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A PUBLICATION OF THE AUTOMOTIVE DIVISION OF THE SOCIETY OF PLASTICS ENGINEERS

Plastics News







AUTOMOTIVE COMPOSITES CONFERENCE & EXHIBITION

Novi, MI • September 6-8, 2023
Presented by SPE Automotive and Composites Divisions

WORLD'S LEADING AUTOMOTIVE COMPOSITES FORUM

SPE® ACCE 2023 PREVIEW SECOND AND THIRD KEYNOTE SPEAKERS ANNOUNCED

The executive planning committee for the SPE® Automotive & Composites Conference & Expo (ACCE) has announced the second and third keynote speakers for their ACCE 2023 event **September 6-8, 2023** at the Suburban Collection Showplace in Novi, Michigan. See page 8-10 for more information.





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MEETING SCHEDULE & SPECIAL EVENTS CALENDAR

28 th -Annual SPE Automotive Division Golf C Fieldstone Golf Course Auburn Hills, MI USA	Outing All Day September 5, 2023
23 rd -Annual Automotive Composites Conference and Exhibition (ACCE) Suburban Collection Showplace, Novi, MI USA	All Day September 6-8, 2023
SPE Auto. Div. Board Meeting Virtual	5:30 - 7:30 p.m. September 18, 2023
28 th -Annual SPE TPO Global Engineering Polyolefins Conference (TPO) Detroit Troy Marriott, Troy, MI USA	8:00 a.m5:00 p.m. October 1-4, 2023
52 nd -Annual Innovation Awards Competition Burton Manor Livonia, MI USA	& Gala (IAG) 4:30 - 11:00 p.m. November 8, 2023
SPE Auto. Div. Board Meeting Virtual	5:30 - 7:30 p.m December 4, 2023
2024 ANTEC Marriott St. Louis Grand, St. Louis, Missouri	All Day March 4-7, 2024
2024 Electric and Autonomous Vehicles Conditions Troy Marriott Troy, MI USA	ference (EAV) 8:00 a.m5:00 p.m. April 8-10, 2024
2024 AutoEPCON Conference Detroit Troy Marriott Troy, MI USA	8:00 a.m5:00 p.m. May 7, 2024
SPE Auto. Div. Board Meeting Virtual	5:30 - 7:30 p.m. June 17, 2024

Automotive Division Board of Directors meetings are open to all SPE members. All events are listed on our website at http://speautomotive.com. Email **Dr. Sassan Tarahomi** at auto-div-chair@speautomotive.com for more information.

SPE AUTOMOTIVE DIVISION NEW ADMIN STAFF

MR. JAMES MUNRO was hired as a part time staff last July to take over for various tasks that are currently handled by volunteers, treasurer and contractors. All sponsorship contact with SPE automotive for ACCE Conference, EAV Conference, IAG and Golf Outing event will go through James. James also will be our lead person for purchasing the awards, certificates and name tags and further preparation of these items for all of our event. James will assist with various tasks required to be done to insure success of our conferences and events. James will be the go to guy in our division to assist with any help or direct the need to the right person in our team. James will participate in all of events and will assist with meeting set-up and food catering for our board meeting if need be.

James will be mainly working from his home near Troy and from time to time will be at the ACC office.

We welcome James to the SPE Automotive Division and his new position. If you are at the ACC office and James happen to be there, then please stop to see him and introduce yourself and let him know what you do for our division. Please let me and James know how we can be of any help to you.

Here is James contact information:

SPE Automotive Division New Admin Staff
James Munro

Phone #: +1.248.506.0816

Email: jmunro_gto@yahoo.com

Address: SPE Automotive Division, New Kings Drive, Troy, MI

CHAIR'S WELCOME

SASSAN TARAHOMI, SPE AUTOMOTIVE DIVISION CHAIR



My dear SPE members, hoping all of you are having a great summer. I have been very busy with work, family and SPE activities as well. I wanted to let you know that we need to find time to relax and reflect on our actions and activities. This Summer we have seen many temperature records shattered all across the world including here in the United States. According to CNN's Eric Zerkel more than 1,000 high temperature records have been broken in the United States since June.

We can help by recycling. Based on several university studies, if everyone of us recycles half of our everyday household waste, we would save 2,400 pounds of carbon dioxide per year.

Now, let me tell you about our programs. We had a great second year Plastics in EAV Conference last April 17-19. We decided to hold this year's panel discussion in the main hall on Tuesday morning, April 18. Topic of the Panel Discussion was Thermal Runaway Protection, which was moderated by Dhanendra Nagwanshi, SABIC and Dr. Jeff Helms, Celanese.

We had 66 technical presentations in eight sessions on three parallel tracks. Many thanks to Dr. Norm Kakarala and Dr. Suresh Shah for managing the technical programs for this conference. With the great leadership of Tom Picket running the keynote subcommittee, we had very exciting and well attended keynote events. On Monday morning, we had Ms. Jamie Brewer, GM Executive Chief Engineer Electric SUVs presented GM's EV/AV Strategy and Innovation followed by Jeff Makarewicz, Group Vice President Technical Resources Toyota North America R&D who presented the Key Challenges, and Innovative Ideas to Navigate the Road to Future Mobility. On Tuesday morning we had Dean Stevenson, Rivian Senior Director of Interiors who delivered a great keynote on Systematizing Sustainability followed by, Alan Amici, President and CEO of Automotive Research (CAR) with a great keynote on Assessment of Inflation Reduction (IRA) Act Impacts

on North American Electric Vehicle Supply Chain. On Wednesday morning, Dr. Kevin Swift, Senior Economist, ICIS Global Chemicals presented the Long-term Scenarios for Automotive Plastics.

We recognized many students from Ecotec and several universities across United States and Canada and presented them with Student Participation as well as Awards. Our 2024 EAV kick-off monthly meeting is just around the corner and our entire committee team and many more volunteers are excited to help us on this event.

We have a golf outing coming up on September 5th at the Fieldstone Golf Club. Hope to see many of you there.

Next, the 2023 ACCE is planned for September 6-8. Dr. David Jack from Baylor University and Dr. Christoph Kuhn from Volkswagen Group of America, Inc. are the co-chairs of this conference. I recommend you to visit our website for the latest info on this event. I am looking forward to attending this conference and plan to meet many new friends in the composite industry there.

I am happy to tell you that our division is in great shape and all volunteers are working hard to support our activities and we just recently hired Mr. James Monro to assist us with the division's administrative tasks. Please welcome James to our SPE family. He will be mainly working out of his house but from time to time may be at American Chemistry Council in Troy. I am pretty sure you will meet him at our Golf outing and ACCE event

See you out there and have a great rest of your summer.

