



THE OBSERVER

NOVEMBER 2012

Published by the New Hampshire Society of Professional Engineers

A WORD FROM THE PRESIDENT

By: Theodore T. Setas, PE
NHSPE President

I am honored to be the incoming President of NHSPE. It is also my pleasure to serve on a board that is very dedicated to the region and to keeping a pulse on the local and national issues that affect the future of our profession.

A few months ago, our Past President Peter King wrote a message in the Observer about the need for more engineering graduates to fill in the ranks of engineering positions for the future. In high school many students spend very little time, other than in speaking with the guidance counselor, considering where their future interests lie. With the broad variety of engineering specialties, it is

Emerging Technologies at 6th Annual NHJES Conference

The New Hampshire Joint Engineering Societies (NHJES) held its 6th Annual Conference on October 4, 2012. The conference presented an array of topics related to this year's theme, "Emerging Technologies". Technology has always played an important role in engineering, and does so even more in our current tech savvy era. The presentations selected for the conference did an excellent job identifying new technologies available to the profession, but also how these new technologies are affecting the industry and the next generation of engineers entering it. This year also saw a change in venue and took place at SERESC Conference Center in Bedford, NH.

The conference was composed of three dual track morning sessions followed by a luncheon presentation, and concluded with two afternoon dual track

sessions. The first session of the day offered the choice between, *Introduction to Geothermal Systems* presented by David Lamothe PE, of GZA GeoEnvironmental, Inc. or *Northern Pass Project Overview* presented by Brian Bosse of Northeast Utilities. In the next session, Terry D. Bennett, LS LPF MRICS LEEP AP of Autodesk Inc. presented *Infinite Computing: Implications for Infrastructure Design & Construction* while Prof. Ahmed A. Busnaina of Northeastern University presented *Rethinking Manufacturing; Nanomaterials-Based Manufacturing for Electronics, Sensors and Energy Applications*. The morning sessions concluded with a final choice between *Collection and Depiction of Existing Subsurface Utility Data for Transportation Projects and Other Urban Construction Impacts* presented by Randy Seaver and

NHSPE Launches 2013 Excellence in Teaching Awards Program

NHSPE is pleased to announce that the program for the **2013 Excellence in Teaching Awards** has launched. Over the next few months NHSPE, SENH, NHTM, ASCE-NH, UNH, ASHRAE, ACEC-NH, NHPWA, NHSTA, IEEE, ITE and our new friends at NHSEE will be searching

for deserving teachers at the elementary, middle and high school levels throughout the state. **Applications will be due by January 31, 2013 and awards will be presented in April/May 2013 at the winners schools.** We are very pleased at the support, both finan-

INSIDE

A Word From the President	1,3
Emerging Technologies at 6th Annual NHJES Conference	1,2
NHSPE Launches 2013 Excellence in Teaching Awards Pro-	1,2
2013 E-Week Update	3

Emerging Technologies at 6th Annual NHJES Conference (Continued from Page 1)

Robert Clemens of Cardno TBE or *A River Runs Through It-Once Again: The Beneficial Option of Dam Removal* presented by Deborah Loiselle.

A luncheon followed the morning sessions. Prof. James Sherwood of the University of Massachusetts Lowell presented *Sports Technology: Baseball Research-Center at UMass Lowell*. The presentation gave an in-depth look into research UMass Lowell is providing both Major League Baseball (MLB) and the National Collegiate Athletic Association (NCAA).

The day concluded with the final two sessions. The first session offered a choice of *The Use of Technology in Engineering Education* presented by Dean Robert Henry, PE, of the University of New Hampshire or *UMaine Advanced Structures and Composites Center Projects Overview* presented by Dr. Habib J. Dagher, PE, of the University of Maine.

In the final session of the day Tom Doyon of Deka Research & Development Corp presented *Bio-Robotics: DEKA Luke Prosthetic Arm* while Dean Lessard, PE of the Town of York Maine presented *Thermoplastic Bridge – A Case Study*.

The topics presented covered the breadth of how emerging technologies are impacting and changing engineering now and in the future. SERESC Conference Center provided a great venue and excellent meals for the event. On behalf of all the societies that comprise NHJES, we would like to thank those of you that were able to attend and the record number of event sponsors.

