



The Manufacturing Society  
Northern Lights Chapter # 370

# The Northern Lights

October 2008

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/>

SME Northern Lights Chapter 370 proudly presents . . .

## Printworks (Plant Tour)

Presented by Bud Childs

In 1984 Darryl Smith opened the doors of Printworks in an 800 square foot shop offering copying services and brokering printing. Nearly 20 years later, this family owned and operated business has become a leader in the printing industry. Today, the 85,500 square foot production facility in Edmonton, Alberta employs more than 130 people. The facility produces over 2 billion magazines, flyers and direct mail pieces per year and serves a diverse range of clients including some of North America's most successful retailers.

The plant tour will showcase the primary aspects of print media, such as design and prepress, sorting and packaging, and the logistics of distribution. All attendees will see how Printworks, utilizing state of the art computer-to-plate (CTP) technology, produces printed material. All attendees will also see how the printed material is sorted and labeled for distribution to locations throughout North America. The tour will then close out with how Printworks uses Real-Time Satellite based communications to manage the logistics of distribution. The use of satellite communication is to support the distribution of the printed media to locations throughout North America, as well as locations in Puerto Rico, Hawaii, and Alaska.

### WHERE TO GO!

University Faculty Club  
11435 Saskatchewan Drive

Wednesday, October 8, 2008

Social Time: 5:30 to 6:00 pm  
Dinner: 6:00 to 7:00 pm  
Chapter Business: 7:00 to 7:30 pm

Printworks Ltd., 3850 - 98 Street

Presentation: 8:00 to 9:00 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, October 6, 2008.**

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 370

## Serving Edmonton and Area

### Where Manufacturing Comes Together.

We are pleased to present a one-day seminar on

### Lean Techniques & Implementation - Value Stream Mapping

The topic of Value Stream Mapping was briefly addressed in our previously held introductory seminar on Lean Manufacturing. This upcoming seminar will expand on the fundamentals and implementation of Value Stream Mapping, one of the most important concepts which must be effectively mastered by any company considering going Lean.

Topics included in this seminar are:

- Concepts of Value Stream Mapping
- Value Stream Mapping of small production runs
- Case studies of Value Stream Mapping

We are pleased to announce that Gary E. Loblick will be our presenter for this seminar. Gary was the presenter of our *Introduction to Lean Manufacturing* seminar, and we look forward to having him present again!

**PREREQUISITE SEMINAR: NONE!**

**KNOWLEDGE REQUIREMENTS OF LEAN MANUFACTURING: BASIC**

Missed our seminar on Introduction to Lean Manufacturing? No problem! Basic knowledge of Lean Manufacturing is required for this seminar, but, if you have attended any presentations or taken any courses on Lean Manufacturing your knowledge base will be sufficient. If you have not, please read the book "*Lean Thinking*", Womack and Jones, Free Press Publishing. This was presented to the participants of our last seminar, and is available through bookstores, or through the Northern Lights Chapter of the SME. Please contact Rick Chetram, [rickc@nait.ca](mailto:rickc@nait.ca), if you require a copy.

Lean Manufacturing is an operating strategy that seeks to maximize operational effectiveness by creating value as seen through the eyes of the customer. Lean production is aimed at the elimination of waste in every area of your operation including customer responsiveness, product development, supplier networks, and operations management.

November 28, 2008 (Friday)

Northern Alberta Institute of Technology (NAIT)

Shell Manufacturing Center, Room B107/B117

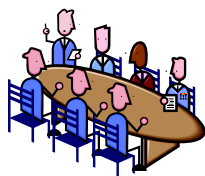
Main Campus, Edmonton

	Before October 31, 2008	November 1 thru November 15, 2008
SME Members*	\$295	\$345
Non-Members	\$345	\$395
Students	\$100	\$150

To register visit <http://chapters.sme.org/370/seminars>

\*: Member pricing is extended to members of other technical societies such as ASM, AWS, NACE, etc

## Northern Lights Chapter Executive 2008



### Chair

Curt Stout, [curt.stout@ualberta.ca](mailto:curt.stout@ualberta.ca)  
University of Alberta, 780-492-6927

### Chair-elect

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

### Secretary

Open Position

### Treasurer

Bud Childs, [bud.childs@printworksprint.com](mailto:bud.childs@printworksprint.com)  
Printworks Ltd., 780-702-1874

### Vice-Chair, Membership

Dave deJong, [caprica@shaw.ca](mailto:caprica@shaw.ca)  
Caprica Consulting, 780-819-7049

### Vice-Chair, Technical Programming

Sherif Labib, [sherifl@wellquip.ca](mailto:sherifl@wellquip.ca)

### Vice-Chair, Special Projects

Rick Chetram, [rickc@nait.ca](mailto:rickc@nait.ca)  
NAIT, 780-471-8739

### Newsletter Editor

Gordon Affleck, [gordon.affleck@woodgroup.com](mailto:gordon.affleck@woodgroup.com)  
Wood Group Pressure Controls, 780-450-3401

### Capstone Committee Chair

Jordan James, [jjames@stellartontech.com](mailto:jjames@stellartontech.com)  
Stellarton Technologies, 780-481-4234

### Mailing Address

Society of Manufacturing Engineers  
Northern Lights Chapter #370  
5328 Calgary Trail South  
Box 1333  
Edmonton, AB T6H 4J8



# The Northern Lights Highlights

## SME Northern Lights Chapter 370 September Technical Presentation

On September 10th, 2008, Dave deJong presented an introduction to Lean Manufacturing. The presentation discussed the basic guiding principles of lean manufacturing. To further reinforce these principles, Dave had all attendees participate in a hands-on demonstration using Lego building blocks. The hands-on demonstration showed the important differences between mass-production and lean production methods. From this demonstration everybody was better able to understand how the lean approach can greatly improve customer service and quality without the need for large inventories of raw material and work-in-process. This would then lead to less inventory costs carried over in the balance sheet of companies, thus improving the bottom line.

Before the Lean Manufacturing demonstration, Chapter Chair Curt Stout presented the Smart Car Sculpture Project. The Smart Car Sculpture Project is a joint effort between the Northern Lights Chapter, U of A, NAIT, Industry, and individuals to create a hands-on display revealing the inner workings of the Smart car. Please read the following pages to learn more about the Smart Car Sculpture Project.



**Attendees participating in the production demonstration  
using Lego building blocks.**

## Thank you...

for reading the *Northern Lights*. If you are interested in presenting at a SME dinner, please contact Sherif Labib at [sherifl@wellquip.ca](mailto:sherifl@wellquip.ca). 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.**

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## 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

SME Northern Lights 370  
5328 Calgary Trail South  
Box 1333  
Edmonton AB T6H 4J8  
Phone: 780.492.8927  
E-mail: [cu.ft.stout@uslberta.ca](mailto:cu.ft.stout@uslberta.ca)  
Website: <http://chapters.sme.org/370>



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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.