

SOUTHERN OHIO/KENTUCKY SECTION 1132

By Matthew Denslow



The NCSLI Southern Ohio/Kentucky Section held its winter meeting on October 27, 2011. While the calendar indicated it was fall, the temperature disagreed. The cold and blustery weather, however, did not hinder attendance. Forty-nine attendees were treated to a full day of presentations around the theme of "Calibration Automation." The Bionetics Corporation, Newark Metrology Operations sponsored the location and breakfast for attendees. I, Matthew Denslow, Bionetics Training Manager and NCSLI Section Coordinator, welcomed all attendees. A mini-exhibit hall adjacent to the meeting area accommodated six vendor equipment demonstrations and a presenter's calibration procedure software demonstration. The mini-exhibits were a big hit with attendees.

Ms. Karen Semer, NCSLI Northeastern U.S. Division VP, provided an update on the NCSLI board of directors' activities and discussed the recent meeting results. Mr. Mike Cadenhead, NCSLI 132 Measurement Comparison Committee, discussed the review of *NCSLI RP-15: Laboratory Comparisons*. Anyone interested in joining the committee or needing more information should contact Mr. Cadenhead.

During the morning session Mr. Slavik Moskalets of Keithley Instruments, Inc., presented a paper he co-authored with Nick Zallar, also from Keithley Instruments, Inc., titled "Implementation of a Nanovoltmeter as an Alternate Detector in the MI 6000B Automatic Resistance Bridge." This presentation was a part of the NCSLI conference program this year. The authors achieved reduced measurement times without increasing system noise through equipment substitution and the development of user functions.

Mr. Alan Gibson from the U.S. Air Force Metrology and Calibration (AFMETCAL) Program next presented his NCSLI conference paper (also found in the December 2011 issue of *Measure*) titled "U.S. Air Force Metrology and Calibration Program's NextGen Calibration Automation System: Updates and Lessons Learned." Mr. Gibson explained the steps taken by the AFMETCAL software engineering group to design and develop automated calibration software utilizing three distinct software coding layers. The software coding layers perform the following: (1) sequencer layer which handles equipment configuration, graphical user interface, and abstracts test logic into a readable XML standard; (2) measurement module layer which runs the calibration technique, timing, and the taking of measurement data independent to whatever specific instruments are being used; and (3) communication layer which controls the instruments, communication buses, and equipment substitution. Mr. Gibson

went on to explain that the advantage of the layered software development approach allowed for changes in one programming layer without significantly affecting other areas of the program.

For copies of the full papers presented above, please consult the NCSLI Workshop & Symposium 2011 proceedings. To avoid a rush on the exit doors, we held the door-prize drawing before departing for lunch. During the lunch period many attendees took advantage of the onsite exhibitors to familiarize themselves with the new products on display. Ms. Ashly Bowers of the American Association for Laboratory Accreditation (A2LA) continued the meeting by presenting "Calibration Software According to *ISO/IEC 17025*." Ms. Bowers' presentation sparked an interesting discussion on the use of embedded functions to perform calculations within a spreadsheet. The discussion demonstrated the importance of communicating with an accrediting body and understanding the interpretation of requirements.

Mr. Jeff Grossman, Fluke Calibration, spoke to attendees on the topic "Automating Pressure Calibrations: What is Now Possible and the Benefits." Mr. Grossman's presentation explained the parts of the pressure calibration process that can be automated, the types of pressure devices where automation can be used, and the advantages of automating pressure calibration. Anyone interested in reviewing this presentation may find it available as part of the webinar series provided by Fluke.

Concluding the day's presentations, Mr. Adam Fleder, TEGAM, discussed the "Considerations in RF Power Calibration Automation." Mr. Fleder's presentation not only related the subject material but permitted audience participation. The audience interaction during this presentation represents exactly the goal of our meetings as participants increase the understanding of the whole.

We thank the attendees, presenters, and the vendors. We hope to see you again next spring.

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