sampe
New Jersey Chapter

Regional Additive Manufacturing Symposium

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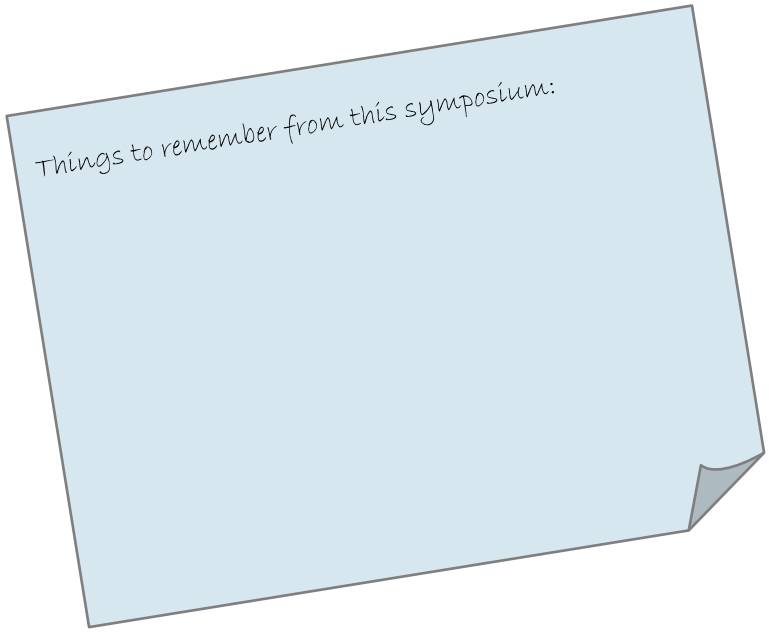

NJIT | NEWARK COLLEGE OF ENGINEERING

NJIT | OTTO H. YORK DEPARTMENT OF CHEMICAL AND MATERIALS ENGINEERING

NJIT

Images of NJIT campus, NJIT Makerspace, and 3D printed items were provided by Murat Guvendiren, Ph.D. and staff from the Otto H. York Department of Chemical and Materials Engineering.

2026

June 24
New Jersey Institute of Technology
Newark, NJ

MESSAGE FROM THE CHAIR

The SAMPE New Jersey Chapter (NJ SAMPE) is delighted to welcome you to our 2026 Regional Additive Manufacturing Symposium!

Since 2019, we've proudly provided this forum for local researchers, educators, product and service providers, and end-users to share their varied expertise in the field of additive manufacturing.

Today we'll hear from faculty, students, and young professionals representing well-known universities in New Jersey and New York. The technical program also includes speakers from two global companies - Evonik and Airtech Advanced Materials Group.

Between sessions, we encourage you to view the student posters on display and ask the presenters about their work. These projects could be a stepping stone towards broader adoption of advanced manufacturing technologies.

NJ SAMPE appreciates the support of our co-hosts, the Otto. H. York Department of Chemical and Materials Engineering and Newark College of Engineering here at New Jersey Institute of Technology (NJIT). They secured this magnificent venue within the Agile Strategy Lab, and organized a tour of the NJIT Makerspace, which houses a variety of equipment for innovators to bring their ideas to life.

We are grateful for our generous corporate sponsors and exhibitors - Airtech, Chemglass Life Sciences, Kaneka, and Shimadzu Scientific Instruments. Don't miss this opportunity to network with the exhibitors and learn about their products and services.

Thank you for joining us today to help fulfill NJ SAMPE's vision of an Additive Manufacturing Center of Excellence for SAMPE North America. We hope you enjoy the event.

Sincerely,

Melissa Jaime
Benjamin M. Rasmussen Chair, NJ SAMPE

Guest WIFI Network

Connect to **NJITguest**.

A window will pop open prompting you to sign in.
Select **Request Guest ID** to create a Guest Account.

Fill out the required information.
Agree to the terms and conditions, then click **Register**.

You will receive an e-mail and text message with your guest account credentials.

Return to the sign in window to enter your Guest ID and password. Click **Guest Sign On**.

Accept the use policy for cyber resources to be connected to the network.

EVENT SCHEDULE

Registration & Networking 8:00 - 9:00 AM

Coffee, Tea, and Pastries

*Sponsored in part by **Chemglass Life Sciences***

Exhibitor & Poster Displays 8:00 AM - 5:00 PM

Welcome & Introductions 9:00 - 9:10 AM

Joe Abrantes

Vice Chair, NJ SAMPE

Lisa Axe, Ph.D.

