SOCIETY of MANUFACTURING ENGINEERS
TORONTO CHAPTER 26
JUNE 2002

http://www.sme-toronto-26.org/

Panel Discussion: Rapid Prototyping: State of the RP Industry in Canada 2002

Centennial College, Progress Campus

Room E1-29 , 941 Progress Avenue, Scarborough, Ont., M1G 3T8

Wednesday June 5, 2002

Refreshments 6:00 pm, Panel 7 - 9 pm

Rapid Prototyping technologies have firmly established their presence in product design & manufacturing, and are edging their way into other sectors such as medical, science, art and architecture.

A spectrum of Rapid Prototyping and Rapid Tooling technologies is available, ready and proven in the field. They enable a new approach to product design and the design process.

The latest R&D efforts in this field focus on fully functional parts through new materials and new and improved, non-conventional or combined methods to produce tooling.

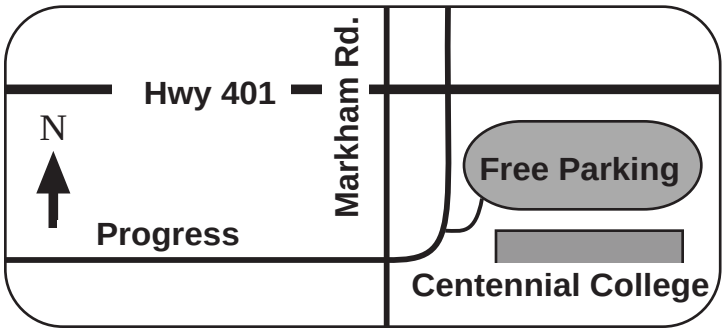
Our eyes are ultimately on the direct, tool-less product. After all, can we deny a spot in our hearts to the Star Trek Replicator? You may be surprised to hear that “direct parts” are being used already, in space programs and racing cars for example. They are not produced like in Star Trek, of course. Replicator remains a dream. Or does it? Will the truly "Rapid Part" processes emerge in the near future? Are we as an industry ready for it? How can Canadian educational institutions prepare our current work force and generations to come for the new thinking paradigm? What is the government doing to help?

The future, however, although exciting, is not the main theme of our RP Panel Discussion. The here and now is!

How is our Canadian Industry taking advantage of the existing RP&T technologies? Are YOU? If not, what is holding you back? If yes, are you doing the best you can? What is missing?

Our distinguished panel combines industry, education and government research & development.

Join us to discuss the current state and the future of Rapid Prototyping and Manufacturing in Canada.



DIRECTIONS:

Centennial College is conveniently located just off Highway 401 at Markham Road. Take the Markham Road exit south off the 401, go to the first stop lights, and turn left (east) on Progress.

Progress winds its way up the hill to another set of stoplights. Turn right at the lights into Centennial College. Building Section E is towards the east end of the College, and room E1-29 is on the first floor.

Register today for this event with Loris Giuricich 416-448-2225, Lgiurici@celestica.com
or
Ken Kogej 416-274-2540, Ken-dante.msn@attcanada.net

$20 for members (CMMA & CTMA included), $25 for non-members and $10 for students

Vesna Cota

CAD/CAM/RPM Specialist, Tyco Electronics

vcota@tycoelectronics.com

Moderator and panelists are listed on page 2.

Our theme for the year: FUTURE GROWTH AREAS IN MANUFACTURING

RP Overview June 5: Moderator and Panelists

MODERATOR:
Vesna Cota, CAD/CAM/RPM Specialist, Tyco Electronics Canada Ltd., Canadian Development Engineering, Global Automotive Division, phone (905) 474-5541, vcota@tycoelectronics.com

PANELISTS:
Patrick Burke, Chair, Automation and Mechanical Engineering & Mathematics Centennial College. PBurke@centennialcollege.ca

Joseph Pegna, Joseph Pegna, Ph.D., Associate Professor, Canada Research Chair in Freeform Fabrication , Director, Freeform Fabrication Laboratory Department of Mechanical Engineering, Section Fabrication, University of Montreal. joseph.pegna@polymtl.ca

Peter Welch - Partner with the firm Hetherington Welch Design, located in Richmond Hill, a consulting Industrial design group with 17 years experience in complete product development, rapid prototyping, tooling and injection moulding. email: peter@hwd.ca

Millan Yeung, Group Leader, Shape Transfer Processes, Integrated Manufacturing Technologies, Institute National Research Council Canada. http://www.nrc.ca/imti/

Some RP equipment manufacturers and service providers will attend as well.

