



# AUTOMOTIVE PLASTICS NEWS

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

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Plastics News



52<sup>ND</sup> ANNUAL



## AUTOMOTIVE INNOVATION AWARDS COMPETITION & GALA

HONORING THE BEST IN AUTOMOTIVE PLASTICS

### SPE<sup>®</sup> AUTOMOTIVE DIV. NAMES WINNERS FOR THE 52<sup>ND</sup> ANNUAL AUTOMOTIVE INNOVATION AWARDS

The Automotive Division of the Society of Plastics Engineers (SPE<sup>®</sup>) announced the winners for its 52<sup>nd</sup> annual Automotive Innovation Awards Gala, the oldest and largest recognition event (established in 1970) in the automotive and plastics industries.

*"Our 2023 theme, **Plastics: Charging Into The Automotive Revolution**, underscores the importance of plastics technologies and the innovative minds of our industry to enabling the innovative transition to electric vehicles today and into the future."*

— Jeffrey Helms, global automotive director, Celanese Corp.

See pages 4-11 all the details of the 2023 show.



**PLASTICS: CHARGING** INTO THE  
AUTOMOTIVE REVOLUTION

# CONTENTS

Chair's Welcome	3
2023 IAG RECAP	4-11
2024 IAG Call For Nominations	13
2024 IAG	14-15
2024 ACCE Call For Papers	17
2023 ACCE RECAP	18-24
2024 ANTEC	26-27
2024 EAV	28-31
Intersociety Report	32-33
2024 AutoEPCON Call For Papers	34
Treasurer's Report, February 22, 2024	35
Secretary's Report, BOD Meeting Minutes Sep. 18, 2023	36
2024 TOPCON Call For Papers	37
2023 SPE Automotive Div. Golf Outing RECAP	38-40
2024 SPE Automotive Div. Golf Outing	41
Education Report	42-46
2024 TPO Call For Papers	47
Board of Directors / Directory	49



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# MEETING SCHEDULE & SPECIAL EVENTS CALENDAR

<b>2024 ANTEC</b>	All Day
Marriott St. Louis Grand, St. Louis, Missouri	March 4-7, 2024
<b>SPE Auto. Div. Board Meeting</b>	5:30-7:30 p.m.
Virtual	March 18, 2024
<b>3<sup>rd</sup> Annual 2024 Electric and Autonomous Vehicles Conference (EAV)</b>	
Detroit Marriott Troy	8:00 a.m.-5:00 p.m.
Troy, MI USA	April 8-10, 2024
<b>2024 AutoEPCON Conference</b>	
Detroit Marriott Troy	8:00 a.m.-5:00 p.m.
Troy, MI USA	May 14, 2024
<b>SPE Auto. Div. Board Meeting</b>	5:30-7:30 p.m.
Virtual	June 17, 2024
<b>29<sup>th</sup>-Annual SPE Automotive Division Golf Outing</b>	
Fieldstone Golf Course	All Day
Auburn Hills, MI USA	September 3, 2024
<b>24<sup>th</sup>-Annual Automotive Composites Conference and Exhibition (ACCE)</b>	All Day
Suburban Collection Showplace, Novi, MI USA	September 4-6, 2024
<b>SPE Auto. Div. Board Meeting</b>	5:30-7:30 p.m.
TBD	September 9, 2024
<b>29<sup>th</sup>-Annual SPE TPO Global Engineering Polyolefins Conference (TPO)</b>	8:00 a.m.-5:00 p.m.
Detroit Troy Marriott, Troy, MI USA	Sept. 29-Oct. 2, 2024
<b>53<sup>rd</sup>-Annual Innovation Awards Competition &amp; Gala (IAG)</b>	
Burton Manor	4:30 - 11:00 p.m.
Livonia, MI USA	November 13, 2024
<b>SPE Auto. Div. Board Meeting</b>	5:30-7:30 p.m.
TBD	December 2, 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](mailto:auto-div-chair@speautomotive.com) for more information.

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# CHAIR'S WELCOME

SASSAN TARAHOMI, SPE AUTOMOTIVE DIVISION CHAIR



AUTOMOTIVE

Happy 2024 and hope you had a great holiday and made lots of great memories with your family and friends. 2023 was a year full of events for our division. I am

happy to let you know that all activities were completed as planned with positive results. At the beginning of the year, we committed our division for \$100k to SPE Foundation which was unanimously approved by our board members, and it was entirely paid by December 2023.

We had the second annual EAV conference in April which was a great success and enabled us to cover the majority of the \$100k payment to the SPE Foundation.

We created our awards committee in the 1st qtr. of 2023 and elected **Dr. Umesh Gandhi**, Toyota Research Institute North America Executive Scientist and Director of Future Mobility Research and our board member as our awards chair. After a few months of evaluation and review we selected **Dr. Norm Kakarala** for his Leadership and **Mr. Dhanendra Nagwanshi** for the Special Recognition Award. Dhanendra with his superior communication and marketing skills was a big help to the division's advertising activities. Lastly, the Celanese Corporation for their community leadership. The actual awards ceremony was carried out during the IAG gala which we recognized them for their superior service to the Automotive Division.

## SPECIAL RECOGNITION AWARD

**Dhanendra Nagwanshi**

SOCIAL MEDIA & COMMUNICATION SABIC



Excellent work in increasing SPE AD presence in social media, which has resulted in higher recognition for SPE AD.

Consistent support for EAV, ACCE and other events.

ACCE is our joint conference with the SPE Composites Division. Automotive Division and composite division have been working together for the past 22 Years to organize the ACCE conference. It is the world leading automotive composite conference bringing the latest automotive composite technology to Southeast Michigan. ACCE leadership and our board members **Dr. David Jack**, Baylor University Professor and **Dr. Stephen Christoph Kuhn**, Volkswagen America Manager along with a dedicated committee delivered a great 2023 ACCE conference and we are great full for their dedication and hard work.

**Dr. Jeff Helms**, Celanese, Automotive Director for Engineered Materials and **Kevin Pageau**, Owner and President of International Marketing Alliance are a phenomenal duo team behind this event. For the last 50 plus years the SPE Automotive Division has hosted the Innovation Awards Gala (IAG) Program. IAG has been the most prestigious and largest competition of automotive components and systems of its kind in the world. It's "The Oscar of Automotive". Many Automotive OEMs, tier and polymer suppliers submit nominations describing their part, system, or even a complete vehicle. They must provide supporting information on why their submission has the most Innovative Use of Plastics. We had over 600 OEM engineers, automotive and plastics industry executives, media, and college students attending the 2023 IAG event. Kevin Pageau received the Lifetime Achievement Award at this event. Congratulations to Kevin on a well-deserved award.

## COMMUNITY SERVICE AWARD



For continuous support in numerous SPE AD activities. Bringing community together, providing resources in terms of knowledge and funds to educate, train and inspire high school students. Creating opportunities for young professionals to network and share information to enhance their capabilities. SPEAD thanks you for your dedicated, valuable support at many events!

We ended the year with our December Board of Directors meeting where we nominated and elected our next Automotive Division Chair, **Mr. Ramesh Iyer**, ICIS Director. Ramesh is a seasoned automotive executive with many years of experience in executive leadership role. Ramesh is a Senior Executive with 25 years of leadership experience. Ramesh served as the President, COO and Executive Board Member for Asahi Kasei Plastics North America Inc. Ramesh will be taking over my responsibilities as the Automotive Division Chair as of July 1st for two years. Congratulations to my friend Ramesh.

Wish you all a great 2024, Automotive Division Chair Sassan

## LEADERSHIP AWARD

**Dr. Norm Kakarala**

DIRECTOR EMERITUS

For leadership and guidance in successful execution for many of the new SPE AD initiatives. Long term contribution and support in many technical areas which has made SPE AD a highly recognized organization in the industry.



By midyear we were engaged in hiring a part time staff administrator for our division and within a few months our search effort resulted in hiring **James Munro** a retired automotive technical staff engineer to help us with various administration duties. At the end of summer was our Golf outing and the ACCE conference, which were both a success.

Our Annual Golf outing was a fun and a successful event. I even heard we had more attendees and players than our sister chapter "The Detroit Section Golf Event" which was held in June. Thanks to **Fred Deans** and **Teri Chouinard** for organizing and managing the sponsorship for this event. Hope to see many of you there next September.



BY TERI CHOUINARD, SPE AUTOMOTIVE DIV. COMMUNICATIONS CHAIR

## SPE® AUTOMOTIVE DIVISION NAMES WINNERS FOR THE 52<sup>ND</sup> ANNUAL AUTOMOTIVE INNOVATION AWARDS

The Automotive Division of the Society of Plastics Engineers (SPE®) announced the winners for its 52<sup>nd</sup> annual **Automotive Innovation Awards Gala**, the oldest and largest recognition event (established in 1970) in the automotive and plastics industries. The announcement was made on the evening of November 8, 2023, during the 52nd SPE Automotive Innovation Awards Gala held at Burton Manor in Livonia, Mich., USA. The Body Interior Category winner was also this year's Grand Award winner. The Grand Award winner is selected from the winners of each of the 8 categories by a panel of Blue Ribbon Judges who are industry experts. The following pages highlight this year's winners.

### INNOVATION AWARDS TROPHY ORDERS

Finalist: \$185. USD each  
 Category Winner/Hall of Fame: \$325 USD each  
 Grand Award: \$450. USD each



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 Questions: please send an e-mail to [info@speautomotive.com](mailto:info@speautomotive.com).

PLEASE NOTE: Company names will be listed on duplicate trophies and plaques in the same manner they were listed on presentations and signs at the Awards Gala unless SPE is notified in advance that changes must be made. Prices do not include shipping. You will be contacted after your order is received to confirm the application, quantity, and shipping costs.

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. The annual event typically draws approximately 700 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 to educate and secure the role of plastics in the advancement of the automobile.

Sponsors of the 2023 SPE Automotive Innovation Awards Gala include: **Celanese, Ascend Performance Materials, American Chemistry Council – Plastics Division, BASF, Cascade Engineering, Hi-Lex North America, LyondellBasell, Magna, Trinseo, Sabic, INEOS Styrolution America and Pyrophobic Systems.**

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. Topic areas include applications, materials, processing, equipment, tooling, design, and development. For more information about the SPE Automotive Div., see <https://speautomotive.com/>. For more information on the Society of Plastics Engineers, see [www.4spe.org](http://www.4spe.org) For more info on the SPE Automotive Innovation Awards, see <https://speautomotive.com/spe-automotive-divinnovation-awards-2023/>

Attn: Editors: Photos of the Winners, as well as a large collection of SPE Automotive Division digital photography, is available for download at: <https://www.flickr.com/photos/speautomotive/albums/with/72157673717033072>

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2023 GRAND AWARD & CATEGORY WINNER:  
**BODY INTERIOR**



**MEGA BIN / FRUNK**  
**2024 Ford Motor Co. Ford F-150 Lightning**

Tier Supplier / Processor:  
**Cascade Engineering**

Material Supplier / Toolmaker:  
**Celanese Corp. / Commercial Tool Group**

Material / Process:  
**Celstran PP-GF40 AD3004 (PP-LFT 40% GF) / Injection Molding**

By converting from compression molded painted SMC to injection molded MIC LFT-PP to produce this large Class A composite frunk – currently the industry’s largest – mass was reduced 48%, productivity was increased owing to a 37% cycle time reduction, the cost and environmental burden of paint were eliminated, seal interfaces were improved, secondary routing of holes is no longer needed, and the frunk is fully recyclable at end of life. A 4,000 ton injection press and a tool equipped with a 16-drop hot runner system are used to mold parts.



