

Minutes of the Inaugural FOMLIG council meeting

Date: 11 Oct 2024

Venue: Tivoli & Oaks Chengdu at Cultural Heritage Park, Chengdu, China

Attendees: Kok Kwang Phoon (Chair Pro-Tem), Takayuki Shuku (1FOMLIG organiser), Zi-Jun Cao (2FOMLIG organiser), Marco Uzielli (3FOMLIG organiser), Hyun-Ki Kim (4FOMLIG organiser), Jinsong Huang (5FOMLIG organiser), Yuanqin Tao (Secretariat)

1. Name of FOMLIG Council Attendees confirmed the name "FOMLIG Council". The logo is:



2. Mission of FOMLIG council

Attendees confirmed the mission below is adequate for FOMLIG's initial growth.

- a. Advance trustworthy data-centric geotechnics in research, practice, and regulation
- b. Make FOMLIG the key international forum to lead digital transformation in the face of fast evolving technologies
- c. Make FOMLIG a trusted partner to work with governments to develop ML/AI in accordance with national/international AI laws



- d. Sustain and grow FOMLIG
- e. Develop partnerships
- f. Nurture young talents
- 3. Composition of FOMLIG council

Attendees confirmed the names of the first council (1 year term): **Executive board** Chair: Professor Kok-Kwang Phoon, Singapore Vice-Chair: Professor Zijun Cao, China Members: Professor Jinsong Huang, Australia Professor Hyunki Kim, South Korea Professor Takayuki Shuku, Japan Professor Marco Uzielli, Italy Secretary: Dr Yuangin Tao, China **FOMLIG Industry Leaders:** By invitation or application. FOMLIG Scientific Members: By invitation or application. FOMLIG Government Leaders: To be deferred unless there are senior government leaders who are actively promoting ML/AI. FOMLIG Early Career Members: By invitation or application. **FOMLIG Student Members**: By invitation or application.

FOMLIG should encourage broader participation beyond academics. Members recognized that policies and regulations are needed to apply ML/AI in practice. Hence, there are 3 targeted groups: academics, practitioners, and regulators/policy makers.

The near-term activities to be completed before 3FOMLIG, Florence are:

- 1. Launch FOMLIG website
- Develop the roles for industry leaders and scientific members, e.g. lead or supporting organiser for one FOMLIG activity such as hackathon, MLIGD, etc, fund FOMLIG activities, contribute to GEOAI or similar journals, etc.



- 3. Initiate the application process for industry leaders and scientific members. Executive board members can share suitable candidates for consideration by the FOMLIG Council.
- 4. Membership criteria

The executive board should be renewed every year during the FOMLIG workshop. It can be expanded further if there are definite roles for new executive board members. The current board consists of the organizing chairs of past and future FOMLIG workshops.

The term of the Chair and Vice-Chair is 1 year. The Vice-Chair will take over as Chair in the next term.

The membership criteria for FOMLIG industry leaders and scientific members can be found in the application forms. A sample application form for the scientific member has been circulated. Members agreed that it is satisfactory.

- 5. Supporting organisations
 - a. ISSMGE TC304, TC309: KK can invite Michael Hicks (TC304) and Zhongqiang Liu (TC309) to support FOMLIG. This would establish a connection to ISSMGE.
 - b. Journals: KK can invite the editor-in-chief. This would establish a connection to publication platforms.
 - 1. Geodata and AI, Elsevier
 - 2. Georisk, T&F
 - 3. Machine Learning and Data Science in Geotechnics, Emerald Publishing
 - 4. Intelligent Geoengineering, KeAi
 - 5. Intelligent Transportation Infrastructure, Oxford University Press
 - c. Organizations beyond geotechnical engineering

The roles for the supporting organizations should be more clearly developed. Executive board members are invited to suggest supporting organizations.



- 6. Responsibilities of FOMLIG council
 - a. Develop and update application forms and approval of FOMLIG scientific members, FOMLIG industry leaders, supporting organisations, etc.
 - b. Selection of next FOMLIG and MLIGD organiser. FOMLIG and MLIGD can be organized as a joint event (like 2FOMLIG&5MLIGD) or sperate events (like 6MLIGD in ISGSR2025);
 - c. Selection of FOMLIG theme in consultation with FOMLIG organizer;
 - d. Establishment of named lectures (e.g., GEOAI Distinguished Lecture);
 - e. Establishment of awards (and criteria for the awards);
 - f. Proposal of special events, e.g. FOMLIG Hackathon, Student competition...;
 - g. FOMLIG Industry interest group (FIIG)
 - Who can lead?

The top companies that are driving this area (e.g., Kajima (KaTRIS)).

- What are objectives of FIIG? What do we expect from industry?
 - Speakers for lectures
 - New plans and news in industry (e.g., company roadmap, areas where will be invested)
 - Financial support for young talent (e.g., support young talent they may need in their company, support students to attend)
 - Case histories. Case histories can be used to compare the performance of machine learning-based methods with conventional approaches in the design of geotechnical structures. This will effectively demonstrate to industry and regulatory bodies that comparable or superior performance can be achieved with these non-conventional methods in a cost-effective manner. (e.g., NGI)
 - Internships for students

The roles for FIIG can be further developed. Executive board members are invited to suggest further ideas and names of FIIG.

7. 3FOMLIG discussion



- a. Dates 15-17 Oct 2025, Wednesday-Friday
- b. Registration fees assumption 800 Euros for regular participant (early bird 700 Euros), 600 Euros for student (early bird 500 Euros)
- c. Estimated no. of participants at least 85 participants
- d. Possible sponsorship one possibility is to secure support from the key scientific organizations (KSOs) in GEOAI, but KSOs have not been established.
- e. Venue is Florence

8. Next meeting

The second FOMLIG Council meeting will be held in 3FOMLIG, but activities would be carried out by email exchanges.