driving a car, making a phone call, or watching a show, most people don't think about how without plastic they would not be able to perform these actions. "Electricity powers almost every aspect of our lives, at home and in our jobs, at work and at play. And everywhere that we find electricity, we also find plastics. In the kitchen, there are the labor-saving devices that we wouldn't be without; washing machines, microwave ovens, kettles. In the living room is the television, the video or the music system, while at work, we may use a computer. a fax machine or a telephone. Plastics make progress possible, making electrical goods safer, lighter, more attractive, quieter. more environmentally friendly and more durable" (bpf.co.uk). Plastic is used to create most of the electronic devices used today. Therefore, without plastic humans would not be able to do small tasks like texting, or much larger tasks like space exploration.

Although there are seemingly endless benefits to plastic, many critics argue about the harm it does to the environment. They say, plastic waste damages the oceans, as well as taking up space in landfills because it does not decompose. While it's true these effects of plastic are problematic, there is a solution. Several companies worldwide are working on reducing or completely eliminating plastic waste, to make plastics a cleaner and more desirable source. According to National Geographic, "Two hundred and fifty organizations responsible for 20 percent of the plastic packaging produced around the world have committed to reducing waste and pollution" (Howard, Gibbens, Parker). Companies have taken notice of the plastic problem and have begun making changes to the way they handle plastic waste. This initiative has not only gained support from retailers, but it also has the support from the UN. Plastic waste is undoubtedly an environmental issue, but it

comes with a solution which ends with plastic making the world a better place for humans and the environment alike.

As a whole, the plastics industry benefits humans in a multitude of ways. Plastic allows humans to have a healthier, longer, and all-around safer life with the contributions the invention of plastic has made to modern medicine. Plastic also allows people to store food longer, store certain products, and creates a way to have portable food and drinks. In addition to these benefits, plastic also allows people to have safer ways to travel, as well as making communication easier through the use of electronics. Plastic is light-weight, hygienic, and easy to shape, which make it one of the best materials to create new technologies and further advance human innovation as a whole.

Works Cited

Bpf. "British Plastics Federation." *Polyethylene (High Density) HDPE*, British Plastics Federation, www.bpf.co.uk/innovation/plastics_in_electrical_and_electronic_applications.aspx.

Industries, Crafttech. "The Many Uses of Plastic Materials in Medicine - *Craftech Industries* - High-Performance Plastics - (518) 828-5001." Craftech Industries, 7 Apr. 2017, www.craftechind.com/the-many-uses-of-plastic-materials-in-medicine/.

Howard, Brian Clark. "A Running List of Action on Plastic Pollution." *National Geographic*, National Geographic, 20 Dec. 2018, www.nationalgeographic.com/environment/2018/07/ocean-plastic-pollution-solutions/.

"Perfect Plastic: How Plastic Improves Our Lives." *Connecticut Plastics*, 26 June 2015, www.pepctplastics.com/resources/connecticut-plastics-learning-center/perfect-plastic-how-plastic-improves-our-lives/.

NORTHERN ESSAY CONTEST WINNER DROWNING IN PLASTIC: CULTURAL NOT MATERIAL

Shane Hogan

Dow High School

It's 2019 and planet earth is trending. The zero waste movement is digging its way to the forefront of the public consciousness. Unfortunately, this movement, while ultimately positive, often leans on a major misconception as it puts plastic products directly in its line of fire. Petroleum plastic, in just about any shape or form, has become the scapegoat for our current environmental crisis. New legislation is popping up around the nation, from Seattle[1] to Hawaii[2], enacting bans on disposable plastic straws and grocery bags, while new companies, cashing in, have begun to bring their own disposable alternatives to the table. All of this blame, however, is largely misdirected. Because plastic isn't the problem: people are the problem. In order to lower our environmental impact here at home, we're going to need a much larger cultural change.

The problem of plastic waste is a real and serious concern. According to a 2015 study published in Science Magazine, there were over 275 million tons of plastic waste generated worldwide in 2010[3]. Much of this waste finds its way into our oceans[4]. This has significantly detrimental effects on global marine life. The number of species known to have been affected by either entanglement or ingestion of plastic debris has doubled since 1997, from 267 to 557 species among all groups of wildlife. Turtle species have been harmed most drastically, with affected numbers rising from 86 percent to 100 percent of all known species[5]. Furthermore, considering that for 4.3 billion people worldwide, seafood accounts for 15 percent of the animal protein in their diets[6], and considering that microplastics in the ocean have been found to contain toxic chemicals such polychlorinated biphenyl, it should be of human concern to try to

prevent the biomagnification of these chemicals, which could negatively impact our health[7]. If we don't change our relationship with plastic waste soon, Jambeck et al. have projected that the problem will "increase by an order of magnitude by 2025," and with it will come boundless negative consequences.