Category Winner:  
**AFTERMARKET & LIMITED  
EDITION/SPECIALTY VEHICLES**



Category Winner:  
**BODY EXTERIOR**



**HYBRID BATTERY  
INTERCONNECT BOARD**

**2024 General Motors Co.  
Chevrolet Corvette E-Ray**

Tier Supplier / Processor:  
**Sun Microstamping Technologies**

Material Supplier / Toolmaker:  
**BASF Corp. / Sun Microstamping Technologies**

Material / Process:  
**Ultradid B3UG4 PA 6 / Vertical Clamp Parting  
Line Injection Rotary Molded – Insert Overmolding**

This patented hybrid battery interconnect board features small and delicate metal current collectors, bus bars, and sensing lines in a very compact design to fit in limited packaging space. The 20% GF/PA6 grade was selected for its ability to offer high levels of functional integration in limited space plus be compatible with snapfits, heat staking, ultrasonic welding, and adhesive bonding. The material also is heat stabilized and flame retardant. Laminated core-block inserts are used in rotary injection tooling for venting and to control stampings during overmolding.



**THERMOPLASTIC SPLITGATE**

**2023 Rivian LLC  
Rivian R1S**

Tier Supplier / Processor:  
**Magna International**

Material Supplier / Toolmaker:  
**Advanced Composites, Inc. /  
Tycos Tool & Die Co.**

Material / Process:  
**LGF-PP & TPO / Injection Molding**

This is the world's first all-thermoplastic split gate rear-closure system, which is delivered to the assembly line as a ready-to-install module. The complex, deep draw (>80 mm) design offers improved perceived quality at lower mass, NVH, and cost vs. metals, and is offered in a 2-tone execution. By commonizing grades between the liftgate and the benchgate and focusing on sustainability, parts were reduced from 9 to 3 and just 2 materials are used (injection molded LFT-PP and TPO). The CHMSL and taillamps were carried over from the pickup model.



Category Winner:  
**ELECTRIC & AUTONOMOUS  
VEHICLE SYSTEMS**

Category Winner:  
**MATERIALS**



**BATTERY DISCONNECT UNIT**

**2023 General Motors Co.  
GMC Hummer EV**

Tier Supplier / Processor:  
**Lear Corporation**

Material Supplier / Toolmaker:  
**BASF Corp. / Lear Corporation**

Material / Process:  
**Ultramid 66 H2 G25 V0KB1 and  
Ultradur B4450G5 HR / Injection Molding**

Two BDUs have been integrated into a single system supporting two 400V systems, which enable fast and safe recharging of EVs and disconnects power in an over-current situation to protect passengers. The meter-long parts feature a complex design that offers improved thermal management and reduced component mass. Two UL94 V0 halogen-free materials—one with very-high CTI—replaced die-cast aluminum while maintaining superior physical properties and ease of processing. Complex simulation and process optimization were also key to success.

**BATTERY MODULE SIDEPLATES**

**2024 General Motors Co.  
Chevrolet Corvette E-Ray**

Tier Supplier / Processor:  
**Novares Group / Novares Group**

Material Supplier / Toolmaker:  
**RTP Co. / Liberty Molds, Inc.**

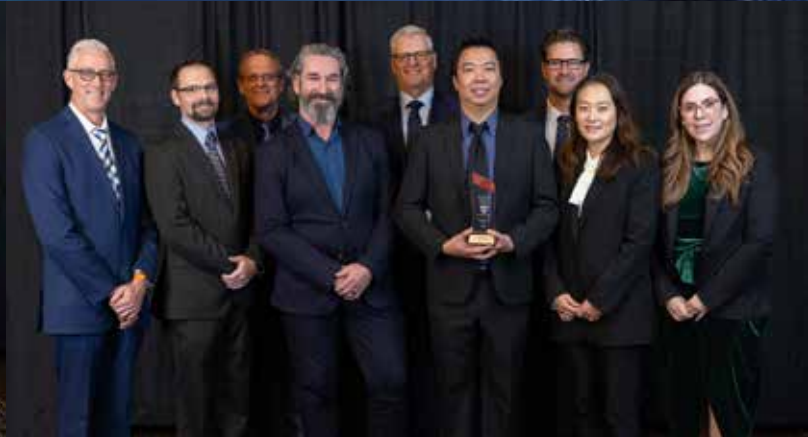
Material / Process:  
**RTP-299 K X 138337 E BLACK /  
Injection Molding**

By replacing metals with RTP 299 K X 138337 E BLACK PARA material to injection mold the side plates for this battery module, extremely flat parts with high dimensional accuracy, stiffness, and strength were achieved in a complex geometry. The high-modulus, creep-resistant FR polymer eliminated the need for compression limiters and electrical isolation films, yet withstands extreme pressures from cell expansion and met all mechanical requirements. Additionally, 4 components were reduced to 1 and many functional features were incorporated in the patented side plates that would not have been possible in metals. Mass was reduced 37% and cost 55%.



Category Winner:  
**PROCESS/ASSEMBLY/  
ENABLING TECHNOLOGIES**

Category Winner:  
**SAFETY**



**SEAT MODULE**  
2024 Toyota Motor Corp.  
Toyota Grand Highlander

Tier Supplier / Processor:  
**Hi-Lex Corp. / Hi-Lex Corp.**

Material Supplier / Toolmaker:  
**NA / Hi-Lex Corp.**

Material / Process:  
**NA / Injection Molding**

This patented injection molded module for seats incorporates both temporary and permanent holding features to control cables and dramatically reduce both components and labor at the seat manufacturer. Cables are delivered to the Tier 1 pre-routed on the module plate, eliminating the brackets, cable ties, and clips typically used to control seat cables, and greatly reducing labor for an assembly operator. The module also reduces rework and scrap due to cable misalignments. Additionally, lever pull effort for consumers is reduced since direct cable routing enables use of shorter cables.

**INTUMESCENT  
TERMINAL COVERS**  
2023 General Motors Co.  
Cadillac Lyriq & GMC Hummer

Tier Supplier / Processor:  
**Auto-Kabel Group / Molded Precision Components**

Material Supplier / Toolmaker:  
**Pyrophobic Systems Ltd. / NA**

Material / Process:  
**Lithium Prevent 200 PVC / Injection Molding**

A specially formulated flexible and intumescent PVC is designed to prevent arcing during thermal runaway events in high-voltage EV batteries. The high-temperature, high-voltage insulator is used to injection mold various terminal caps and barriers. Safety is increased during thermal runaway since the material maintains high dielectric strength, reducing arcing risk and ignition of gases and forms a structured char barrier, helping reduce spread of fire from one module to another.







Category Winner:  
**SUSTAINABILITY**

**ONE-PIECE FRUNK**  
2024 Ford Motor Co.  
Ford Mustang Mach E

Tier Supplier / Processor:  
**IAC Group / IAC Group**

Material Supplier / Toolmaker:  
**Advanced Composites, Inc. / HS Inc.**

Material / Process:  
**ADX8327 20% PCR TPO / Injection Molding**

This is the first time a 20% PCR recycled material has been used in a color-matched, MIC, Class A structural frunk application. Versus virgin TPO, the more sustainable grade lowered density slightly and offered better impact at -15°C. Concurrent redesign reduced component count from 6 to 1, including eliminating 2 metal brackets, saving 3 kg of mass, increasing cargo volume and functionality, improving water management, reducing cost and labor and saving an estimated 1,125 tons of CO<sub>2</sub> annually. PCR content is sourced from yogurt cups and packaging materials.



Category Winner:  
**LIFETIME ACHIEVEMENT  
AWARD**

*Kevin Pageau*, owner and president of International Marketing Alliance and a major contributor to the SPE Automotive Innovation Awards Program for many years, was named the 2023 Lifetime Achievement Award Winner. 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 analysis, 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 Plastic 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.

Category Winner:  
**VEHICLE ENGINEERING TEAM AWARD**

**2024 CHEVROLET**  
*Corvette E-Ray*

The 2024 Chevrolet E-Ray and a team from General Motors Co. and its suppliers that developed the electrified, allwheel drive (eAWD) sports car were named the winners of this year's Vehicle Engineering Team Award (VETA). The VETA award was created by SPE in 2004 to recognize the technical achievements of entire teams – comprised of automotive designers and engineers, tier integrators, materials suppliers, toolmakers, and others – whose work in research, design, engineering, and manufacturing has led to significant integration of polymeric materials on notable vehicles. The vehicle features numerous plastic and composite innovations, many of which were nominated in other categories of SPE's Automotive Innovation Awards Competition, including the following:

- Aftermarket & Limited Edition / Specialty Vehicles Nomination:  
**CARBON FIBER WHEEL**
- Aftermarket & Limited Edition / Specialty Vehicles Finalist:  
**HYBRID BATTERY INTERCONNECT BOARD (ICB)**
- Aftermarket & Limited Edition / Specialty Vehicles Finalist:  
**PLASTIC OIL COOLING LINES**
- Materials Winner:  
**BATTERY MODULE SIDE PLATES**
- Process/Assembly/Enabling Technologies Finalist:  
**BATTERY MODULE STRUCTURE**

In addition, the Corvette E-Ray also features a number of carryover composites parts from the 2020 MY Corvette Stingray VETA winner. These include:

- Body Exterior:  
**REAR BULKHEAD WINDOW FRAME, REAR FASCIA ASSEMBLY, and REAR SURROUND FRAME**
- Chassis & Hardware:  
**PRECISION WHEEL-BALANCE SYSTEM, and UNDERBODY TUNNEL STRUCTURAL CLOSEOUT**
- Materials:  
**SMC/LMC FRONT & REAR TRUNK COMPONENTS**
- Powertrain:  
**REAR INDUCTION DUCT**
- Process, Assembly & Enabling Technologies:  
**PULTRUDED REAR BUMPER AND REAR SERVICE DOORS**



# Category Winner: HALL OF FAME



## FIRST *Acrylic Rear Lens*

The industry's first Acrylic Rear Lens, used on the 1948 General Motors Co. Cadillac Series 60, 61 and 62 models, was named the 2023 Hall of Fame Award Winner. The Acrylic (also known as PMMA) Rear Lens, made possible with the invention of the polymer called polymethylmethacrylate by Dr. Otto Röhm in 1932, was a gamechanger replacing ground glass and enabling a renaissance of new lighting designs for all OEMs.

To be considered for a Hall of Fame Award, an automotive plastic or composite component must have been in continuous service in some form for at least 15 years and broadly adopted in the automotive industry. This application certainly qualifies as PMMA

lenses are an industry standard known for glass-like optical properties while being about half the weight of glass. PMMA offers numerous design and quality benefits making it the premier material for lighting applications and more on all automotive vehicles and on numerous other products in industry.

The companies involved in developing the first Acrylic Rear Lens include: **OEM – General Motors Co.; Molder Processor – Fisher Body Division; Material Supplier – Röhm & Haas OHG (Germany), now known as Röhm GmbH.** General Motors accepted the SPE Automotive Hall of Fame Award on behalf of the original team that worked to develop this application.



