

## CHICAGO SECTION 1312

By William Wright, NCSLI Section Ambassador



Hosted by Northern Illinois University (DeKalb, Illinois), NCSLI Section 1312 was able to put on another very successful meeting. This meeting featured a multitude of great presentations given by many experts in the industry and focused on educational efforts in metrology, from grade school to university to job training. Jim Salsbury, NCSLI Section 1312 Coordinator, kicked off the meeting by outlining the day's agenda and pointing out the efforts of those on the steering committee that help make our meetings possible.

The first presentation "Engineering Technology and Metrology" was given by Professor Cliff Mirman, Department Chair of Northern Illinois University's

Technology Department. Mirman outlined the mission and goals of the college as well as provided details on the differences between the various engineering degrees. He also touched on the various hands-on projects that students of the college have opportunities to get involved in.

Bob Mielke presented "Metrology and 3<sup>rd</sup> Graders." This presentation outlined how Bob Mielke and other members of Abbott Laboratories and Abbvie volunteer their time to demonstrate hands-on metrology concepts to 3<sup>rd</sup> graders. It was very pleasing to see how such young individuals were interested in the field of metrology once they were given hands-on activities that they could relate to.

Dr. Hy Tran NCSLI Section 1324 Coordinator from Sandia National Laboratories followed with his "Educational Outreach Kit Based in Dimensional Metrology." In this presentation Dr. Tran described how NCSLI outreach kits can be obtained and used and the wealth of information that NCSLI has put together for use by metrology ambassadors (those who reach out to the community to

benefit the field of metrology). In addition Dr. Tran gave a brief history of a laser interferometer, which led into a discussion and a presentation of his "Interferometer in a Pizza Box."

Next in the line of great presentations was "Teaching Metrology Concepts to Your Non-metrology Co-workers" by Joe Petersen of Abbott Laboratories. Joe depicted key concepts that were important for any non-metrologist to be aware of: resolution, accuracy, precision, error and uncertainty. He also highlighted the importance of said concepts' definitions and how some educators inadvertently confuse some of these concepts.

Following Joe Petersen's presentation, the entire group set off on a tour of the many labs at Northern Illinois University's College of Engineering. The tour was led by Associate Dean Dr. Omar Ghrayeb who gave a brief disclosure of the many activities that operated in such labs as the Baxter Reliability Lab, Omron Robotics and Mechatronics Lab and more. Immediately after the tour the group was treated to lunch, which was provided by Northern



Chicago group photo.

Illinois' Technology Department. During the lunch break, Dr. Ghayeb touched on the history and more student activities of the two colleges.

A newcomer to the field of metrology and NCSLI, Professor Hal Evensen, University of Wisconsin-Platteville, gave an excellent presentation titled "Adapting an Engineering Physics Measurements Lab to Incorporate Metrology Concepts." Professor Evensen discussed how the field of metrology fits into the world of physics and how metrology can fit into his classroom's curriculum.

Last, but not least, was an online presentation given by Jay Bucher of Bucherview Metrology Services titled "Training a Metrology Department Staff in the 21<sup>st</sup> Century – Getting Your New and Seasoned Technicians on the Right Page." This was a practical presentation which put common metrology terms in "layman's" terms as well as outlined the chain of traceability. Other topics were also touched on, such as uncertainty and associated 4:1 rules.

The day concluded with a tour of historic buildings Still Hall and Still Gym of the Technology Department at Northern Illinois University. Attendees toured the Mitutoyo Metrology Laboratory, Welding Laboratory, Machine Shop and Robotics Laboratory.

The meeting was a huge success. Attendees enjoyed the focused theme of metrology and education and each of the presentations brought forth much discussion. Touring a large number of advance labs was also of interest. The next meeting of NCSLI Section 1312 is set for November 7, 2013 at Baxter Healthcare in Round Lake, IL.

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Hy Tran presenting at NIU.



Hy Tran and his pizza box.