*Respectfully Submitted,
Jason Beaudet, PE
NHSPE President-Elect*

NHSPE Launches 2013 Teacher in Excellence Award Program (Continued from Page 1)

cial and volunteer time, by our organization partners to help make this program a success. As a summary, the program is designed to honor teachers in mathematics, sciences, or pre-engineering who are inspiring our future engineers to pursue studies and careers in an engineering field. Our teachers are instrumental in maintaining the interest of our students in order that they not only continue their studies, but prepare themselves for post-secondary education at the college level. This year, we hope to have more applications than ever

before and ask for your assistance in spreading the word! Please let your local PTO/PTA and other school groups know. If you know a deserving teacher, please see the www.nhspe.org website to download an application or contact **Matthew J. Low, PE** at mlow@hoyletanner.com to find out more.

*Respectfully Submitted,
Matthew J. Low, PE, SECB
Mathematics & Science Teacher Awards Chair*



WHEN WATER QUALITY MATTERS

(800) 287-5767
www.secondwindwater.com

Secondwind Water Systems, Inc.
The Water Quality Professionals

THE OBSERVER

The Observer is published quarterly by the New Hampshire Society of Professional Engineers for its members. Its purpose is to inform members of NHSPE activities and related topics.

Address all correspondence to the Editor:
Theodore Setas, P.E.
c/o Jacobs Engineering Group, Inc.
Two Executive Drive
Bedford, NH 03110
(603) 289-4947 Phone
Ted.setas@Jacobs.com

Word from President (Continued from Page 1)

sometimes difficult for young adults to envision what the engineering profession has to offer.

It does not get better at the college level; in fact, I recently spoke to a university professor who stated that the industry is changing so rapidly that even developing an engineering curriculum is difficult. This situation begs the question, how do we get the message out about who we are and what we do?

One of the best ways I feel that we can better the future of our profession is by reaching out to local schools and universities and offer to speak about your expertise and experiences as an engineer. Informing students of the requirements to reach licensure and the many types of engineering disciplines, is an eye-opener to many students. You may want to also offer to help with student outreach programs and/or senior projects. Some colleges also offer work study programs.

I recently have had the pleasure of speaking at a high school about my experience as an engineering professional. Before I started, I asked the seniors

“what are you interested in?” What was surprising to me is that many of them did not know and really had not thought about life beyond high school. As I went through my presentation, many of the students latched onto some aspect of engineering that they could associate with, and, dare I say, liked. And while many others had already decided that engineering was not for them, and that “math hurts”, I perceived a new sense of appreciation for the engineering profession from the listeners.

The primary message here is we are the best advocate for our profession. By getting involved with your local schools and institutions, we can help promote awareness for our profession while also helping young people focus on their future. By talking to them about their goals, we can help get them closer to attaining them. They may not all become engineers, but take it from someone who has experienced this first hand, helping students think about their future is reward enough.

JACOBS

NATIONALLY RECOGNIZED, REGIONALLY FOCUSED

- Railroads and Transit
- Highway, Bridge, Tunnels/Underground
- Intermodal Facilities
- Telecommunications
- Ports
- Water/Wastewater
- Buildings

www.jacobs.com

Jacobs' size, reach and project achievements give our clients the tools they need to achieve their goals.



Boston, MA • Manchester, NH • Providence, RI

2013 E-Week Update

The 62nd Annual Engineers Week Banquet is just around the corner. The New Hampshire Engineers Week Awards Banquet is scheduled for Thursday, February 21, 2013. The banquet will be held at the SERESC Conference Center, located at 29 Commerce Drive, Bedford, NH. For those of you who had the opportunity to attend the Joint Engineering Society Conference on October 4 at SERESC, you had a taste of what the quality of the venue brings.

The E-Week Planning Committee has settled on a keynote speaker who I am sure you will find to be quite interesting and timely. We are also continuing with the education sessions and have penciled in a few options but need to be finalized. The next steps for the planning committee is to decide on the ticket price, review the order of the ceremony, and try to reduce the overall time of the banquet, so we all can leave at a reasonable time. We will be sending more banquet detailed information out in the next 1 to 2 months.

SERESC is the Southeastern Region Education Service Center created in 1974 when 14 school districts united to support special education students being mainstreamed into public schools. It remains a non-profit entity that caters to non-profit educational and professional organizations like us. Their AV systems are state of the art and the facility can support up to 300 people. If you did not get the chance to attend the JES Conference I encourage you to visit their website at www.seresc.net.

