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SCAN ME!



International Geotechnic



Competition

TERM OF REFERENCE

INTERNATIONAL GEOTECHNIC COMPETITION

CIVILWEEK 2026



civilweek.hms-uns.id



civilweek@ft.uns.ac.id



[@civilweekuns](https://www.instagram.com/civilweekuns)



[@yqf388w](https://line.me/tv/@yqf388w)

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CHAPTER I INTRODUTCTION

A. BACKGROUND

The development of infrastructure in various countries has shown significant growth, particularly in high-density urban areas. Land scarcity has encouraged vertical space utilization, not just upwards but also underground through the development of basements as an integral part of modern buildings.

In practice, the development of multi-level foundations requires complex geotechnical planning, especially during the deep excavation phase. This process involves interactions between soil, retaining structures, groundwater, and surrounding buildings. Planning errors can cause soil deformation, surface subsidence, and even damage to existing structures around the project.

As construction technology advances, various soil retention methods and systems have been developed to enhance safety and efficiency, such as the use of diaphragm wall, secant pile, as well as support systems like strut and ground anchor. Additionally, the utilization of geotechnical software-based analysis is becoming increasingly important in supporting more accurate and reliable planning processes.

The International Geotechnic Competition (IGC) is an international-level competition organized as part of Civilweek by the Civil Engineering Study Program at Universitas Sebelas Maret. This competition serves as a platform for students from various countries to develop their analytical, problem-solving, and innovative skills in the field of geotechnical engineering.

Through the theme “**Advanced Deep Excavation Engineering for Complex Basement Projects**”, participants are challenged to design comprehensive, safe, and efficient geotechnical solutions to address real-world field problems, while enhancing global competitiveness in the field of civil engineering.

B. THEME AND OBJECTIVES

The International Geotechnical Competition is an international technical competition focused on the field of geotechnical engineering, particularly excavation engineering for complex basement projects in dense urban areas. This competition invites civil engineering students to solving real problems related to the design and construction of underground excavations, soil-structure interaction, and geotechnical risk management in underground infrastructure projects. International geotechnical competitions generally encourage participants to showcase their analytical skills, creativity, and problem-solving abilities through design case studies and predictions of soil behavior based on complex field conditions.

The theme of IGC CivilWeek 2026 is "Advanced Deep Excavation Engineering for Complex Basement Projects" This theme aims to enhance participants' technical understanding in designing earth retention systems, analyzing excavation stability, controlling soil deformation, and mitigating impacts on surrounding structures.

Through the case study provided, participants are asked to design an underground excavation system for a multi-story foundation project with layered soil conditions, high groundwater level, and the presence of existing structures around the site. Participants are expected to determine the optimal construction methods that meet global stability, lateral deformation, and construction safety aspects.

This competition promotes innovation in the development of increasingly deep and complex underground spaces requires integration between theoretical innovation, numerical simulation, and engineering practices to ensure the safety and sustainability of construction. Through this competition, participants not only apply soil mechanics theory and geotechnical engineering, but also develop professional skills in planning complex foundation projects. IGC CivilWeek 2026 emphasizes the importance of multidisciplinary collaboration between geotechnical, structural, construction, and risk management to produce safe, efficient, and sustainable excavation designs for modern urban infrastructure projects.

CHAPTER II

REGISTRATION

A. PARTICIPANT RULES

1. Participants must be currently enrolled undergraduate (S1), associate degree (D3), or four-year degree (D4) students in civil engineering from any international university who are legally registered to participate in the competition.
2. Each team consists of three students, each accompanied by one faculty advisor from the same university.
3. Each participant can only register in one team.
4. Each university can send more than one team.
5. Each team is required to determine a team leader as the information liaison between participants and the committee.
6. Participants are required to comply with all established rules.
7. Every team is required to read and follow the competition mechanism and timeline.
8. All violations will result in reduced scores, disqualification, or cancellation of the competition winner after being determined.

B. REGISTRATION MECHANISM

1. Open the web <https://civilweek.hms-uns.com/> to download, read, and understand the registration guide (TOR) for the IGC Civilweek 2026 competition.

