



The Manufacturing Society  
Northern Lights Chapter # 370

# *The Northern Lights*

Newsletter — April 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/>

## Regent Energy facility in Oman



Top: The initial steel girders been positioned

Right: The facility completed and ready for production



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## 2009 Capstone Honours Awards

The Capstone Honours Awards, now in its 9<sup>th</sup> year, will again be recognizing budding mechanical designers this upcoming April 7<sup>th</sup> 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.



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 a 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](http://www.capstoneawards.com).

### WHERE TO GO!

ETLC Solarium  
2nd Floor, Engineering Teaching and  
Learning Complex (ETLC)

Tuesday , April 7th, 2009

Cocktails: 5:00 to 5:45 pm  
Student Presentations: 5:45 to 9:00 pm  
Dinner: 6:30 pm  
Awards Presentation: 9:00 to 9:30 pm

For ticket information and event information  
visit [www.capstoneawards.com](http://www.capstoneawards.com)

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

Please visit [www.capstoneawards.com](http://www.capstoneawards.com) for ticket information and event information

### 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



### Chair

Calvin Austrom, [caustrom@masterflo.com](mailto:caustrom@masterflo.com)  
Master Flo Valve Inc, 780-468-4433

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### Vice-Chair, Membership

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### Vice-Chair, Technical Programming

#### Open Position.

### Vice-Chair, Special Projects

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### Capstone Committee Chair

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### Past Chair

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# The Northern Lights Highlights

## SME Northern Lights Chapter 370 March Presentation

### How Regent Energy set-up a Facility in Oman

For the March presentation Mike Claerhout, Engineering Manager for Regent Energy, spoke of the logistics and experiences to set-up a manufacturing facility in the middle East country of Oman. Some of the logistics that needed to be dealt with were shipping and transportation of goods and equipment to the worksite, adapting to communication differences, and understanding and working around cultural issues. Mike also highlighted the elements that contributed to the successful commissioning of the facility. Such elements as the need to partner with a sponsoring company, understanding the legal issues and taxation applications, and utilizing the expertise of a Public Relations Officer. By encompassing all of these elements, Regent was able to successfully commission a production operation in just 318 days.



Inside the Regent facility ready for production

## 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

Serving Edmonton and Area

Where Manufacturing Comes Together.

SME NORTHERN LIGHTS  
CHAPTER

## SMART CAR SCULPTURE



Image Courtesy [www.thsmart.ca](http://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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*Serving Edmonton and Area*

**Where Manufacturing Comes Together.**

SME NORTHERN LIGHTS  
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## SMART CAR SCULPTURE



Image Courtesy [www.thsmart.ca](http://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.