Professor and Chair, Otto H. York Department of Chemical and Materials Engineering, New Jersey Institute of Technology

Morning Session 9:10 - 10:40 AM

Sponsor Showcase 11:00 - 11:20 AM

NJIT Makerspace Tour 11:30 AM - 12:30 PM

Research Poster Session 11:30 AM - 1:00 PM

Student Competition

Lunch & Networking 12:15 - 1:30 PM

*Sponsored in part by **Kaneka***

Student Poster Awards 1:30 - 1:40 PM

*Sponsored in part by **Kaneka***

Keynote Presentation 1:40 - 2:30 PM

Gregory Haye

Director of Additive Manufacturing, Airtech Advanced Materials Group

Afternoon Session 2:45 - 4:25 PM

Closing Remarks 4:30 PM

ABOUT THE VENUE

Agile Strategy Lab

The New Jersey Innovation Institute (NJII) opened the Agile Strategy Lab in 2017. This 14,000 square foot multipurpose area resulted from of a series of renovations to the Central King Building, a former high school constructed in the early twentieth century. With its mix of work stations, offices, conference rooms, and versatile open space, the Lab was designed to foster collaboration.

All Symposium activities, with the exception of the NJIT Makerspace tour, will take place in this room. Student posters are on display along the glass walls, behind the exhibitor tables.

NJIT Makerspace

According to their dedicated website, the NJIT Makerspace is the largest of its kind in New Jersey, encompassing over 20,000 square feet. This rapid prototyping and collaboration facility provides a functional environment for students, faculty, and staff to pursue their innovative endeavors. Students can enroll in training courses and workshops that fuel possibilities for product realization via additive manufacturing and other engineering disciplines. The lab also supports emerging public and private partnerships, offering access to an array of state-of-the-art equipment for design, prototyping, testing, and research.

MEET OUR KEYNOTE SPEAKER

Building the Foundation for LFAM Adoption

Gregory Haye

Director of Additive Manufacturing

Airtech Advanced Materials Group

As the Director of Additive Manufacturing with Airtech, Gregory oversees the company's global activities in materials and services for the polymer-based additive manufacturing market.

His experience in industrial design, composites, and commercialization of some of the first large scale 3D printers gives him a unique perspective with an ability to engage stakeholders from all parts of the manufacturing ecosystem.

Gregory works hand-in-hand with industry leading machine makers, software providers, and end-users on a daily basis.

AIRTECH
ADVANCED MATERIALS GROUP

The Airtech team is dedicated to supporting customer success and technology adoption, bringing the best experience, engineering, data, and products to the market.

Visit www.airtech3d.com for more information about Airtech's additive manufacturing products and services.

MORNING SESSION

9:10 - 10:40 AM

1 **Additive Manufacturing of Cell-Instructive Scaffolds for Tissue Engineering Applications**

Murat Guvendiren, Ph.D. – *New Jersey Institute of Technology*

2 **Metal Sintering Applications for Electrified Ethane Steam Cracking**

Aaron Keser – *New York University*

3 **Vison-based Deformation Characterization Framework for High-Velocity Particle Impacts in Support of Cold Spray Additive Manufacturing**

Ronald Borja-Roman – *Rowan University*

4 **Establishing Material Constitutive Parameters Identification Framework for Cold Spray Additive Manufacturing Process**

Bably Das – *Rowan University*

Notes:

AFTERNOON SESSION

2:45 - 4:25 PM

1 **Uncertainty Quantification for Grayscale Digital Light Processing Vat Photopolymerization Additive Manufacturing Process**

Jayanto Das – *Rowan University*

2 **Multi-Material Laser Print Spray Manufacturing (PriSM) of Microscale Structures**

Angie (Shiqi) Ma – *Rutgers University*

3 **Experiment-informed Model-based Estimation of Constitutive Model Parameters**

Tyler Paupst – *Rowan University*

4 **Dual-crosslinked Composite Hydrogels for 3D Printing of Bone Tissue Scaffolds**

Betelhem S. Abay – *New Jersey Institute of Technology*

5 **High Performance Polymers for Powder Bed Fusion 3D Printing**

Sara Diem – *Evonik*

Notes:

Airtech Advanced Materials Group is a leading global manufacturer of vacuum bagging and composite tooling materials used in processes such as prepreg/ autoclave, resin infusion, and wet lay-up across numerous industries, including aerospace, wind energy, and automotive. Its product portfolio encompasses films, tapes, resins, reinforcements, and tooling materials, supported by multiple worldwide locations providing technical assistance.

Building upon nearly 50 years of extrusion experience, Airtech has expanded into the realm of additive manufacturing, offering Print-Tech® - a large-scale additive manufacturing tooling service for composites. Large-scale tooling in the form of trim fixtures, holding fixtures, and layup molds can be designed, tooled, and built faster without compromising quality. They also manufacture a full line of Dahltram® tooling and Dalpram® purging resins.

