

ASME Philadelphia Section
College Graduate Expectation Speaker & Panel Discussion

May 12, 2016

5:00 - 7:00 PM EDT

A.J. Picture Gallery

3141 Chestnut St, Philadelphia, PA 19104

SPEAKER & PANELIST BIOGRAPHIES

STEPHEN LUCKOWSKI

Program Manager, Revolutionary Fibers and Textiles Manufacturing Innovation Institute (RFT-MII)



Stephen Luckowski is a Competency Manager at the Armament Research, Development and Engineering Center (ARDEC), Picatinny Arsenal, NJ. His primary roles are Program Manager of the Department of Defense (DoD) Revolutionary Fibers and Textiles Manufacturing Innovation Institute and providing organizational strategic planning for the Materials, Manufacturing and Prototype Technology Division, US Army ARDEC. As Government Program Manager for the Institute, Mr. Luckowski is working on behalf of the DoD's Manufacturing Technology Program to provide guidance and direction on the establishment of an advanced fibers and textiles manufacturing innovation ecosystem. As Competency Manager, Mr. Luckowski's focus is developing and demonstrating new manufacturing process technology improvements in the prototype development of armament systems and components, to help reduce system costs and enable new designs as they transition from prototype to production. Mr. Luckowski has been responsible for transformational efforts in several key manufacturing technology thrusts within the Army/DoD to include titanium material processing and joining, digital manufacturing and design, and additive manufacturing.

Prior to this, Mr. Luckowski served as Chair of the Metals Processing and Fabrication Subpanel within the Joint Defense Manufacturing Technology Panel (JDMTP) and spent one year on a professional development assignment with the Defense Production Act Title III program, working in the Office of the Deputy Assistant Secretary of Defense for Manufacturing and Industrial Base Policy. He has also been a member of the Technical Advisory Committees for other DoD Institutes, including America Makes and Lightweight Innovations for Tomorrow (LIFT).

Mr. Luckowski holds a Bachelor of Science in materials engineering from Drexel University, Philadelphia, Pennsylvania and previously served in the U.S. Army, leaving service at the rank of Major. He is a member of the Army Acquisition Corps and a prior Chair/current member of the American Welding Society D1.9 Structural Welding Titanium Code Committee. Mr. Luckowski has been awarded multiple patents and has been recognized by the Army's Greatest Invention Awards Program for inventions in titanium welding as well as armament and protection systems.

RYAN MEERS

Director of Mechanical Engineering, Boston Device Development

As the Director of Mechanical Engineering in BDD's Philadelphia office, Ryan leads the technical team while maintaining an active role in projects. Ryan offers extensive experience in plastic part development for a variety of manufacturing processes and is well versed in finite element analysis and design for manufacturing.

Prior to joining Boston Device Development, Ryan held engineering, industrial design, and project management roles at the Rehrig Pacific Company, a national plastic injection molding company. Some of his notable projects included a keg delivery system that improves worker safety and a new line of retail-ready beverage transportation shells for PepsiCo.

Ryan holds a B.S. in Mechanical Engineering from the University of Delaware and an M.S. in Industrial Design from Pratt Institute. His unique cross-disciplinary training has proven to help streamline the development cycle. During Ryan's time at Pratt, he focused on entrepreneurial activities and co-founded the product development firm Motivation Design.



RYAN SISKEY

Principal and Office Director, Exponent



Mr. Siskey's primary focus is medical device consulting projects requiring advanced mechanical and chemical characterization of products. He currently supervises the ISO 17025 accredited ISO (A2LA Certificate 2561.01) medical device testing laboratory in Exponent's Philadelphia office. His testing experience involves developing fixtures, methods, and protocols to characterize medical devices and biomaterials based on the clients' needs. He has extensive experience in performing wear and material testing in accordance with ASTM and ISO standards, conducting cadaveric testing, and developing customized protocols.

Mr. Siskey maintains a broad range of testing expertise in testing devices from concept through post market surveillance and has assisted his clients in obtaining regulatory approval for their devices. His experience includes materials characterization, complete device evaluation, and a firm understanding of the device tissue interface including coatings characterization. Mr. Siskey also has experience in failure analysis of devices that has been used to help client's conduct root cause investigations of their devices and respond to FDA deficiency letters. While standardized testing plays a key role in characterizing most devices, new devices and new questions about existing products makes custom protocols a necessity in the lab. Mr. Siskey has experience with developing these protocols for devices and products, from Class I to Class III.

