OVERVIEW

This competition is designed to inspire creativity and critical thinking of engineering students. While no experience in geotechnical engineering is necessary to compete, the basic principles of soil mechanics will help you. The objective of this competition is to construct the highest piles of sand in the given time. Points will be awarded for the highest pile, least reinforcing material used, and the shortest construction time.

GENERAL RULES

Teams consist of no more than five members and each school will be allowed to have up to two (2) teams competing. Teams will be provided with all materials needed. No additional tools may be used. All participants must be undergraduate students.

CONSTRUCTION TIME

Teams will have a maximum of 30 minutes to construct their pile. 15 and 5 minute warnings will be given by a judge. Teams that exceed the 30 minute construction time will be disqualified. Teams will be given a 10 minute design time in which they are not allowed to use any of the construction materials or tools.

CONSTRUCTION AREA

Teams are limited to a predetermined construction area. The dimensions of the construction area will be released during the captains meeting. All team members must remain in the construction area until they are finished, or time ends, or points will be deducted from the total score for each violation. All materials and tools must remain in the construction area.

REINFORCING MATERIAL

Each team will receive the same amount(s) and type(s) of reinforcing material which will be weighed before and after competition. The calculated amount of total material minus material remaining will be used in the scoring process. Any loss of material will be counted as being used in the construction process. The type(s) of reinforcing material will be disclosed during the captains meeting.

SCORING

The point system breakdown of the total score is as follows: 70% for height, 20% for reinforcing material, and 10% for construction time. The highest pile will receive the full 50% and all other teams will receive a portion of the 50% based on rank. The same rational is applied for the remaining score categories.

OTHER INFORMATION

All information will be disclosed in the captains meeting at the start of the competition. Teams will then be given a 10 minute design period followed by a 15 minute clarification period for the team captains. Reinforcing material type(s) and construction area will be announced in the captains meeting.

Each school is allowed to have up to two (2) teams for this competition and up to five (5) contestants on each team.