Plastics News

# EXECUTIVE FORUM



## Roadmap to Growth

Registration is now open! Join us in Florida for the 2024 Plastics News Executive Forum. Hear from plastics industry leaders as they provide insights and strategies crucial to navigating the challenges and opportunities that lie ahead.

**March 11–13, 2024 // Clearwater Beach, FL**

### KEYNOTE SPEAKERS:



**MAUREEN STEINWALL**  
CEO/Co-Owner  
Steinwall, Inc.



**JASON SAUEY**  
Chairman & CEO  
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# AUTOMOTIVE INNOVATION AWARDS COMPETITION & GALA

HONORING THE BEST IN AUTOMOTIVE PLASTICS

NOVEMBER 13, 2024



## 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 **53<sup>RD</sup>-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 13, 2024** at the Burton Manor in Livonia, Michigan. Winning part nominations 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@gmail.com](mailto:intuitgroup@gmail.com).

For more info and to submit nominations, go to:

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

#### CATEGORIES:

AFTERMARKET & LIMITED EDITION VEHICLES

BODY INTERIOR

BODY EXTERIOR

CHASSIS/HARDWARE

PROCESS, ASSEMBLY AND ENABLING TECHNOLOGIES

SUSTAINABILITY

SAFETY

POWERTRAIN

ELECTRIC AND AUTONOMOUS VEHICLE SYSTEMS

MATERIALS

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THE OLDEST AND LARGEST RECOGNITION EVENT IN THE AUTOMOTIVE & PLASTICS INDUSTRIES



BY TERI CHOUINARD, SPE AUTOMOTIVE DIV. SPONSORSHIP CHAIR

## SPE® ANNOUNCES “CALL FOR NOMINATIONS” FOR 53<sup>RD</sup> ANNUAL AUTOMOTIVE INNOVATION AWARDS COMPETITION & GALA – “THE POWER OF PLASTICS” (NOV. 13, 2024)

- **Most Innovative Use of Plastics Award Nominations (due September 13, 2024)**
- **Hall of Fame Award Nominations (due May 31, 2024)**

The Automotive Division of the Society of Plastics Engineers (SPE®) is announcing a “Call for Nominations” for its 53<sup>rd</sup> annual **Automotive Innovation Awards Gala**, the oldest and largest recognition event (established in 1970) in the automotive and plastics industries. This year’s Awards Gala will be held **Wednesday, November 13, 2024** at the Burton Manor in Livonia, Mich. Winning part nominations, due by **September 13, 2024**, 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.

A **HALL OF FAME (HOF)** application that has been in continuous use for 15 years or more has made a significant and lasting contribution to the application of plastics in automotive vehicles. **NOMINATIONS** due by **May 31, 2024**, and will be honored with this prestigious 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/2024/01/2024-SPE-Innovation-Awards-Program-Part-Nomination-Form-V1.pdf>

“Plastics are Powering innovative advancements in mobility including electric, autonomous and traditional ICE (Internal Combustion Engine) vehicles” said

**Jeffrey Helms**, global automotive director, Celanese Corp., who returns as the 2024 SPE Automotive Innovation Awards chair. “Hence, our theme for this year’s event is the “Power of Plastics” to emphasize the continued importance of plastics as the premier material enabling, enhancing, and advancing all mobility applications,” added Helms. “We’re looking forward to continuing our tradition of honoring and celebrating the ‘Power of Plastics’ enabling and advancing the automobile today and into the future at this year’s event.”

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, October 3 - 4, 2024 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 October 11, 2024 (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 13, 2024. 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/>

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. Topic areas include applications, materials, processing, equipment, tooling, design, and development.

For more information about the SPE Automotive Div., see <https://speautomotive.com/>. For more information on the Society of Plastics Engineers, see [www.4spe.org](http://www.4spe.org).

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that are advancing the industry at the ACCE 2024 event. Topics include: Composites in Electric Vehicles; Advances in Thermoplastic Composites; Advances in Thermoset Composites; Additive Manufacturing & 3D Printing; Enabling Technologies; Sustainable Composites; Bonding, Joining & Finishing; Carbon Composites & Reinforcements; AI (Artificial Intelligence), ML (Machine Learning) and Data-Driven Solutions; and Design, Modeling and Simulation of Composites.

Those interested in presenting are encouraged to send Titles and/or Topics ASAP to [intuitgroup@gmail.com](mailto:intuitgroup@gmail.com). **ABSTRACTS** are due **April 26, 2024** and **FINAL PAPERS AND/OR PRESENTATIONS** are due **June 28, 2024**.

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offer companies the opportunity to support the event and promote their products and services to a very targeted and interested OEM audience. Contact Teri at [intuitgroup@gmail.com](mailto:intuitgroup@gmail.com) or **248.701.8003** and see our website <https://speautomotive.com/acce-conference/> for more information.

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BY TERI CHOUINARD, SPE AUTOMOTIVE DIV. SPONSORSHIP CHAIR

## SPE® AUTOMOTIVE COMPOSITES CONFERENCE & EXPO (ACCE) SUCCEEDS AGAIN!

**Expanded Focus on Composites in Electric Vehicles and Sustainability Enhanced the Event  
52 Technical Presentations, 25 Student Posters, 65 Sponsorships, 45 Exhibits, 6 Keynotes.**

The 23rd annual SPE® Automotive Composites Conference & Expo (ACCE), produced by the SPE Automotive and Composites Divisions, was a very valuable event according to exhibitors/sponsors and attendees representing OEMs, Tier Suppliers, Academia and other composites industry professionals. *“The ACCE provided us with the opportunity to feature our technology with a technical presentation and exhibit resulting in new business opportunities and new interest in our products and services – we’re already signed up for next year,”* said **Jonathon Spiegel**, Senior Engineer at **Avient Corporation**.

*“We’re proud to sponsor the ACCE as it’s a proven event for reaching OEMs interested in the benefits composites enable in automotive applications including electric vehicle batteries and components,”* said **Eric Haiss**, Global Director, Automotive Business Development at **IDI Composites International**. *“I look forward to the ACCE every year to meet with suppliers and learn about the latest composites technologies,”* said **Amanda Nummy**, Senior Materials Engineer at **Hyundai-Kia**.

*“ACCE offers a great combination of educational presentations and exhibits with networking opportunities for follow-up and new connections.”*



Dr. David Jack, ACCE  
Co-Chair Welcomes Attendees



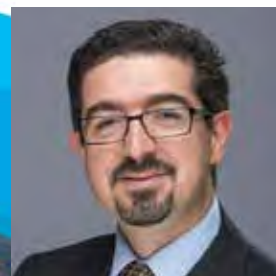
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**CONFERENCE  
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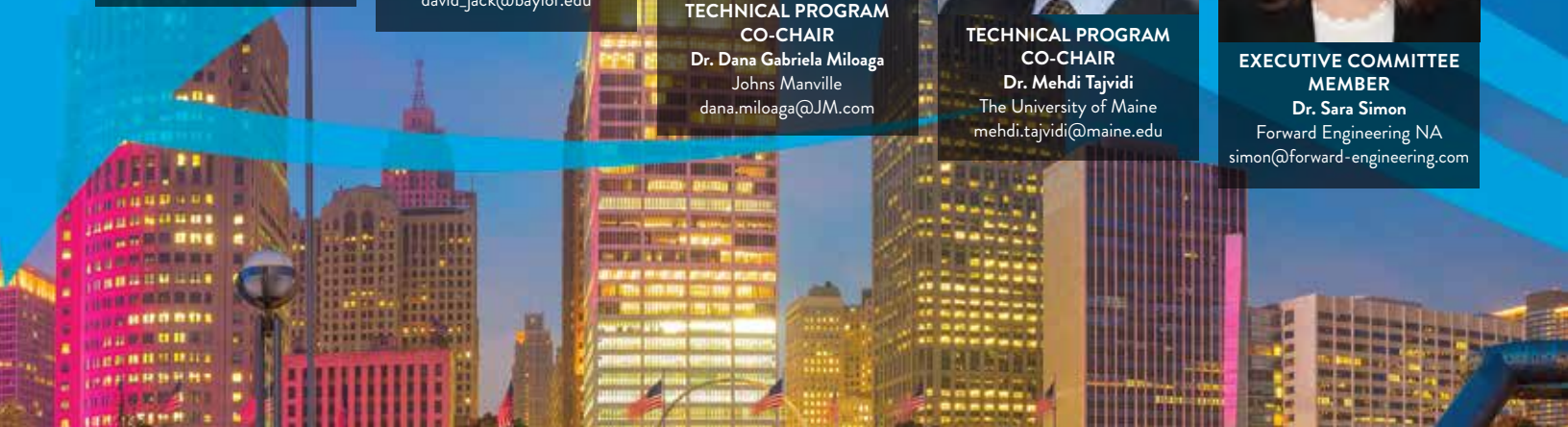
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## ACCE LEADERSHIP & SUMMARY

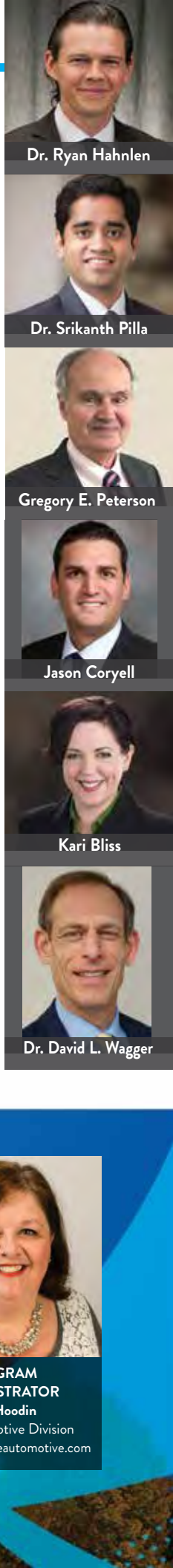
“Our ACCE 2023 theme ‘Composites The Key to EV Auto and Air Mobility,’ was expanded from last year (Composites: The Key to EV) to continue emphasizing how composites are essential to automotive electric vehicles and also highlight how composites are essential in the next wave of transportation – electric air mobility – including eVTOLS and more,” said **Dr. Christoph Kuhn**, Quality Satisfaction Strategy Manager at **Volkswagen Group of America** and ACCE 2023 and 2022 Co-Chair. “The 2023 ACCE was successful in attracting attendees who have attended the event for many years and new attendees eager to contribute to composites innovation in transportation as it progresses into the future,” said **Dr. David Jack**, Professor – Department of Mechanical Engineering at **Baylor University** and ACCE 2023 and 2024 Co-Chair.

The ACCE 2023 event was held September 6–8, 2023 at the Suburban Collection Showplace Diamond Banquet and Conference Center in Novi, Michigan. In addition to Dr. Jack and Dr. Kuhn who provided leadership as Event Chairs, a number of composites leaders from industry and academia provided support. The Technical Program, including 52 presentations, was led by **Dr. Dana Gabriela Miloaga**, Nonwovens Technology Leader at **Johns Manville** and **Dr. Mehdi Tajvidi**, Associate Professor of Renewable Nanomaterials School of Forest Resources, Advanced Structures and Composites Center and Forest Bioproducts Institute at **University of Maine** with support from **Kim Hoodin**, Program Administrator, SPE Automotive Division. Hoodin also managed registration, including over 450 attendees, with support from **Jitesh Desai**, Program Treasurer, SPE Automotive Division. **Dr. Leonardo Simon**, Professor, **University of Waterloo**, led the ACCE Parts Competition that included 9 nominations. **Dr. Douglas Smith**, Professor at **Baylor University**, led the Student Poster Competition including 25 presentations with sponsorship

support provided by **Dassault Systèmes**. Executive committee member **Dr. Sara Simon**, Project Engineering Manager at **Forward Engineering North America**, led a Special Session on Sustainability including 2 keynotes and a panel discussion. **Teri Chouinard**, President of **Intuit Group** provided leadership as ACCE Sponsorship Chair with 65 sponsorships and 45 exhibits and support with Event Management overall.

