



ASCE Student Symposium Bangladesh 2026

— *USEI Surveying Competition* —



*“Measured Today,
Designed for a Better Tomorrow.”*



Screening Round
October 29, 2026



Final Round
October 30, 2026



— Organized by —

ASCE Student Chapter,
Chittagong University of Engineering & Technology
(CUET)



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UESI Surveying Competition



Rules and Regulations

Screening Round: October 29, 2026 | Final Round: October 30, 2026

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Welcome

The ASCE Student Symposium Bangladesh 2026 UESI Surveying Competition is organized by the ASCE Student Chapter, CUET, to give undergraduate civil engineering students hands-on exposure to fundamental and applied surveying practice. The competition challenges teams to apply classroom knowledge to real, field-based surveying problems under time pressure, replicating the pace and coordination required on an actual project site.

All participants are expected to compete with integrity, professionalism, and mutual respect toward teammates, coordinators, judges, and fellow competitors.

1. Competition Overview

The educational goal of this competition is to strengthen students' practical understanding of core surveying methods and their application to real engineering problems.

The competition is conducted in two stages:

1. A Screening Round, in which all registered teams complete a real-time topographic survey problem.
2. A Final Round, in which the top 10 screened teams compete across four surveying categories, culminating in a drawing submission and final scoring.

2. Participation and Eligibility

2.1 Team Composition

Each participating team must consist of a minimum of three (3) and a maximum of four (4) members.

2.2 General Eligibility

Team members must be current undergraduate students in good standing at their respective institution, registered for the competition prior to the announced registration deadline. All members of a team are expected to participate actively across the stages of the competition as described in Section 6.

2.3 Conduct

Participants are expected to act professionally and respectfully toward coordinators, judges, host volunteers, and other competing teams at all times. Unprofessional conduct, uncooperativeness with coordinators, or interference with another team's survey may result in penalties, disqualification from a task, or removal from the competition, at the discretion of the Organizing Committee.

3. Competition Structure

3.1 Screening Round - October 29, 2026

All registered teams report for the Screening Round. Each team is given a real-time, on-site topographic survey problem to solve within the round. Judges evaluate every team's field survey and resulting solution.

Advancement: Based on the results of the Screening Round, the top ten (10) teams will be selected to advance to the Final Round on October 30, 2026. The topographic survey score carries forward and may be used as a tiebreaker in the Final Round (see Section 8.2).

3.2 Final Round - October 30, 2026

The 10 qualifying teams compete across four surveying categories. Categories 1–3 involve field instrument work; Category 4 is a theoretical written component. The Final Round concludes with a topographic drawing submission based on the categories completed.

Category	Survey Options
Category 1	Distance By Chain • Area Calculation
Category 2	Traverse Survey • Plane Table Survey
Category 3	Construction Stakeout • Find an Inaccessible Point
Category 4	Differential Leveling - Contouring OR Earthwork Calculation (theoretical)

4. Final Round Schedule

The table below summarizes the master schedule for the Final Round on October 30, 2026. Detailed rules governing category assignment, sequencing, and time allotments are provided in Section 6.

Time	Activity
8:00 AM	Reporting & Briefing (Advanced Teams)
8:30 AM	Instrument Handover; Category 1 / Category 2 Survey begins
11:00 AM	Deadline to finish Category 1 / Category 2 field survey
11:00 AM – 12:30 PM	Category 3 (2 members per team) begins as teams finish C1/C2, in order of completion; remaining members begin C1/C2 calculations
11:30 AM	Category 4 (theoretical, remaining 1-2 members) begins
12:30 PM - 2:00 PM	Break (C1/C2 and C3 calculations and the C4 exam must be completed before the break)
2:00 PM	Reporting at the Drawing Room, Ground Floor, Academic Building-1, CUET; drawing sheets and materials distributed
2:30 PM	Drawing work begins for each team's respective sector
4:00 PM	Drawing time ends; drawings must be submitted
4:30 PM	Deduction form released

Time	Activity
Until 5:00 PM	Window for objections regarding the deduction form
5:00 PM	Final results published

No time extensions will be granted for any stage of the competition. All teams will be allotted the same maximum time for each activity, except where priority rules in Section 6 apply.