Your Division Chair Sassan

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28TH ANNUAL SPE GOLF OUTING

PROCEEDS BENEFIT SPE STUDENT CHAPTERS

2023 SPONSORSHIP OPPORTUNITES

	TYPE OF ONSORSHIP	COST	BENEFITS INCLUDE
CO	NTEST HOLE	\$1000. USD	1 foursome, signage, flag & more
	HOLE	\$750. USD	1 foursome & signage
В	REAKFAST	\$1500. USD	2 foursomes & signage
	LUNCH	\$2000. USD	2 foursomes, signage & 100 fliers printed & distributed at the event promoting sponsoring company or its products
	DINNER	\$3000. USD	3 foursomes, signage, company message / logo on dinner table centerpieces, 100 fliers printed & distributed at the event promoting sponsoring company or its products

Please note that Team Captains are asked to bring donations for the Prize Table.

SPONSORSHIP CHAIR:

Teri Chouinard, Intuit Group +1.248.701.8003 Intuitgroup@gmail.com

https://speautomotive.com/spe-golf-outing-2023/

SEPT 5 2023

COST:

\$500. USD/Foursome \$125. USD/Player

PROGRAM:

8:30am: Sign-in & Continental Breakfast

10:00am: Shotgun Start

Box Lunch at Turn

3:30pm:

Buffet Dinner

4:00pm:

Awards & Prizes



FIELDSTONE GOLF CLUB
1984 Taylor Road Auburn Hills, MI

TREASURER'S REPORT

JITESH DESAI, SPE AUTOMOTIVE DIVISION TREASURER



31 JULY 2023

2023 has been an exciting year with opportunities to support division objectives and devote as much funds as possible towards education. First time SPE Automotive Division board has committed \$100,000 towards education activities with SPE Foundation education initiatives. Of which \$50,000 has been paid to date.

AS OF JULY 31, 2023, THE DIVISION'S ACCOUNT BALANCES WERE:

Checking: \$400,182.03 Savings: \$27,607.12 Total: \$427,789.15

Financial status as of July 31, 2023, for the

fiscal year net operating revenue of \$489,094.16. Thank you to SPE Automotive Division for support, guidance and entrusting in me the confidence. I am looking forward to working with the team and commit to doing my best to support the organization to further our goals and carry out SPEAD mission.

Thank you to Sassan for his leadership, and Bonnie for supporting me while I was on vacation. Tax year 2022 ended on 31 December 2022. SPE Automotive will be filing IRS return in coming months (have applied for and obtained an extension of 180 days).

We have set a goal of external audit of our books before the end of 2023. As finalized accounts are audited results will be shared. 2023 Budget was passed during February 2023 Board Of Directors Meeting.





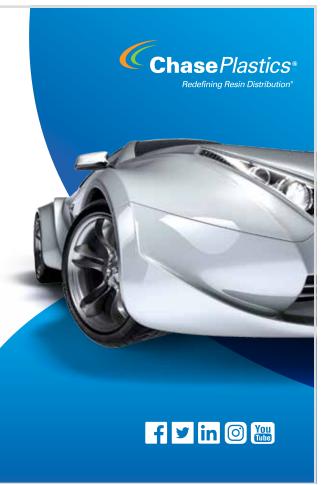


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A ROLE FOR COMPOSITES IN GM'S VISION FOR SIMULATION DRIVEN & SUSTAINABLE MATERIAL IMPACT

Jason Coryell, P.E., FASM
Engineering Group Manager, Advanced Materials Technology,
General Motors Co.

The executive planning committee for the SPE® Automotive Composites Conference & Expo (ACCE) is announcing the second keynote speaker for their ACCE 2023 event Sept. 6 – 8, 2023 at the Suburban Collection Showplace in Novi, Michigan. Jason Coryell P.E., FASM - Engineering Group Manager – Advanced Materials Technology at General Motors Company, will present A Role

JASON CORYELL is an Engineering Group Manager - Advanced Materials Technology at the General Motors Company. His team is responsible for leading material innovation across the company and material card development for virtual design, development, and validation. Prior to this role, Jason spent six years managing the Body Structures and Closures Materials Engineering team, three years as a Technical Integration Engineer in the Body Manufacturing - Advanced Technology Group, and ten years as a Project Engineer in the Body Materials Engineering Group, with special assignments in Research and Development. He holds a Master's of Science degree from the Colorado School of Mines and a Bachelor's of Science and Engineering degree from the University of Michigan - Ann Arbor. Jason is also a licensed Professional Engineer in the state of Michigan and a Fellow of ASM International.

For Composites In GM's Vision For Simulation-Driven & Sustainable Material Impact. The presentation will highlight General Motors' vision to reduce physical testing and move towards a virtual simulation-based design and validation, requiring close collaboration with working partners within the materials and automotive industry communities. The presentation will also cover key aspects of Sustainability to ensure that composites now and into the future are in line with GM's corporate goals to reduce the overall carbon footprint of materials used in GM vehicles. "Our vision requires significant collaboration within the supply chain," said Coryell. "Composites and component suppliers will be brought along on this journey as we work together to apply data-driven strategies for composites as a general commodity, looking at new technologies to increase overall product sustainability."

THIRD KEYNOTE ANNOUNCED FOR SPE® ACCE 2023 EVENT:

AN OVERVIEW OF TRANSPORTATION TRENDS AND RELATED OPPORTUNITIES

Gregory E. Peterson
Chief Engineer at Airspace Experience Technologies (ASX)

Gregory E. Peterson, Chief Engineer at Airspace Experience Technologies (ASX) will present "An Overview of Transportation Trends and Related Opportunities." The presentation will begin with an historic perspective of the transportation industry and its impact on the supply chain network. It will include examples of timelines for new technologies to emerge and replace mature products. Using this data, parallels to today's evolving markets will be presented. It will review three paradigm

shifts in technology that are impacting today's transportation markets including: 1. The transition to substantially more efficient vehicles; 2. The shift from human vehicle control to electronic vehicle control; and 3. The shift from 2D to 3D transportation. The presentation will cover opportunities for plastic/composite suppliers in emerging market sectors, including eVTOLS, as well as providing simple holistic math models showing that high- performance plastics and composites that cost more than base materials can potentially reduce new vehicle costs.

"The use of polymer composites technologies will increase as ground and air mobility transportation progresses into the future," said Peterson. "Composites have historically offered greater design flexibility, structural strength and lower mass in comparison to other materials but at a higher cost which typically limits applications to shorter run production and high end vehicles," continued Peterson. "Increasing efficiency in electric mobility applications by reducing vehicle weight allows increased range without increasing battery energy. Since the battery is one of the heaviest and highest cost elements (on a \$/lb. basis) on an EV, using composites is a means to cost effectively increase EV range. This total vehicle, holistic approach can result in expanding opportunities for suppliers."

