



Celebrating 47 Years of Service as a Professional Chapter of The Society for the Advancement of Material & Process Engineering

SAMPE Foundation Grants Available

February 2024

Newsletter

Established in 2006, the SAMPE Foundation's mission is to inspire K-12 youth around the globe to launch careers in the field of materials and process engineering.

They offer several grant programs, including the *William Dahlgren Award* to recognize outstanding K-12 teachers for inspiring students in math, science, and engineering fields, particularly classes directed towards learning about plastics and entrepreneurship.

The SAMPE Foundation is open to suggestions for programs and projects that will positively impact K - 12 STEM related learning around the world. In the past, the SAMPE Foundation funded a wide range of STEM efforts on an ad hoc basis. Organizations that have been funded by the SAMPE Foundation in the past can be found on www.sampefoundation.org.

Application to the *Special Awards Program* is open to all SAMPE members and SAMPE chapters. Requirements include:

- The program/project must have a clear connection to K-12 STEM education.
- The program/project must have a limited time-line of no more than two years.
- Program/project progress must be measurable.
- The associated budget request must clearly show how the funding will help achieve the program/project goals.
- If the expense of the program/project involves funding from sources in addition to those funds being requested from the SAMPE Foundation, the proposal must clearly define how the Foundation's role will add to the project/project goals.

Grant requests are to be documented in a 300 - 500 word statement chronicling how the project/ program will meet the aforementioned criteria.

Giants of NJ SAMPE: Howard Kliger

Meet the Originator of the SAMPE Bridge Contest

Howard Kliger received a Ph.D. in Engineering Mechanics from the University of Delaware in 1970. He worked at Celanese Celion Carbon Fibers from 1972 until 1983, when he started his consulting firm, HSK Associates. Dr. Kliger specialized in composite structural design and composite materials feasibility and tradeoff studies. He also was involved with mechanical testing and compliance/certification assistance and product introductions. For 20 years, he was heavily involved with the efforts to introduce fiberglass-reinforced plastic (FRP) materials into the infrastructure market and was the secretary of the American Concrete Institute (ACI) 440F Committee, driving its development of guidelines for external concrete repair using FRP.

As an Adjunct Professor, he continues to teach a Mechanics of Solids course and a graduate level composites course at Rutgers University. He also leads a seminar course in Engineering Ethics for senior level civil engineering students.





Dr. Kliger has been a member of SAMPE for more than 45 years. He was Chair of the NJ Chapter in 1984 and currently serves as Program Chair. He was Program Chair for International symposia sponsored by NJ SAMPE in 1998, 2002, 2006, 2009, and 2012. He is also a member of SAMPE's national finance committee. He was elected SAMPE Fellow in 1999 and received the SAMPE Distinguished Service Award in 2017.

Dr. Kliger was responsible for launching the original SAMPE Bridge Building contest in 1991 when NJ SAMPE partnered with the New Jersey Science Supervisors Association to offer a composite materials bridge building contest to high school students throughout the state. Over the course of six years, from 1991 through 1996, the contest evolved and ultimately provided a foundation for the North American contest which started in 1998. It continues today.

Photo above: Dr. Kliger (right) receiving SAMPE's Distinguished Service Award at the 4th Annual CAMX Conference in Orlando, FL, December 2017. [Photo courtesy of Plastic News.]

Network with the Women of SAMPE

Virtual Meet & Greet Session - February 12th at 11:30 AM

Submissions to both programs are accepted on a rolling basis. Visit the <u>SAMPE</u> <u>Foundation website</u> to apply.

[Note: This article was summarized from the SAMPE Foundation web pages referenced above.]

The Chair of NJ SAMPE invites women SAMPE members and prospective student members to join a virtual networking session. In addition to getting to know some familiar faces within the New Jersey region, attendees will also have the opportunity to speak with SAMPE CEO Rebekah Stacha and SAMPE North America Executive Cabinet President Sarah Cox. The meeting link will be posted on both <u>www.njsampe.org</u> and <u>SAMPE 365</u>. Please RSVP to <u>megan@njsampe.org</u> by Monday February 5th.

Sponsor of the Month

SILTECH CORPORATION specializes in innovative silicone based products including silicone polyethers and amines, defoamers, emulsions, gels, and other resins. Page 2

Upcoming Events

Preview our calendar of events for the second half of our 2023-2024 season. Page 2

Scholarship Program

NJ SAMPE is accepting scholarship applications until March 15th. Awards will be presented at our annual Student Night meeting in April. Page 3 February 2024 Newsletter





Sponsor of the Month: SILTECH Corporation

Siltech specializes in innovative siliconebased products. They have two plants in Toronto and Mississauga, Canada. Both are equipped with efficient, large-scale, high-temperature and pressure reactors, thin film evaporators and other equipment required in unit processes such as equilibration, hydrosylilation, quarternization, amidation, phosphation, and esterification.

In addition to allocating considerable development resources to the refinement and optimization of production techniques, Siltech pays special attention to the changing technological requirements of the industries served. Siltech's **R&D** and technical service laboratories are modernly equipped and staffed by chemists with many years of experience in diverse segments of the chemical processing industry. In addition, they have efficient pilot plant facilities available to produce special products for your experimental needs.

Products include silicone polyethers and amines, defoamers, emulsions, gels, and other resins, serving market areas including 3D printing, agriculture, automotive, inks and coatings, composites, pulp and paper, oil and gas, and personal care.

and technical service For more information, contact:

Gene Ward 610 357-0676 eugene@siltech.com

225 Wicksteed Road, Toronto, Ontario, M4H 1G5 CANADA 416-424-4567 www.siltech.com



SAMPE Technical Committees: Find Your Interest!

