

Symposium Speakers – Advanced Materials and Manufacturing



Dr. Craig Lee
ATT Plano Foundry
Director
AT&T

The Art of the Possible

Dr. Craig Lee is the Director of the AT&T Foundry located in Plano, TX. Previously Dr. Lee held many leadership positions at AT&T Motorola, Racal, and Georgia Tech Research Institute in the areas of IoT, business development, RF & electronic design engineering, and pure research. Mr. Lee was awarded over a dozen US patents and is a Senior Member of IEEE. A native of Alaska, Mr. Lee earned a BSEE from Georgia Institute of Technology, a MBA from Nova Southeastern University and is currently pursuing a Ph.D. from University of Texas at Dallas in Telecommunications Engineering..

Abstract:

This presentation will present on how ATT Foundry collaborates with Enterprise customers to create solutions to business needs through Customer engagement, Ideation to define business need and possible solutions, Inhouse resources rapidly create Proof of Concepts for evaluation, Cycles of feedback improvement and Proceed to deployment or “fail fast”. Several customer engagement examples will be given.



Dr. Adrian Avendano
Chief Product Officer
Ares Materials

Polysulfide Thermosets for Flexible Displays

Dr Adrian Avendano completed his B.E. in 2007 and after working for GE Electric Distribution Equipment division, he started graduate work at The University of Texas at Dallas (UT Dallas) in 2008. He received his M.S. in materials science and engineering in 2011 focusing on electronic materials. After spending a summer in Qualcomm’s MEMs Technologies facility in San Jose California, he joined the Advanced Polymer Research Lab at UT Dallas to pursue doctoral studies which he completed in 2014. Dr. Avendano’s focus was on the design and fabrication of thin-film transistors (TFTs) on shape memory polymers in order to implement flexible and stretchable electronics for biomedical applications

Abstract:

The trend of lighter, thinner, more stretchable and flexible plastic-based electronic devices has been growing in recent years, demanding significant innovation in material development. In this presentation, we will discuss a few case studies regarding how Pylux materials, a novel set of organic materials commercialized by Ares Materials, can fit into the flexible display manufacturing, specifically in the areas of flexible device microfabrication substrates, optically clear adhesives, cover glasses, wearable device, substrates etc.

Tough, strain-tolerant photopolymers for high-throughput additive manufacturing



Dr. Walter Voit
Founder and CEO
Adaptive 3D

Walter Everett Voit joined Adaptive 3D as CEO and a technical found of *Adaptive3D commercializing* specialty 3D printing resins with thermomechanical properties. Previously, Prof. Voit built and managed both the *Advanced Polymer Research Lab* and the *Center for Engineering Innovation* which together boast a comprehensive grant portfolio (NSF, NIH, DARPA, FDA, corporate sponsorship), mentor graduate students and post docs and explore the thermomechanics of shape memory polymers, flexible bioelectronics, next-generation neural interfaces, 3-D printing, degradable polymers and the effects of ionizing radiation on polymers.

Abstract:

Additive manufacturing has the potential to transform traditional manufacturing through the ability to produce customized parts with complex internal geometries. However, parts made using 3D printing techniques are frequently unsuitable for industrial end-use applications due to poor mechanical and thermal performance. By using novel thiol-based chemistries, large, geometrically complex parts can be printed with one order of magnitude better toughness over existing resins, as well as self-healing properties. The isotropic toughness of these resins enables industry to employ additive manufacturing for high performance end-use applications.