



The Manufacturing Society
Northern Lights Chapter # 370

The Northern Lights

Newsletter — March 2009

For the latest information check-out
<http://chapters.sme.org/c370/>

If you would like to be added to our monthly newsletter visit:
<http://maillists.bijouenhancements.com/lists/>

Fundamentals of Geometric Dimensioning & Tolerancing



Attendees listen as Bob Blazewicz, of 2-B Quality Training Services, teaches the principles of Geometric Dimensioning and Tolerancing at the February seminar.

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SME Northern Lights Chapter 370 proudly presents . . .

How local company Regent Energy set up a shop in Oman

By: Mike Claerhout, Engineering Manager, Regent Energy Group

Regent Energy Group is a small manufacturing company producing SAGD slotted Casing for Thermal and Non Thermal in-situ oil recovery for supply to various parts of the world. In mid 2007 the company had an opportunity to build a manufacturing plant in the Middle East. The country of Oman was chosen to set up operations and the project proceeded. The manufacturing plant was completed, from design through to production in 318 days, with staff members from Canada, Europe, and Oman.

This presentation will describe the many unique experiences in setting up and commissioning a manufacturing facility and business base in the country.

About the Speaker:

After graduating from NAIT in 1994, Mike spent the next seven years being the product designer at various organizations. Some of the positions Mike has held as a designer has been a prototype fabricator/designer in the Mechanical Engineering Department of the Alberta Research Council, as well as Chief Product designer of a small injection moulding company in New Zealand. After returning to Alberta in 2001 and spending the next several years consulting and working part time with Regent, Mike accepted a job with Regent as Engineering Manager in '06. This last move has seen Mike embark on many projects within the company, mainly revolving around designing, building or modifying process machines unique to Regent's process. The last project was the production facility in Oman.

WHERE TO GO!

University Faculty Club
11435 Saskatchewan Drive

Wednesday, March 11, 2009

Social Hour: 5:30 to 6:00 pm
Dinner: 6:00 to 7:00 pm
Presentation: 7:00 to 8:00 pm

COST: \$30 members
\$30 first time guests
\$40 non members
\$10 student members
\$15 student guests

Member pricing is always extended to members of other technical societies such as ASM, AWS, CWA, NACE, CSME, ASME, etc.

Please RSVP by 4:00 p.m.
Monday, March 9, 2009.

RSVP Online for our event at

<http://maillists.bijouenhancements.com/sme/>

PLEASE DO NOT "REPLY" TO THIS NEWSLETTER

The SME Northern Lights Chapter normally holds technical meetings on the second Wednesday of each month except for the month of July and August.

REMEMBER...

Students and student members that attend the SME dinner meeting have a chance to win a FREE dinner drawn at the end of the meeting.

Northern Lights Chapter Executive 2009



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Open Position.

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The Northern Lights Highlights

SME Northern Lights Chapter 370 February's Presentations

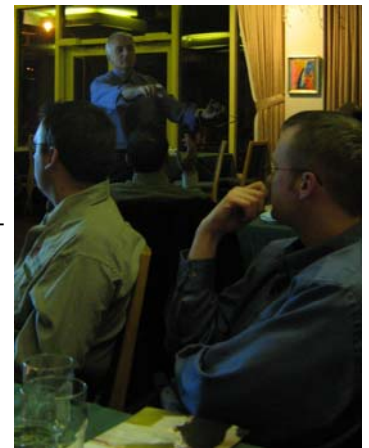
Geometric Dimensioning & Tolerancing Seminar

The SME Northern Lights Chapter held a one-day seminar on Geometric Dimensioning and Tolerancing. The comprehensive course, taught by Bob Blazewicz of 2-B Quality Training Services, provided fundamental information on the application and implementation of GD & T. The course gave all attendees a sound foundation of understanding the elements of GD & T, such as GD & T symbols, terms, and definitions, Form tolerances, and Datums. With this course all attendees came away with a better understanding as to how GD & T better communicates size, form, orientation, and location part features as compared to Coordinate Tolerancing.

For further information on GD & T Courses, Videos, Workbooks & Software contact Bob Blazewicz at (519) 893-6303 or email him at 2bquality@rogers.com. You can also visit the website: www.mr-gdt.ca for further information, as well.

Project Management the Essentials

Vincent Capri of NAIT's Project Management Certificate Program presented an information session on the key elements of Project Management. All attendees to the technical presentation came away with a better understanding of how interpersonal and intrapersonal elements affect the management of human resources on any particular project.



Thank you...

for reading the *Northern Lights*. If you are interested in presenting at a SME dinner, please contact any of the above Chapter Executive. Kindly include the field you are working in and the subject you are interested in presenting to the chapter members and guests.

