

JTC 3 – Education and Training

Report to FedIGS: 7 May, 2025

By: D. Jean Hutchinson, Ph.D., P.Eng., FEIC, FCAE - Chair JTC3

Professor Emerita, Geological Engineering, Queen’s University, Canada

Members of JTC3

JTC3 membership 2024 to 2027			
Chair:			
D. Jean Hutchinson	Queen's University	Canada	hutchinj@queensu.ca
IGS:			
Natália Correia	Federal University of Sao Carlos	Brazil	ncorreia@ufscar.br
Laura Carbone	HUESKER Synthetic	Germany	lauracarbhone86@gmail.com
Chiwan Wayne Hsieh	Department of Civil Engineering of National Pingtung University of Science and Technology (NPUST)	Taiwan	cwh@mail.npust.edu.tw
ISRM :			
Tatiana Rotonda	Professor, Sapienza Universita di Roma	Italy	tatiana.rotonda@uniroma1.it
Vojkan Jovičić	Director, Inštitut za rudarstvo	Slovenia	Vojkan.Jovicic@irgo.si
Ki-Bok Min	Professor, Seoul National University	South Korea	kbmin@snu.ac.kr
IAEG:			
Vassilis Marinou	School of Civil Engineering - Geotechnical Department, National Technical University of Athens (NTUA)	Greece	marinosv@civil.ntua.gr
Ranjan Kumar Dahal	Central Department of Geology, Tribhuvan University, Kirtipur, Kathmandu	Nepal	rkdahal@gmail.com
Kuroschi Thuro	Department for Civil and Environmental Engineering, Technical University of Munich	Germany	thuro@tum.de
ISSMFGE:			
Gretchen Bohnhoff	Civil & Architectural Engineering & Construction Management, Milwaukee School of Engineering	USA	Bohnhoff@msoe.edu
Michele Calvello	Civil Engineering, U of Salerno	Italy	Michele.Calvello@gmail.com
António Topa Gomes	Civil Engineering, U of Porto	Portugal	atgomes@fe.up.pt
At large:			
Martin Brook	Associate Professor, University of Auckland - IAEG	New Zealand	m.brook@auckland.ac.nz
Eleni Gkeli	Technical Director Engineering Geology, Stantec - ISRM, IAEG	New Zealand	Eleni.Gkeli@stantec.com
Christoph Kraus	Senior Engineering Geologist, Beca - IAEG YEG	New Zealand	Christoph.Kraus@beca.com
Talia Burke	Associate Professor at Stellenbosch University - Education Committee GIGSA - IGS	South Africa	taliaburke@sun.ac.za
5			
6			

There are 2 additional spots available for those interested in joining JTC3. Two are “at large”. It would be very good to have additional members from Latin America, Asia or Africa. We are very pleased to have 40% women on the committee.

Please send contact information for any potential nominees to Dr. Jean Hutchinson – hutchinj@queensu.ca

Mission Statement

The mission statement was discussed and revised. The new version was unanimously approved by vote by the Committee Members.

JTC3 is a Joint Technical Committee on Education and Training of the Federation of International Geo-engineering Societies (FedIGS) representing the International Society for Rock Mechanics and Rock Engineering (ISRM), International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), International Association for Engineering Geology and the Environment (IAEG), and International Geosynthetics Society (IGS).

The goal of JTC3 is to contribute to broad cooperation between international geo-engineering societies and their members in teaching, training and outreach. JTC3 supports education with a focus on academic educators, graduate and undergraduate students, and a focus on industry to support professional development. Linkages between academia, industry and government are enhanced by collaborative technical and professional training opportunities and materials for all career levels.

Upcoming JTC3 Workshop

JTC3 and JTC1 are pleased to announce that we are supporting and will be participating in a joint Workshop to be held in Cookstown New Zealand in 2026 (April 27 to May 1).