As previously announced, **OUR FIRST KEYNOTE** planned for the ACCE 2023 event is: What Does Disruptive Electrification of Transport Mean For Industrialization of Composites? by Joe Summers, Commercial Director Airborne & Managing Director Airborne UK. See SPE Automotive News Spring23 for more information.



GREGORY PETERSON has worked at Pontiac Product Engineering, Chevrolet-Pontiac-Canada Advanced Vehicle Engineering, DaimlerChrysler Street and Racing Technology and Lotus as well as at numerous Tier 1 companies. His background includes lightweight structure design, aero-thermal systems, powertrain (ICE and Electric), joining technologies, solid state control systems, power generation, chassis design and development and lightweight materials. He was part of GE Plastic's advanced engineering team at Autopolymer Design. He has over forty years of transportation experience including automotive, aerospace and heavy truck. He holds 15 patents in multiple fields. He is the Chief Engineer for ASX, an eVTOL (electric Vertical Takeoff and Landing aircraft) OEM with headquarters at Detroit City Airport (link:https://www.iflyasx.com/about-us). ASX completed the build of its full size, 900+ HP, prototype last summer and started initial development. The near 40' wingspan Sigma Six plane was publicly unveiled at the 2022 Detroit NAIAS showcasing its quick connect cargo and passenger modules (with pre-charged, integral battery packs) delivered by an electric shuttle.

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THE 2023 ACCE TECHNICAL PROGRAM will include 80 – 100 presentations on current and future industry advances in the following categories: Composites in Electric Vehicles; Advances in Thermoplastic Composites; Advances in Thermoset Composites; Modeling of Composites; Additive Manufacturing & 3D Printing; Enabling Technologies; Sustainable Composites; Bonding, Joining & Finishing; Carbon Composites; and Business Trends/Tech Solutions.

THE ACCE FEATURES technical sessions, panel discussions, keynotes, and exhibits highlighting advances in materials, processes, and equipment for both thermoset and thermoplastic composites in a wide variety of transportation applications. Networking breakfasts, lunches, and receptions enhance the value of the event that typically attracts over 800 attendees from across the globe. Since 2001, the Automotive and Composites Divisions of the Society of Plastics Engineers (SPE®) have jointly produced the ACCE to educate the industry about the benefits of composites in transportation applications.

ABOUT THE SPE ACCE

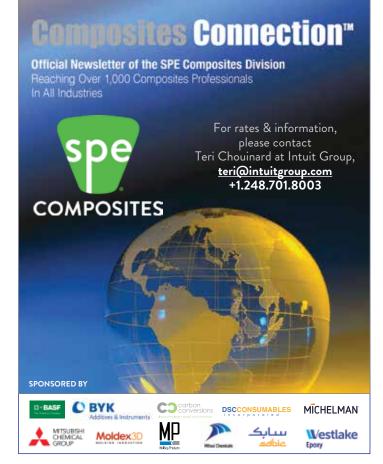
Held annually in suburban Detroit, the ACCE draws over 800 speakers, exhibitors, sponsors and attendees and provides an environment dedicated solely to discussion, education and networking about advances in transportation composites. Its global appeal is evident in the diversity of exhibitors, speakers, and attendees who come to the conference from Europe, the Middle East, Africa, and Asia/Pacific as well as North America. About 20% of attendees work for automotive and light truck, agriculture, truck & bus or aviation OEMs and another 25% represent tier suppliers. Attendees also work for composite materials processing equipment, additives, or reinforcement suppliers; trade associations, consultancies, university and government labs; media; and investment banks. The show has been produced by the SPE Automotive and Composites Divisions since 2001.

THE MISSION OF SPE is to promote scientific and engineering knowledge relating to plastics worldwide and to educate industry, academia, and the public about these advances. SPE's Automotive Division is active in educating, promoting, recognizing, and communicating technical accomplishments in all phases of plastics and plastic-based composite developments in the global transportation industry. The SPE Composites Division is dedicated to the growth of composites in multiple industries. Topic areas for both divisions include applications, materials, processing, equipment, tooling, design, and development.

For more information see http://composites.4spe. org. For more information on the Society of Plastics Engineers, see www.4spe.org.

SPE® ACCE 2023 IS PRESENTED BY SPE AUTOMOTIVE AND SPE COMPOSITES DIVISIONS









SPE® ANNOUNCES "CALL FOR NOMINATIONS" FOR 52ND ANNUAL AUTOMOTIVE INNOVATION AWARDS COMPETITION & GALA – PLASTICS: CHARGING INTO THE AUTOMOTIVE REVOLUTION

The Automotive Division of the Society of Plastics Engineers (SPE®) is announcing a **CALL FOR NOMINATIONS** for its 52nd annual **Automotive Innovation Awards Gala**, *the oldest and largest recognition event in the automotive and plastics industries* (established in 1970). This year's Awards Gala will be held Wednesday, **November 8, 2023** at the Burton Manor in Livonia, Mich. Winning part nominations, due by **September 8, 2023**, in 10 different categories, and the teams that developed them, will be honored with a **MOST INNOVATIVE USE OF PLASTICS** award. Categories include: Aftermarket & Limited Edition/Specialty Vehicles, Body Exterior, Body Interior, Chassis/Hardware, Electric and Autonomous Vehicle Systems, Sustainability, Materials, Powertrain, Process / Assembly / Enabling Technologies, and Safety. A **GRAND AWARD** will be presented to the winning team from all category award winners.

An application that has been in continuous use for 15 years or more, and has made a significant and lasting contribution to the application of plastics in automotive vehicles, nominations due by **May 31, 2023,** will be honored with a **HALL OF FAME** award. Additional criteria for a HOF award is that the nomination be: game changing; very successful worldwide; innovative in materials, process and application; and still being used. The HOF committee consists of engineers, managers, executives, technical experts, SPE Fellows, SPE Honored Service Members and automotive industry technical experts having served at least 30 plus years in the industry.

Nominations must be submitted online via:

https://speautomotive.com/wp-content/uploads/2023/02/2023-SPE-Innovation-Awards-Program-Part-Nomination-Form-V1.pdf

"Plastics are continuing to lead the charge in enabling innovative advancements in automotive electric vehicles, autonomous vehicles and traditional ICE (Internal Combustion Engine) vehicles" said Dr. Jeffrey Helms, global automotive director, Celanese Corp., who returns as the 2023 SPE Automotive Innovation Awards chair. "Plastics are the superior material enhancing the revolution in electic vehicles and other mobility applications," added Helms. "This year's event will highlight and celebrate how plastics are leading the advancement of the automobile."

