

Seminar

Topic: The Norway-US Scientific Traverse of East Antarctica

Speaker: Zoe Courville

Date: Friday May 22, 2009

Time: 12:40 – 12:55 PM (Pizza and drinks)

12:55 – 1:45 PM (Seminar)

Place: F. W. Olin Center, Room 115, Union College, 807 Union St. Schenectady NY 12308 (518 388-6000)

Summary

The Hudson-Mohawk section is joining the Union College Mechanical Engineering Department for this seminar on East Antarctica. During this meeting Malysa Cheng, the 2009 Mortimer F. Sayre Prize recipient will be recognized. Sayre was one of the founders of the ME department at Union and was also an early chair of the Hudson-Mohawk section. This award is given to the senior with the best potential for furthering the ideals of the mechanical engineering profession, and is co-sponsored by the Union College ME Department and the ASME Hudson-Mohawk section.

Abstract:

Dronning Maud Land, a vast area on the East Antarctic plateau, represents a great unknown, in terms of climate and possible contribution to sea level change. The last time the area was crossed on land was in the 1960's, during the International Glaciological Year. For the past two years, a group of scientists from Norway and the United States has collaborated to traverse a giant loop of the area, on ground, collecting ice core samples and radar data along the way. The main science question the group is trying to answer is whether or not this area of Antarctica is increasing in mass through increased snowfall, or is decreasing in mass due to accelerated melting at the edges of the East Antarctic ice

sheet. In addition, several other related questions are being pursued.

The trip crossed over a series of suspected subglacial lakes, which are now being monitored remotely for signs of liquid water beneath the ice. The bed rock topography of the area under the ice is being mapped by deep radar. Signs of anthropogenic chemistry in the ice cores are being analyzed. Recently returned from the second leg of the traverse, Dr. Courville will present some of the preliminary findings, talk about the logistical demands of the trip, and discuss the methods used to characterize this area of Antarctica.



The aurora australis over the Elevated Station at Amundsen-Scott South Pole Station (National Science Foundation)



The dining facility at the Antarctic Gamburtsev Province (AGAP) field camp in eastern Antarctica. Large field camps like this one require many support personnel to maintain. (National Science Foundation)

**THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS
HUDSON MOHAWK SECTION
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Lunch

There will be pizza, drinks and cookies at 12:40. No charge. The F.W. Olin Center is Key number 35 on the Union College Map <http://www.union.edu/Campus/Map/index.php>. The easiest parking can be found at the Nott/Seward Parking Lot. The entrance of the parking lot off of Nott Street.

Reservations:

No reservation is required, but are requested (so we have an idea how much pizza and soda to provide). Send RSVP to Fred Willett (willett1@asme.org or 385-5706).

Letter from the Chair

This month's seminar at Union College is the last planned program for the 2008-2009 year. (ASME's fiscal year runs from July 1st through June 30th.)

This past March the Union College ASME Student Section asked if the H-M section could provide volunteers to judge Union ME students in the local ASME Old Guard Competition. Approximately sixteen students competed in this local presentation competition. Two winners were selected to go onto the regional competition in Baltimore. I am pleased to report that these two students took first and second place in the regional competition. Congratulations to Lasantha "Prad" Pathirana '09: 1st in Oral Competition, and Andrew Heiser '09: 2nd in Oral Competition, Best Technical Presentation.

In addition to the Sayre Prize awarded to a graduating Union ME student, a similar award is presented to a graduating senior at RPI. The Clarence E. Davies Award (1978), sponsored by the Hudson-Mohawk Section, is in honor of Col. Davies, a 1914 graduate of Rensselaer who was ASME executive secretary from 1934 to 1957, this award is presented at Commencement to an outstanding senior in Mechanical Engineering.

The largest cash award presented by the Hudson-Mohawk section is the Scheper Scholarship presented to a deserving student who is graduating from Hudson Valley Community

College and is transferring an accredited four-year Mechanical Engineering program as a full time student. This year's Scheper Scholarship recipient is Colin Amadon, who is transferring to the Mechanical Engineering program at RPI.

In addition to thanking these deserving mechanical engineering students, I want to take this opportunity to thank those of you within the Hudson-Mohawk section that contributed to the section through a donation made during the annual ASME membership renewal. For those that might not have noticed, there is a line on the membership renewal form where you can make a contribution directly to your local section. This year, the Hudson-Mohawk section received \$600 through these individual contributions.

These additional contributions will be put toward scholarships and grants. In the 2009-2010 program year, we look to increase the Scheper Scholarship from its current \$600 to \$1,000. We are also working toward establishing a high school grant program where modest cash grants are given directly to school science or technology departments. In today's era of tightening of school budgets, often times money formerly used for the purchase of science supplies are being cut. The Boston Section of ASME started a similar grant program within their section a couple of years ago, and has proven to be very successful.

David Smith

Chairman - Hudson-Mohawk Section
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Distribution of Section Newsletter

The Hudson Mohawk newsletter is posted at:
<http://sections.asme.org/hudson-mohawk/>

Once each newsletter is posted on the Section's web page, an e-mail notification and link to the above website is sent to members who have e-mail addresses in the ASME member database. If you are an active member of ASME and did not receive an e-mail notification, please go to the ASME web site and update your membership information. Additionally, please make you're your e-mail service does not block e-mail sent from ASME.

<http://members.asme.org/myasme/login/myasme.cfm>