The Geological Society

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**Glossop Medal:**
**Prof. John Harrision**
Department of Civil & Mineral Engineering, University of Toronto

**Glossop Award:**
**Carla Martin-Clave**
Engineering Geologist, Jacobs

**Date:**
**23rd November 2022**

**Free attendance to both Glossop Medal and Award lectures held in RI.**

**Tickets required for the 25th Glossop Award Celebration held in Burlington House**
**TICKET LINK**

**Venue:**

**Glossop Award and Lecture**
Royal Institution
Faraday Theatre,
21 Albemarle Street,
London W1S 4BS

**25th Glossop Award Celebration**
Geological Society
Lower Library,
Burlington House,
Piccadilly, London
W1J 0BG

# The 22nd Glossop Medal

**23rd November 2022**

**presented by the Engineering Group of the Geological Society**

**at the premises of the Royal Institution, London.**

## Prof. John Harrison

BSc(Eng), MSc, PhD, DIC, CEng, MICE

### "'Are you sure? An excursion through uncertainty in rock engineering"

*Preceded by the 25th Glossop Award presentation:*

***Carla Martin-Clave – "The role of Engineering Geology in the Energy Transition"***

**Programme:**

**18:00** Pre-lecture Tea/Coffee on the first floor (Royal Institution)

**18:30** Prompt start for Glossop Award/Glossop Lecture in the Faraday Theatre (Royal Institution)

**20:30** Close and move to Burlington House for the 25th Glossop Award Celebration (ticketed) – TICKET LINK

**Synopsis**

Engineering geologists are constantly working with uncertainty in geological conditions and rock properties. But are the techniques commonly in use appropriate for modern rock engineering design approaches, particularly those embodied in codes such Eurocode 7?

This lecture will take us on an excursion through the somewhat murky business that is characterisation and handling of uncertainty in rock mechanics properties for rock engineering design. It will start by examining the obligations that modern design techniques place on the characterisation of uncertainty, and judge how well common approaches satisfy these. As the excursion proceeds, we will encounter approaches that – while new to engineering geology – show great promise for improving the status quo, particularly when supported by astute geological knowledge and understanding. These encounters will allow us to catch glimpses of how the work of engineering geologists could evolve to better support rock engineering design in the future.

For further information, please contact:

Event Convenor: James Todd james.todd@arup.com

# The 22nd Glossop Award and Lecture
# Prof. John Harrison (BSc(Eng), MSc, PhD, DIC, CEng, MICE)

John Harrison is a Chartered Civil Engineer with over 40 years' experience in civil engineering, rock mechanics and rock engineering. He studied Civil Engineering at Imperial College before going into the heavy civil engineering industry. It was during a spell as a design engineer in Hong Kong that he developed the feeling that rock engineering design was a mysterious black art, and this led him to take an MSc in Engineering Rock Mechanics at the Royal School of Mines. After further work in industry, he returned to the RSM as a lecturer in rock mechanics and embarked upon a PhD. Despite a plan to return to industry, he remained at the RSM until 2010 undertaking research and teaching – particularly to the various geotechnical engineering MSc courses at Imperial College.

During this time, he assisted on a number of large rock engineering projects for both civil engineering and mining endeavours around the world. These projects covered a wide spectrum of awkward rock types: from extremely weak North Sea reservoir sandstones to copper porphyry in Chile, and took in karstic limestones, weathered granites, argillaceous sandstones, large intensely weathered fault zones and the occasional 'straightforward' material. Throughout this, the feeling that rock engineering design was a black art never left him, but he developed a growing conviction that a better understanding of uncertainty in rock mechanics properties would be key to improving matters.

Following his move to the University of Toronto in 2010 he became heavily involved in the development of Eurocode 7 for rock engineering, and as a result focused his research on the business of understanding rock mechanics uncertainty. It is this that forms the basis of his Glossop Lecture.

**Event Sponsors**

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