

Immersive Geoscience to Be Key Topic at Virtual Geoscience Conference 2018



The Virtual Geoscience Conference (VGC) series is coming to Kingston, Canada, from 23-24 August 2018. The focus of the conference series is on innovative research and development in close-range remote sensing and computer visualisation applied to the geosciences. The series is all about innovative research and applications of geomatics, computer vision, graphics, gaming and virtual and augmented reality to a wide range of geoscience subfields, including geological mapping, geomorphology, geohazards, glaciology, volcanology, tunnelling and mining. This year's meeting focus is on the theme of immersive geoscience and novel developments in virtual and augmented reality.

The broad focus of the conference series allows geoscientists from a variety of subdisciplines to share experience with the latest tools, software, and, technological innovations. This is the third conference in the series, the previous ones were held in Lausanne, Switzerland and Bergen, Norway. This year's meeting focus is on the theme of **immersive geoscience** and the organisers encourage submissions of novel developments in virtual and augmented reality.

3D geological models

Virtual Geoscience tools are impacting geoscience research, practice, and education. Geoscientists are increasingly using 3D geological models in favor of 2D GIS maps to better understand and model the scale and scope of projects, to communicate complex geology and engineering designs to clients, and to easily inform the public on the impact of infrastructure or mining activities on their community. Tools like augmented and virtual reality are allowing new modes of interaction and with geoscience that are **immersive** and intuitive to a wide range audiences. Recently, the use of powerful game engines has converged with geoscience research offering exciting geological process modelling opportunities. Additionally, an increasing number of close range remote sensing tools are being used to generate 3D geological models and to monitor geological processes. This is an exciting time to meet, share experiences, and explore the latest developments in virtual geoscience.

Data capture technologies

Participants will be offered a variety of social events and learning opportunities. Two short courses will take place on 22 August: a geological field trip exploring the geology of the Kingston area and a course on applying remote sensing to geohazard management. The field trip will take participants to a wide range of geological environments, ranging from high grade rocks of the Grenville Province to recent glacial deposits. The day will end with a relaxed discussion at a local brewery. The short course will introduce and explain the fundamentals of terrestrial laser scanning, photogrammetry, oblique aerial photogrammetry (multiple platforms), airborne laser scanning, multibeam SONAR, and InSAR. Case studies from both the transportation and mining industry will be presented. The conference will also include an icebreaker reception on the evening of 22 August, and a dinner on 23 August.

Researchers and industry members are encouraged to submit their latest virtual-geoscience-themed innovations, developments, applications, and case studies. Two-page extended abstracts of 300-500 words including up to two figures may be submitted up until 15 March 2018. Abstract submission, registration, and more information on the conference [can be found here](#). Updates and news will also be available on twitter (@Virtual_Geo_2018).

[Read the report of the 2016 edition of the Virtual Geology Conference here.](#)