

Polymer Nanocomposites 2016
October 16-18, Lehigh University (Iacocca Hall)
Sponsored by Society of Plastics Engineers Lehigh Valley Section

Sunday, October 16 - Wilbur Powerhouse, Lehigh University	
Clinic on 3D Printing of Polymers	
Moderator: Ray Pearson (Professor, Lehigh University)	
6:00 PM – 7:00 PM	<u>Networking Session</u>
7:00 PM – 8:30 PM	<u>Speaker:</u> Brian Slocum (Director of Wilbur Powerhouse, Lehigh University) <i>Overview of 3D Printing</i>
Monday, October 17 - Woods Dining Room (Iacocca Hall, Lehigh University)	
Mechanical Behavior of Polymer Nanocomposites	
Moderator: Ray Pearson (Professor, Lehigh University)	
8:00 AM – 8:45 AM	<u>Continental Breakfast</u> (Woods Dining Room, Iacocca Hall, Lehigh University) <i>On-Site Registration and Pick-Up Proceedings on CD</i>
8:45 AM – 9:00 AM	<u>Welcome and Introduction</u> (Organizers)
9:00 AM – 10:00 AM	<u>Keynote Speaker:</u> Alan Lesser (Professor, UMass-Amherst) <i>Melt-mastication: A new route to process semi-crystalline nanocomposites with enhanced physical and mechanical properties</i>
10:00 AM – 10:30 AM	<u>Speaker:</u> Mehdi Tajvidi (Professor, University of Maine.) <i>AM-FM Viscoelastic Mapping: applications for nanocomposites mechanical characterization</i>
10:30 AM – 11:00 AM	Coffee Break & Vendor Exhibit
11:00 AM – 11:30 AM	<u>Speaker:</u> Christopher Junk (Visiting Scientist, Lehigh University) <i>Ultralow Wear Fluoropolymer Composites: nanoscale functionality from microscale fillers</i>
11:30 AM – 12:00 PM	<u>Speaker:</u> Binay Patel (Postdoc, Zzyzx Polymers) <i>Fracture behavior of epoxy-filled with silica nanoparticles</i>
12:00 PM – 1:30 PM	Lunch & Vendor Exhibit
Polymer Nanocomposites for 3D Printing (SLS)	
Moderator: tbd	
1:30 PM – 2:30 PM	<u>Keynote Speaker:</u> Ray Pearson (Professor, Lehigh University) <i>Developing polymer nanocomposites for selective laser sintering</i>
2:30 PM – 3:00 PM	<u>Speaker:</u> Yuanyuan Wang (Graduate Student, Lehigh University) <i>Comparing the processing behavior of PA11 and PA 12 SLS powders</i>
3:00 PM – 3:30 PM	Coffee Break & Vendor Exhibit
4:00 PM – 4:30 PM	<u>Speaker:</u> Jiten Dhori (Vice President of Technology, Spray-Tek, Inc) <i>Spray drying inorganic and organic suspensions</i>
4:30 PM – 5:00 PM	<u>Speaker:</u> Greg Martiska (Mercury Scientific, Inc.) <i>Characterizing the flow behavior of SLS powders using the Revolution Powder Analyzer</i>
5:00 PM – 7:00 PM	Reception, Graduate Student Poster Session & Vendor Exhibit
Tuesday, October 18 - Woods Dining Room (Iacocca Hall, Lehigh University)	
Polymer Nanocomposites for 3D Printing (FDM)	
Moderator: tbd	
8:00 AM – 8:45 AM	<u>Continental Breakfast</u> (Woods Dining Room, Iacocca Hall, Lehigh University) <i>On-Site Single Day Registration and Pick-Up Proceedings on CD</i>
8:45 AM – 9:00 AM	<u>Welcome and Introduction</u> (Organizers)
9:00 AM – 10:00 AM	<u>Keynote Speaker:</u> Douglas Gardner (Professor, University of Maine) <i>An approach to enhance material property performance in 3D (FLM) printing using cellulose nanofibril-filled polymer composites</i>
10:00 AM – 10:30 AM	<u>Speaker:</u> Kirk Cantor (Professor, Penn College) <i>Precision extrusion of filament for 3D printing</i>
10:30 AM – 11:00 AM	Coffee Break & Vendor Exhibit
11:00 AM – 11:30 AM	<u>Speaker:</u> Micheal Mackay (Professor, University of Delaware) <i>Modeling the hot end in a plasticating FDM extruder</i>
11:30 AM – 12:00 PM	<u>Speaker:</u> Richard Vinci (Professor, Lehigh University) <i>Effect of printing parameters on the mechanical behavior of FDM materials</i>
12:00 PM – 1:00 PM	Lunch & Vendor Exhibit
Electrically Conducting Polymer Nanocomposites	
Moderator: tbd	
1:00 PM – 2:00 PM	<u>Keynote Speaker:</u> Erik Thostenson (Professor, University of Delaware) <i>Thermoresistive response of carbon nanotube and nanotube/fiber hybrid nanocomposites</i>
2:00 PM – 2:30 PM	<u>Speaker:</u> Angelos Kyrilidis (Scientist, Cabot) <i>Advances in conductive nanocomposites with new carbon blacks and graphenes</i>
2:30 PM – 2:45 PM	Coffee Break
2:45 PM – 3:15 PM	<u>Speaker:</u> Paul Brigandi (Engineer, Dow Chemical) <i>Electrically conductive composites utilizing multiphase polymer blends</i>
3:15 PM – 3:30 PM	Wrap-Up