Check out the pages on our web site re this stimulating and informative event for more information and biographies of the participants. www.sme-toronto-26.org

Your Company Flyer Bulletin Enclosure Opportunity

Chapter 26 is offering companies the opportunity to enclose their company flyer in our monthly Bulletin mailing. The piece to be included must meet the following criteria:

- 500 folded flyers ready for stuffing into a #10 envelope supplied by 1 week after copy deadline.
- Is of interest to our membership - is manufacturing oriented (we don't want life insurance or travel brochures)
- Weighs less than 3 sheets of 8.5 x 11 in 20 lb bond paper. Larger items could be negotiated.

We reserve the right to reject pieces we do not feel to be consistent with our professional goals and objectives. Our mailing list is currently over 400 manufacturing professionals. The current price is $300 per issue. We reserve the right to change any of the above items without prior notice. For more information please get in touch with Ken Kogej, 416-274-2540 or Ken-dante.msn@attcanada.net

THIS SEASON: Topics & Schedule 2002

Wednesday, June 5. Our Annual RP Overview and Update Panel, 6:30 pm Centennial College, Progress Campus, 941 Progress Avenue, Toronto. 6:00 pm refreshments and video, 7 - 9 pm, Panel Discussion

Executive Meetings

EXECUTIVE MEETINGS 2002 6:30 pm start:
Thursday, May 30, 60 Burnhamthorpe Park Blvd. 6:30 pm
Thursday, June 13, 115 Brookside Ave., 6:30 pm
For additional information on the next meeting phone 416-274-2540 or email: Ken-dante.msn@attcanada.net or gheintzman@sympatico.ca

The SME Chapter 26 Bulletin

The SME Chapter 26 Bulletin is published eight or nine times a season by the Toronto Chapter of the Society of Manufacturing Engineers (SME). The SME provides support for people and industries in manufacturing by providing opportunities for networking, professional development and technical information.
Headquarters of this 70 year old professional society is in Dearborn, Michigan. For more information or to join phone or email the Chapter Chair, Ken Kogej, at 416-274-2540 or Ken-dante.msn@attcanada.net or Headquarters at 1-800-733-4763. Talks and tours put on by the Chapter are listed on the Chapter web site at www.sme-toronto-26.org Headquarters web site is at www.sme.org

We are always seeking:

VOLUNTEERS to help run the Chapter. Please get in touch with Joe Benedetto, if you can spare a little time, 416-267-2102 or jrbene@attglobal.net

PROGRAM/TALK/TOUR SUGGESTIONS. We are in the planning stages for next year's programs and tours and want to offer talks and tours of interest to our members. If you have a suggestion please get in touch with Ken Kogej, 416-274-2540 or Ken-dante.msn@attcanada.net or Amalesh Chakraborty, 416-894-5168 or CAmalesh@aol.com

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Our continuing thanks to Professor Mark Fox, U of T, for hosting the Chapter's web site on his server at http://www.novator.com

Review: Fanuc Tour

Great tour!

Fanuc went all out to do a great job for us. They had more than a dozen highly qualified people on hand to make us welcome and answer all our questions. The facilities and refreshments were excellent and interesting.

But the real strength of the tour were the presentations and the demonstrations. The presentations showed how robots were changing and improving. Fanuc supplies 175 models for a wide variety of applications. Some have much more horse power and load capability than others. They showed us how they approach selection and justification of robotic systems. The keys are sustained speed and quality combined with the flexibility to process changing parts and materials.

