



INDIA CANADA FRIENDSHIP CIRCLE

...forging close ties among Canadians with an interest in India

The ICFC is excited to announce the Next Lecture Event in 2024:

“RADARSAT for early warning monitoring of landslides affecting critical transportation corridors in the eastern Himalayas”

Presented by Vern Singhroy, President, EOSPATIAL Inc. and James Ikkers, Senior Policy Advisor, Natural Resources Canada

**on Sunday, May 26, 2024 (15:00 – 17:00)
at Rockliffe Park Community Centre Hall,
380 Springfield Road**

Following our virtual lectures held during the pandemic, we look forward to seeing everyone again in person! Registration at the door is \$20 per person. Tea and Snacks will be served.

**Please register in advance (by May 22nd)
at the following link: <https://icfc.ws/register/>**



Dr. Vernon Singhroy
President, EOSPATIAL Inc.



Mr James Ikkers
Senior Policy Advisor, NRCan

Synopsis of Lecture: How does climate change affect landslide hazard and risk? Climate change is increasing these risks. Wetter winters, drier summers, and extreme weather can affect stability of slopes, increasing potential for erosion, avalanche and landslide. Impacts can be catastrophic to people, property, and critical infrastructure like roads and power lines. Canada is not immune to these effects as it is warming faster than the world as a whole — at more than twice the global rate — and the Canadian Arctic is warming at about three times the global rate. (Source: Natural Resources Canada). This lecture will present the stunning images and experience of a Canadian scientist studying landslides in northern India using Canadian technology. Recent devastating earthquakes and flash floods are seriously affecting the population and critical infrastructure in the Himalayas. The Canada-India space cooperation program focused on the uses of Canadian RADARSAT images to monitor critical transportation routes in the eastern Himalayas, in the District of West Bengal. This study used 20 Canadian RADARSAT-2 images acquired over 18 months to assist in developing an early warning landslide monitoring system. In this region there are approximately 3000 active landslides, affecting the strategic transportation corridors such as the Darjeeling Himalayan Railway (DHR)) and National Highway (NH-55) which connect the scenic towns and tea plantations.

This Canadian methodology will be used by the new NISAR satellite to be launched by Indian Space Agency (ISRO) and NASA Jet Propulsion Laboratory (JPL) in early 2024.

About the Speakers

Prof Dr. Vernon Singhroy, P. Eng is the President of EOSPATIAL Inc, in Ottawa. <https://eospatial.com/>. He provides strategic satellite image intelligence, advice, training, and image interpretation services. He is an internationally recognized expert on remote sensing applications providing advice and training to governments in over forty countries. He was the chief scientist of the Canadian Space Agency billion-dollar RADARSAT Constellation Mission (RCM), which was launched in June 2019. Dr. Singhroy has published 250 papers and maps in scientific journals, proceedings, and books. He was the editor-in-chief of the Canadian Journal of Remote Sensing, and he is the co-editor of seven books, including of the Encyclopedia of Remote Sensing. In January 2021, Springer press published his book on *Advanced Remote Sensing for Infrastructure Monitoring*, with over 9000 current downloads. Professor Singhroy received the prestigious Gold Medal Award from the Canadian Remote Sensing Society, and the Queen Elizabeth Diamond Jubilee Medal for his contributions to Canadian and international remote sensing applications and education.

James Ikkers, Senior Policy Advisor, Geological Survey of Canada, Natural Resources Canada (NRCan). Since 2008, he managed relationships with science-based organizations in Asia-Pacific to pursue areas of cooperation concerning geospatial technology (geomatics), remote sensing and geosciences, and was also responsible for supporting and expanding Canadian commercial engagement. In his current position at the Geological Survey of Canada, James is responsible for contributing to the success of the Minerals Geoscience Program and managing domestic and international cooperation in the Earth Sciences with allied government partners..

About India Canada Friendship Circle

India Canada Friendship Circle (ICFC), a non-profit Canadian organization, operating in Ottawa since 2004 and conducting lectures by prominent speakers, encourages dialogue on India and Canada in a non-religious, non-partisan and harmonious environment. The words "friendship" and "circle" in its name, convey an explicit desire to forge and maintain close ties among Canadians with an interest in India.

ICFC's mission is to promote learning and an intercultural relationship between India and Canada in the areas of philosophy, history, literature, economy, diplomacy, the arts and sciences through prominent speakers.

Please visit our website: <http://icfc.ws>