2. Pay the registration fee as follows:

- National teams

Presale 1 : Rp350.000,-

Presale 2 : Rp450.000,-

Reguler : Rp500.000,-

- Internasional teams

Presale 1 : USD 35

Presale 2 : USD 45

Normal : USD 50

Payment must be made via bank transfer to the following account:

1. Bank Name : BCA (Bank Central Asia)

Account Number : 0771247864

Account Holder : Excella Qur Anique Dinda

2. Bank Name : Mandiri

Account Number : 1380028530926

Account Holder : Brawi Mustikarin

3. Confirm registration by sending proof of payment photo, team name, and university name before 22:00 WIB on September 28, 2026, to Whatsapp +6285947216151 (Fernando) or (Rayya) +62 85748451022

4. The registration fee that has been paid cannot be refunded

5. Fill out the registration form to register and upload files at the link <https://civilweek.hms-uns.com/>

6. The registration documents that must be attached to the form are as follows.

a. Registration Form *pdf

b. Student ID Card (KTM) for All Members *pdf

c. Proof of Payment Registration *pdf/jpg

d. Proof of twibbon upload *pdf/jpg

7. All these documents should be combined into one PDF file and named according to the team name and university name. (Example: Sipil_Semar_Universitas Sebelas Maret.pdf).
8. Participants must upload the specified file through the link provided on the website <https://civilweek.hms-uns.com/> before 22:00 WIB on October 31, 2026.
9. Each registered participant is required to upload the twibbon to their instagram feeds, then repost it via Instagram story and tag the Instagram account @civilweekuns. Participants can download the twibbon via the link: <https://uns.id/TWIBBONIGCCW2026>
10. It is hoped that the participant's Instagram account is not privatized during the competition.



C. TIMELINE OF THE COMPETITION

Events	Date	Place
Presale 1 Registration and TOR Release	15-31 July 2026	Civilweek Website
Presale 2 Registration	1-31 August 2026	
Regular Registration	1-28 September 2026	
Technical Meeting	29 September 2026	Zoom Meeting
Proposal Submission Period	30 September – 31 October 2026	Online
Proposal Evaluation	1 – 7 November 2026	Online
Finalists Announcement and Final ToR Release	9 November 2026	Online
Technical Meeting Finalist	10 November 2026	Zoom Meeting
Finalist is PPT Submission	20 November 2026	Online
Final Day	27 – 28 November 2026	Sebelas Maret University
Awarding	29 November 2026	Sebelas Maret University

CHAPTER III COMPETITION

A. QUESTION

Civilweek 2026 is an event for students, academics, technicians, and the general public interested in infrastructure development. Various competitions are held at Civilweek 2026, including a geotechnical competition. This competition is divided into two stages. The first stage is a preliminary round involving proposal selection. During this stage, participants will be given a case study on "Advanced Deep Excavation Engineering for Complex Basement Projects."

The competition questions will be released after the registration deadline, along with the judging criteria. The second stage, the final round, will be further explained in the Final Terms of Reference (TOR).

B. COMPETITION RULES

1. All rights of the creative works of the participants/winner become the property of the committee.
2. The submitted work must not have been previously entered into or won any other competition.
3. The final decision of the Jury and/or Committee cannot be contested.
4. Competition participants are active students from higher education institutions who are properly registered to participate in the competition.
5. The competition judges are a panel of judges authorized by the organizing committee to evaluate the participants' analysis and understanding of the material based on established criteria.
6. The proposal competition phase is conducted online.
7. The proposal must be written in English.
8. Participants who pass to the final round will be invited to attend the competition series on 27 November 2026, at Sebelas Maret University.
9. Further information about the final round will be provided.
10. Participants are required to follow the competition series according to the schedule set by the committee.
11. Information regarding the regulations, technical competition rules, and timeline changes will be announced by the committee via instagram @civilweekuns and website <https://civilweek.hms-uns.com/>
12. Questions about the International Geotechnic Competition 2026 can be asked through the contact person listed in the "Additional Information" section, or in the QnA column on the IGC Civilweek website.

C. COMPETITION STAGES

1. Preliminary Round Rules

- a. Proposal selection is the initial stage for IGC participants with an elimination system based on the evaluation of each team's proposal by the jury board.
- b. Cases or issues will be assigned to the team that has registered by the specified time via participant email.
- c. Cases are completed in the form of a proposal containing problem analysis and solutions provided.
- d. Participants are required to submit the Proposal in the form of a soft file to the Civilweek Website.
- e. Each team is only allowed to submit one proposal.
- f. The committee will determine the 5 best groups that will become finalists and proceed to the final stage.
- g. All decisions made by the jury and the committee are final and cannot be contested.

2. Writing Rules

The terms in the IGC proposal writing stage are as follows:

- a. The paper size used is A4 with margin rules Top 3 cm, Left 4 cm, Bottom 3 cm, Right 3 cm.
- b. The proposal writing format uses Times New Roman font size 12.
- c. Participants are required to design the proposal according to each team's creativity and characteristics.
- d. Format Proposal International Geotechnic Competition is formulated with a systematic format as follows: [CW IGC_Team Name_Institution Name].