**KEYNOTES** presented at the ACCE 2023 event included: **Journey to the World’s First Ultra-Lightweight Carbon Fiber Reinforced Thermoplastic Composite 100% Recyclable Door Assembly** by **Dr. Ryan Hahnen**, Principal Engineer and Lead of Strategic Research Operations at **Honda Development & Manufacturing of America, LLC** & **Dr. Srikanth Pilla**, Director of The Center For Composite Materials at **The University of Delaware (UD\_CCM)** and Founding Director of ‘Aim For Composites’ a DOE Energy Frontier Research Center; **An Overview of Transportation Trends and Related Opportunities** by **Gregory E. Peterson** – Chief Engineer at **Airspace Experience Technologies (ASX)**; **A Role for Composites In GM’s Vision for Simulation-Driven & Sustainable Material Impact** by **Jason Coryell**, P.E., FASM – Engineering Group Manager of Advanced Materials Technology at **General Motors Company**; **What Does Disruptive Electrification of Transport Mean For Industrialization of Composites?** by **Dr. Jamie Snudden**, (not pictured) Business Development Manager at **Airborne UK**.

**A SPECIAL SESSION ON End of Vehicle Life Today and Sustainability Solutions for the Future** featured the keynote presentations **Circularity for End Of Life Vehicles** by **Kari Bliss**, Principal Sustainability at **PADNOS** and **Recycling Plastics from End Of Life Vehicles: The Final Frontier?** by **Dr. David L. Wagger**, Chief Scientist and Director of Environmental Management at the **Institute of Scrap Recycling Industries (ISRI)**.



Dr. Ryan Hahnen

Dr. Srikanth Pilla

Gregory E. Peterson

Jason Coryell

Kari Bliss

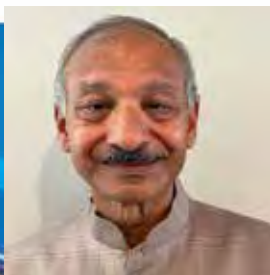
Dr. David L. Wagger



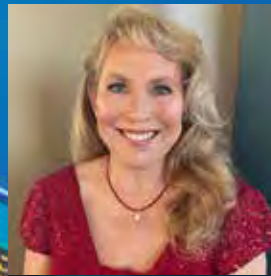
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**STUDENT POSTER COMPETITION CHAIR**  
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**PROGRAM ADMINISTRATOR**  
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**A PANEL DISCUSSION** including **Amar Mohanty**, Professor and Research Chair of Sustainable Biomaterials at **University of Guelph**; **Mehdi Tajvidi**, Associate Professor of Renewable Nanomaterials School of Forest Resources, Advanced Structures and Composites Center and Forest Bioproducts Research Institute at **University of Maine**; **Dan Dowdell**, Business Development Manager at **INEOS Composites** and keynote presenters **Eric Walker** from **Honda**, **Kari Bliss** from **PADNOS** and **Dr. David Waggoner** from **ISRI**. The Special Session was led and moderated by **Dr. Sara Simon**, Project Engineer with **Forward Engineering** and ACCE Executive Committee member and moderated by **Dr. Christoph Kuhn**, Quality Satisfaction Strategy Manager at **Volkswagen Group of America, Inc.** and ACCE Co-Chair.

## THE ACCE 2023 TECHNICAL PROGRAM

included 52 presentations on 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 Reinforcements; and a special session on Partnerships Advancing Composites in Automotive Applications including Honda North America and Clemson University.



GM Presentation at ACCE

## BEST PAPER AWARDS

Excellence in technical writing is recognized annually at ACCE by honoring those who have presented the best papers at the conference. The 2023 Best Paper Award winners received the highest average ratings by conference peer reviewers including members of the ACCE planning committee and other industry experts. One winner and two honorable mentions were recognized in the program guide and honored at the event in the Best Paper Award competition. **Garam Kim**, Assistant Professor at **Purdue University**, won the Best Paper Award for his paper *Enhancing Recycled Thermoplastic Composite Parts Using Recycled Composite Laminate Cutouts*. Honorable Mention recognitions were awarded to **Chandra Kishore Reddy Emani**, Postdoctoral Researcher at **University of Michigan – Dearborn** for his paper titled, *Press Forming of E-Glass Fabric Reinforced Polypropylene: A Numerical Study* and **Jacob Montrose**, Graduate Researcher at **Purdue University** for his paper titled, *Influence of Waterjet Cut Quality for Fabrication of Test Specimen on Mechanical Testing Results*. The authors were presented with certificates at the conference and their papers were highlighted in the ACCE program schedule and will be published in SPE Automotive and Composites Division newsletters and other industry publications.



## STUDENT POSTER COMPETITION SPONSORED BY

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Students from the U.S.A. and Canada featured innovative research related to polymer composite materials and manufacturing technologies for automotive applications via the annual ACCE Poster Competition. This yearly event enables students to meet with people in the industry and learn about career opportunities as a scientist, engineer, researcher and other professions in the field. Automotive OEMs, tier suppliers, and others appreciate the introduction to the next generation of



Keith Nagara from Dassault Systèmes (ACCE Student Poster Competition Sponsor) presents award to Neshat Sayah from Baylor University

automotive composites engineering professionals and opportunity to potentially hire them in the future. The 2023 ACCE Student Poster Competition, sponsored by Dassault Systèmes, included 25 posters from 9 different universities. The 2023 ACCE Student Poster Competition winners were:

### GRADUATE CATEGORY

#### 1ST PLACE:

*Manufacturing and Validation of a Carbon Fiber Reinforced Thermoplastic Composite Door*

**Amit Deshpande**, University of Delaware

#### 2ND PLACE:

*Material Property Prediction of Recycled Polypropylene via Data-Driven Modeling*

**John Estela-Garcia**, University of Wisconsin - Madison

#### 3RD PLACE:

*X-Ray Micro Computed Tomography Characterization of Void and Carbon Fiber Correlation within the Bead Microstructure of Large Area Additive Manufacturing (LAAM) Polymer Composites*

**Neshat Sayah**, Baylor University

### UNDERGRADUATE CATEGORY

#### 1ST PLACE:

*Ultra-Lightweight Carbon Foams from Lignin for High-Temperature Thermal Insulation Applications*

**Johnathan Behr**, Clemson University

#### 2ND PLACE:

*Sustainable Lightweight Biocomposites from Engineering Plastic and Hemp-Hurd Pyrolyzed Biocarbon*

**Hugh MacFarlane**, University of Guelph

#### 3RD PLACE:

*Investigation of crystalline Degradation in Ultra-High Molecular Weight Polyethylene (UHMWPE) Composites*

**James Tallman**, University of Delaware

## SCHOLARSHIP AWARDS

The organizing committee for the SPE Automotive Composites Conference & Exhibition (ACCE) honored winners of the SPE ACCE Scholarships and Dr. Jackie Rehkopf Scholarships at this year's event. The SPE ACCE Scholarships are sponsored by the SPE Automotive and SPE Composites Divisions. The Dr. Jackie Rehkopf Scholarships are sponsored by the SPE Automotive and Composites Divisions and generous donations of friends and family to honor the memory of the late long-time SPE ACCE committee member, SPE Automotive Division board member, and automotive composites researcher. Both scholarship programs are administered as part of the SPE Foundation.

The **ACCE SCHOLARSHIPS** (\$2,000 USD each) are awarded to students pursuing advanced studies in a composites related field. The three winners of the ACCE Scholarships are: **Amit Makarand Deshpande**, a graduate student pursuing a PhD in Mechanical Engineering at the Center for Composite Materials at the **University of Delaware**; **Md Nayeem Hasan Kashem**, a graduate student pursuing a PhD in Chemical Engineering at **Texas Tech University**; and **Suyash Oka**, a graduate student pursuing a PhD in Chemical Engineering at **Texas A&M University**.

Additional ACCE scholarships (\$1,000 USD each) are being awarded to **Orville Tackett**, a sophomore majoring in Plastics Engineering and minoring in CAD and Electromechanical Engineering at **Shawnee State University**; and **Youyi Zhou**, a student majoring in Composite Materials Engineering and Minoring in Mathematics, Chemistry and Polymer Chemistry at **Purdue University**.

The two winners of the **2023 DR. JACKIE REHKOPF SCHOLARSHIPS** (\$2,500 USD each) are **Amy Kurr**, a PhD candidate pursuing a doctoral degree in Energy Science and Engineering from the **University of Tennessee's Bredesen Center**; and **Rachel Van Lear**, a PhD candidate pursuing a doctoral degree in Mechanical Engineering at **Baylor University**.

#### The SPE ACCE SCHOLARSHIP COMMITTEE

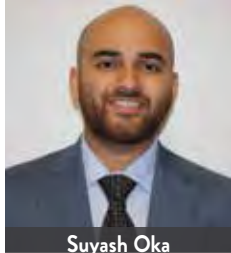
was led by **Dr. Alper Kiziltas**, Amazon Advanced Materials, and included **Dr. Leonardo Simon**, University of Waterloo; **Dr. Christoph Kuhn**, Volkswagen Group of America; **Dr. Oleksandr Kravchenko**, Old Dominion University; **Dr. John Gillespie, Jr.**, University of Delaware; **Dr. Akshay Trivedi**, General Motors Co.; **Dr. Zeynep Iyigundogdu**, Adana Alparslan Turkes Science and Technology University; **Drew Geda**, Hyundai-Kia America Technical Center; **Chuck Jarrett**, The Materials Group; and **Keith Siopes**, EMS-CHEMIE North America and **Dr. Prasad Soman**, Amazon Lab126.



Amit M. Deshpande



Md Nayeem Hasan Kashem



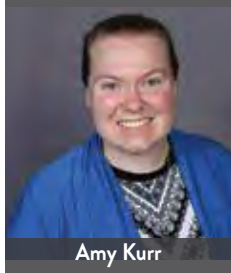
Suyash Oka



Orville Tackett



Youyi Zhou



Amy Kurr



Rachel Van Lear



# 2023 ACCE PART COMPETITION

This year's ACCE Part Competition was led by Dr. Leonardo Simon from the University of Waterloo who previously served as the 2021 and 2022 ACCE Co-Chair. A panel of automotive composites industry experts, from industry and academia, studied the 9 nominations that were submitted in advance of the event and reviewed the parts onsite and voted for the Most Innovative Material and/or Process Applications in Production Part and Prototype Part Categories. Nominations were judged on the impact and trendsetting nature of the application, including materials of construction, processing methods, assembly methods, and other enabling technologies that made the application possible. Nominations emphasized the benefits of design, weight and cost reduction, functional integration, and improved performance. A separate prize, the People's Choice award, was selected by vote of conference attendees.



