

2021 International Workshop on Underground Oil/Gas Storage



Second Announcement & Call for Participants

August 6-8, 2021 | Shenyang, China

• *Sponsored by* •



Northeastern University



Chinese Society for
Rock Mechanics and
Engineering

• *Organized by* •



Northeastern University



China Petroleum
Pipeline Engineering
Co., Ltd.



Liaohe Oilfield of China
National Petroleum
Corporation



NEU Institute of Deep
Engineering and
Intelligent Technology



NEU School of Resources
and Civil Engineering



ISRM Commission on
Design Methodology



CSRME Rock Engineering Design
Methodology Sub-society

About IWUOGS 2021



The International Workshop on Underground Oil/Gas Storage (IWUOGS) will be held on August 6-8, 2021 at Northeastern University in Shenyang, China. It had been approved as a CSRME Top-level Forum.

The purpose of this workshop is to promote the state-of-the-art theories and technologies on the design, construction and operation of underground oil/gas storage facilities.

This workshop is sponsored by CSRME and NEU, is organized by NEU, China Petroleum Pipeline Engineering Co., Ltd., Liaohe Oilfield of CNPC, ISRM Commission on Design Methodology, and CSRME Rock Engineering Design Methodology Sub-society, and is co-organized by Sinopec Shanghai Engineering Co., Ltd., China University of Geosciences (Beijing) and Northeast Petroleum University.

The workshop will show the diversity of experiences by inviting experts from China, USA, France and other countries. The outcome of the workshop will contribute the development of theories and technologies related to underground storage in the field of rock mechanics and rock engineering.

Conference Themes

1. Rock mass characterization and geological mapping;
2. Fluid flow and coupling effects in rock mass;
3. Deformation and strength of rock mass;
4. Design methodology for underground storage facilities;
5. Stability and containment of underground storage facilities;
6. Construction and operation technologies;
7. Laboratory testing and field monitoring technologies;
8. Case studies and numerical methods;
9. Advance in underground oil/gas storage technologies.

Conference Form

- Keynote Presentations, Special Presentations (including young scholars and graduate students).
- The conference will select the award of excellent report, excellent paper, and award the certificate.

Committees

Chairman



Xia-Ting Feng



Derek Elsworth



IWUOGS

Advisory Committee

| | | | | |
|-----------------|--------------------|----------------|---------------------|-------------------|
| Leandro Alejano | Ömer Aydan | Sevda Dehkhoda | Shigui Du | Chuan He |
| Manchao He | Vojkan Jovicic | Hongpu Kang | Suseno Kramadibrata | Luis Lamas |
| Shucaï Li | Wenwei Li | Xiao Li | Ming Lu | Laura Pyrak Nolte |
| Jos é Pavon | Michael du Plessis | Resat Ulusay | Aiqing Wu | Xiwei Xu |
| Chunhe Yang | Qiang Yang | Yueping Yin | Yong Zhao | Dewen Zheng |

Chuangbing Zhou

Academic Committee

Chairman



Shutai Guo



Xiaoguang Li



Xiaofei Fu



Philippe Vaskou

| | | | |
|---------------|------------------------|------------------|---------------------|
| Weizhong Chen | Eda Freitas de Quadros | Zhongyuan Guan | Guofu He |
| Changxu Hu | Erik Johansson | Pedro Landeros | Xiaozhao Li |
| Yunpeng Li | Zhejun Pan | Shigang She | Mostafa Sharifzadeh |
| Guowei Ma | Yuzo Obara | Eduardo V. Rojas | Wulf Schubert |
| Shengwu Song | Youhong Sun | Lauri Uotinen | Lizhong Wang |
| Faquan Wu | Caichu Xia | Nengxiong Xu | Zhiye Zhao |

Organizing Committee

Chairman



Zhechao Wang



Jie Xu



Zhongshun Min

Vice-Chairman

| | | | |
|--------------|------------|-------------|-----------|
| Xuejian Chen | Shanpo Jia | Liping Qiao | Bin Zhang |
|--------------|------------|-------------|-----------|

Secretariat

| | | |
|-------------|-------------|----------|
| Jinjin Yang | Yedong Wang | Cheng Li |
|-------------|-------------|----------|

Invited Keynote Presentations

The workshop will show the diversity of experiences by inviting experts from China, USA, France, Singapore and other countries. The experts and their presentation titles are as follows. (to be updated)

| Name & Affiliation | | Presentation Title |
|--|--|--|
|  | Prof. Derek Elsworth The Pennsylvania State University | Scaling of fluid injection triggered seismicity and fault reactivation in subsurface storage and disposal |
|  | Prof. Dewen Zheng Research Institute of Petroleum Exploration and Development | Challenges and development prospects of oil and gas storage in China |
|  | Dr. Philippe Vaskou University of Cergy-Paris | Rock mass desaturation and mega wedge collapse in underground storage caverns: two major and fatal issues |
|  | Prof. Xiaoguang Li CNPC Liaohe Oilfield | Research on the key technology of reservoir construction in depleted oil and gas reservoir |
|  | Prof. Xiaofei Fu Heilongjiang Institute of Technology | Dynamic sealing of oil and gas underground traps |
|  | Prof. Jie Xu China Petroleum Pipeline Engineering Co., Ltd. | New problems in the construction of underground water-sealed caverns |
|  | Prof. Zhechao Wang Northeastern University | Hydrogeological model and application of underground water sealed cavern |