5. Category Descriptions

5.1 Category 1 - Distance by Chain / Area Calculation

Teams assigned to Category 1 will perform either a chain survey or a triangulation survey of a designated field area, recording all measurements in the field book provided. Field notes and calculations must be submitted along with the team's final result.

5.2 Category 2 - Traverse Survey / Plane Table Survey

Teams assigned to Category 2 will perform either a traverse survey or a plane table survey of a designated field area, recording all measurements in the field book provided. Field notes and calculations must be submitted along with the team's final result.

5.3 Category 3 - Construction Stakeout / Find an Inaccessible Point

Teams choosing Construction Stakeout will lay out the corners/lines of a proposed structure using appropriate setting-out techniques from given control points.

Teams choosing the latter one will determine the height and/or horizontal distance of a specified target using appropriate instrument techniques, within an allotted instrument-time slot (see Section 6.5).

5.4 Category 4 - Differential Leveling (Contouring / Earthwork Calculation)

Category 4 is entirely theoretical. Each team will be given a written differential-leveling problem set and must submit calculated answers covering either contouring or earthwork/volume calculation, whichever they choose. No field instruments are used in this category.

6. Final Round Rules and Flow

6.1 Category Grouping by Lottery

On the morning of the Final Round, a lottery will be conducted among the 10 qualified teams to divide them into two groups of five (5) teams each:

- Group A - completes Category 1 (Distance by Chain / Area Calculation)
- Group B - completes Category 2 (Traverse Survey / Plane Table Survey)

Within each category, a team may choose either of the two available surveys listed in Section 5, except in Category 4 where the assignment is fixed.

6.2 Reporting, Briefing, and Instrument Handover

1. 8:00 AM - Teams report and receive a brief orientation from the Organizing Committee.
2. 8:30 AM - Surveying instruments are handed over to teams; Category 1 / Category 2 field survey begins immediately.
3. 11:00 AM - Deadline for all teams to complete their Category 1 / Category 2 field survey.

6.3 Transition into Category 3

Whichever team completes its Category 1 / Category 2 survey first earns the right to begin Category 3 first. Teams are ranked into the Category 3 queue strictly in the order they complete their initial survey.

Split of team members: Upon reaching Category 3, each team divides into two working groups:

- Two (2) members proceed to Category 3 (House Setting or Height and Distance, as chosen by the team).
- The remaining member(s) proceed to Category 4 (theoretical), beginning at 11:30 AM.

While a team's two members are engaged in Category 3, the remaining member(s) may use the intervening time - up to thirty (30) minutes - to complete the calculations for the team's Category 1 / Category 2 survey, before moving on to Category 4.

6.4 Category 4 (Theoretical)

Category 4 begins at 11:30 AM for the relevant member(s) of each team and consists of a written differential-leveling problem set (contouring or earthwork calculation). No instruments are used; only written answers are submitted.

6.5 Category 3 Instrument-Time Allotment and Priority

For teams selecting Find an Inaccessible Point sub-category within Category 3, each team is allotted fifteen (15) minutes of instrument time to complete their measurements and observations.

Priority order: Priority for instrument time is given to teams in the order they completed their Category 1 / Category 2 survey - the team that finished earliest is served first.

Simultaneous arrivals: If two or more teams reach the Category 3 (Find an Inaccessible Point) station at the same time, the on-site Coordinator for that survey will decide which team proceeds first.

Teams selecting Construction Stakeout within Category 3 will be coordinated on-site by the assigned Coordinator, who manages sequencing and setup access among the teams present.

6.6 Coordinators

A dedicated Coordinator will be present at each survey station for each sub-category under the major 4 categories at all times during the Final Round, to supervise fairness, manage sequencing, answer procedural queries, and record completion times.

