September 2019

# Society for the Advancement of

# **Material and Process Engineering**

**New Jersey Chapter** 



## We are pleased to present the following speaker for our September 12<sup>th</sup> Meeting:

## Additive Manufacturing Using Thermosetting Polymers

Giuseppe R. Palmese Professor of Chemical Engineering Dept of Chem and Bio Engineering Drexel University

### Abstract

Additive manufacturing (AM) manufacturing of thermosetting polymers will be discussed in this presentation. AM can be used to produce intricate highly customized and complex parts competitively for small volume applications. AM technologies have the potential to transform the manufacturing industry by enabling mass customization, improving supply chain efficiency, reducing time to market, and fostering environmental sustainability. Following a brief review of AM methods for thermosets, current work in our laboratory regarding the development of new resin systems will be presented. The design of these materials focuses on obtaining systems with high T<sub>g</sub>, high fracture toughness, and significant bio-based content.

## Biography

Giuseppe R. Palmese holds the George B. Francis Professorship in Engineering and is a Distinguished University Professor of Chemical Engineering. He has a BSE ('86) from Princeton University and a Ph.D. ('92) from the University of Delaware both in Chemical Engineering. Before joining Drexel University in 2000 he was the Assistant Director of University of Delaware's Center for Composite Materials. Dr. Palmese's research focuses on processing-structure-property relationships of thermosetting systems. His current interests include: multifunctional systems, materials from renewable sources, and advanced manufacturing. Dr. Palmese has more than 200 publications to his credit and is inventor on 20 issued U.S. patents

### Meeting Details

Place: Bridgewater Manor, Bridgewater, NJ; (908) 658-3000 Time: 5:45 – 8:30 pm

Cost: \$30.00 at the door. Free for students. Cash, check and PayPal options are available. This meeting is open to all SAMPE members, spouses, guests and other interested parties. For reservations or questions, please contact Megan Casey at <a href="mailto:mbc872@gmail.com">mbc872@gmail.com</a> by noon Wednesday before the meeting. Meal options are available.

Directions to Bridgewater Manor: From I-287 north, take exit 22A (206 south). Go thru two lights, Bridgewater Manor is on right. From I-287 south, take exit 22. Make right at end of ramp. Make next left, a jughandle to cross 202/206 to go south on 202/206. Go thru three lights, Bridgewater Manor is on the right

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### 2019 – 2020 Meeting Schedule

September 12, 2019 – Giuseppe Palmese, Drexel University	<b>February 6, 2020</b> – TBD
	March 5, 2020 – TBD
September 23-26, 2019 – CAMX, Anaheim CA	April 2, 2020 – Students Night
October 3, 2019 – TBD	<b>May 7, 2020</b> – TBD
November 7, 2019 – Yuebin Guo, Rutgers	May 4-7, 2020– SAMPE 2020, Seattle WA
December 5, 2019 – John Weber, Gentex	June 19, 2020 – 2 <sup>nd</sup> Annual NJ Additive
	Manufacturing Symposium, at Rutgers Weeks

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1996 (Anaheim), 1998 (Anaheim), 2002 (Long Beach)

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