As I mentioned above, there remain educational sessions and speakers to line up and many sponsors to register. We could use your help. If you have good ideas for topics and speakers that would provide worthwhile PDHs or you are good at lining up sponsors, please contact anyone of the E-Week Planning Committee members including Ted Setas PE, Gregg Comstock PE, Jason Beaudette PE, Corey Dietrich EIT, or Larry Dwyer PE through www.nhspe.org.

Submitted by Larry Dwyer, PE

- Survey
- Land Development
- Traffic/Transportation
- Civil & Structural Design
- Bridge & Highway Design
- Environmental/Permitting
- Inspections/Reviews
- Water/Wastewater
- Solid Waste Management
- Construction Management



Quality • Experience • Value

Hands Across the Merrimack Bridge
Manchester, NH



CLD Consulting Engineers, Inc.

540 Commercial Street, Manchester, NH 03101
P: 603-668-8223 / F: 603-668-8802
www.cldengineers.com

Building Envelope **Electrical** **Roof Moisture**

Mechanical **Vector Mapping** **Steam**

Professional Certified Thermography Since 1984
 Infrared & Nondestructive Testing of Roofing, Building Envelope, Electrical, Mechanical & Steam Systems

800-879-1964
www.iranalyzer.com

INFRA-RED ANALYZERS
 Certified Thermographers

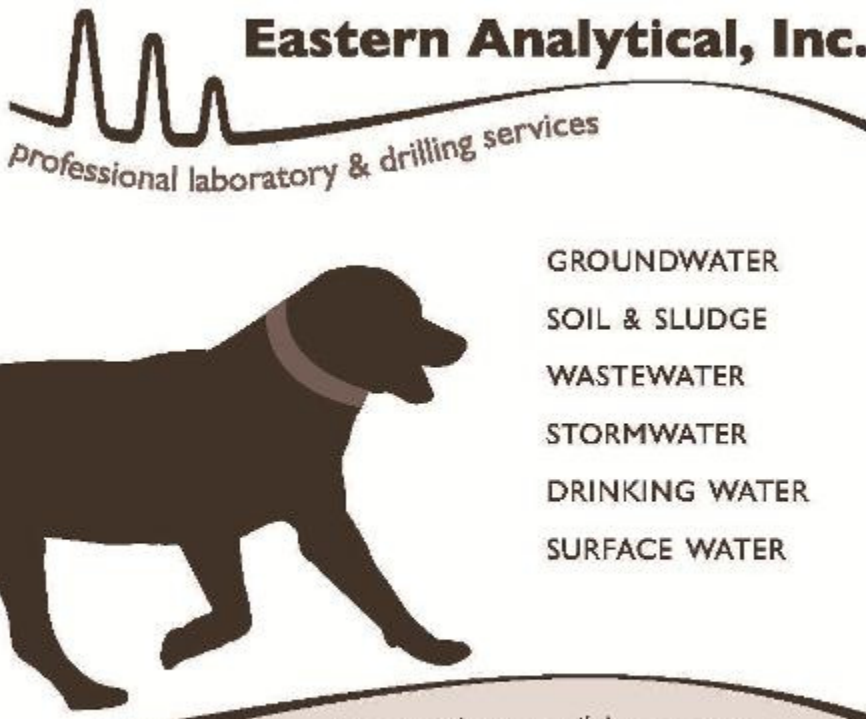
NASHUA, NH • WORCESTER, MA • NEW HAVEN, CT • NEW YORK, NY • BURLINGTON, VT

Experienced professionals producing high quality digital mapping

✓ check our photo library!