<https://landsliderisk.nz/>

The local organizing committee includes an exceptional group of people, chaired by Ross Roberts. The overarching objective of the workshop, entitled “Landslide Risk Assessment, Communication and Geo-education”, will be to bring together technical work on landslides and public communication into one venue. Conference field trips, professional training workshops, and a post conference field school for early career professionals are all being organized, to complement the technical sessions. The IAEG will hold the early year Executive Committee meeting at this Workshop. Additional details from Ross are included as Appendix A to this report.

There is strong support for collaboration with the ISRM Congress to be held in Korea in 2027, perhaps as a workshop, course and/or technical session. Dr. Ki-Bok Min is chairing that conference organization committee and is a member of JTC3.

<http://isrm2027.website.or.kr/html/> Additional details about this proposal are included as Appendix B to this report.

Discussion of Committee Activities

After a long period of relative quiet, JTC3 is being reinvigorated. The Committee are currently focused on developing the web page, hosted and created in cooperation with the IAEG, and establishing the top priority Activities during our term (2024 to 2027, inclusive).

The committee met during Q1 and Q3 of 2024. We are meeting on May 7 and 8th, 2025.

Our highest priority item during the current meetings is to establish sub-committees to work on the activities of highest importance to the group. The details of the prioritization work are

included below, and represent votes by ¼ of the IGS members (4), 2/3 of the ISSMGE members (3), and all of the IAEG (6) and ISRM (3) members.

		Total	IGS	ISRM	IAEG	ISSMGE
1	Discuss, develop and advance university education and professional training in the FedIGS societies.	7	0	1	4	1
2	Encourage collaboration between educators and trainers in the geoengineering disciplines.	4	0	2	1	1
3	Interact with related committees of ISSMGE, ISRM, IAEG, and IGS.	6	0	0	4	2
4	Contribute to the International Congresses of ISSMGE, IAEG, ISRM and IGS.	6	1	2	3	0
5	Foster and organize Conferences, Symposia and Workshops.	4	0	1	1	1
6	Provide information about education and training in the geo-engineering disciplines as available from sources of the most current technical information. Prepare Guidelines and Suggestions for University Programs in Geoengineering disciplines.	5	1	2	2	0
7	Support organization of training schools and preparation of guidelines and training packages.	6	0	1	3	1
8	Maintain a JTC3 website to make knowledge available to members of the FedIGS societies and the public.	1	0	1	0	0
9	Provide information to pre-university students and teachers about careers in Geoengineering.	2	1	0	1	0
10	Evaluate, with the cooperation of employers, the effectiveness of geo-engineering education, in practice.	2	0	0	2	0
11	Collect and provide linkages to courses / materials in support of attraction and retention of women in FedIGS professions.	1	0	0	0	0
12	Develop and deliver workshops / training for Stakeholder engagement and communication with the public: with focus on resource projects, natural hazard emergency response, etc. In countries where relevant, considering the outcomes of truth and reconciliation processes with first nations / indigenous peoples.	4	0	0	2	1

APPENDIX A: UPDATE ON Joint JTC1/JTC3 Workshop in Queenstown, from Ross Roberts, Conference Chair – via email May 7, 2025

We've got our call out for sponsors, and sold our Platinum sponsorship on the first day! Interest is good, but additional publicity is always helpful so please share our call for sponsors: <https://landsliderisk.nz/sponsorship-exhibition/>

Our programme is looking very exciting. I've attached the current draft for your information. You're welcome to share this. In summary:

- **Sunday/Monday** - IAEG Executive Meeting
- **Tuesday** - Training courses
- **Wed/Thu/Fri** - Workshop conference with days themed:
 - Wed - Data and advanced techniques (covering landslide inventories, InSAR, modelling etc)
 - Thu - Risk to policy (covering assessment of risk and management by policy controls)
 - Fri - Communications, outreach and education (covering training, science communication and disaster response communication)
- **Sat/Sun** - Field trips

We may shuffle these days around, as one of the field trips might need to be mid-week.