This is a major concern, but the issue with the solutions like the plastic straw and bag bans in California is that, while they do serve to alleviate the severity of our waste management crisis, all they do is encourage the substitution of one environmentally-harmful product for another. Many of the disposable alternatives, while biodegradable, often take more energy to produce than their plastic counterparts[8]. For example, data published by the Danish Environmental Protection Agency in 2018 shows that a standard paper grocery carrier bag would have to be reused up to 43 times in order to have as low an overall environmental impact as a plastic (low-density polyethylene) bag. The problem here being, of course, that these paper alternatives are most often single-use. The heart of this problem is not the plastic itself. This crisis is not material, but cultural, derivative of our western consumerist mindset.

In her TED talk about this issue, Leyla Acaroglu best surmised the essence of modern-day consumerism: "[...] when we need to make complex choices, us humans like really simple solutions, and so we often ask for simple solutions."[9] Disposable products are that easy solution. They don't have to be cleaned or maintained, they are extremely inexpensive in the short-term, and, thanks to our modern waste management infrastructure, most people don't have the opportunity to see the long-term effects of their choices. This culture, however, is the direct cause of so many of the environmental waste problems of our modern society. We don't need a new material, we need a new mindset. We need to begin thinking of the long-term, and start making purchases on the premise of their environmental impact, not because they offer convenience. This begins with limiting buying habits. Purchases should be made with the intent to use the product for a long period of time. Purchasing a reusable product only to throw it away simply increases a person's negative impact. Likewise, disposing of single-use products before they've been consumed in order to replace them with new, reusable products is equally wasteful. New purchases should be made out of absolute necessity, and they should be made to last.

It is important to note that the same principles applicable to disposable plastic alternatives are relevant to reusable products. I find that it is all too common for any and all plastic to be framed as "evil" by companies and organizations at the forefront of the zero waste movement. However, according to the evidence gathered here, perhaps the use of plastics for reusable products should actually be encouraged, not vilified. A 2016 Trucost study supports this claim, finding that, in general, the environmental cost of plastic in consumer goods is 3.8 times less than their non-plastic alternatives[10]. This has to do with two main factors, often not considered by most consumers: energy required to make the material and the energy required to transport the same amount of material. A more direct example would be to compare the energy consumption of a 16 oz. glass Mason jar, a staple of the mainstream zero waste movement, to the energy consumption of an equivalent PET container, such as a 16 oz. peanut butter jar. A 2017 study done by students at Carnegie Mellon University found that one 16 oz. glass Mason jar requires 1.7 kilowatt-hours of energy to produce[11]. Based on data provided by the Pacific Institute[12], it can be extrapolated to determine that a 16 oz. PET equivalent would cost about 0.45 kilowatt-hours comparatively. Furthermore, energy consumption in transit is cut drastically, such as when Planters peanuts switched their jars from glass to plastic in 2011, resulting in an 84 percent reduction in packaging material and a 25 percent reduction in trucks on the road to transport[13].

Plastic is lighter, easier to make, and overall has a smaller carbon footprint than its competitors. The current crisis is not due to flaws inherent to the material itself, but due to mismanagement of plastic waste. If we manage our resources wisely, plastic has the potential to be the material of a sustainable future. If we continue on our current course of action, however, then we may soon find ourselves drowning in plastic.

REFERENCES

[1] "Seattle Becomes First U.S. City to Ban Plastic Utensils and Straws." CBS News, CBS Interactive, 2 July 2018, www.cbsnews.com/news/seattle-becomes-first-u-s-city-to-ban-plastic-utensils-and-straws/.

[2] Brestovansky, Michael. "Lawmakers Seek to Ban or Restrict Use of Plastic Straws." Hawaii Tribune-Herald, 31 Jan. 2019, www.hawaiitribune-herald.com/2019/01/31/hawaii-news/lawmakers-seek-to-ban-or-restrict-use-of-plastic-straws/.

[3] Jambeck, J. R., Geyer, R., Wilcox, C., Siegler, T. R., Perryman, M., Andrady, A., ... & Law, K. L. (2015). Plastic waste inputs from land into the ocean. Science, 347(6223), 768-771. Available at: http://science.sciencemag.org/content/347/6223/768.

[4] Li, W. C., Tse, H. F., & Fok, L. (2016). Plastic waste in the marine environment: A review of sources, occurrence and effects. Science of the Total Environment, 566, 333-349. Available at: https://www.sciencedirect.com/science/article/pii/S0048969716310154.

[5] Kühn, S., Rebolledo, E. L. B., & van Franeker, J. A. (2015). Deleterious effects of litter on marine life. In Marine Anthropogenic Litter (pp. 75-116). Springer, Cham. Available at: https://link.springer.com/chapter/10.1007/978-3-319-16510-3_4.