Invited Special Presentations



The workshop will show the diversity of experiences by inviting experts from China, Canada, Sweden and other countries. The experts and their presentation titles are as follows. (to be updated)

| Name & Affiliation | Presentation Title |
|--|--|
| Prof. Jianjun Wang CNPC Tubular Goods Research Institute | Selection, design and evaluation of gas storage string |
| Dr. Junchang Sun Research Institute of Petroleum Exploration and Development | Dynamic characterization of geological body and evaluation method of ultimate bearing capacity of deep complex fault block gas storage |
| Dr. Bin Xu Origin Geomechanics Inc. | Risk based analysis of maximum operating pressure for underground gas storage project: geomechanical perspectives and a Canadian experience |
| Prof. Shanpo Jia Northeast Petroleum University | Study on sealing performance evaluation of closed gas storage with water ring |
| Dr. Jianping Sun China Communications Construction Company Limited (Singapore Branch) | Seepage analysis for oil storage rock cavern in Singapore |
| Pro. Bin Zhang China University of Geosciences (Beijing) | Evaluation of water seal performance of underground water seal oil depot under tidal environment of island |
| Associate Prof. Liping Qiao Northeastern University | Evaluation method and application of seawater intrusion in coastal underground water sealed caverns |
| Dr. Liangchao Zou KTH Royal Institute of Technology | Theoretical analysis of rock grouting: model development and verification |

Conference Report

Participants who report to the conference, please submit the abstract before **July 30, 2021**. The abstract includes the following information: title, name, affiliation, professional title and post, contact information, E-mail, etc. The conference report PPT shall be prepared in 16:9 proportion. Please send the e-document of the abstract to the conference email: UOGS2019@hotmail.com (See Annex 1 for the abstract template.)

Conference Paper Submission

The normal registered participants can choose "**Oil & Gas Storage and Transportation**", "**Journal of Rock Mechanics and Geotechnical Engineering**" and "**Bulletin of Geological Science and Technology**" to submit conference papers.

The content of the paper should meet the theme of the conference, the format of the paper should conform to the format requirements of the selected journal, and the paper is not published publicly. When submitting the paper, please note the words "Conference Paper of 2021 International Workshop on Underground Oil/Gas Storage". After passing the review, it will be published in the main issue or supplement.

Deadline for conference paper submission : October 31, 2021. Please send the submission information feedback form to [**UOGS2019@hotmail.com**](mailto:UOGS2019@hotmail.com) before the submission deadline. See Annex 2 for details.

Note: the Organizing Committee of the Conference only recommends normal registered participants to submit papers. Whether the paper is accepted or not is decided by the editorial department of the journal according to relevant requirements.

Tentative Program

| Date | Time | Contents |
|----------------|-------------|--|
| August 6, 2021 | 14:30-22:00 | Registration |
| August 7, 2021 | 08:30-09:00 | Opening Ceremony |
| | 09:00-12:00 | Keynote and Special Presentations |
| | 14:00-17:30 | |
| August 8, 2021 | 08:30-12:00 | Keynote and Special Presentations |
| | 14:00-15:30 | |
| | 15:30-17:30 | Panel Discussions and Closing Ceremony |

Conference Registration

The time of on-site registration is **14:30 to 22:00 on August 6 (Chinese Standard Time) at 1st floor of NEU international hotel.**

The conference registration fee for the normal participants is 3000 CNY, and for the student is 1500 CNY. The entourage of the normal participants is 800 CNY. The bank card is preferred for payment method.

Note: the conference registration fee includes conference registration, materials, meals, etc., and the accommodation and transportation expenses are at your own expense. Students provide valid certificates when registering.

The organizing committee will make the room reservation per the request of participants. Please confirm the room type and accommodation time before **July 28, 2021**, and fill in the attendance receipt form (Annex 3), which will be sent to the conference email: **UOGS2019@hotmail.com**

Conference Venue



NEU International Hotel

Address: #80, Wenti West Road, Heping Distract, Shenyang, Liaoning, China

Tel: +86 024-8369-0000

Website: <http://www.northeast-hotels.com>

Conference Language

The official language of the conference is **English** or **Chinese**. We recommend that all reports and manuscripts submitted should be in English whenever possible.

Contact

Conference contact: Yedong Wang

Tel: + 86 18202417138

Conference report and paper submission contact: Cheng Li

Tel: + 86 13386835325

Email: UOGS2019@hotmail.com



**For more information on the conference,
please access the website:**

<http://deepmining.neu.edu.cn/IWUOGS2021/>



**A CSRME Top-level Forum
International Workshop
on Underground Oil/Gas Storage**
August 6-8, 2021 | Shenyang, China