Workshops are currently:

- Landslide Watch NZ (focus on research project into InSAR monitoring / warning)
- Landslide databases, inventories and schemas (focus on developing international consistency)
- Landslide Risk Management guidelines (focus on completion of the AGS2007 document update)
- Sliding Lands (focus on research project into rainfall induced landslide hazard / risk)

Panel discussions are currently:

- Career pathways
- Communications in emergencies

Keynotes are currently:

- Introduction to the issues we are trying to solve at the workshop - Jean Hutchinson, Gonghui Wang & Jo Horrocks (moderated by Ann Williams)
- Data or advanced techniques - TBC
- Risk assessment - TBC
- Mitigation policies - TBC
- Risk education / communication - TBC

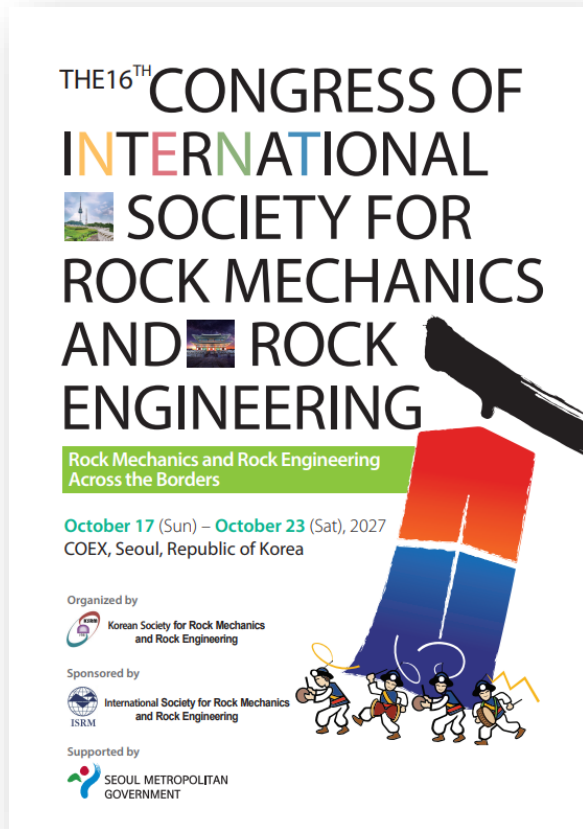
Training courses are currently:

- Media training for scientists and geoprofessionals
- C25 engineering geological models for landslides
- NZGS slope stability modules
- Assessing buildings in emergency landslide response

We're also expecting to have the Science Media Centre present. They'll set up in their own space, and we'll get our delegates to go down and record their presentations while being trained on science communication. This will deliver our aim of improving geoeducation and science communications, while also providing another way for our delegates to present their works without needing to parallel stream the event.

We're also working with LEARNZ to video landslide educational material for age 10-12 students. We hope to use the field trips and interview delegates to form a compelling lesson. You can see more about their material here: <https://www.learnz.org.nz/>

APPENDIX B: PROPOSAL TO HOST JTC3 ACTIVITIES AT THE ISRM CONGRESS IN KOREA, 2027 BY Ki-Bok Min



1. FedIGS JTC3 booth for Geo-Engineering Education & Professional Training

Purpose: Share information related to education and professional training related to Geo-Engineering. This can be a golden opportunity to advertise/expose FedIGS, too with FedIGS event in 2030 in mind.

Activity: Following materials can be displayed on site. Materials can be both hard copy or computer aided.

Target audience: University lecturer, Students and professionals interested in training

Textbooks (traditional and new ones);
Interactive IT materials with computer;
Any tools, prototypes and models;
Reports; Any other useful materials;

Organizer can offer full time staff of this exhibition booth throughout the operation.

2. FedIGS Forum on Geo-Engineering Education and Professional Training

- Purpose: Discuss outstanding issues on education and professional training and share best practice on

training/education

- Date: Either as prior/post event of ISRM Congress or during the ISRM Congress

- ~8 presentations on university education, curriculum and professional training