Since 1970, the SPE Automotive Innovation Awards Competition has highlighted the positive changes that polymeric materials have brought to automotive and ground-transportation industries, such as weight and cost reduction, parts consolidation, increased safety, and enhanced aesthetics and design freedom. At the time the competition started, in 1970,

many OEM designers and engineers thought of plastics as inexpensive replacements for more "traditional" materials. To help communicate that plastics were capable of far more functionality than their typical use as decorative knobs and ashtrays indicated, members of the board of directors of SPE's Automotive Division created the competition to recognize successful and innovative plastics applications and to communicate their benefits to OEMs, media, and the public.

Over the years, the competition drew attention to plastics as an underutilized design tool and made industry aware of more progressive ways of designing, engineering, and manufacturing automotive components. From its humble beginnings, the competition has grown to be one of the most fiercely contested recognition events in the automotive and plastics industries. Today, polymeric materials are no longer substitutes for more expensive materials, but rather are the materials of choice in hundreds of different applications throughout the vehicle. Without plastics, many of the auto industry's most common comfort, control, and safety applications would not be possible.

During the competition phase of the event, dozens of teams made up of OEMs and suppliers work for months to hone submission forms and presentations describing their part, system, or complete vehicle module to support claims that it is the year's **Most Innovative Use of Plastics.** To win, teams must survive a pre-competition review and two rounds of presentations before industry and media judges.

There is no cost to nominate parts, however, nominations that are accepted into the competition need to be presented (in person or via webinar) by their nominating teams to the SPE Automotive Div. Board of Directors during the first round of Automotive Innovation Awards Competition judging, September 21 - 22, 2023 at Celanese Corp. in Auburn Hills, Michigan. Finalists from that round advance to a second presentation before a panel of Blue Ribbon judges made up of media, retired chief engineers, and other industry experts on September 29, 2023 (also at Celanese Corp. in Auburn Hills, Mich.) Winners of each part category, the Grand Award, Hall of Fame, and Lifetime Achievement winner will all be honored during the Automotive Innovation Awards Gala on November 8, 2023. This annual event typically draws over 800 OEM engineers, automotive and plastics industry executives, and media. Funds raised from the event are used to support SPE educational programs including technical seminars and conferences, which help educate and secure the role of plastics in the advancement of the automobile. For more info go to: https://speautomotive.com/spe-automotive-div-innovation-awards/



Call for Nominations MOST INNOVATIVE USE OF PLASTICS AWARDS

The Automotive Division of the Society of Plastics Engineers (SPE®) is announcing a "Call for Nominations" for its 52nd-annual *Automotive Innovation Awards Gala*, the oldest and largest recognition event in the automotive and plastics industries. This year's Awards Gala will be held Wednesday, NOVEMBER 8, 2023 at the Burton Manor in Livonia, Michigan. Winning part nominations (due by September 8, 2023) in 10 different categories, and the teams that developed them, will be honored with a Most Innovative Use of Plastics award. A Grand Award will be presented to the winning team from all category award winners.

SPONSORSHIP OPPORTUNITIES

This annual event currently draws over 800 OEM engineers, automotive and plastics industry executives, and media. A variety of sponsorship packages - including tables at the banquet, networking receptions, advertising in the program book, signage at the event and more are available. Contact Teri Chouinard of Intuit Group at intuitgroup.com@gmail.com.

For more info and to submit nominations, go to:

https://speautomotive.com/spe-automotive-div-innovation-awards/

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2023 LIFETIME ACHIEVEMENT AWARD

SPE® ANNOUNCES LIFETIME ACHIEVEMENT AWARD WINNER – KEVIN N. PAGEAU WILL BE HONORED AT SPE AUTOMOTIVE INNOVATION AWARDS GALA NOVEMBER 8, 2023



KEVIN N. PAGEAU, owner and president of International Marketing Alliance and a major contributor to the SPE

Automotive Division Innovation Awards Program for many years, has been named the 2023 Lifetime Achievement Award winner by the Automotive Division of the Society of Plastics Engineers (SPE®). For over 40 years, Pageau has led key advancements in the automotive plastics industry including being an early pioneer in the application of CAE technologies – Pageau ran GE Plastics first 3D finite element moldflow analysist, and provided technical analysis of numerous leading edge applications at GE. He also developed one of the first warp analysis tools, where the melt flow angle for each element was calculated and used to predict fiber orientation in glass filled materials – leading to additional roles at GE as Project Engineer, Business Development Specialist and Business Development Manager; As Director of Engineering at Plastics Engineering & Technical Services (PETS) he developed proprietary methods, computer programs and algorithms to optimize the analysis of hot and cold runner systems for complex automotive molds, as well as implementing some of the first commercial "mold cooling" analysis projects.

Pageau has also led a team of tooling engineers, project engineers, and quality engineers in the development of decorative plastics molds and processes as Director of Advanced Engineering at Dott Industries. As a Manufacturer's Representative at Mayne-McKenney, he built significant business for Principals in the areas of satellite radio antennas, engineered foam and injection molding.

Pageau joined International Marketing Alliance (IMA) in 2003 and helped build it into a leading sales and marketing firm for automotive components. IMA represents seven domestic and international companies, with product areas including injection molding, decorative plastics of all types, engineered foam, LED lighting systems, and advanced seat comfort systems, generating revenues of approximately \$100 million dollars annually.

His involvement in SPE goes back to his GE Plastics days, where he was on the development team that won an SPE award for the Chrysler 1990 Eagle Premier Azdel bolster. He became active in the Automotive Division in 1992 as Newsletter Editor, where he upgraded the quality of the newsletter, and increased ad revenue to make the newsletter break even for the first time in years. He then held other positions in the Automotive Division leadership, including Secretary, Treasurer, Vice-Chair and Chairman. He was recognized as an Honored Service Member of SPE in 2004.

The SPE Automotive Innovation Awards Competition and Gala has grown over the years to become known as the Academy Awards of the Automotive Industry with Pageau's leadership. In addition to being Awards Program Chair for a few years, he has managed and streamlined the nomination and judging process, worked with the team to upgrade the audio visual and other

program features, and reduced the "run of show" time to two hours, while still recognizing all winners and finalists in a very professional event. He continues to manage the nomination and judging process, write the script for the show and produce the presentation files for the event.

His formal education includes a Bachelor of Science degree in Mechanical Engineering from Michigan Technological University in Houghton, Michigan.