[6] Oceans Crucial for Our Climate, Food and Nutrition." International Rice Commission Newsletter Vol. 48, FAO of the UN, 25 Sept. 2014, www.fao.org/news/story/en/item/248479/icode/.

[7] Revel, M., Chatel, A., & Mouneyrac, C. (2018). Micro (nano) plastics: A threat to human health?. Current Opinion in Environmental Science & Health, 1, 17-23. Available at: https://www.sciencedirect.com/science/article/pii/S2468584417300235

[8] Bisinella, V., Albizzati, P. F., Astrup, T. F., & Damgaard, A. (2018). Life Cycle Assessment of grocery carrier bags. Available at: https://www2.mst.dk/Udgiv/publications/2018/02/978-87-93614-73-4.pdf.

[9] Acaroglu, Leyla. "Paper Beats Plastic? How to Rethink Environmental Folklore." TED, TED, 2013, www.ted.com/talks/leyla_acaroglu_paper_beats_plastic_how_to_rethink_environmental_folklore/footnotes#t-288528.

[10] "The True Costs of Plastic Packaging." Plastic Packaging Facts, American Chemistry Council, July 2016, www.plasticpackagingfacts.org/resources/plastics-and-sustainability-a-valuation-of-environmental-benefits-costs-and-opportunities-for-continuous-improvement/.

[11] "Students Probe Energy Savings in Coffee Cups, Mason Jars." Humboldt State University, 26 June 2017, now.humboldt.edu/news/students-probe-energy-savings-in-coffee-cups-mason-jars/.

[12] Bottled Water and Energy Fact Sheet. Pacific Institute, Feb. 2007, pacinst.org/publication/bottled-water-and-energy-a-fact-sheet/.

[13] Mohan, Anne Marie. "Knowledge Exchange for Sustainable Packaging." Greener Package, 13 Feb. 2012, www.greenerpackage.com/source_reduction/planters_peanuts_switches_plastic_packaging.

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2019 SPE DETROIT SECTION SCHOLARSHIP APPLICATION

The purpose of the Society of Plastics Engineers Detroit Section Scholarship is to provide funding for students attending an eligible Michigan college or university while demonstrating a high level of career interest in the Plastics Industry.

Eligibility Criteria:

1. Students enrolled at either a four-year college/university or two-year community college degree program (minimum requirements of six credit hours per semester) pursuing a career directly related to plastics (i.e. Plastics Engineering, Polymer Engineering/Science, Packaging Engineering, Material Engineering/Science, Composite Materials and Structures, Chemical Engineering, Chemistry or Mechanical Engineering).
2. Active SPE student member including active membership in your schools SPE Student Chapter if applicable.
3. Applicant has not received or anticipates receiving any other scholarship from the SPE during the current award year.
4. Applicants must maintain a minimum cumulative grade point average (GPA) of 2.8 (4.0 scale) from the prior school year.
5. Applicants must demonstrate a high degree of intent to pursue a career in the Plastics Industry.

Eligible Colleges/Universities:

College for Creative Studies
Delta College
Eastern Michigan University
Ferris State University
Focus Hope University
Kettering University
Lawrence Tech University
Macomb Community College
Michigan State University
Michigan Technological University
Mid-Michigan Community College
Oakland Community College
Oakland University
Saginaw Valley State University
Schoolcraft College
St. Clair County Community College
University of Detroit Mercy
University of Michigan
Wayne State University
Central Michigan University

Application Procedure:

To be considered for a SPE Detroit Section Scholarship, applicants must submit a complete application package (**electronic copy preferred**) by August 5th, 2019 as outlined in the application checklist. Application and all checklist documents must be sent together via hard copy or eMail to the 2019 Scholarship Committee Chairperson (Tom Miller).

2019 SPE DETROIT SECTION SCHOLARSHIP APPLICATION

Awards:

Scholarship awards will range from $500 to $4,000 annually at the discretion of the SPE Detroit Section Scholarship Committee. SPE Student Chapter officer participation can increase the amount of funds awarded. Scholarships are valid for 1-year and recipients must submit a new application each year to be considered for future scholarship awards. All scholarships will be reimbursed once registered transcripts have been received from the university/college showing that all requirements have been fulfilled.

All Society of Plastics Engineers Detroit Section scholarships are rewarded without regard to race, sex, religion, age or national origin. The Society of Plastics Engineers Detroit Section will not award scholarships to applicants whom they deem are not qualified and reserve the right to not award scholarships in any given year as it so chooses.

Please don't hesitate to contact me if you have questions or need additional information.

Tom Miller – SPE Detroit Section Scholarship Committee Chairperson
BASF Performance Materials
1609 Biddle Avenue
Wyandotte, MI 48192
Thomas.Miller@basf.com
586-291-5289

Sponsor Advertising Guidelines

We need sponsors for the ***Trends & Topics*** Newsletter!