World's First CFRT Door Assembly (Honda & Clemson U) Win Prototype Part Competition Award at ACCE

Here are the winners:

## MOST INNOVATIVE MATERIAL IN THE PRODUCTION PART CATEGORY:

### ORGANO SHEET BATTERY CASINGS ON THE 2020 DAIMLER CLASS S

Nominated by:  
*Valeo Thermal Systems*



## MOST INNOVATIVE PROCESS IN THE PROTOTYPE PART CATEGORY:

### ULTRA-LIGHTWEIGHT CARBON FIBER REINFORCED THERMOPLASTIC COMPOSITE DOOR ASSEMBLY

Nominated by:  
*Clemson Composites Center at Clemson University and Center for Composite Materials at University of Delaware*



## MOST INNOVATIVE MATERIAL IN THE PROTOTYPE PART CATEGORY:

### RECYCLED PAPER AND RECYCLED POLYPROPYLENE INTERIOR TRIM

Nominated by:  
*Volkswagen Group of America, Inc.*



## PEOPLE'S CHOICE AWARD:

### THERMOPLASTIC COMPOSITE SANDWICH PANEL FOR TRUCK BED

Nominated by: *Johns Manville*



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For more info go to:

<https://speautomotive.com/> and <https://composites.4spe.org/>. For more information on the Society of Plastics Engineers, see [www.4spe.org](http://www.4spe.org). The next ACCE is scheduled for **SEPT. 4 – 6, 2024** at the same venue as the 2023 event - the Suburban Collection Showplace Diamond Banquet and Conference Center in Novi, Michigan. For more info contact [Intuitgroup@gmail.com](mailto:Intuitgroup@gmail.com).



Carbon Rivers Presentation at ACCE

## PLASTIVAN®

Once again, ACCE hosted the PlastiVan® program – this year including 40 students from Ecotek Lab, in Detroit, Mich. The PlastiVan program provides sound science and educational programs, including fun experiments with plastics, which spark scientific curiosity in students while increasing their knowledge of the contribution plastics make to modern life and encouraging them to seek careers in engineering. The Ecotek program is focused on providing academically gifted students in middle school and high school with opportunities to participate in international science research projects. The projects are very challenging and prepare the students for college-level opportunities. After the PlastiVan class onsite at ACCE, the students toured the ACCE exhibits and student posters and enjoyed learning more about automotive composites.



Attention Editors: Photos are available for download via: <https://www.flickr.com/photos/speautomotive/albums/with/72157673717033072>

For more information on the SPE ACCE see <https://speautomotive.com/acce-conference/>

For more information on the Society of Plastics Engineers, see <https://4spe.org/>

Held annually in suburban Detroit, the ACCE currently draws approximately 500 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, Asia/Pacific and South America 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. ACCE has been jointly produced by the SPE Automotive and Composites Divisions since 2001. For more info on ACCE go to: <https://speautomotive.com/acce-conference/>.

**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. SPE's Composites Division does the same with a focus on plastic-based composites in multiple industries. Topic areas include applications, materials, processing, equipment, tooling, design, and development.

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**COMPOSITES**

For rates & information, please contact Teri Chouinard at Intuit Group, [intuitgroup@gmail.com](mailto:intuitgroup@gmail.com) +1.248.701.8003

**SPONSORED BY**





The image shows the interior of a Citroën concept car named 'oli'. The interior is predominantly orange, with perforated seats and a matching dashboard and steering wheel. The car is illuminated with warm orange light, creating a futuristic and high-tech atmosphere. The background is dark, making the orange interior stand out.

## **BASF IS TEAMING UP TO BREAK NEW GROUND**

Citroën concept car “oli” created with materials and expertise from BASF.

Learn more about how we can drive emobility innovation at [www.emobility-plastics.basf.com](http://www.emobility-plastics.basf.com)

 **BASF**

We create chemistry



# ANTEC 2024 MARCH 4-7, 2024

MARRIOTT ST. LOUIS GRAND, ST. LOUIS, MO.

DR. NORM KAKARALA AND TOM PICKETT, ANTEC TECHNICAL PROGRAM CHAIRS



The SPE Annual Technical Conference (ANTEC) will take place March 4 to 7, 2024 in St. Louis, MO. ANTEC will showcase the latest advances in industrial, laboratory and academic work focused on plastics.

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
- AI in Digitalization
- Circular Economy



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 kicks off on March 4 at 4:00 PM with the First Timers & VIP Reception. Plenaries and Technical presentations begin on March 5th.

For the latest information on ANTEC, visit the website: [www.4spe.org](http://www.4spe.org)



Visit the main Society of Plastics Engineers' website for up-to-date information on training, seminars, and other career-enhancing information.



**BECOME A MEMBER TODAY**  
<http://www.4spe.org/membership/>





# ANTEC® 2024

St. Louis, MO • March 4-7

ANTEC® 2024 will showcase the latest advances in industrial, national, laboratory, 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:

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

LEARN MORE AT  
[4SPE.ORG/ANTEC](https://4spe.org/antec)





## 2024 EAV CONFERENCE

SASSAN TARAHOMI, SPE AUTOMOTIVE DIVISION CHAIR

The 3<sup>rd</sup>-Annual EAV Conference preparation started early last summer. A 45-member committee from Automotive OEM, Tiers and Material producer engineers and managers volunteered to develop and deliver a superb conference on Plastics in Electric and Autonomous Vehicles on **April 8-10, 2024**. Keynote sub-committee immediately started the search for industry executives to fill the 6 available keynote spots. Within a few months our talented team members identified and received commitment from all 6 keynote speakers to deliver high level talks about the EV.



**ELECTRIFIED CORVETTE E-RAY**  
**TADGE JUECHTER**  
 Executive Chief Eng. Global Corvette  
 General Motors



**BATTERY SYSTEM**  
**TOM PILETTE**  
 Chief Executive Officer  
 Zeta Energy



**LITHIUM ION BATTERY, BATTERY COOLING**  
**DR. JOHN WARNER**  
 Chief Customer Officer  
 American Battery Solutions, Inc.



**FORECAST ON ELECTRIFICATION OUTLOOK**  
**KEVIN RIDDELL**  
 Sr. Mgr. American Powertrain  
 Global Data



**BENCHMARKING RECENT VEHICLE LAUNCHES**  
**MANOJ DEEP JASROTHIA**  
 Vice President of N. A. Sales  
 Caresoft Global



**PERSPECTIVES IN SUSTAINABILITY**  
**DR. CYNTHIA FLANNIGAN**  
 Henry Ford Technical Fellow,  
 Sustainability Research  
 & Advanced Engineering

Dr. Jeff Helms, Celanese, Dhanendra Nagwanshi, Sabic and Maggie Baumann, Pinfa, N.A. are the EAV volunteer team working on the **PANEL DISCUSSION**. They are preparing another panel discussion on the **EV THERMAL RUNAWAY SYSTEM** for us. EV & AV thermal control is a popular topic these days. I know, I will be there in the front row and listening to their discussion. Make sure you don't miss this event.

**PANEL DISCUSSION**  
**THERMAL RUNAWAY – DETECTION, CONTAINMENT AND MITIGATION**  
 Tuesday | April 9, 2024  
 10:30 AM – 12:00 PM | Main Hall

**LED BY Panelists from Automotive OEM, Tiers, Testing and Regulatory agencies**

Thermal runaway is a key engineering topic for automotive and battery system manufacturers for battery electric vehicles. Enhancements in cell chemistry, early detection, battery management architecture, containment, directional venting and battery pack material optimization all contribute to a safe and durable electric vehicle battery. This panel will highlight some of those engineering directions and best practices in development of battery systems as well as updated design, response and material performance standards.

**MODERATED BY**

**DHANENDRA NAGWANSHI, SABIC**  
**DR. JEFF HELMS, CELANESE**  
**MAGGIE BAUMANN, PPA/PINFA NA**

<https://speautomotive.com/plastics-in-electric-autonomous-vehicle-conference/>

**TECHNICAL SESSIONS** are managed by 22 dedicated session co-chairs under leadership of **Dr. Norm Kakarala** and **Dr. Suresh Shah**. These hardworking group of volunteers meet multiple times a month to provide update on their session and commitments from their authors. First draft of the program will be out in early February. Based on my latest info almost all the slots are full at this time.

**2024 EAV CONFERENCE SESSIONS AND LEADERS:**

<p><b>BATTERY AND THERMAL MANAGEMENT SYSTEM</b>                  Dhanendra Nagwanshi, SABIC;                  Dr. Jeff Helms, Celanese Corp;                  Maggie Baumann, FRX Polymers</p> <p><b>ADVANCED DRIVER ASSISTANCE SYSTEM (ADAS)</b>                  Dr. Rodrigo Orozco, Celanese;                  JP Wiese, Polyplastics</p> <p><b>MATERIAL INNOVATIONS</b>                  Mike Shoemaker, Borealis; Paula Kruger, Ascend Materials;                  Sunit Shah, LyondellBasell</p> <p><b>EVOLUTION OF INTERIORS</b>                  Dr. Rose Ryntz, Ryntz &amp; Associates; Jim Keller, Mankiewicz Coatings LLC; Jeff Crist, Ford Motor Co.</p>	<p><b>SUSTAINABILITY AND CARBON NEUTRALITY</b>                  Dr. Alper Kiziltas, Amazon; Dr. Prasad Soman, Amazon; Drew Geda, Hyundai-Kia America; Manoj Patnala, Rivian Automotive;</p> <p><b>NOISE AND VIBRATION</b>                  Dr. Xian Jiang, Dow; Joel Pierce, Borealis</p> <p><b>MANUFACTURING ENABLING TECHNOLOGIES</b>                  David Kosse, Ascend Materials;                  Steve Vanloozen, Lotte Advanced Materials</p> <p><b>EVOLUTION OF EXTERIORS AND LIGHTING</b>                  Tom Pickett, General Motors;                  Volker Plehn, SABIC;                  Mark Lapain, Advanced Composites</p>
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Many thanks to our sponsors for helping us financially to bring this conference . As of now we have 35 sponsors and exhibitors. Sponsorship deadline for an exhibit space or other sponsorship item is **April 6, 2024.**

## SPONSORSHIP OPPORTUNITIES

### 2024 EAV PLATINUM SPONSORSHIP

**Benefits:**

- 12 Conference tickets
- Premium 10' W x 6' D x 10' H booth space
- Full page advertisement in the conference proceedings
- Logo display in the SPE Automotive Division website
- Meeting room reservation priority during the conference
- 5 minutes podium time on Monday 4/8

**PLATINUM SPONSORSHIP FEE:**

- \$5,000 to be paid to SPE Automotive Division
- Must pay for a Reception or a Lunch - Working directly with Marriott (\$25K cap)

### 2024 EAV DIAMOND SPONSORSHIP

**Benefits:**

- 10 Conference tickets
- Main hall 8' W x 6' D x 10' H booth space
- Half page advertisement in the conference proceedings
- Logo display in the SPE Automotive Division website
- Meeting room reservation during the conference

**DIAMOND SPONSORSHIP FEE:**

- \$15,000 to be paid to SPE Automotive Division

### 2024 EAV GOLD SPONSORSHIP

**Benefits:**

- 8 Conference tickets
- 8' W x 6' D x 10' H booth space
- Half page advertisement in the conference proceedings
- Logo display in the SPE Automotive Division website
- Meeting room reservation during the conference

