

NORTHERN OHIO SECTION 1131

By Helga Alexander



The NCSLI Northern Ohio Section meeting was held on November 10, 2012. The event was hosted by Case Western Reserve University in Cleveland. Approximately 30 people attended the meeting, about two thirds of them being students and faculty. Having the event on a Saturday allowed students to participate without missing classes. In addition to Case Western Reserve students, we also had attendees from Cleveland State University and Lakeland Community College. Several metrology and quality professionals from local companies also gave up their Saturday to participate.

Section coordinator Helga Alexander started the meeting by providing an introduction to NCSLI, its vision and mission, information on upcoming meetings, and the benefits individuals, corporations and educational institutions can gain from membership. She continued with a short

presentation entitled “Metrology—Why Engineers Should Care,” and emphasized the importance of including metrology concepts in engineering and science curricula.

Mary Anne Tupta from Keithley Instruments continued the morning session with an interesting presentation on “Characterizing the Resistivity of Materials and Test Structures Using 4-Wire Methods.” This presentation stimulated many questions from the many Electrical Engineering students present in the audience.

Dr. Ed Morse, from the Center for Precision Metrology at the University of North Carolina in Charlotte, finished up the morning session with a presentation on the performance, testing, calibration and uncertainties of coordinate measurement machines. He also provided some background and information on the Center for Precision Metrology and the opportunities for graduate studies in metrology.

The afternoon session continued with a presentation on “Tips and Tricks to Oscilloscope Measurements” by Chris Armstrong from Rigol Technologies. Rigol brought several of their oscilloscopes, and the speaker illustrated his points by projecting the oscilloscope output onto the large screen to provide live examples of the vari-

ous measurement techniques he discussed.

Two CWRU electrical engineering students shared the results of their projects with the audience. Dan Goff presented the results of his group’s project on “USB Signal Master –Module Instrumentation.” This project had taken first place in a prestigious recent student competition sponsored by Texas Instruments. Tina He, CWRU student and Keithley Graduate Fellow, presented her latest research on “Electrical Measurement of Incredibly Shrinking Electromechanical Relays.”

The meeting ended with a tour of the CWRU Materials for Opto/Electronics Research and Education (MORE) Center.

The NCSLI Northern Ohio Section would like to thank Rigol Technologies and Keithley Instruments for providing speakers, refreshment and a pizza lunch, Dr. Philip Feng of the CWRU Electrical Engineering Department for his help in organizing the meeting, and the CWRU Mechanical Engineering Department for making Dr. Morse’s travel to Cleveland possible.

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