

# Regional News

## 1314 Kansas City Section



**Hosted By: University of Missouri – Kansas City, October 23, 2008.**

The NCSLI Kansas City Section Meeting was held on Monday, October 27th, at the University of Missouri in Kansas City (UMKC). The University provided the conference room, parking passes, lunch, and excellent assistance throughout the meeting. Doug MacClymont of Dynamic Technology, Inc. provided a Fluke multimeter and Phil Smith of A2LA provided a number of soft-sided attaché cases and calendar calculators for door prizes. Thirty people attended the meeting from fourteen different companies.

Dr. Mark McClernon, the Head of the Civil and Mechanical Engineering Department, opened the meeting by welcoming everyone to the University. Dr. McClernon talked briefly about the Engineering Department and then introduced the Dean of the UMKC School of Computing and Engineering, Dr. Kevin Truman. Dr. Truman talked about the changes that have taken place at the University and the direction for the future. There were a number of questions from the audience about future classes and programs. As would be expected from this audience, the questions were primarily about the role of Metrology in classes and programs, now and in the future.

Roger Burton, the NCSLI Vice President of the Central US Division, gave us an update on the Board of Directors meeting. Roger

stressed the importance of membership in the NCSLI and talked about the NCSLI conference held in Orlando, Florida in August.

Jeff Willey from Measurements International provided an interesting presentation about Automated Resistance Measurement Systems w/ Sub PPM Accuracies. Jeff talked about two types of systems: the Binary Wound DC Current Comparator for low resistance measurements and the Binary Voltage Divider Technology for higher resistance measurements. Jeff provided an overview of resistance measurement history and talked about traceability for the measurements. He discussed the voltage ratio and current ratio measurement methods and their use.

After a short break, Kevin Bull of Veriteq Instruments gave a presentation called "Humidity Measurement: How Hard Could it Be?" Kevin talked about some of the problems in monitoring ambient temperature and humidity. He discussed the effect of temperature on humidity measurement and then talked about the measurement of temperature, including the various types of sensors that are used. He then talked about the different types of humidity measuring devices starting with Da Vinci's hygrometer and proceeding through the different types of hygrometers that are in use today. Kevin talked about the calibration of humidity

instruments: the methods, types of errors and uncertainties. He finished his talk by covering the different types of monitoring systems that are used for monitoring ambient temperature and humidity.

The next item on the agenda was lunch which was provided by the Civil and Mechanical Engineering department. We were provided with pizza from Waldo's pizza, salad, drinks, and cookies. There was a large assortment of pizzas and, although we tried, we weren't able to finish it all.

The next presentation kept everyone awake and attentive after lunch. The presentation was a joint presentation from Daniel Andeel and Duncan Mayer of Mountz and Vu Pham of Boeing in California. Daniel Andeel gave a brief introduction to the subject and introduced Vu Pham who began by talking about how he became involved in improving the accuracy of applying torque at his plant. Vu talked about reproducibility and gave an interesting demonstration of reproducibility in relation to Elvis impressions. He then talked about reproducibility and repeatability in applying torque and the process that was developed at Boeing to improve the torque process and to reduce costs. With the assistance of Daniel, Duncan and two members from the audience, Vu gave a demonstration using two different operators and two different torque wrenches (click type and cam over). He was able to demonstrate the reproducibility on both systems.

Following a short break, Jim Cyre of Philips Lighting gave a presentation on the Impact of Evolving Environment, State, Federal, and Global Regulations on Calibration Requirements. Jim describes this impact as another part of the measurement equation that influences measurement and system behavior. Jim talked about how regulatory complexity, market drivers and legislation effect measurements. He provided an example in the Energy Star standard and talked about how it affected time, efficiency, and color quality measurement requirements.

A short break was taken to complete evaluation forms and then Evan Bozarth and Jason Nabors of Faro Technologies gave a presentation and demonstration on Laser scanners. Evan demonstrated the use of a Faro arm with a laser scanner attached. He demonstrated its use in accumulating a large



Kansas City Section Group Photo

number of measurement points to create a small model and showed how the scan could be compared to a stored model. Jason then demonstrated the use of a Laser tracker and how it could be used to measure large items quickly. Evan and Jason did a great job giving their presentation within a limited amount of time.

The meeting was concluded with the drawings for the door prizes.

The time and effort that each speaker put into this meeting is truly appreciated. There was a great amount of interest in each as evidenced by the number of questions and comments. The conference facility provided by the University was excellent and University

personnel were available throughout the day to help when needed. Their willingness to host this event was greatly appreciated.

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