7. Break, Drawing Submission, and Results

7.1 Break

A break for Prayer and lunch will be observed from 12:30 PM to 2:00 PM. All of the following must be completed before the break begins:

- Category 1 / Category 2 field survey and its calculations
- Category 3 field work and its calculations
- Category 4 written examination

7.2 Drawing Room Reporting

At 2:00 PM, all teams must report to the Drawing Room, located on the ground floor of Academic Building-1, CUET. Drawing sheets and other required materials will be provided to each team at this time.

7.3 Drawing Session

Drawing work begins at 2:30 PM. Each team will produce a drawing for their respective sector/survey based on the field data and calculations completed earlier in the day. Drawing time ends at 4:00 PM, at which point all drawings must be submitted.

7.4 Deductions, Objections, and Results

1. 4:30 PM - The deduction form is released to all teams.
2. Until 5:00 PM - Teams may raise objections regarding the deduction form.
3. 5:00 PM - Final results are published.

8. Judging and Scoring

8.1 Scoring Basis

Each team is evaluated primarily on:

- The precision and accuracy of the final submitted drawing(s), and
- The efficiency and correctness of the underlying field calculations.

Detailed scoring rubrics for each category and the drawing submission will be provided to judges and made available to team captains before the start of the Final Round.

8.2 Tie-Breaking

In the event that two or more teams receive the same overall score in the Final Round, the Screening Round topographic survey score will be added to each tied team's total, and the resulting combined score will determine final placement.

9. Registration

9.1. Deadlines

Milestone	Date
Rulebook published	August 22, 2026
Intent form opens	August 25, 2026
Intent form closes	September 10, 2026
RFI opens	September 11, 2026
Registration opens	October 5, 2026
RFI Closes	October 10, 2026
Registration closes	October 21, 2026
Competition event (presentation + awards)	October 29 to 30, 2026

Time presented here as BST (Bangladesh Standard Time).

9.2. Fee per participants

Category	Fee per participant
Local Students (CUET)	BDT 1,000
Local Students (Non-CUET)	BDT 1,200
International Students	USD 20

Registration fees are non-refundable and must be paid in full by the announced registration deadline for a team to be confirmed as a participant.

10. Materials and Equipment

The following will be provided by the Organizing Committee to each team:

- Field book pages
- Drawing paper / drawing sheets
- Surveying instruments required for the assigned categories (chain, tape, compass, plane table, theodolite/total station, leveling instrument, leveling rod, tripod, etc., as applicable to each category)

No notes, pre-completed field books, or personal reference material may be used during any stage of the competition. Any equipment or materials not provided by the Organizing Committee may not be used unless expressly approved by the coordinator of that survey station.

