

Polytechnique Montréal and Seven Partners Inaugurate the Largest NSERC Research Chair in Coatings and Surface Engineering

Polytechnique Montréal, the Natural Sciences and Engineering Research Council of Canada (NSERC) and seven industry partners inaugurated the NSERC Multisectoral Industrial Research Chair in Coatings and Surface Engineering (MIC-CSE).

As the country's second-largest industrial research chair awarded by the NSERC, all fields combined, the MIC-CSE will benefit from a budget of \$5.35 million over five years from NSERC (\$2.6 million), and from seven partners (a total of \$2.75 million): Essilor, Hydro-Québec, Guardian Industries Corp., Pratt & Whitney Canada, Velan, JDS Uniphase and the Canadian Space Agency.

"Molecular millefeuilles" for Clean Processes

Research will focus on developing a new generation of non-polluting manufacturing technologies for nanostructured coating materials. These processes make it possible to add successive layers of nanometre-thick films and thicker coating architectures using various materials (metals, ceramics, polymers, nanoparticles or others) on to flat surfaces as well as on three-dimensional objects. Far from being limited to corrosion and wear protection, these "molecular millefeuilles" aim to confer a wide range of functional characteristics to the surfaces: anti-glare, anti-erosion, anti-fog, but also self-controlled (or "smart") optical reflectivity or emissivity, luminescence, sterility and more.

"The possible functionalities are limited only by our imagination!" said Ludvik Martinu, MIC-CSE Chairholder and Professor in the Department of Engineering Physics at Polytechnique Montréal and current SVC President. "The technologies we are developing will help us avoid relying on processes that are harmful to the environment, such as those using solvents. This is in response to a sustainable development issue that's becoming crucial for businesses. It will also help explore new avenues for energy saving and for new high-value-added products."

A Place for Idea Exchange, Synergy and Training


The scope of collaborations within the MIC-CSE Chair reflects the immense variety of industry fields in which multi-layer coating technologies can be applied. The research carried out at Polytechnique will improve the sustainability and effectiveness of materials in sectors as varied as aerospace, energy and manufacturing, as well as optics, photonics and space exploration.

"The MIC-CSE Chair aims to be above all a place to stimulate and exchange ideas, where partners working in very different areas but sharing common concerns can benefit from top-notch expertise," said Professor Martinu.

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(From left to right): Martin Bracamonte, Guardian, Réjean Girard, Hydro-Québec, Gil Perez, Velan, Christophe Guy, Polytechnique, Janet Walden, CRSNG, Darius Nikanpour, ASC, Ludvik Martinu, Polytechnique, Jean-Luc Schuppiser, Essilor, Jolanta Sapieha, Polytechnique, Frederic Lefebvre, PWC, Robert Sargent, JDS Uniphase




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"This openness strengthens the potential for collaboration and fosters the creation of new areas to explore."

For his part, Polytechnique's Chief Executive Officer Christophe Guy stated: "This synergy between collaborators from various realms creates a particularly stimulating environment for the new generation that is being educated here."

Launched more than 25 years ago, research in the field of advanced materials and nanotechnologies at Polytechnique brings together some 20 researchers today, including about half a dozen in the specific field of surface engineering. Mr. Guy continued: "Thanks to top-tier equipment and the best specialists in the field, this research area is attracting excellent recruits to Polytechnique. Over the next few years, the Chair intends to train more than 15 master's and doctoral students and post-doctoral fellows, a valuable cohort for Canadian industry."

To read more about the NSERC Research Chair, visit <http://www.polymtl.ca/carrefour/en/article.php?no=3976>

New Product Announcements

are accepted for publication in the *Bulletin* from 2013 display advertisers.

The *Bulletin* is published in the Spring, Summer and Fall of each calendar year. Reserve your space in our Spring 2013 issue by January 11.



The 2013 SVC Media Kit is inserted inside this issue of the *Bulletin*.

Discounts are available for ads placed in multiple issues of the *Bulletin* and the annual TechCon Exhibit Guide.

Contact svinfo@svc.org or call 505/856-7188 for more information on advertising opportunities with the Society of Vacuum Coaters.

Celebrate 20 years of the Sugerman Awards with us



Nat Sugerman

The SVC and the Sugerman family will celebrate Nat Sugerman and the beginning of the third decade of presenting the Nathaniel H. Sugerman Award at the 2013 TechCon in Providence.

This event will take place in the majestic and historic Biltmore Hotel in Providence, a short distance from the Rhode Island Convention Center and Westin Hotel, at 6:00 p.m. on Sunday, April 21, 2013. We encourage you to arrive in Providence early enough to attend this event, and to make the 5-minute walk to the Biltmore.

Nominations for the 2013 Nathaniel H. Sugerman Award and Mentors Awards are Requested from the SVC Membership

In 1992 the Nathaniel H. Sugerman Memorial Award was established to commemorate the enduring efforts of Nat Sugerman (1922–1991) in founding, nurturing, and supporting the Society of Vacuum Coaters. The purpose of the award is to encourage and recognize distinguished achievement in one or more of the following endeavors: For distinguished services to SVC, for noteworthy educational contributions to the vacuum and/or vacuum coating industry, for outstanding technical achievement, and/or for creative innovation in the development of a product or process pertaining to the vacuum industry. The Sugerman Awardee receives a \$1000 prize. The Awards Committee selects the Awardee from nominations provided by the SVC Membership.

The SVC Mentor Award recognizes outstanding contributions to the development of vacuum coating technology through scholarly activities and education, through participation in the SVC, or achievements in Science and Technology of Vacuum Coatings. Nominee candidates include people who teach, write books or review papers, or give talks designed to educate, or people who, through their professional activities, teach others about Vacuum Coating Technology; non technical SVC and Industry contributors – people who have been instrumental in the SVC as BOD members and/or officers, or have made major influences on the programs of the SVC, or have made significant contributions to the industry through their businesses; and people who have made major original contributions to the industry through research, invention, and publication. The Mentor Award can be posthumous. Awardees are selected from nominations provided by the SVC membership.

These awards are an important honor for the recipients. Please take the time to consider people who might qualify for these awards and send in a nomination.

A nomination should consist of a short written statement describing the nominee's contributions. Support messages from others are helpful. A description of the requirements for these awards and a list of past awardees can be found at <http://www.svc.org/AboutSVC/Awards.cfm>. Nominations may be sent to jseeser@aol.com, or anyone on the committee. We ask that nominations be submitted by December 31, 2012.

The 2013 Awards Committee is composed of Don McClure, David Glocker, Wolfgang Diehl, Clark Bright, Traci Langevin, and Jim Seeser. Past Mentors can be nominated for the Sugerman Award. Current Awards Committee members cannot be nominated for either award.

SVC Membership Elects Treasurer



Michael Andreasen

Michael Andreasen, Vacuum Edge (707/455-7321; michael.andreasen@vacuumedge.com), was re-elected as Treasurer to serve the next term of 2013-2015.