'I am humbled and grateful to be honored with the SPE Automotive Division Lifetime Achievement award and especially thankful to my friends in the industry and to my family for their incredible support over the years,' said Pageau.

KEVIN N. PAGEAU - WORK EXPERIENCE:

- International Marketing Alliance (IMA), Owner and President (2003 Present), representing:
 - Sonoco Protective Solutions
 - Hirosawa Automotive Trim
 - Hirotai Automotive Trim S.A. de C.V.
 - Sunway Precision Industries
 - Tangtring Seating Technologies
 - E-Lan Car Components (USA) Inc.
 - Ichia Technologies
- Mayne-McKenney, Account Manager (2001-2003)
- BP Amoco, Account Manager (1999 2001)
- **Dott Industries,** Account Manager/Director of Advanced Engineering (1993 1999)
- Plastics Engineering & Technical Services (PETS),
 Director of Engineering (1991 1993)
- GE Plastics, Project Engineer/Business Development
 Specialist/Business Development Manager (1981 1991)

Pageau will be presented with the **SPE Automotive Div. Lifetime Achievement** award at the 52nd annual SPE Automotive Innovation Awards Gala at Burton Manor in Livonia, Mich. November 8, 2023. The evening begins with a VIP Cocktail Reception at 4:00 p.m. sponsored by Celanese Corporation. At 4:30 p.m. the main exhibit area opens for general admission, and guests can review this year's Automotive Innovation Awards nominations and enjoy the vehicles on display. Dinner will begin at 6:15 p.m. and the awards program will last from 7:00-9:00 p.m. For those who wish to extend merrymaking and networking activities, the ever-popular Afterglow – also sponsored by Celanese – runs from 9:00-11:00 p.m.

'Kevin is the smartest guy I know in this industry,' said Frederick Deans, P.E. owner, Allied Composites Technology and SPE Lifetime Achievement Award recipient in 2015. 'Many of the plastics tooling analysis programs used in industry today are a result of Kevin's ingenuity.'

'Kevin's long career in automotive plastics has been filled with many significant achievements, both technically and commercially,' said Mark Lapain, senior business development manager at Advanced Composites and SPE Lifetime Achievement Award Chair. 'Kevin's involvement in SPE, where he served as the Automotive Division Chairman and as a key organizer for the Innovation Awards, are truly noteworthy,' continued Lapain. 'The SPE Automotive Innovation Awards would not be the same without Kevin's many contributions, which date back to the early 1990s.'

'I greatly appreciate Kevin's leadership and support enhancing the SPE Automotive Innovations Awards program over the years,' said **Dr. Jeffrey Helms,** global automotive director, Celanese and SPE Automotive Innovation Awards Gala Chair. 'Honoring Kevin with our 2023 Lifetime Achievement Award will be a highlight of this year's event.'

SPE's Automotive Innovation Awards Program is the oldest and largest competition of its kind in the world. Dozens of teams made up of OEMs, tier suppliers, and polymer producers submit nominations describing their part, system, or complete vehicle and why it merits the claim as the Year's Most Innovative Use of Plastics. This annual event typically draws over 800 OEM engineers, automotive and plastics industry executives, and media. As is customary, funds raised from this event are used to support SPE educational efforts and technical seminars, which help educate and secure the role of plastics in the advancement of the automobile.

PAST LIFETIME ACHIEVEMENT AWARD WINNERS

First given in 2001, the SPE Automotive Lifetime Achievement Award recognizes the technical achievements of individuals whose work – in research, design, and/or engineering – has led to significant integration of polymeric materials on passenger vehicles. Past winners include:

- J.T. Battenberg III, then chairman and chief-executive officer of Delphi Corp. (2001)
- Bernard Robertson, then executive vice-president of DaimlerChrysler (2002)
- Robert Schaad, chairman of Husky Injection Molding Systems, Ltd. (2003)
- Tom Moore, retired vice-president, Liberty and Technical Affairs at then DaimlerChrysler (2004)
- Mr. Shigeki Suzuki, general manager Materials Division, Toyota Motor Co. (2005)
- Barbara Sanders, then director-Advanced Development & Engineering Processes, Delphi Corp. (2006)
- Josh Madden, retired executive at General Motors Corp. (GM) & Volkswagen of America (2007)
- Frank Macher, former CEO of Collins & Aikman Corp., Federal Mogul Corp., and ITT Automotive (2008)
- Irv Poston, retired head of the Plastics (Composites) Development-Technical Center, General Motors Corp. (2009)
- Allan Murray, Ph.D., retired technology director, Ford Motor Co. (2010)
- David B. Reed, P.E., retired staff engineer, Product Engineering, General Motors Co. (2011)
- Gary Lownsdale, P.E., retired chief technology officer, Plasan Carbon Composites (2012)
- Roy Sjöberg, P.E., retired executive engineer-Viper Project, Chrysler Corp. (2013)
- Dr. Norm Kakarala, retired senior technical fellow, Inteva Products, LLC (2014)
- Fredrick Deans, P.E., chief marketing officer, Allied Composite Technologies LLC (2015)
- Dr. Lawrence T. Drzal, university distinguished professor of Chemical Engineering and director-Composite Materials and Structures Center at Michigan State University College of Engineering (2016)
- Dr. Suresh Shah, retired senior technical fellow at Delphi Corp. (2017)
- Dr. Rose A. Ryntz, retired vice-president, Global Advanced
 Development and Material Engineering at International Automotive
 Components (IAC) Group (2018)
- Michael Whiten, retired global director Vehicle & Enterprise Sciences, Ford Motor Co. (2019)
- Nippani R. Rao, (1939-2021) president, RAO Associates (2009-2021); technology manager, Asahi Kasei North America (2008-2010); materials engineering supervisor, Chrysler (1986 – 2008) Awarded Posthumously in 2021
- Probir Guha, president and founder, Composites Innovations Inc. (2022)



PUSHING BOUNDARIES, TOGETHER

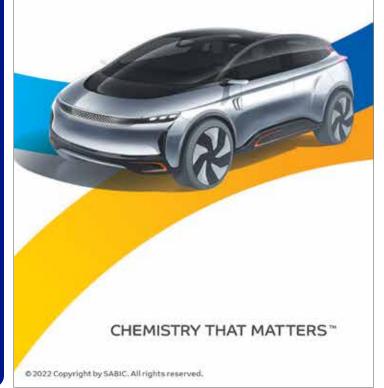
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DEADLINE FOR ABSTRACTS - November 15, 2023 DEADLINE FOR PRESENTATIONS - February 1, 2024 EMAIL TO: EAVCONFERENCE@SPEautomotive.com