For more information, contact Tony Constantino at: tconstantino@airtech.com

New Jersey based and family-owned Chemglass, Inc. was originally founded by skilled glassblower Walter P. Surdam in 1946 — Celebrating 80 years in business! Recently re-branded as Chemglass Life Sciences, their products continue to be an integral part of chemistry performed in laboratories throughout the world.

In addition to their traditional scientific and chemistry products, the Chemglass portfolio now includes a complete line of chromatography vials/ closures and cell/tissue culture products.

For more information, contact Phil Surdam at: phil@chemglass.com

SPONSORS & EXHIBITORS

Headquartered in Japan, Kaneka Corporation's business activities span a broad spectrum of markets ranging from plastics, resins, chemicals and foodstuffs to pharmaceuticals, medical devices, electric and electronic materials and synthetic fibers.

Their novel core shell rubber (CSR) toughening system for thermoset resins, Kane Ace™ MX, is a pre-dispersed Masterbatch enhancing the physical properties of the resins through optimal dispersion of core-shell particles. Kane Ace MX enables thermoset resins to achieve high strength, fracture toughness, and endurance without losing heat-resistance.

For more information, contact Brian Churchill at: brian.churchill@kaneka.com

Kaneka partially sponsored the Symposium Lunch, Student Poster Contest, and several Student Registrations.

Shimadzu Scientific Instruments offers a full line of analytical measurement and testing instrumentation for a broad range of applications in science and industry.

Designers, engineers, and research scientists around the world use Shimadzu instruments in each phase of material development, from challenging R&D to quality control of finished products.

Their array of fast, accurate, rugged, and reliable instruments can be used for a wide variety of applications, including static, fatigue, and impact tests; internal and fracture observations; thermal analysis, elemental composition analysis; viscosity measurements; and degradation evaluations.

For more information, contact Michael Delancy at: msdelancy@shimadzu.com

EVENT STAFF

Planning Committee

NJ SAMPE

Joe Abrantes - *Vice Chair and Student Chapter Liaison*
Megan Casey, Ph.D. - *Treasurer*
Joe Geiger - *Student Chapter Liaison*
Amir Islam, Ph.D. - *Voting Director and Membership Chair*
Melissa Jaime - *Benjamin M. Rasmussen Chair*
Howard Kliger, SAMPE Fellow - *Programs Co-Chair*
Sarah Minhas - *Media Chair*
Paromita Nath, Ph.D. - *Programs Co-Chair*
Raj Sundar, Ph.D. - *Secretary*

Otto H. York Department of Chemical & Materials Engineering, New Jersey Institute of Technology

Lisa Axe, Ph.D. - *Professor and Chair*
Murat Guvendiren, Ph.D. - *Associate Prof. and Director of Materials Eng. Program*
Natalia Rodriguez - *Administrative Assistant*
Mengqiang (Mark) Zhao, Ph.D. - *Asst. Prof. and NJIT SAMPE Student Chapter Advisor*

Student Support Staff

NJIT SAMPE Student Chapter

Dheeban Govindan - *Secretary*
Nardeen Maher - *Vice President*
MD Mohidul Alam Sabuj - *Treasurer*

The College of New Jersey (TCNJ) Graphic Design Program

Sandra Abrantes - *Photographer*

Special Acknowledgment

The Symposium Planning Committee also recognizes Howard Kliger's efforts to design and fabricate custom pickleball paddles for our Student Poster Contest participants.

Each hand-crafted paddle features an image commemorating the event.

These paddles have become a popular speaker gift for NJ SAMPE Chapter meetings. Interested in making your own? Check out the blog entry on njsampe.org.

ABOUT THE ORGANIZERS

sampe
New Jersey Chapter

The Society for the Advancement of Material and Process Engineering (SAMPE) is a global professional member society that provides growth and educational opportunities in new and advanced materials and processing technology.

As the only technical society encompassing all fields of endeavor in materials and processes, SAMPE provides a unique and valuable forum for scientists, engineers, and academicians.

Established in 1977, the New Jersey Chapter of SAMPE serves members in NJ, NY, PA, and CT. The chapter was designated as SAMPE North America's first Center of Excellence in Additive Manufacturing in 2018.

Visit njsampe.org and follow SAMPE NJ Chapter on LinkedIn.

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The Newark College of Engineering and the Otto H. York Department of Chemical and Materials Engineering at NJIT are committed to educating undergraduate and graduate students while advancing fundamental and applied research in materials science and engineering.

The department integrates hands-on education with access to state-of-the-art laboratories and research facilities, with the expectation that students actively engage in experiential learning through research, design projects, and industry-relevant training.

Graduates are well prepared for impactful careers in industry, government, and academia, contributing to solutions in critical areas such as energy, health, and sustainability.