**GOLD SPONSORSHIP FEE:**

- \$8,000 to be paid to SPE Automotive Division

### 2024 EAV SESSION SPONSORSHIP

**Benefits:**

- 2 Conference tickets
- Sponsoring company will be recognized by the selected session co-chairs at the beginning of every presentation
- Quarter page advertisement in the conference proceeding

**SESSION SPONSORSHIP FEE:**

- \$2,000 to be paid to SPE Automotive Division for sponsoring one selected session

### 2024 EAV BREAKFAST SPONSORSHIP

**Benefits:**

- 4 Conference tickets
- Quarter page advertisement in the conference proceeding

**BREAKFAST SPONSORSHIP FEE:**

- \$4,000 to be paid to SPE Automotive Division

### 2024 EAV OTHER SPONSORSHIP

**Program Book Advertising Options**

4 Color Ad (appropriate media furnished)		Inserts (inquire)
Full Page	\$3,000	Available
Half Page	\$2,000	Available
1/4 Page	\$1,000	Available

**Program Book Cover Options**

Back Cover	\$3,000
Inside Cover	\$1,500

**Other Promotional Option**

Items furnished or paid for by sponsor

Badge Lanyard	\$500
Note Pads with Logo	\$500
Pens/Pencils	\$500
Hotel room key advertisement	\$500
Session Sponsorship	\$2,000
Tote Bags with Logo	\$500

### 2024 EAV AM OR PM BREAK SPONSORSHIP

**Benefits:**

- 3 Conference tickets
- Quarter page advertisement in the conference proceeding

**BREAK SPONSORSHIP FEE:**

- \$3,000 to be paid to SPE Automotive Division

Hope to see many of you at the conference, I am looking forward to it and counting days till the April 8th. As a matter of fact, we have 44 days 12 hours 25 minutes and 25 seconds till the third annual EAV conference.

See you there,  
Sassan

SPONSORED BY





## 2024 EAV SPONSORSHIP SIGN-UP FORM

Company Name: \_\_\_\_\_ Phone #: \_\_\_\_\_

Name/Title: \_\_\_\_\_ Email: \_\_\_\_\_

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

Sponsoring:  Platinum  Diamond  Gold  Breakfast  Break  Other \_\_\_\_\_

Contact: [EAVConference@speautomotive.com](mailto:EAVConference@speautomotive.com) or Call Sassan Tarahomi (989) 335-0060

Completed form to be emailed to: [EAVConference@speautomotive.com](mailto:EAVConference@speautomotive.com)

### EAV ANNOUNCES ITS FIRST 2024 KEYNOTE SPEAKER



## EAV 2024

PLASTICS IN ELECTRIC &  
AUTONOMOUS VEHICLES

Troy, MI • April 8-10, 2024  
Powered by SPE Automotive Division



### MANOJDEEP JASROTHIA,

*Director of North American Sales, Caresoft Global*

A seasoned engineering professional, leader, and strategist, Manoj is the Director of NA Sales for Caresoft Global. His experiences in industrial engineering, manufacturing, supply chain, and product line marketing help him in putting together and executing customized consulting and technical solutions for global Automotive clients.

As a leader at Caresoft, Manoj has been able to witness first-hand the mobility evolution and can speak directly to the current plastics applications in the market and the future we can expect to see.

**THE VALUE OF BENCHMARKING TO THE MOBILITY EVOLUTION**

Caresoft Global finds itself at the center of the ongoing mobility evolution. As a benchmarking and engineering firm, they are in a unique position where they are able to observe and assess the different levels of efficiency, complexity, and opportunity for optimization within a vehicle. Manoj will share the evolving role of materials in enabling mass and cost savings, safety, styling, and ease-of-manufacturing for EVs.

<https://speautomotive.com/plastics-in-electric-autonomous-vehicle-conference/>

## AUTOMOTIVE ELECTRIFICATION, AUTOMATION, AND SUSTAINABILITY REMAIN AS KEY INDUSTRY TOPICS



Happy New Year everyone! We have multiple important events from the end of '23 to early '24 starting with the Vehicle Technology at the 2024 Consumer Electronic Show, FormNext 2023, Fakuma 2023, and the 2023 Battery Show that focus on vehicle electrification, automation and sustainability.

The Vehicle Technology at the 2024 Consumer Electronics Show (CES) is becoming the biggest car show presenting the current trends in car technology: electrification, new ways to move and advancements in language-based artificial intelligence (AI). This year's CES had more than 135,000 attendees from 150+ countries, over 4,300 exhibitors, of which more than 1,400 were startups, and over 1,000 speakers addressing over 250 sessions. Some of the highlights:

- Honda presented their two 0 Series EV concept vehicles. The Honda Space-Hub is a spacious and futuristic minivan that transforms the interior into a hub where passengers can interact with each other; and the Honda 0 Saloon sports coupe with gull-wing doors that will serve as basis for the production of an EV arriving in 2026.
- Kia entered the electric vans with their interpretation of "Platform Beyond Vehicles" to break into the electric commercial vehicle market. Their upcoming line-up includes the PV1, PV5 and PV7 that covers a range of sizes and flexibility with highly modular interior to be configured for a range of scenarios.
- German car manufacturers made announcements of advancements in language model AI. VW announced a partnership with Cerence to bring ChatGPT to their voice assistant system as a free cloud based update for drivers of their ID4 and ID7 vehicles. BMW is working with Amazon to include Alexa large language model and Mercedes with Azure OpenAI.
- Harman turned car seats into speakers. Their audio system integrated near-field transducers into the headrests and a bass unit in the lumbar section. Since the audio does not have to travel as far, their new system offers a 60% power savings when compared to a conventional audio system.
- Hyundai Mobis presented their Mobion concept car that features in-wheel motor technology and e-corner system where all four wheels are driven and can steer independently of one another. This technology allows Mobion to "crab-walk" as solution to tricky parking situations and incorporated ADAS technology autonomously performs maneuvers while exterior projection lighting projects safety information.

- Californian EV maker Muller presented their Five RS vehicle with 1,000bhp, 0-60mph in under two seconds and top speed over 200mph using an 800V electrical architecture.
- Hyundai presented their Supernal S-A2 eVTOL craft that is set to begin testing next year. It uses eight tilting rotors to fly at speeds up to 120mph for trips up to 40 miles operating at 1,500ft (well below commercial aircraft) to offer short trips using a ride hailing platform. This five-seat battery-powered craft was targeted to operated quietly, emitting only 65dB and 45dB during take-off and cruise, respectively.
- Caterpillar presented their CAT R1700 XE battery electric load-haul-dump loader for underground mining. Their shovel has a 15,000kg payload, a peak power output of 335hp, and a full charge time of just 20 minutes using dual CAT MEC500 chargers. It comes factory ready for autonomous operation and features "Autodig" setting for optimization.

Formnext Connect, the largest exhibition for the Additive Manufacturing industry, took place on November 7 - 10, 2023 in Frankfurt, Germany. 859 exhibitors of additive manufacturing solutions met with almost 33,000 visitors on 54,000 square meters (over 580,000 ft<sup>2</sup>). The exhibition also included 148 talks, panel and presentations with live, digital, and on-demand content. Formnext focuses on showcasing the complex and multifaceted world of additive manufacturing across the entire range of materials used (mainly plastics and metals), as well as secondary operations up to serial production. Overall, Formnext 2023 was mainly about faster, and bigger machine designs with improved precision. In summary:

- Robotic 3D printing systems for plastics that allows printing large envelop objects, like a boat.
- Additive manufacturing with metals demonstrated precise one piece manufacturing of highly complex and large components. Also, presented advances in Liquid Metal Deposition of precisely controlled deposition that allows building complex 3D forms.
- Control-based advances such as control algorithms that allow machines to perform laser melting and powder bed layer recoating at essentially the same time, which reduces the build time by eliminating the wait time of alternating these steps.
- New nanotechnology solutions that can be used for 3D printing electronic components.
- The show introduced a new multi-stage concept to showcase applications, technologies, and innovations while providing a platform for discussion of industry relevant topics, such as sustainability, cybersecurity and investments.



Fakuma, a leading trade show event for industrial plastic processing, was held on Oct. 17-21, 2023 at Messe Friedrichshafen, Germany. Over 39,000 visitors and 1,600 exhibitors from over 40 countries attended the show that focused on digitalization, automation, flexibility, and energy efficiency of machines and systems, and the circular economy for plastics. The highlights are:

- The transformation of the polymer industry towards greater sustainability presenting closed-loop material flows, product optimization targeted at recycling, and processing of recycled materials for high-end applications.
- Round table discussion on the subject of “Plastic – recyclable material rather than problem material”.
- Equipment innovations that include digital products to support the entire product life cycle from design and sampling to production, and maintenance and service to ensure quality and enable cost and energy savings through processing optimization. Energy efficient solutions through optimized temperature and process controls

The 2023 Battery Show in Novi, MI was held on Sept. 12-14 with nearly 19,000 attendees (that represents a 25% year over year increase), over 800 exhibitors, 4 conference tracks and more than 200 speakers. This is North America’s largest and most comprehensive advanced battery technology event exclusively dedicated to the drive train and power systems in xEVs. The show has already announced it will move to the Huntington Place in Detroit for 2024. The key industry topics covered include: battery safety, alternative chemistries, EV charging and infrastructure, raw materials, components, battery recycling, market supply chain forecasts, and regulatory outlook. Some of the highlights:

- Battery packs and battery enclosure concepts exhibited by multiple component and raw material suppliers.
- Circuit protection technologies for battery disconnect units.
- Products designed to improve EV performance and efficiency, including multipurpose smart actuators, vehicle domain control module, and integrated thermal management module.
- Solid-state battery concept & Fuel cell stack.
- Energy management systems for EVs.
- The conference featured: keynote presentations and leader’s roundtables, 4 workshops , more than 30 sessions of technical content divided in 4 tracks (battery development, battery in-use, EV development and EV in-use), and more than 30 15-minute lightning talks.

Overall, vehicle electrification remains as focal point in automotive despite the slower than expected customer adoption and the backdrop of accelerating investment in EV battery development and manufacturing by almost all major automakers. 2024 seems to be a year that will keep us busy working on innovative solutions for battery developments, vehicle automation and sustainable alternatives.



## PUSHING BOUNDARIES, TOGETHER

Vehicle technology is changing rapidly. Our global team can help you keep pace, and get ahead of the demands. With our growing portfolio of proven thermoplastic materials and solutions, and with support from local specialists and development experts, you can push the boundaries of engineering and design.

Combining our science and ingenuity with yours, so you can succeed. This is what we call Chemistry that Matters™.

