

## 2011/12 PROGRAMME: ANNUAL MEETING, DINNER. & LECTURE

### Canadian Space Robotics and Technology Transfer



**SPEAKER**

**Dr Christian Sallaberger Ph.D.** Vice-President & Director, Space Exploration, MDA

**DATE:**

April 24<sup>th</sup>, 2012. Annual Meeting (*for IMechE members only*) starts at 6:00 pm\*, Meal at 6:30 pm and lecture at 7:30pm.

**COST:**

\$25

**WHERE:**

Novotel, 3 Park Home Avenue, North York M2N 6L3

**DIRECTIONS:**

See map overleaf

**REGISTRATION:**

Please contact Tony Hamilton at [tony.hamilton@kinectrics.com](mailto:tony.hamilton@kinectrics.com) or (647) 938-2431 by 17 April 2012

*\*Please send nominations and offers to volunteer for 2012/2013 committee positions to Phil Apperly, Honorary secretary, at [hon-secretary@imeche-ccb.org](mailto:hon-secretary@imeche-ccb.org) or (905) 936-2855, ideally by April 3<sup>rd</sup> 2012.*

**Abstract:**

MDA is the acknowledged world leader in space robotics. Dr. Sallaberger will give both an overview of the past, present and future space robotic work at MDA, as well as a look at how technology transfer to and from terrestrial markets is keeping this industry vibrant.

The recognized symbol of Canadian space robotic heritage is the famous 'Canadarm' which was used for 3 decades on the Space Shuttle. This expertise led to the current advanced MDA robots assembling and maintaining the International Space Station. MDA has also recently sent a robotic weather station to Mars, which has made some startling discoveries. With a look to the future, projects such as Mars robotic rovers, human lunar rovers, or robotic asteroid sample return missions, all of which are in development at MDA, will be highlighted.

This space robotic work has developed some very innovative robotic technologies that MDA has begun to apply in several interesting terrestrial programs. Underground mining robotics, nuclear power plant inspection robots, and robotic brain surgery are three current areas where MDA is leveraging this robotic technology that was originally developed for Canada's space exploration programs. These terrestrial projects will be explained, as will the business benefits of spinning space robotic technologies into terrestrial markets, and vice-versa. See over...

## ABOUT OUR SPEAKER



Dr. Christian Sallaberger is a Vice President of MDA, Canada's largest space company, and is responsible for Space Exploration, Advanced Systems and Business Development. Prior to joining MDA in 2000, he worked for the Canadian Space Agency where he held a variety of positions including Manager of Strategic Development and Manager of Space Exploration. He has also worked for the European Space Agency in the Netherlands, and for IBM in Canada. He has numerous technical and programmatic publications and a patent.

Dr. Sallaberger obtained degrees from the University of Waterloo in Canada, the University of California at Berkeley, and received his doctorate from the University of Toronto in Aerospace Science and Engineering. He was appointed a lifetime member of the International Academy of Astronautics in 2000.

He is also a graduate of the first class of the International Space University, held at MIT in 1988, and currently is vice-chairman of the ISU Board of Trustees and member of the ISU faculty. He is an adjunct Professor of Aerospace Science and Engineering at the University of Toronto. He is also a director of the International Lunar Observatory Association as well as a trustee of the U.K. based International Institute for Space Commerce.

For several years he represented the Government of Canada on the International Mars Exploration Working Group (IMEWG), and was a member of the Japan-Canada Space Panel. He sits on the boards of several corporations and charitable foundations, speaks a number of languages, and is currently the chairman of the Space Exploration Committee of the International Astronautical Federation.

Dr. Sallaberger is married with three children.

**DIRECTIONS:** The hotel is off Yonge Street, north of Sheppard. The meeting room for IMechE should be noted in the lobby and parking at the Hotel will be validated by an additional ticket issued in the meeting room during the evening.

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GPS.

N 43° 46' 9.07" W 79° 24' 47.03"

**Note:** Novotel is accessible by TTC subway. The subway station is NORTH YORK on the Yonge Line.



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