In his role as a laboratory manager, Mr. Siskey is responsible for maintaining the Philadelphia Laboratory's ISO 17025 accreditation with A2LA and conformance to CFR 21 part 58 U.S. FDA Good Laboratory Practices (GLP). Specifically, he is responsible for maintenance of all accredited procedures, overseeing the development of new accredited procedures, overseeing the maintenance of existing equipment, developing strategic equipment acquisition strategies, conducting internal conformance audits and ensuring the proficiency of the lab personnel. His internal auditing experience and understanding of quality management standards has enabled him to assist manufacturers by conducting third party quality and safety audits. Additional audit related capabilities include vendor qualification, gap assessment, root cause analysis and corrective action review.

Mr. Siskey has assisted medical device manufacturers by reviewing their laboratory facility design for engineering controls, equipment needs, and procedural flow. Specifically, the laboratory requirements included ensuring these elements would accommodate procedures related to handling and inspecting contaminated field returns and accepting, handling and disposing of human cadaveric tissues. Working with the manufacturer's contractors and architects, Exponent's expertise was used to ensure proposed solutions met the manufacturer's needs and budget constraints. Exponent specifically was able to review proposed solutions and provide an assessment of the benefits and risks at decision points along the design and construction pathway. Exponent also assisted in developing the process flow and procedures related to the new facility to expedite the training of staff and commissioning of the laboratory through process validation.

Mr. Siskey received his MTS certification, which enables him to develop customized testing procedures on the laboratory servo-hydraulic load frames and spine wear simulator. He also maintains an understanding of mechanical testing using a wide variety of testing equipment. Additional methods include surface characterization using a Zygo white light interferometer, and chemical characterization using FTIR. Previous experience in tribology has included re-design of a Matco hip wear tester, re-design of a biaxial knee wear tester, and design of a spine disc wear tester. Mr. Siskey has also developed procedures for devices including syringes, luer fittings, needles, and catheters.

Additionally, Mr. Siskey has conducted environmental monitoring with Exponent's Environmental Sciences group. Specifically he has set up, maintained, and calibrated air particulate monitoring equipment and weather monitoring equipment. He has also conducted analysis of the data collected with these systems.

EVAN MALONE, Ph.D.
President, NextFab Studio

Evan Malone holds a Bachelor of Arts degree in Physics from the University of Pennsylvania (Philadelphia, PA, USA) and Master of Science and Doctor of Philosophy degrees in Mechanical and Systems Engineering from Cornell University (Ithaca, NY, USA). He has worked in applied physics at US Department of Energy's Fermi National Accelerator Laboratory and has performed research on mobile robotics and additive manufacturing (3D printing). He has played an active role in the development and promotion of the additive manufacturing industry through his research, work as a consultant, as a speaker and subject matter expert, work to develop industry standards, and by providing technical training and access to additive manufacturing equipment and services.



In 2009, he founded and currently serves as president of NextFab (<http://nextfab.com>), a makerspace, hardware technology incubator, and product development services company in Philadelphia, PA, USA.

HELEN SILVIS

Account & Business Development Manager, Veolia Energy Philadelphia, Inc.



Helen Silvis is the Account & Business Development Manager for Veolia Energy Philadelphia, Inc., responsible for identifying and developing long-term, integrated energy services. Helen's extensive experience in HVAC and piping system design in the commercial and industrial sectors enables her to investigate and identify site-specific solutions for client energy needs. Helen is responsible for establishing and maintaining long-term relationships with key clients, leading contract negotiations, preparation of contracts, pro forma and risk management analysis of capital projects and is accountable for over \$4.2M in annual revenue growth and retaining. As the Acting Director Account Management, Helen led the account management team's customer relationship activities, training of new hires, budget forecasting and long-term planning activities. As Business Development Manager, Helen is responsible for developing and implementing resource solutions designed to help clients increase reliability, mitigate operating risk and reduce resource consumption and environmental impact.

Prior to working for Veolia, Helen held design and associate engineering positions in HVAC and process piping systems for Brinjac Engineering, Kling and Flour Corporation for projects in the commercial, pharmaceutical, institution, petroleum and specialty chemical industries. Helen earned her Bachelor degree in Mechanical Engineering from Penn State University and her MBA from Villanova University.

Helen is an active member of AEE, a CWEEL Policy Committee member, Board Member of GPAEE leading Education Initiatives.