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Dhanendra Nagwanshi, SABIC; Dr. Jeff Helms, Celanese Corp; Maggie Baumann, FRX Polymers **ADVANCED DRIVER**

ASSISTANCE SYSTEM (ADAS)

Dr. Rodrigo Orozco, Celanese; JP Wiese, Polyplastics

MATERIAL INNOVATIONS

Mike Shoemaker, Borealis; Paula Kruger, Ascend Materials; Sunit Shah, LyondellBasell

EVOLUTION OF INTERIORS

Dr. Rose Ryntz; Jim Keller, Mankiewicz Coatings LLC; Jeff Crist, Ford Motor Co

SUSTAINABILITY AND CARBON NEUTRALITY

Dr. Alper Kiziltas, Amazon; Dr. Prasad Soman, Amazon; Drew Geda, Hyundai-Kia America;

Manoj Patnala, Rivian Automotive;

NOISE AND VIBRATION

Andrea Hunt, General Motors; Dr. Xian Jiang, Dow MANUFACTURING ENABLING TECHNOLO-**GIES**

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Steve Vanloozen, Lotte Advanced Materials

EVOLUTION OF EXTERIORS AND LIGHTING

Tom Pickett, General Motors; Volker Plehn, SABIC;

Mark Lapain, Advanced Composites

Presented by:



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Troy, MI April 8-10 2024





ANTEC 2024 MARCH 4-7, 2024



MARRIOTT ST. LOUIS GRAND IN ST. LOUIS, MO.
DR. NORM KAKARALA AND TOM PICKETT, ANTEC TECHNICAL PROGRAM CHAIRS

ANTEC 2024 IS ACCEPTING SPEAKERS.

Speakers can submit either a technical paper or presentation. **Dr. Norm Kakarala** and **Tom Pickett** are the **ANTEC Technical Program Chairs.** The technical program will be organized into **five program themes:**

- Polymeric Materials and Characterization
- Applications of Plastics
- Polymer Processing
- Al in Digitalization
- Circular Economy



Abstract Submission deadline: OCTOBER 6, 2023

· Accepted Presenters notified: OCTOBER 27, 2023

Papers or Presentations Submission deadline: NOVEMBER 24, 2023

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and academic work focused on plastics and polymer science.

There are multiple opportunities to spend time with colleagues at SPE-hosted meetings, receptions, an Honors and Awards Luncheon, and additional SPE Chapter networking events.

ANTEC® also has sponsorship opportunities for companies to reach global audiences of plastics decision-makers.

ANTEC® 2024 will include five program themes. We're looking for papers/ presentations focused on:

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- Applications of Plastics
- Polymer Processing
- Al in Digitalization
- Circular Economy







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COUNCILOR'S REPORT

MEETING OF COUNCILORS AT ANTEC 2023, MARCH 27, 2023, DENVER JEFFREY HELMS, PH.D., SPE AUTOMOTIVE DIVISION COUNCILOR





TOPICS INCLUDED:

2023 strategic objectives focused on three areas:

KNOWLEDGE SHARING

- $\hbox{$\cdot$ Rework "weeks of learning" model to focus on attracting OEMs}$
- •Conduct workshops within ANTEC and expand model via virtual on-line versions utilizing SPE SMEs and cohort model
- •Develop and conduct one new live in-person HQ event

INCREASED ENGAGEMENT & NETWORKING

- · Create better networking opportunities at in-person events
- Maximize use of existing tools to provide connections including training/webinars related to member directory, communities, tech library and re-organize website navigation
- · Explore leadership cohort group networking example

ENHANCED REPUTATION

- · Advocate for DEI in the plastics industry
- Promote SPE Wonders of Polymer Science Girl Scout patch and launch 2nd patch on sustainability/circular economy via SPE Foundation
- Promote and expand Essentials of Management & Leadership on Plastics as part of functional leadership development offering
- · Identify and develop new courses
- · Re-market and promote "Teach the Geek" course
- · ID at least one additional non-technical program
- · Strengthen SPE leadership pipeline
- · Fully implement micro-credential recognition program
- · Complete integration of the SPE Foundation
- Define desired end state for chapter/volunteerism model and map plan to achieve that goal
- Begin integration of 3DNatives into SPE Operations

SPE BUSINESS CHALLENGES

- · Declining membership dues, 2019-2022 down 28.8%
- · Open access publishing competition to SPE journals
- Magazine production cost increases, 2021-2022 up 6.8%
- Event attendance down, trending at 65% of 2019 numbers and seeing increased number of competitive events
- · Chapter Event Tax elimination revenue to HQ down 77%
- · HQ employment cost

The response to these business challenges including steps to increase non-dues revenues including sponsorship and advertising, launching an open access model to SPE Journals, elimination of magazine hard copy and converting to web only access, improving virtual event delivery, hired a Director of Technical Programs to access new markets, implementing a fee for service model for chapter support and negotiated more favorable terms for employee insurance and other costs. The 2023 draft budget projects a profit of \$261K versus a loss of \$194K in 2022.

The remainder of the Council meeting included contributions from sections and divisions on successes and suggestions to increase engagement with the respective industry segments as well as an introduction of 3DNatives and their business model. Sassan Tarahomi highlighted the creation of the Automotive Division Electric and Autonomous Vehicle Conference and the positive reaction to that new event.

3DNATIVES ACQUISITION - INTRODUCTION

The 3DNatives business model is essentially one of providing a comprehensive on-line platform for information related to 3D Printing with 1.2MM users/month. 3DNatives focuses on media, events and B2B services with comprehensive content related to the 3D printing topic and value chain. Regional sites focus on regional resources and connect people to the appropriate parts of their content database. Revenue is largely sponsor based. 3DNatives client base are from the 3DP value chain including materials, machines, software, resellers and maintenance providers. The platform users register for platform access. Applicability of this model to SPE Divisions and Sections will be used to create greater recognition of SPE as the source of content related to numerous topics in plastics.

Content is delivered in multiple ways:

- Media content is created with keywork focus based on search characteristics
- 30 minute webinars and workshops are organized and fed to the platform users
- Eblasts target segments of the database for content delivery for >60K profiles
- Events are largely virtual with a first time in-person event recently in Barcelona, speakers are from leading OEMs

SPE VIRTUAL COUNCIL MEETING, JUNE 15, 2023

TOPICS INCLUDED:

BYLAW CHANGES

Remove named director positions including Director of Finance and Director of Chapters. These positions and the position of Secretary will be elected from the seated Directors by the SPE Board of Directors in January.

Council continues to elect seven Director positions, three in election year one, two in election year two and two in election year three.