Phone 603-627-5010 • Fax 603-623-5322
 E-mail pviani@minutemanmapping.com
www.minutemanmapping.com


MINUTEMAN MAPPING



Eastern Analytical, Inc.
professional laboratory & drilling services

GROUNDWATER
SOIL & SLUDGE
WASTEWATER
STORMWATER
DRINKING WATER
SURFACE WATER

we're with you every step of the way | www.eailabs.com | 800.287.0525



WE HAVE ALL YOUR MAPPING NEEDS COVERED

planimetric/ topographic mapping	digital orthos	DTM modeling	GIS development	low-altitude helicopter mapping	custom flights and existing photography
--	-------------------	-----------------	--------------------	---------------------------------------	---

For additional information, please contact:
David P. Prince
WSP • SELLS (formerly Chas. H. Sells, Inc.)
155 Main Dunstable Rd., Nashua, NH 03060
Tel: 603.595.7900 / Fax: 603.889.6389
david.prince@wspells.com
www.wspells.com

WSP • SELLS

A proud, long term, sustaining member of NHISPE

PHOTOS FROM NHJES CONFERENCE



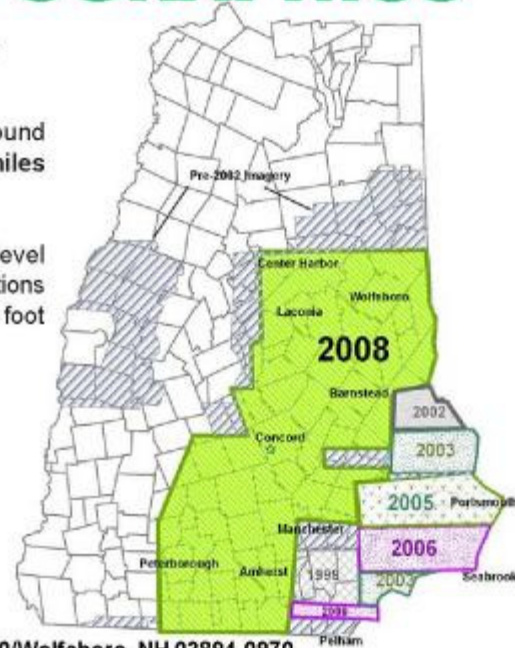
EASTERN TOPOGRAPHICS

LOW ALTITUDE IMAGERY

Our extensive library allows us to offer Year Round Mapping. 2008 coverage includes 2200 square miles of 1" = 400' Negative Scale photography.

All imagery is suitable for detailed engineering level mapping - 1" = 40' with 2' contour interval. Spot elevations from this imagery will be accurate to better than 0.3 foot (three tenths of one foot).

Visit www.e-topo.com to view and download imagery or to submit a topographic mapping request. Our completely online system offers a faster and more efficient way to obtain imagery and proposals.



Eastern Topographics P.O. Box 970/Wolfeboro, NH 03894-0970
Tel: (603) 569-2400 Fax: (603) 569-8200 E-mail: mail@e-topo.com

Board of Directors

PRESIDENT

Theodore T. Setas, PE
(603) 518-1973
ted.setas@jacobs.com

PAST-PRESIDENT

Peter M. King, PE, LSP, LEP
(978) 206-5782
pking@geosyntec.com

PRESIDENT-ELECT

Jason Beaudet, PE
(603) 668-8223
jasonb@cldengineers.com

VICE-PRESIDENT

Dirk Grotenhuis, PE
(603) 339-3774
dirk.grotenhuis@rsginc.com

SECRETARY/MEMBERSHIP

Corey Dietrich, EIT
(603) 627-0708
cdietrich@cmaengineers.com

TREASURER

Daniel Hudson, PE
(603) 627-0708
dhudson@cmaengineers.com

STATE DELEGATE TO NSPE HOUSE OF DELEGATES

Roch D. Laroche, PE
(603) 627-0708
rlaroche@cmaengineers.com

STATE DIRECTOR

Gregg Comstock, PE
(603) 271-2983
gcomstock@des.nh.gov

STATE DIRECTOR

Joshua Bouchard, PE
(603) 627-0708
jbouchard@cmaengineers.com

STATE DIRECTOR

Tim Lotterhand
(603) 493-9250
tlotterhand@gmail.com

MATHEMATICS & SCIENCE TEACHER AWARDS CHAIR

Matthew J. Low, PE, SECB
(603) 669-5555
mlow@hoyletanner.com

STUDENT OUTREACH

Judith Houston, PE
(603) 271-2936
judith.houston@des.nh.gov

NH MATHCOUNTS DIRECTOR

Ben Pratt, PE
(603) 588-6740
bpratt@mctelecom.com

NSPE Web Site www.nspe.org

NHSPE Fax on Demand 1-800-315-NHSPE

NSPE Member Services 1-888-285-6773

NSPE Publications 1-800-417-0348