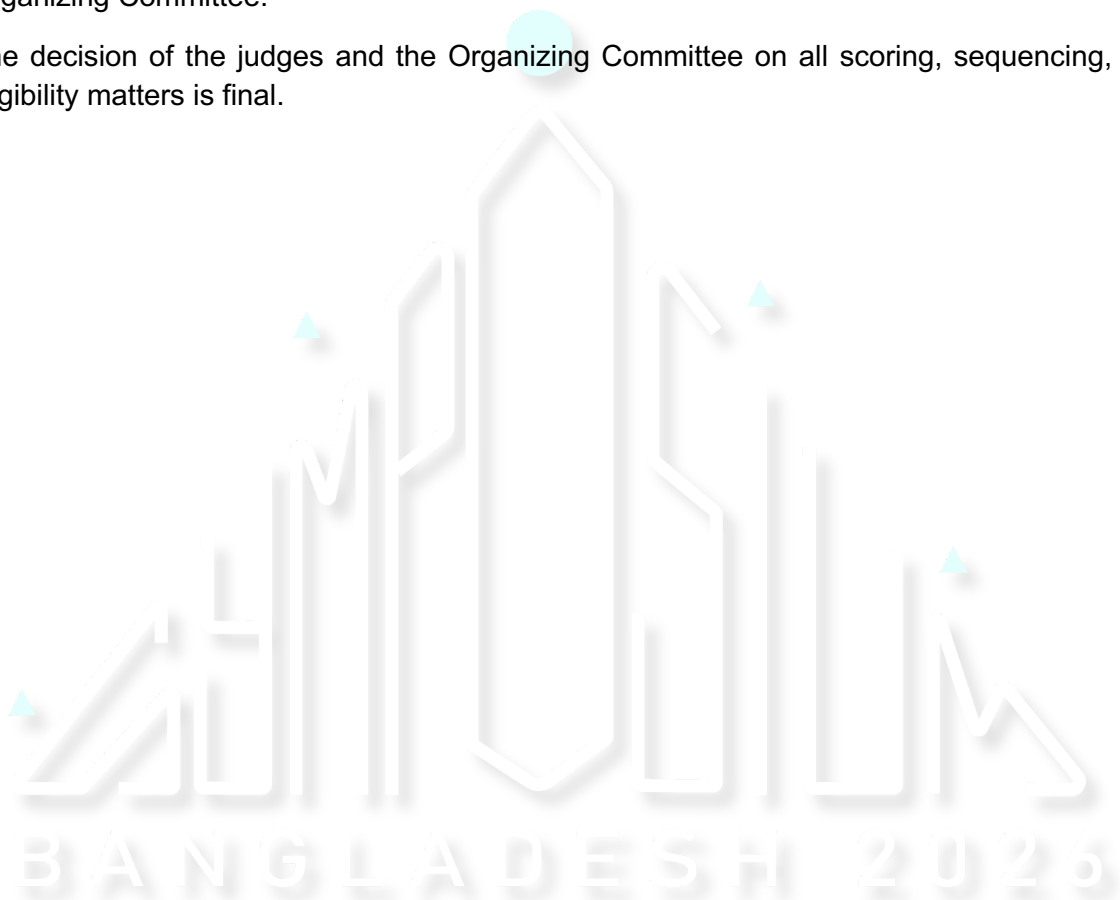
11. Safety and General Conduct

Safety is a priority throughout the competition. Coordinators are empowered to pause or stop any activity deemed hazardous, and to require compliance with campus safety protocols at all times.

Team members must wear appropriate closed-toe footwear and any safety equipment specified by the Organizing Committee for field activities.

No assistance may be provided to a team by members not currently assigned to that specific task, or by any outside party. Teams found to have received unauthorized assistance may be penalized or disqualified from the relevant task, at the discretion of the Coordinator and Organizing Committee.

The decision of the judges and the Organizing Committee on all scoring, sequencing, and eligibility matters is final.



Appendix A: Field Task Resource Estimate

	Field Task 1	Field Task 2	Field Task 3	Field Task 4	
How many team members will complete each task? (Min 2)					
Team Member Name	To be filled out by judge:				Total # Tasks (Max 3)
I					
II					
III					
IV					



Appendix B: Equipment List

Participating teams will use the following items for the competition. All items must be supplied by each individual team at the symposium competition.

Material	Distance by Chain	Area Calculation	Differential Leveling	Construction Stakeout	Find an inaccessible point	Determine Proposed Sewer Depth and Cut	Calculate Area and/or Volume
Level ⁽³⁾			X			X	
Leveling rod ⁽³⁾			X			X	
Tripod ⁽³⁾			X	X	X	X	X
Transit / Theodolite / Total Station ^{1 2}				X	X		X
Prism and rod ⁽³⁾				X	X		X
Mallet or hammer ⁽³⁾³				X			

Note: Category 4 (Differential Leveling - Contouring / Earthwork Calculation) is theoretical and assigned as part of each team's overall category flow; it is not separately chosen by teams in the field.

¹ Total station will be only allowed while using in “Find an Inaccessible Point” subcategory, meaning only measuring horizontal angles and horizontal distance.

² Will be provided by ASCE Student Chapter CUET at the finals competition.

³ Will be used at the discretion of CUET.