“Keeping Up with Change” was the theme at the 2018 Spring NCSLI Philadelphia Section meeting held April 25 & 26, 2018 hosted and sponsored by Exelon PowerLabs, from Coatesville, PA.

The meeting started with information regarding the upcoming 2018 NCSLI “Measurements of Tomorrow” Workshop & Symposium being held at the Oregon Convention center in Portland, Oregon August 27-30, 2018; including the Tutorial Programs on August 25-27, 2018.

Our first guest Speaker, Dr. Craig Shakarji, a mathematician at the National Institute of Standards and Technology edged our interest when he asked three interesting questions; “What’s so hard about test uncertainty; and should repeatability be included in the test uncertainty? Do we have the tools to use to aid decisions as to what components should or should not be included in test uncertainty?” Craig chairs the ISO working groups on CMS and participates in several ASME and ISO standards committees on uncertainty and dimensional metrology.

Daniel Sawyer, the Leader of the Dimensional Metrology Group (DMG) in the Engineering Physics Division at Institute of Standards and Technology, continued our program with an excellent overview of the services and resources available from the DMG for solving commercially and private company measurement problems by working together. The DMG is responsible for realizing and disseminating the SI unit of length for U.S. industry, government, educational and research institutions as well as providing training in advanced dimensional measurements with industry cooperation.

While stretching our legs, we headed to watch a unique High Voltage walking stick demonstration set-up and performed by David Schurr from Exelon PowerLabs; and all attendees were invited to participate! The power of voltage can be shocking!

We then continued down the corridor where we were greeted by Alex Harve of Exelon Power Labs, who provided a Drone Inspection Flight demonstration. The Drone demo provided us information about the advantages of these devices in various environmental conditions to discover, travel and scan; and provide the information needed by the host. Did the attendees have an opportunity to play, direct and aim these devices; bouncing off the wall and watching ground drones creep across the
room under our control and speed? You bet we did!

After lunch, we welcomed Dave Cirullo, Global GWP Service Consultant for Mettler Toledo; with his presentation on “Good Weighing Practices.” Dave focused on accuracy and efficient weighing - but asked, “What is the weighing world evolved to? What are you using the scale for and how are you using the scale? What is absolute uncertainty?” Dave responded to many questions about the rule, “the greater the accuracy, the tighter the process tolerance,” and responses were welcomed.

After a rainy first day meeting; the skies were blue on the second day. We welcomed Patrick Abbott, Mass Calibration Project Leader at the National Institute of Standards. Patrick discussed why the kilogram is re-defined; the effect of the redefinition of the kilogram and the consequences of the redefinition on uncertainties. Stay tuned for May 20, 2019, World Metrology Day for the SI revision!

Our next guest speaker was Paul Daniels, a Senior Regulatory Compliance expert at Vaisala. He discussed how humidity measurements are affected by temperature