ELECTION CYCLE

The election cycle dates were reviewed beginning with establishing the SPE BoD nominating committee (Chaired by Past-President) and request for nominations on June 15. The nomination window closes on August 15. This is followed by nomination committee review, candidate conference calls, meet the candidates sessions with Council and final voting on October 25. Selected Directors assume their roles on January 1, 2024. For 2024, there are 4 openings:

- President-Elect (3-year commitment)
- 2x Director at-Large (3-year commitment)
- 1x Director at-Large (1-year commitment)

FINANCIAL REVIEW:

2020 and 2021 were profitable years during Covid with \$290K and \$847K profit. 2022 is current showing a net loss of \$194K.

ANTEC 2024

ANTEC 2024 planning and changes vs. 2023:

- · Plan/Budget for +22% attendance
- · Same themes and number of plenary speakers
- · Can accommodate +50% number of speakers
- Student posters +50%
- F&B, Receptions, Registration held at 2023 levels

Respectfully submitted,

Jeffrey Helms, Ph.D.
SPE Automotive Division Councilor
SPE Automotive Division Innovation Awards Chair



SECRETARY'S REPORT

VIRTUAL BOARD MEETING MINUTES, JUNE 21, 2023 BY STEVE VANLOOZEN, SPE AUTOMOTIVE DIVISION





ATTENDEES:

Sassan Tarahomi Eve Vitale
Norm Kakarla Fred Deans
Jitesh Desai Leonardo Simon
Bill Cunha Keith Siopes
Suresh Shah Mark Lapain
Suzanne Cole Paula Kruger
Drew Geda Teri Chouinard

Rob Philp Dave Helmer Rodrigo Orozco Matt Parkinson Steve VanLoozen Ramesh Iyer Jeremy Lee

JP Wiese Chuck Jarrett Umesh Ghandi Dean Stevenson Arash Kiani Tom Pickett Richard Umemoto Al Chan Jeff Mayville Keith Youm James Monro

- Meeting initiated by Sassan.
- Ramesh Iyer from ICIS introduced and nominated to the board by Robert Philp. Unanimous ascension vote
 on nomination.
- · Suresh Shah nominated for Emeritus membership. Board voted unanimously to approve.
- SPE Automotive Division has hired James Monro as admin for the division and he was formally introduced to the board.
- Sassan announced executive decision to move to quarterly board meetings vs. every other month. Meetings
 will be held on Tuesdays with the next meeting scheduled for Monday, September 18.
- · February meeting minutes were reviewed and approved.
- Jitesh covered financials as of June 22 showing improvement in net revenue and total equity vs. December 31,2022. The three primary Automotive Division events (IAG, ACCE, and EAV conference) contributed positively to divisions bottom line in 2022/2023.
- Councilor report provided by Jeff Helms highlighted SPE National by-law changes affecting leadership titles, terms, and voting process. ANTEC 2024 fixed for March 4-7 in St. Louis, MO.
- Umesh provided update to SPE Automotive Division Award program with the key highlight being the addition of four new awards to augment current three.
- ACCE 2023 currently has 65 papers, 10 more than last year. Registration is now live.
- Reviewed participant feedback from 2023 SPE EAV conference. Generally very positive with some
 constructive ideas on how to improve on next year's event. 2024 conference will be rescheduled by one
 week to avoid conflict with SAE World Congress.
- Dr. Helms shared details on 2023 IAG. First round judging set for September 21-22 with Blue Ribbon Judging on September 29. Shared that Kevin Pageau will be awarded the 2023 IAG Lifetime Achievement Award.
- 2023 ANTEC recap highlighted contributions from our board members and shared that live attendance doubled to over 500 vs. 2022 event.
- Education update: Push for volunteers to support July 13 and 14 Jackson Learning Fair at Northwest Elementary School.
- · Automotive Division Membership has reached 1456 with 175 new members added so far in 2023.
- · Next meeting: Monday, September 18, 2023 5:30-7:30 PM.



EDUCATION REPORT

BY EVE VITALE, SPE FOUNDATION CHIEF EXECUTIVE

ENGAGING URBAN STUDENTS IN STEM ACTIVITIES RELATED TO THE PLASTICS INDUSTRY, MAY 2023



SPE AUTOMOTIVE DIVISION AND SPE FOUNDATION PARTNERSHIP

Through focused initiatives, the partnership between the SPE Automotive Division and the SPE Foundation creates lasting influence, showcasing the Division as a valuable community asset and providing members with a wider range of volunteer opportunities to bring positive change and value to Detroit students, their families, the community, and our industry. The Division supports the automotive industry, and together, we are amplifying your impact on our future workforce.

SCALABILITY

All or any part of the programming in this Detroit case study is scalable. Requirements for scalability include community partnerships and sponsorships.

OUR CHALLENGE - OUR PURPOSE

The plastics industry remains unknown to many, despite its pervasive presence in modern life. This lack of awareness contributes to a shortage of skilled workers. To address this, the SPE Foundation programming has focused on Detroit urban students, an often-overlooked market, aiming to drive minority recruitment and enhance their engagement in the plastics sector. We offer equitable STEM opportunities through various channels, including PlastiVan's educational outreach, SPE STEM clubs, Ecotek Lab participation with mentoring, the SPE Junior Researcher program, the SPE Detroit "Wonders of Plastics" essay contest, local field trips, polymer science fairs, and peer-to-peer mentoring. Through these initiatives, we strive to bridge the gap axnd introduce students to rewarding careers in the plastics industry while empowering them to aspire to and seek STEM careers.



KEY AREA ALIGNMENTS



- 1. Workforce Development
- 2. Community Engagement
- 3. Diversity and Inclusion
- 4. STEM Education

DETROIT SCHOOL DEMOGRAPHICS

81.9% Black or African American

13.9% Hispanic/Latino

59.9% Free or Reduced Lunch

10.5% English Second Language



KEY OBJECTIVES OF DETROIT PROGRAMMING

The successful implementation of this program not only increased minority representation and urban student engagement in the plastics industry but also provides students with valuable educational opportunities, fostering their interest in polymer science, and promoting diversity and inclusion. By addressing these objectives, the program aims to create a more equitable and inclusive future for the plastics industry while empowering and inspiring the next generation.

 MINORITY RECRUITMENT: Implement initiatives to attract a higher number of urban students to participate in educational programs related to the plastics industry through targeted outreach.

2. INTRODUCTION TO THE PLASTICS INDUSTRY:

Develop educational materials and events to expose students to career pathways in the plastics industry.