[sabic.com/en/industries/automotive](https://sabic.com/en/industries/automotive)

 **CONNECT WITH US**  
[linkedin.com/showcase/sabic-solutions-for-automotive/](https://linkedin.com/showcase/sabic-solutions-for-automotive/)



**CHEMISTRY THAT MATTERS™**

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# CALL FOR PAPERS

The 2024 Auto EPCON Conference is looking for presentations on engineering plastic materials for the following topics:

- Light weighting materials
- Sustainable material solutions
- Solutions for electrification technologies, including batteries, motors, e-drives, electronic control units, and fuel cell vehicles
- Additive manufacturing
- Metal replacement
- New Materials
- CAE/FEA analysis techniques
- Material designed for improved NVH
- Structural materials

**ABSTRACT SUBMISSION DATE: FEBRUARY 23, 2024**

**SUBMIT NOW!**

## REGISTRATION IS NOW OPEN

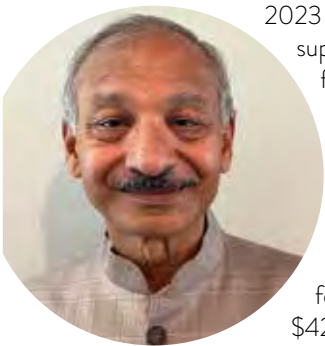
The SPE Detroit Section, the SPE Injection Molding Division and the SPE Additive Manufacturing Chapter are pleased to announce the 2024 Automotive Engineering Plastics Conference and Exhibition (Auto EPCON) will be held on May 14, 2024 at the Detroit Marriott Troy located in Troy Michigan.

Please join us to meet, network, and learn with influential engineers and scientists involved in specifying, designing and recommending engineering plastics.

**REGISTER NOW**

# TREASURER'S REPORT

JITESH DESAI, SPE AUTOMOTIVE DIVISION TREASURER



2023 was an exciting year with opportunities to support division objectives and devote as much funds as possible towards education. First time SPE Automotive Division board committed and fulfilled \$100,000 towards education activities with SPE Foundation education initiatives.

Financial status as of February 22, 2024, for the fiscal year net operating revenue of \$428,626.53. 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 2023 ended on 31 December 2023. SPE Automotive will be filing IRS return in coming months.

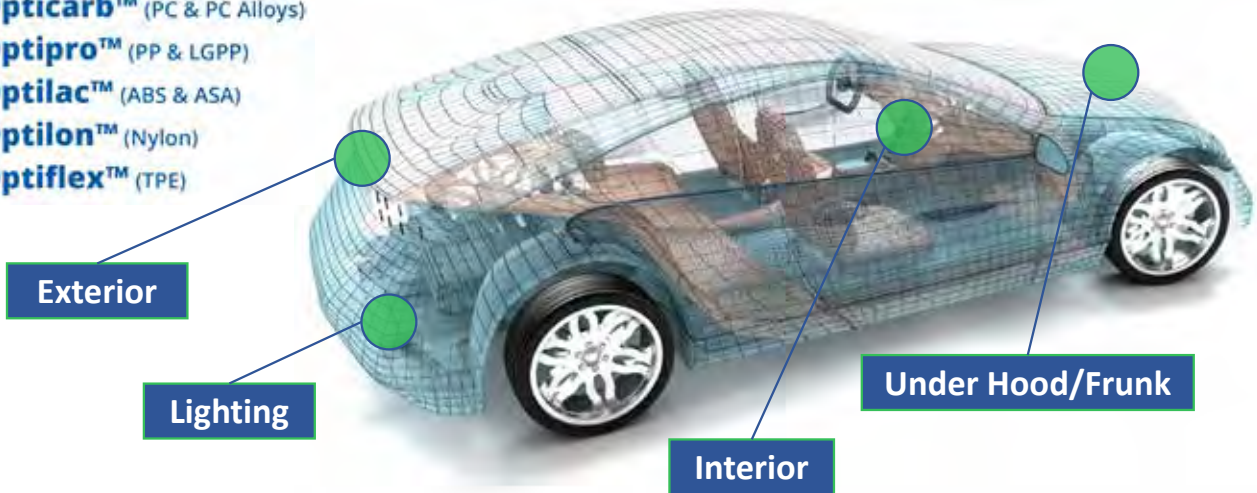
We have set a goal of external audit of our books before the end of 2024.

## AS OF FEBRUARY 22, 2024, THE DIVISION'S ACCOUNT BALANCES WERE:

Checking:	\$146,936.79
Savings:	\$281,689.74
Total:	\$428,626.53

## Our sustainable **OPTI** resins can be used all around the vehicle.

- **Opticarb™** (PC & PC Alloys)
- **Optipro™** (PP & LGPP)
- **Optilac™** (ABS & ASA)
- **Optilon™** (Nylon)
- **Optiflex™** (TPE)



Contact The Materials Group (TMG) by email at [sales@thematerialsgroup.com](mailto:sales@thematerialsgroup.com), or for more information on the sustainable portfolio from TMG please visit [www.thematerialsgroup.com/sustainability.html](http://www.thematerialsgroup.com/sustainability.html).

# SECRETARY'S REPORT

SPE AUTOMOTIVE DIVISION BOARD MEETING MINUTES  
SEPTEMBER 18, 2023, BY TOM PICKETT



**ATTENDEES:**

Sassan Tarahomi	Alper Kiziltas	Jeff Mayville	Paula Kruger
Norm Kakarala	Brian Grosser	Jeremy Lee	Richard Umemoto
Tom Pickett	Chuck Jarrett	Jim Munro	Rodrigo Orozco
Suresh Shah	Dean Stevenson	Keith Siopes	Robert Philp
Jeff Helms	Dhanendra Nagwanshi	Leonardo Simon	Steven VanLoozen
Al Chan	Fred Deans	Neil Fuenmayor	Teri Chouinard

**MEETING CALLED TO ORDER**

Chairman Sassan Tarahomi called the meeting to order at 5:32 PM.

Meeting minutes recorded by Secretary Tom Pickett. Sassan plans to have quarterly board meetings. Sassan has distributed the presentation file (attached) to all the Board Members which provides the details. The following are highlights of the Board Meeting:

- **MOTION** Sassan nominated Tom Pickett as secretary for SPE Automotive Division effective immediately. Seconded by Norm Kakarala. All in attendance voted in favor of the motion and no objections. Motion carried.
- **NEW STAFF** Sassan introduced Jim Munro as the new Administrator for the SPE Automotive Division. Jim provided his background to the BOD.
- **EVENTS CALENDAR** Sassan shared the SPE Automotive Events Calendar. Automotive Innovation Awards Gala is on November 13 at Burton Manor Livonia, MI.
- June 21 Board Meeting minutes: Approved.
- **TREASURER REPORT** Sassan shared the Treasurer's Report from July 31 newsletter. Updated treasurer report not available with Jitesh on vacation.
- **AWARDS COMMITTEE** Sassan reported that the Awards Committee selected recipients of 3 new awards. Dr. Norm Kakarala to receive the SPE Leadership Award for his great leadership and guidance. Dhanendra Nagwanshi to receive the Special Recognition Award for his excellent work in increasing SPE AD presence in social media. Celanese to receive Community Service Award for continuous support in SPE AD activities. The Board has approved the committee selections. Congratulations to Norm, Dhanendra, and Celanese.
- **ACCE** An update of the recent 2023 ACCE conference was provided. 410 attendees. Sassan requested volunteers to review presentations for next year. Norm suggested to have session chairs review.
- **ANTEC 2024** Call for Presentations deadline October 6. ANTEC is March 4 -7, 2024 at St. Louis Marriott Grand.
- **SPE EAV 2024** April 8-10, 2024 at Detroit Marriott in Troy. Call for Presentations deadline is November 15.
- **MOTION** Chuck Jarrett made a motion to BOD to give \$5,000 to Ecotek for lab equipment and student expenses to support activities. Motion carried.
- **MEMBERSHIP** No cost for full time students to join as members. Young Professional gets 2 free years of membership at no cost.
- **NEWSLETTER** Paula Kruger got summer digital newsletter published. They are targeting 3 newsletters per year. Paula is looking for volunteers to help her collect articles.
- **LLPE AUTO WEBSITE** Richard Umemoto is the AD Webmaster. A 1-2 business day turnaround for minor updates.
- **GOLF OUTING** Thanks to Teri for sponsors. Thanks to Jim Munro for helping with the event.
- **ROUND TABLE** Rodrigo asked how is our financials? Sassan reported that all activities are break even and SPE International financial expect to be OK.
- Next Automotive Board Meeting, December 4, 2023 at 5:30 PM to 7:30 PM (Detroit Time).
- Meeting Adjourned at 7:30 PM.



# THERMOSET TOPCON

Madison, Wisconsin • April 30-May 1, 2024  
Presented by SPE Thermoset Division

## THERMOSETS: REINFORCING INDUSTRY



# CALL FOR PAPERS, SPONSORS & EXHIBITORS



### SPONSORSHIP:

- Educates the Industry about the benefits of thermoset composites in numerous applications - The 2023 SPE Thermoset TopCon included 160 registered attendees, 27 sponsors, 2 Keynotes, 20 technical presentations and great networking during 2 breakfasts, 2 lunches and a fun cocktail reception!
- Enables Awards for Research in the field by promising students - The First SPE Thermoset Division **Poster Competition** was launched at the 2022 event.
- Provides **Educational Grants** to Universities to Expand Thermoset Technology Education - A Grant in Honor of Hugh Karraker, Great Grandson of Leo Baekeland, the "Father of Modern Plastic" was awarded to the University of Wisconsin - Madison Polymer Education Center.
- Provides the SPE Thermoset Division valuable resources required to ensure our continued success.



### PAPERS:

Thermoset plastics are the most durable, versatile and attractive materials for automotive; air and ground transportation; off-highway equipment; medical; appliance; oil and gas; and a wide variety of other applications where structural integrity, lightweighting, and heat and corrosion resistance are important. Join industry leaders and present your company's latest advancements in thermoset technologies. Technical paper presentations on innovative thermoset plastic materials, processing, manufacturing, testing, sourcing, component design, sustainability and other solutions are encouraged.

Abstracts are due **February 29, 2024** and final presentations due **March 15, 2024**. Email abstracts to [intuitgroup@gmail.com](mailto:intuitgroup@gmail.com).

The **SPE Thermoset TopCon 2024** will also feature keynotes and exhibits highlighting advances in materials, processes, and equipment for thermoset technologies in multiple applications. The 2-day conference includes networking breakfasts, lunches and a cocktail reception for enhanced collaboration. Social events include golf at University Ridge and a cruise of the Madison shoreline on Lake Monona with deluxe appetizers and beverages offered the day before the conference begins.

### SPONSORSHIP OPPORTUNITIES

A variety of sponsorships are available including passes to the conference, exhibit opportunities, and great corporate exposure.

All sponsorships include 10 ft. wide exhibit spaces with a skirted table and chairs, company logo on signage at the event and in conference advertising and company name in publicity.

Breakfast, Lunch and Reception Sponsorships include additional corporate specialty signage, more prominent promotion, and premier exhibit placement at the event.

- **BREAKFAST:** \$8,000 includes 4 passes
- **LUNCH:** \$9,000 includes 5 passes
- **RECEPTION:** \$10,500 includes 6 passes
- **PLATINUM:** \$4,500 includes 3 passes
- **GOLD:** \$3,500 includes 2 passes
- **SILVER:** \$2,500 includes 1 pass

Go to [spethermosets.org/topcon](http://spethermosets.org/topcon) for more info. For more info on sponsorship, contact Teri Chouinard at 248.701.8003.