SAMPE's Technical Committees (TC's) delve into cutting-edge technologies or emerging concepts to facilitate knowledge sharing by connecting experts across disciplines. Engage in a TC matching your technical interest. Each Committee shares highlights including the Committee's technology and material focus; traditional applications; change drivers; current applications & markets; emerging markets; and competitive materials.

- Contribute to a State of the Technology Industry Report
- Engage and learn during monthly virtual one-hour meetings
- Build your professional network
- Open to ALL interested in advancing material and process engineering (SAMPE members, non-members,

TC 3 - High Temperature Materials



TC 4 - Recycling of Composites



TC 5 - Rapid Manufacturing of Materials



TC 6 - Thermoplastics

TC 7 - Space Applications

2024 Calendar

NJ SAMPE Events

February 8

Monthly Meeting, Rowan University, Glassboro, NJ, 4:30 – 7 PM RSVP to megan@njsampe.org by Feb. 1

Panel discussion on careers in material and process engineering, featuring:

- Dr. Russell Caspe, Gentex
- Melissa Jaime, Aurorium
- Michael McClain, P.E., CQ Medical

February 12

Women of NJ SAMPE Virtual Networking Session, 11:30 AM – 12:30 PM RSVP to megan@njsampe.org by Feb. 5

March

Banquet in honor of George Lubin Award Recipient Leonard Poveromo, details TBA

April

Annual Student Night, Evonik Corporation, Piscataway, NJ

Students looking to present should contact Howard Kliger at <u>hskliger@comcast.net</u>

June

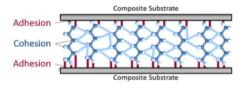
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students, etc.)

TC 1 - Composites Factory of the Future



TC 2 - Bonding and Joining



For more information on joining a Technical Committee contact: Raj Manchanda E: <u>raj@sampe.org</u> P: +1 626.540.4115 4th Annual Additive Manufacturing Symposium, Location TBD

SAMPE North America Technical Committee Webinars

January 17

Advances in Non-destructive Methods for Space Vehicles

Eric Burke, NASA LaRC

February 14

Certification of Additive Manufacturing for Fracture Critical Applications

Alison Park, NASA NESC

For more information and to register for a webinar, visit <u>SAMPE365</u>.

[Note: This article summarized from the <u>SAMPE North America Technical Committees webpage</u>]

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NJ SAMPE Scholarship Program Now Accepting Applications



NJ SAMPE's scholarship program supports students pursuing higher education in science, technology, engineering, or mathematics (STEM).

Scholarships are offered annually for fulltime study at an accredited university or vocational school of the student's choice. The Program is administered by the NJ SAMPE Board of Directors, and all awards are granted without prejudice.

For the 2024-25 academic year, awards will be granted up to the maximum amount of \$2000.

Applicants must either be members of one of our 3 local student chapters or relatives of NJ SAMPE Chapter members having a minimum of one year of membership with the Chapter as of the application deadline.

An eligible Chapter member may also serve as sponsor for a deserving candidate's application (ex: neighbor, intern, etc.).

Submit applications to joe@njsampe.org no later than March 15, 2024.

Winners will be notified before our April Student Night meeting, where the scholarship awards will be presented.

For complete information on eligibility, the application and awarding process, please visit our <u>website</u>.

Help Plan Our 4th Annual Additive Manufacturing Symposium

Missed our 3rd Annual Additive Manufacturing Symposium at Rowan University? Now's your chance to help plan and participate in our 4th symposium, scheduled for June 2024.

NJ SAMPE is looking for speakers, student poster entries, session moderators, event sponsors, catering support, copywriters, and anyone else that wants to help shape this annual event, reinforcing NJ SAMPE's designation as a SAMPE Center of Excellence for Additive Manufacturing.

Please contact <u>joe@njsampe.org</u> today to join the planning committee.

Thank You to Our 2023-2024 Corporate Sponsors



We are the New Jersey Chapter of SAMPE

Chartered in 1977, NJ SAMPE is one of the oldest Chapters in the SAMPE network. We serve the greater NJ/NY/CT/PA area by focusing on our membership, as well as student and young professional outreach. NJ SAMPE includes 10 SAMPE Fellows, 13 Senior Honorary Members, one SAMPE George Lubin Award Winner, and one SAMPE Young Professionals Emerging Leadership Award Winner. NJ SAMPE was designated as SAMPE's first Center of Excellence for Additive Manufacturing in 2018.

Benjamin M. Rasmussen Chair Vice-Chair/Student Chapter Liaison Treasurer Secretary Director/Membership Programs Director/Media Young Professional Representative We welcome you to participate and network, either for business opportunities, recruitment or keeping up with industry trends in the region. As the only technical society encompassing all fields of endeavor in materials and processes, SAMPE provides a valuable forum for scientists, engineers and academics. We especially invite students and young professionals to engage in dialog with industry members, explore career options, make presentations at monthly meetings, and join our local student chapters.

Melissa Jaime, Aurorium Joe Abrantes, Evonik Megan Casey, TotalEnergies Cray Valley Joseph F. Stanzione, Rowan University AMMI Amir Islam, Bally Ribbon Mills Howard Kliger, H.S. Kliger & Associates Borys Schafran, Schafran Associates Jaclyn McLaughlin, Rowan University