They showed us the ease with which Robots can be combined with other robots and processes to create complete solutions. For example a material handling system can be interfaced with a welding robot which in turn is cooperating with the welding effector and the welding current controller. The parts are detected by the current rising in the welding wire. From then on the current is controlled by the welding controller which in turn controls the speed of the weld wire feeder.

Fanuc has business partners for some specialized applications. One example is LASER trimming of metallic and plastic parts.

I was impressed by the range of robots. They showed us robots which could handle 6kg up to hundreds of kg's. Travel varied from 1m to 10m. They showed us welding robots (Spot and arc), painting, and material handling (packing, pick and place, and palletizing). Sensors can be added to improve all processes. Sensors such as vision, proximity, probes, scanners and anything else you can think of. When 'way out' ideas were suggested they invariably replied "Yes we could do that".

They said that they knew of no customer of theirs who laid off people when they installed robots. However we all know that robots are justified based on productivity. Therefore the people being "displaced" must be in a competitor's plant. It seems that if your plant could benefit from a robot it would be a good idea to do it before your competition does it so that the displaced people are in their plant and not yours.

Great tour! Thank you Fanuc.

Fanuc Robotics Canada Ltd., 905-812-2300

George Heintzman
gheintzman@sympatico.ca

Note: The Joseph R. Benedetto Scholarship

The Application Form for the Joseph R. Benedetto Scholarship is now available on the chapter web site at **www.sme-toronto-26.org.**

Bulletin Copy Deadlines

NOTE: Send material to Jenny Ono Suttaby at jono@jentekcompany.com by the following dates for inclusion in the upcoming Chapter Bulletin:

September 2002 Issue: August 13

Addressing Global Warming Will Boost Jobs

On April 24, 2002, The Toronto Star reported the release of a study by the Tellus Institute, Boston, Mass, which concluded that the Kyoto protocol, if implemented, will create jobs.

"The study concluded that such policies would lead to a net economic saving of $4 billion across the economy, peaking at $1.6 billion per year, or $47 per capita in 20012," the Star said.

"The plan would include national programs and incentives to make buildings and vehicles more energy-efficient, improve urban transit and an emissions-trading system within the electricity sector," the Star reported.

"It would create 52,000 jobs because consumer spending would be directed away from fuel and electricity and toward other goods, services activities and investments," the Star continued.

The study was commissioned by the David Suzuki Foundation and the World Wildlife Fund, and was released on April 23, 2002.

Jenny Ono Suttaby
Past Chair
jono@jentekcompany.com

Did you know?

As a member, you are aware of the many common membership benefits that SME offers. However, did you know that many other benefits do not come across to you in your day-to-day networking activities within SME? You can visit the SME website (www.sme.org) to find out more information about these benefits. Some of the less commonly known membership benefits are,

A. **Personal Productivity Library CD Series**. This is a fully searchable archive of materials including Manufacturing Engineering and Forming & Fabricating magazines, supplier directories, technical papers and more.

B. **SME Resume Database**. This is used by hundreds of companies to find experienced manufacturing professionals. This is an ideal place for members to post their Resumes.

C. **Manufacturing Jobs Database**. Employers and Job seekers both benefit from this database as employers post job positions and candidates look for job opportunities.

D. **Career Mentor Program**. This is a self-assessment tool containing a library of over 300 skills grouped into 35 key competencies and 6 major clusters. This is a good resource for checking your up-to-date skill levels. If you are an employer, you can administer a test for assessing the skill levels of your employees.

E. **SME Education Foundation / Scholarships**. SME offers up to an $80,000 (USD) full-ride scholarship annually to members' children or grandchildren.

F. **SME Group Discount Rates**. SME members qualify for many special rates on credit cards and group auto, health, and life insurance.

G. **Life Member Program**. Once a member's age and number of years of membership equals 100, that member no longer has to pay any membership dues.

H. Special Membership Rates. Unemployed members can apply for a special reduced membership rates.

NB: Please -update Your Information

Please check that your information in the SME headquarters database is correct!

Phone (toll free): 1-800-733-4763. Website: http://www.sme.org/
You can renew your membership on line by clicking on "Renew Membership" in the Member Services section.