<p>RECEPTION SPONSOR</p> <p>PLASTICS ENGINEERING COMPANY</p>	<p>LUNCH SPONSOR</p> <p>MBI MAR-BAL</p>	<p>BREAKFAST SPONSOR</p> <p>idicomposites.com</p>	<p>BREAKFAST SPONSOR</p> <p>Advancing Possible</p>



# AUTOMOTIVE GOLF OUTING RECAP

Fieldstone Golf Club • Auburn Hills, MI  
Presented by SPE Automotive Division

## 2023 SPE AUTOMOTIVE DIV. GOLF OUTING DRIVES INDUSTRY CAMARADERIE

### FRESH AIR, FRIENDSHIPS AND FUN ARE PAR FOR THE COURSE!

The 28th annual SPE Automotive Div. Golf Outing was held on Tuesday, Sept. 5, 2023. As usual, a great time was had by all. Fresh air, friendships and fun are par for the course at this treasured event supported by returning and new sponsors every year.

In addition to 17 foursomes enjoying golf, several additional guests attended the dinner and late afternoon beverages and festivities. "The SPE Automotive Div. Golf Outing is a great event for entertaining customers, team building and networking," said Fred Deans, SPE Golf Outing Chair for Life. "Non-golfers are also encouraged to attend and enjoy the afternoon, a nice dinner and industry camaraderie."

As is customary, due to great service, support and being an awesome venue - the event was held once again at Fieldstone Golf Club in Auburn Hills, Michigan. The course is hailed as one of the top public golf courses in Metro Detroit. It features an exceptional variety of hole designs by the renowned architect, Arthur Hills, that mesh the diverse landscape and wetlands with beautiful rolling fairways through majestic hardwoods.

#### THIS YEAR'S GOLF OUTING CHAMPION TEAMS INCLUDE:

- **Channel Prime Alliance** – First Place Winning Team
- **Vibrantz Technologies** – Second Place Winning Team
- **RCO Engineering** – Third Place Winning Team

#### CONTEST HOLE WINNERS:

- **Gary Lawrence** – Closest to the Pin
- **Jeff Nadeau** – Longest Drive
- **Tom Miller** – Longest Putt

#### SPECIAL THANKS TO OUR SPONSORS:

- **Mitsubishi Chemical** who sponsored Lunch at the turn, a Carbon Fiber Driver Grand Prize and other Prizes for all Attendees
- **iD Additives, Plastics Engineering & Technical Services (P.E.T.S.),** and **Techno-UMG** for sponsoring Contest Holes
- **Incoe, JSP, INEOS Composites, RCO Engineering, Toray Resins, Channel Prime Alliance** and **Vibrantz Technologies** for sponsoring Holes

#### MUCH APPRECIATION AND ADDITIONAL THANKS TO:

- **Crank's Catering**
- **Fieldstone Golf and Country Club**
- **Louis F. Bowler – DIE-SEP** for taking photos of foursomes and sponsoring "Hole-in-One" Contest

The 2024 SPE Golf Outing is scheduled for Tuesday, Sept. 3, 2024. If you would like to participate as a sponsor and/or learn more about the event – contact SPE Automotive Div. Golf Outing Chair for Life - **Fred Deans** at [fddeans@alliedcompotech.com](mailto:fddeans@alliedcompotech.com), 248.760.7717 or Sponsorship Chair & Event Manager – **Teri Chouinard** at [intuitgroup@gmail.com](mailto:intuitgroup@gmail.com) or 248.701.8003.





Channel Prime Alliance Team Wins First Place



Vibrantz Technologies Team Wins 2nd Place



RCO Engineering Team Wins 3rd Place



Joe Mihelich from JSP Wins the Carbon Fiber Driver Sponsored by Matt Orlando from Mitsubishi Chemical



Gary Lawrence from Techno-UMG America Wins "Closest to the Pin" Contest Hole sponsored by iD Additives



Tom Miller of Channel Prime Alliance Wins "Longest Putt" Contest Hole sponsored by Techno-UMG America



Jeff Nadeau Wins "Longest Drive" Contest Hole sponsored by Plastic Engineering & Technical Services (P.E.T.S.)



GREAT FUN WAS HAD BY ALL!





# AUTOMOTIVE GOLF OUTING RECAP

Fieldstone Golf Club • Auburn Hills, MI  
Presented by SPE Automotive Division

## THANKS TO OUR 2023 SPONSORS



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29<sup>TH</sup> ANNUAL



# AUTOMOTIVE GOLF OUTING

Fieldstone Golf Club • Auburn Hills, MI  
Presented by SPE Automotive Division

SEPTEMBER 3, 2024



# 29<sup>TH</sup> ANNUAL SPE GOLF OUTING

PROCEEDS BENEFIT SPE STUDENT CHAPTERS

## 2024 SPONSORSHIP OPPORTUNITIES

TYPE OF SPONSORSHIP	COST	BENEFITS INCLUDE
CONTEST HOLE	\$1000. USD	1 Foursome, Logo on Tee Signage and Flag at Hole & More! Closest to the Pin, Longest Drive, Longest Putt
HOLE	\$750. USD	1 Foursome, Logo on Tee Signage
BREAKFAST	\$1500. USD	2 Foursomes and Logo on Signage at Breakfast
LUNCH	\$2000. USD	2 Foursomes, Logo on Signage at Lunch and Company Flyers distributed at event
DINNER	\$3000. USD	3 Foursomes, Logo on Signage at Dinner and Table Centerpieces and Company Flyers distributed at event

*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-2024/>

# SEPT 3 2024

### COST:

\$500. USD/Foursome

\$125. USD/Player

### PROGRAM:

8:30am: Sign-in, Continental Breakfast & Driving Range Open

10:00am:  
Shotgun Start

Box Lunch at Turn

3:30pm:  
Buffet Dinner

4:00pm:  
Awards & Prizes

**BEST/BALL/SCRAMBLE EVENT**



**FIELDSTONE GOLF CLUB**  
1984 Taylor Road Auburn Hills, MI



A big shout out to you!! With the **SPE Automotive Division's** generous support, the **SPE Foundation** made great strides in serving students in the metro Detroit area in 2023. We're looking forward to 2024 being another robust year of **Positive Plastics Education™** for thousands of students, and targeted plastics and manufacturing instruction and mentoring for our Ecotek Lab students. We also are giving a shout out to **Celanese**, the **Celanese Foundation**, and **The Materials Group** for their over-the-top and generous donations to the program. Thank you!



In October, students participated in the **SPE Detroit TPO 2023 Global Automotive Conference**, attending technical and keynote sessions, and interacting with exhibitors. The **SPE Automotive Junior Researchers** presented posters throughout the day, competing for cash awards.



## MARK RICHARDSON

Also in October **Mark Richardson** joined the SPE Foundation as Director of Education. He comes to the Foundation with years of experience in industry, manufacturing, and sustainability. He was a manufacturing and plastics faculty at **Kettering University** and at **Oakland University** and has expertise in curriculum development. Mr. Richardson is updating our **PlastiVan®** curriculum, overseeing our new **Girl Scout** patch programming curriculum, and managing the outreach to Detroit students we serve. He is also a professional photographer and videographer, and you may recognize him as the photographer at the **Automotive Innovation Awards Gala**.

He is working with our **Ecotek Lab Junior Researchers**, giving them basic material and manufacturing education as well as helping the Automotive Division's Education Chair, **Chuck Jarrett** of **The Materials Group**, with the mentoring of students for this year's projects. The virtual and in-person mentoring will begin in January with the culmination being presentations at the EAV in April. Thanks to those who have stepped up again this year as mentors. They give their time selfishly to students and their projects. This year's mentors include **Amy Stephen, Phil Hemenway, and Chuck Jarrett** of **The Materials Group**; **Allison Collins** and **Ben Clark** from **Ford**; **Ray Kalisz** from **RLE International USA**; and **Jay Qizilbash** of **Kingfa USA**.



## JUNIOR RESEARCHERS FIELD TRIP

The Junior Researchers had a field trip to **Caresoft Global Technologies** in Livonia on December 14. Caresoft is an award-winning technology-driven engineering solutions company. The facility in Livonia boasts a huge warehouse of fully deconstructed vehicles in service of automotive benchmarking. The students and parents who attended were fascinated by the plethora of parts. It was an interactive experience and Q & A continued for the whole event. **Keith Young, Ecotek Lab**, remarked what a valuable experience this was for his students. Special thanks to **Manojdeep Jasrotia**, North American VP Sales and his team for their hospitality.





## MANUFACTURING DAY

On October 6, the PlastiVan supported **Manufacturing Day** at the **MSU Scale-up Research Facility** in Detroit for **IACMI – The Composites Institute**. Thanks to the volunteers **Shelley Jarrett** and **Phil Hemenway** for working with students to help them gain understanding of polymers and the opportunities in our industry. The Division has been a long-time supporter of the PlastiVan and with your help we have served tens of thousands of students over the years. In 2023 your financial support helped us visit 13 schools over 22 days and to educate over 3,000 students about the wonders and sustainability of plastics. One teacher said: *“My students love the PlastiVan. We all gained an understanding of polymers, and the educator connected the field of plastics to the opportunities in our community. We all learned a little chemistry and physics and were able to see the plastics would be a fun career direction to explore.”*

**Celanese**, a big financial supporter of the programs in Detroit and Dallas, graciously hosted students at the **Automotive Innovation Awards Gala**, which is always a favorite of the students. Our hospitality is important because it showcases the power of networking, the scope of our industry, and the relationships we have and are building. We’re sharing our community, which is important in making students feel welcome and interested in pursuing a career in the plastics industry.



## 2023 LTU STEM DAY

Building community partnerships is important in our work. We welcomed **Lawrence Technological University’s Marburger STEM Center** as one of our partners this fall. They hosted our **2023 SPE Polymer Science Fair** on November 17. Any high school student who took part in this event is automatically eligible for a 50% tuition discount (worth \$80,000) if they apply, get accepted and pursue a STEM degree at LTU. And one lucky student got a full scholarship to one of the nine STEM camps hosted on campus the summer of 2024. We look forward to this ongoing relationship. A special thanks to our Volunteers who made the day a success:

**Kai Becker**  
**Bernd Henkelmann**  
**Craig Dlugos**  
**Chuck Jarrett**  
**Shelley Jarrett**  
**Ewa Lebert**  
**Richard Novaco**

**Moorea Ramessar**  
**Carly Dlugos**  
**Toni Rosa**  
**Ganesh Singh**  
**Amy Stephen**  
**Briana Young**  
**Rob Philp**



## GIVING TUESDAY

**Giving Tuesday** is a **National Day of Philanthropy** celebrated on the first Tuesday after Thanksgiving. The SPE Foundation used \$5,000 of the Division’s funding as a matching gift to inspire others to support our **Girl Scout Sustainable Packaging**, which will be launched this year on Earth Day. Our goal was \$30,000, but with the help of the **SPE Automotive Division**, the **SPE Thermoset Division**, the **SPE Product Design and Development Division**, **The Materials Group**, and many individual donors, we crushed our goal and raised just over \$40,000! Thank you.



The first quarter of 2024 is going to be busy for the SPE Foundation and PlastiVan. If you’re interested in seeing what we do in the classroom, supporting our programs, or have any questions email me at [foundation@4spe.org](mailto:foundation@4spe.org). I look forward to hearing from you.

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.





The Automotive Division also sponsors our flagship **PlastiVan**<sup>®</sup> 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](mailto:foundation@4spe.org).



## PlastiVan<sup>®</sup> has shifted gears to PlastiVideo<sup>™</sup>!

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](mailto:jproctor@4spe.org)

[www.plastivideo.org](http://www.plastivideo.org)





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