3. Proposal Writing Format

- a. Title Page (Appendix 1A Cover),
- b. Approval Page (Appendix 1B),
- c. Introduction,
- d. Statement of Originality of Proposal (Appendix 1C),
- e. Table of Contents,
- f. List of Figures,
- g. List of Tables,
- h. Chapter I. Introduction,
 - 1) Background,
 - 2) Formulation of the Problem,
 - 3) Meaning and Purpose,
- i. Chapter II. Literature Review,

Contains literature studies that can be in the form of theory, facts, data, or other research materials that support the topic to be studied.
- j. Chapter III. Research Method

Explain the research process and stages, the variables used, data collection and analysis techniques, as well as the method for drawing research conclusions.
- k. Chapter IV. Results and Discussion

Explain the results obtained from the research which is then analyzed and processed into problem-solving solutions.
- l. Chapter V. Solutions

Explain the solutions offered and provide an explanation of the advantages and disadvantages of the proposed solutions that are felt can solve the case.
- m. Chapter VI. Construction Method

Explain the working method according to the alternative solutions offered.
- n. Chapter VII. Budget Plan

Explain the results of the budget calculation from the solution offered in Chapter V.
- o. Chapter VIII. Conclusion

Briefly explain the conclusions and final results of the research.

p. Bibliography

Contains all reference sources used as a guide in proposal preparation.

q. Appendix

1) Supporting Data

Supporting data can be in the form of documentation photos, lab test results, calculation/model details, a summary of Plaxis data input, and other information that supports the content of the proposal.

2) Participant Data (Writing format according to Appendix 1D) r. Maximum number of pages for Chapters I – VIII is 75 pages

4. Submission Rules

From 30 September 2026 to 31 October 2026, participants may submit their proposals along with participant data according to the following terms:

- a. After filling out the registration form, participants are expected to check the email of the team representative (team leader) to receive a confirmation email and information for the next stage.
- b. The submitted file is a full paper (format .pdf) and the results of the software analysis.
- c. The full paper and the software analysis results to be submitted must be combined into one file in .zip or .rar format with the file name [CW IGC_Team Name_College Name].
- d. The file is submitted through the Civilweek website.
- e. If the submitted file still contains errors or shortcomings and the participant wishes to resubmit the latest file, the participant is required to contact the committee through the available contact person. Resubmission of participant files is only given one chance.
- f. All submitted files should refer to the attachment provided by the committee.
- g. Participants in the scientific paper competition will receive confirmation from the committee that the documents previously submitted have been received by the committee.

D. VIOLATION

Violation	Point Deduction	Remarks
The proposal is not compiled following the provided format	10 points	Point deduction in the proposal evaluation stage
Number of pages exceeds the predetermined limit	5 points/page	
Does not include the validation sheet and/or the data provided is incomplete	10 points	
Using words that are not in line with the rules of the Great English	5 points/word	
The participant's proposal is not an original work of the author/writer and contains plagiarism elements	Disqualified	
Committing legal violations, behaving inappropriately, disturbing other participants during presentations, and engaging in other misconduct	Disqualified	
The participant's work has previously been entered/published in a competition or similar event	Disqualified	
Collecting proposals outside the scheduled schedule	Disqualified	

CHAPTER IV

CLOSING

A. RIGHTS AND OBLIGATIONS OF PARTICIPANTS

1. Rights of Participant

All participants will receive an e-certificate.

2. Participant Obligations

- a. Participants are required to comply with all rules and regulations set forth in the International Geotechnical Competition Civilweek 2026 Terms of Reference (TOR)..
- b. Participants are required to attend and comply with all scheduled activities of Civilweek 2026 in an orderly and professional manner.
- c. Participants must confirm their registration after completing the administrative payment by contacting the official contact person designated by the organizing committee.

B. AWARDS

The awards that will be received by the finalists and participants of the International Geotechnic Competition Civilweek 2026 are as follows:

1. Winner 1: Cash award + Certificate + Trophy
2. Winner 2: Cash award + Certificate + Trophy
3. Winner 3: Cash award + Certificate + Trophy.
4. Winner 4: Cash award + Certificate + Trophy.
5. Winner 5: Cash award + Certificate + Trophy.
6. All participants will receive an e-certificate as a participant of the International Geotechnic Competition Civilweek 2026.

The decision of the competition winners cannot be contested and the prizes will be given during the *closing of civilweek*.

ADDITIONAL INFORMATION

A. Contact Person

1. Fernando Marnala Nainggolan
 - a. WhatsApp : +6285947216151
 - b. Email : marnalangl99@student.uns.ac.id
2. Rayya Dama Rabani
 - a. WhatsApp : +6285748451022
 - b. Email : rayyadama@student.uns.ac.id

B. Social Media

1. Website : <https://civilweek.hms-uns.com/>
2. Instagram : @civilweekuns
3. Youtube : Civilweek HMS
4. LinkedIn : Civilweek UNS
5. Tiktok : @civilweekuns