 ECOTEK LAB PARTNERSHIP: Develop engaging and interactive lab activities that align with the interests of urban students. Develop mentorship programs with SPE Automotive.



- 4. RESEARCH ENGAGEMENT: With Ecotek Lab, foster student participation in research related to polymer science encouraging students to collaborate with industry professionals and present their findings at conferences or symposiums.
- 5. "WONDERS OF PLASTICS" ESSAY CONTEST DETROIT SPE: Increase student participation in the annual contest. Recognize and reward outstanding essays to encourage further engagement.
- 6. PLASTIVAN PROGRAMMING: Deliver positive plastics education through PlastiVan and PlastiVideo to educate students about the science, benefits, and responsible use of plastics. Aim to reach 1000+ students by coordinating visits to schools and events, ensuring broad exposure to the program and its educational content.



- 12 JUNIOR RESEARCHERS
- 4 STEM FAIRS
- 3 SPE STEM CLUBS
- 958% INCREASE IN DETROIT STUDENTS SERVED
- 300 ESSAYS
- 8 COMMUNITY PARTNERSHIPS



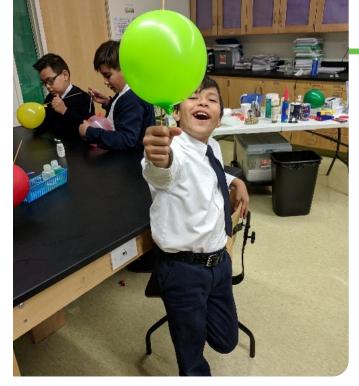


- 23 DETROIT PLASTIVAN VISITS
- 4 INDUSTRY FIELD TRIPS
- 12 STUDENTS MENTORED
- 8 MENTORS
- 1 SUMMER PROGRAM





"The students learn to connect topics such as chemical reactions with real life examples. They also learn great ways to practice conservation and the correct ways to use plastic." – Ms. Bremer, 7th Grade Science Teacher



OUTCOMES & IMPACT

- INCREASE STUDENTS SERVED: By targeting urban student engagement, the program significantly increased the number of students served in Detroit from 300 to 2,875 in 18 months.
- 2. INCREASE POSITIVE PERCEPTION OF PLASTICS: Through PlastiVan outreach, the program has improved the perception of plastics by highlighting the benefits, responsible use, and innovative applications of plastics.
- 3. CREATE EQUITABLE OPPORTUNITIES IN STEM:
 By offering engaging and interactive STEM activities related
 to polymer science, the program has ignited curiosity and
 inspired students to pursue STEM education and careers.
- 4. INCREASE INTEREST IN PLASTICS-RELATED CAREERS: By highlighting the diverse range of roles available, including research, engineering, design, manufacturing, sustainability, marketing, and business, the program has caused students to consider careers in the plastics industry.
- 5. INCREASE INTEREST IN PLASTICS INNOVATIONS: By exposing students to the latest developments, cutting-edge technologies, and sustainability efforts within the industry, the program sparks interest and curiosity in plastics innovations.

By achieving these outcomes, the program will contribute to the growth and diversification of the plastics industry, cultivate a new generation of STEM professionals, promote a positive perception of plastics, and inspire students to pursue careers in this dynamic and impactful field.

INTEGRAL PARTNERS IN DETROIT

ECOTEK LAB – Keith Young, CEO – http://ecotek-us.com/ – Ecotek Labs is a science research lab program for young inventors and researchers in grades 5 through 12. The Detroit Student scientists work on projects aligned with the issues being addressed by world leaders at the United Nations.

SPE AUTOMOTIVE DIVISION – Dr. Sassan Tarahomi, Chair & Chuck Jarrett, Educational Chair – https://speautomotive.com/ – The mission of the SPE Automotive Division is to advance plastics technology worldwide and to educate industry, academia, and the public about these advances. The Division is dedicated to educating, promoting, recognizing, and communicating technical accomplishments.

SPE DETROIT SECTION – Detroit Education Committee – https://spedetroit.org – SPE's Detroit Section is active in educating, promoting, recognizing, and communicating technical accomplishments for all phases of plastics and plastic-based composite developments – particularly in the automotive industry. Topic areas include applications, materials, processing, equipment, tooling, design, and development.

ARKEMA – https://www.arkema.com/usa/en/ – Arkema pledged four years of support for SPE Junior Researchers and Scholarships for Detroit students.

CELANESE ENGINEERED MATERIALS and the **CELANESE FOUNDATION** – Jeffrey Helms, PhD, Global Automotive Manager – https://www.celanese.com/ Celanese committed substantial support for Detroit students to become members of Ecotek Lab. The team in Auburn Hills MI has hosted field trips and created robust engineering experiences for students at their schools.

BRASKEM – Braskem is a core supporter of all PlastiVan activities with their annual unrestricted sponsorship of positive plastics education. https://www.braskem.com.br/usa

BASF – BASF supports the SPE Junior Researcher program. https://www.basf.com/us/en.html

SPE FOUNDATION – supports workforce development in the plastics industry through grants, scholarships, and educational programs, emphasizing science, engineering, sustainability, and manufacturing while creating inclusive opportunities for students around the world.

https://spefoundation.org

Eve Vitale
Chief Executive
Ph: +1 810.814.6412
evitale@4spe.org
www.SPEFoundation.org



The Automotive Division also sponsors our flagship **PlastiVan®** program, so hundreds of students get a classroom experience that includes lively demonstrations and hands-on activities, designed to excite students about the opportunities in science and engineering in the plastics industry. Students are educated about the chemistry, history, processing, manufacturing, and sustainability of plastics and how the science and real-world applications relate to their everyday lives.

Positive Plastics Education is an important step in changing the "plastics" narrative to reflect the science and innovative culture of our industry. The SPE Foundation relies on partners like the SPE Automotive Division to get our job done. If you or your company would like to support our efforts, please email Eve Vitale at foundation@4spe.org.

The SPE Foundation and its partners utilize Positive Plastics Education in three areas of influence and impact. For Emerging Workforce, it awards scholarships and grants. To Create Opportunities for Historically Under-represented Populations in the plastics industry, including students of color, women, and students of lower socio-economic backgrounds, the Foundation collaborates with community partners to deliver multi-touch STEM education, engage students in after-school SPE STEM clubs, and collaborates with the Girl Scouts to engage girls in polymer science STEM activities. The PlastiVan® and PlastiVideo® programs engage students in the discussions and science-based evidence surrounding the Sustainability of Plastics and exposes students to the many career pathways available to them in the plastics industry.





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PlastiVan® has shifted gears to PlastiVideo™!

If you'd like to sponsor a visit or bring virtual plastics education to your community contact us.

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

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