

IEM-ICP PILE PREDICTION COMPETITION 2024

"ANCHORING THE PRESENT, BUILDING THE FUTURE"

**Complimentary
Registration**

*Open To: Civil Engineering
Students at Degree levels from
Public and Private Institution*

IMPORTANT DATES

DATE OF CLOSING REGISTRATION : 15TH JULY 2024


DATE OF SUBMISSION REPORT : 30TH SEPTEMBER 2024

DATE TO ANNOUNCE SHORTLISTED TEAM : 21ST OCTOBER 2024

DATE OF PRESENTATION (SHORTLISTED) : 23RD NOVEMBER 2024

VENUE OF PRESENTATION : WISMA IEM

Prizes

	RM1,500.00
	RM1,000.00
	RM750.00

Contact Person:

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Organised by :

**Geotechnical Engineering Technical
Division (GETD), IEM**



IEM

The Institution of Engineers, Malaysia

Sponsored by:



ICP PILES

CALLING ALL UNDERGRADUATE ENGINEERS

IEM is excited to host a competition to challenge your skill and ability in estimating pile capacity. This competition will test your ability to analyse the soil properties and apply geotechnical engineering principles to determine the total pile capacity in a team of up to four students. The main intention of this competition is to 1) showcase the ability of undergraduate students to understand pile design, 2) draw attention to surprising research results, and 3) emphasise the importance of innovation in addressing challenges in pile design.

OBJECTIVE:

This competition aims to evaluate your (team's) ability to estimate pile capacity based on a given construction project from a real-case scenario.

COMPETITION STRUCTURE:

The competition consists of two stages:

- In stage 1, teams are required to prepare a comprehensive technical report. The submitted technical reports will be evaluated by a panel of judges consisting of industry experts and academics.
- The shortlisted team will advance to Stage 2 to deliver a presentation on their findings and methodology to the judging panel.

All eligible participants will be provided with the following information:

- A soil investigation report
- Details of the pile

The report format shall comply with the following:

- Maximum 20 pages (excluding attachments such as figures, diagrams, or calculation sheets)
- In PDF format

Disclaimer:

By participating in the competition, participants acknowledge and agree to comply with all rules and regulations established by the organising committee, which reserves the right to amend the rules at any time. Participants accept that all decisions regarding eligibility, judging, and awards are at the sole discretion of the organising committee and judges. Participants retain ownership of their intellectual property rights but grant the organising committee and its affiliates the right to use submitted materials for promotional purposes. The organising committee, its members, affiliates, sponsors, and partners are not liable for any damages, losses, or injuries arising from participation in the competition, and participants indemnify them against any claims or expenses. External content accessed through competition materials is at participants' own risk, and force majeure events may affect competition proceedings.

STAGE 1: TECHNICAL REPORT

The technical proposal report holds the majority of marks in this competition, demanding specificity and comprehensiveness. While acknowledging that not all technical factors can be pre-defined, the following criteria serve as the main benchmarks:

1. INTRODUCTION:

- Provide a concise overview of the significance of pile design in civil engineering, emphasizing its role in providing structural support for various constructions.
- Highlight relevant theoretical background or previous studies informing the methodology and approach for estimating pile capacity and settlement.

2. METHOD OF PILE DESIGNS:

- Conduct a literature review on the methodologies used for pile capacity and settlement used in the market.
- Evaluate and select the appropriate one or more methodologies to be used for pile capacity and settlement estimation.
- Any software or computational tools utilised in the estimation should be clearly referenced.

3. ANALYSIS AND CALCULATIONS:

- Demonstrate your in-depth knowledge of analysing the soil investigation reports in relation to pile estimation.
- Outline the design parameters and assumptions in calculating the pile capacity and settlement.
- Present detailed calculations with step-by-step explanations and references to relevant equations, theories, and design principles.

4. CONCLUSION

- Summarize the key findings, outcomes, and implications of the pile estimation.
- Acknowledge any limitations or uncertainties associated with the estimation process.
- Emphasize the practical relevance and applicability of the developed pile design methodology to real-world engineering scenarios.

STAGE 2: PRESENTATION

(SHORTLISTED TEAM ONLY)

- A separate marking scheme will be applied for the presentation, as follows:
- Clarity and organisation of the presentation: The presentation slides should be well-structured and coherent, with clear transitions between ideas.
- Understanding of the methodology and assessment of the proposal.
- Communication skills: Deliver clear and concise answers that demonstrate knowledge and expertise on the topic.
- Time management: Additional points will be awarded for staying within the allocated time limit and effectively covering key points without rushing.
- Creativity and Innovation: Additional points will be awarded for originality, innovative ideas, and engaging presentation techniques.

REGISTRATION FORM

REGISTRATION CRITERIA/ ELIGIBILITY

- All undergraduate Civil Engineering Students at Degree levels from Public and Private Institutions are eligible to participate in the competition.
- A team will comprise a maximum of four (4) members.
- Each team is required to be supervised by 1 lecturer (compulsory) & 1 Practicing Engineer (optional) as a mentor.
- Each university is allowed to send more than one (1) team with a maximum of three (3) teams.
- This competition is open for a maximum of 50 groups (On a first come first basis)

Name of University:	
Name of Lecturer: Position: Mobile No: IC No: Email:	
Name of Practicing Engineer (Optional): Position: Mobile No: Company's Name: Email:	
Group Members:	Name: Mobile No: Email: IC No:
	Name: Mobile No: Email: IC No:
	Name: Mobile No: Email: IC No:
	Name: Mobile No: Email: IC No:



**SCAN TO FILL UP
THE ONLINE FORM**

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