To reach our members, SPE Detroit Section distributes an electronic Newsletter 6 times a year. All ads are full color and copies of the newsletter are posted on the Detroit Section website. A limited minber of copies will only be printed to promote the section at various shows.

Acceptable to size file formats for advertising include:

- Portable Document Files (PDF) *preferred*:
  300 dpi resolution. Fonts must be embedded.
- Photoshop .tif Files:
  300 dpi resolution, RGB color model.
- JPG Files:
  300 dpi resolution, RGB color model.

If any other formats are to be submitted, please contact Jim at Maple Press 248-733-9669, fax 248-307-1777, or orders@maplepressprinting.com.

In addition to the ad, Sponsors of PC level and greater will have the opportnity to publish a press release one per year.

Note: Artwork for your first newsletter, is the artwork that will be used for the entire year.

Please contact, Chris Surbrook at 989-495-9367. or 989-205-6960
Email: csurbrook@midlandcompounding.com, or Bob at: robertpetrach@aol.com, for space reservations.

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PC Level **$1000**	**1/4th Page Color Ad** 3-7/8" x 4-3/4" (98.4249 mm x 120.6499 mm)	
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Advertising rates are based on a 6 time run starting in September.

Please email or call for information on other Sponsorship oppotunities or less than full year rates after October 1st.

2019 PLANNED EVENTS

SPE Detroit

DATE	EVENT	LOCATION
May 7, 2019	Auto EPCON	Detroit Marriott –Troy
May 13, 2019	Technical Dinner Meeting – Molding Concepts, Inc.	Molding Concepts, Inc. 6700 Sims Drive Sterling Heights, MI 48313
May 20, 2019	SPE Detroit Section Board Meeting	ACC 5750 New King Dr. Suite 120, Troy
June 10, 2019	Technical Dinner Meeting – Emitted Energy Corp.	Rapid Coating Solutions 6559 Diplomat Dr. Sterling Heights, MI 48314
June 24, 2019	SPE Detroit Section Planning Meeting	Michigan State University Management Education Center 811 W. Square Lake Rd., Troy
June 25, 2019	SPE Detroit Section Golf Outing	Bay Pointe Golf Club 4001 Haggerty Rd. West Bloomfield

TOPICAL CONFERENCE & SYMPOSIUM

Registration is Open for 2019 Topical Conference & Symposium
Joint Conferences Bring Added Value for Attendees

April 4, 2019 – Registration is open for the 2019 SPE Decorating & Assembly Division Topical Conference (TopCon), which will run in conjunction with the 2019 In-Mold Decorating Association (IMDA) Symposium. Both conferences will take place June 3-4 at the Franklin Marriott Cool Springs outside Nashville, Tennessee, with an opening reception on the evening of June 2.

The joint conferences – SPE Decorating & Assembly Division Topical Conference (TopCon) and the IMDA Symposium – will bring added value to attendees through an exceptionally broad selection of experts in all fields of plastics decorating, assembly and in-mold decorating/labeling. There will be both combined and separate programming for the event. In addition to a wide selection of paper presentations, this year will include focused workshops where attendees can discuss specific topics in a small group where networking and participation is encouraged.

The event also will include a Supplier Trade Fair – open to all conference attendees – with tabletop exhibits from leading suppliers to the industry.

For details on specific sessions and workshops, the full schedule, hotel information and online registration, visit www.plasticsdecorating.com/topcon-2019/. For questions, call 785.271.5801 or email jeff@petersonpublications.com.

CENTRAL INDIANA

2019 DAY AT THE TRACK

The Central Indiana SPE chapter will again host this great event on Fast Friday in a VIP Suite, creating another outstanding day of fun, networking and relationship building!

Please join us for this exciting day in our luxurious private VIP suite. The suite accommodations include indoor seating, access to garage area and pit lane, full service bar, closed circuit TV, and historic Indy 500 memorabilia. All-access garage and pit passes are also included so you can see firsthand examples of how plastics are utilized in the racing industry.

Date (rain or shine):
Friday, May 17

Time:
10:00 AM – 6:00 PM

Location:
Indianapolis Motor Speedway in Gasoline Alley (private suite)

Costs (includes both pit and garage pass, lunch, full service open bar, and snacks)
$195 per person

For reservations, event sponsorship or questions please contact Dan Stratton at 317-442-1451 or e-mail: ddkstratton@indy.rr.com. You can also pay through PayPal.

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	Nippani Rao	Asahi Kasei Plastics		248-444-1753	nippanirao@aol.com
	Tom Powers	Consultant		248-877-0689	tpowers@ejourney.com
	Norm Kakarala	Inteva Products Retired	248-433-1227	248-840-6747	sriman.kakarala@gmail.com

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