Remember to keep SME information current

- We do not wish any of our members or friends to miss a newsletter. Please make sure to inform the newsletter editor of any changes to your email or employment address.
- If you have any newsworthy stories or information, we would be pleased to include it in our newsletter, subject to editorial approval.
- If you know of anyone who would like to receive this newsletter, please send them to <http://maillists.bijouenhancements.com/lists/>. The best part about it—it's FREE!!



Northern Lights Chapter 370

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SME NORTHERN LIGHTS
CHAPTER

SMART CAR SCULPTURE



Image Courtesy www.thsmart.ca

Vision

The Society of Manufacturing Engineers Northern Lights Chapter in collaboration with the Mechanical Engineering Technology Department NAIT, the Department of Mechanical Engineering, Industrial Design, and Visual Communication Design at the U of A proposes to create an innovative and visually exciting display intended to illustrate the unity of art, design, technology and manufacturing by using the iconic 2009 Smart Car as its centerpiece. We wish to help people understand the role of art, design, engineering and manufacturing by creating an approachable, hands on display that reveals in an artistic fashion the inner workings of the Smart Car.

Design Brief

The design brief to our industrial and graphic design team is to reveal the chassis, suspension, engine, power train, seats, wheels, and interior systems in a cool manner that demonstrates how each of these systems are designed and manufactured. We envision sectioning and "exploding" components of the Smart Car in a colourful and inviting manner. Our design team will prepare display concepts using sketches, drawings and scale models to be used as guidelines to the technical team. Our intention is to make the display transportable so that it can be used at other locations as part of educational or promotional activities. In between times, the Smart Car will be on display in the respective Mechanical Engineering Buildings at NAIT and the U of A.

SME NORTHERN LIGHTS CHAPTER

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SMART CAR SCULPTURE



Image Courtesy www.thsmart.ca

Partners

Weber Motors Ltd.
Universe Machine Corp.
Gambit Products Ltd.
Caprica Consulting Inc.

Calvin Austron
Rick Chetram
Steve Martens
Kris Mauthe
Alex Shum
Curt Stout
Jeff Underhill

MET NAIT
Industrial Design, U of A
Visual Communication Design
Mechanical Engineering U of A

Fundraising

Our SME chapter has assumed a leadership role in fundraising for the project and has secured donations of \$18,000 from local manufacturing companies, individuals and chapter executive. Indeed 5 members of the SME executive have personally donated \$500 each to the project as gesture of our commitment. All project sponsors will be acknowledged on the display and will have their names featured prominently.

Manufacturing

We are currently preparing a proposal that will be presented to the Automotive and Machining Departments at NAIT asking for their assistance in creating the display. We will require expertise in disassembling and sectioning vehicle components as well as fabricating the display base and transport trailer. The artistic vision will be a collaboration between our industrial and graphic design team as well as the technical professionals working on the car and display.

Timeline

Our preliminary project timeline includes 4 to 6 months for design which will occur while we are waiting for vehicle delivery and approximately 8 to 12 months to fabricate the display.



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2009 Capstone Honours Awards



The Capstone Honours Awards, now in its 9th year, will again be recognizing budding mechanical designers this upcoming April 7th at the University of Alberta. The annual affair honours mechanical engineering students judged to have the best design presentations for their final year design project with the winners continuing on to the Canadian Society of Mechanical Engineering national competition. The Department of Mechanical Engineering has been collaborating with the Faculty of Fine Arts and each group of five in this year's competition will include at least one industrial design student. Altogether, there are approximately 180 graduating students competing for the Capstone Honours Awards.

Four different awards are given at the ceremony. Each one recognizes excellence in a particular aspect of mechanical design: selection and appropriate use of advanced materials; ease and consideration of the manufacturing processes; application of sophisticated engineering and design methods; innovation and creativity. The unique Capstone trophies are a working gear reducers valued at \$2000 whose components have been fabricated and generously donated by manufacturing companies located within Alberta. Each of the 16 deserving finalists received one of these prestigious trophies.

At the conclusion of the last years Capstone Honours ceremony, the top prize was awarded to the team of Jason Boddez, Michael Dawson, Roberto Martinez, and Darren Achymichuk for their project, the Electric Car Propulsion System.

The Capstone Honours Awards are a joint effort between the University of Alberta and the Northern Lights Chapter of the Society of Manufacturing Engineers. The event is sponsored by industry and is organized by the Capstone Board, which consists of university faculty, industry representatives, and recent graduates. The awards night is night of intrigue into the exciting world of mechanical engineering design and is open to anyone who wishes to attend. For more information including sponsorship and ticket information please visit www.capstoneawards.com.