

Dear Chemical Engineering Department Heads and Student Advisors,

We are very pleased to send you the 2022-2023 TIChE National Chemical Engineering Student Design Competition statement.

This year's challenge is the following: "Next Generation of Ethane Recovery Process".

Interested Chemical Engineering Departments are encouraged to express their participation sent by e-mail to TIChE at the address below no later than May 27th 2022. One Department can only submit no more than 2 teams of individuals or of up to three students.

It is recommended that the participating teams review the rules on the following pages because it is important that all solutions strictly adhere to the Final Report Format.

The solutions must be submitted by e-mail to tichedesignproject2023@gmail.com no later than February 3rd, 2023. Submissions must be no more than two documents totaling 100 or fewer pages of main text, with an allowable 100 pages of supplementary materials. The requested format is a single PDF file. Please maintain a copy for your files.

Questions relating to the substance of the design problem should be directed to e-mail mentioned above.

Sincerely,

Design Competition Work Team

31/03/2022

Rules of Competition

The 2022-2023 National Chemical Engineering Student Design Competition is designed to be solved either by an individual chemical engineering student working entirely alone, or a group of no more than three students working together.

Solutions will be graded on the following;

- (a) substantial correctness of results and soundness of conclusions,
- (b) ingenuity and logic employed,
- (c) accuracy of computations, and
- (d) form of presentation.

Accuracy of computations is intended to mean primarily freedom from mistakes; the extreme precision is not necessary.

It is to be assumed that the statement of the problem contains all the pertinent data except for those available in handbooks and literature references. The use of textbooks, handbooks, journal articles, and lecture notes is permitted.

Students may use any available commercial or library computer programs in preparing their solutions. Students are warned; however, that physical property data built into such programs may differ from data given in the problem statement. In such cases, as with data from literature sources, values given in the problem statement are most applicable. Students using commercial or library computer programs or other solution aids should so state in their reports and include proper references and documentation. Judging, however, will be based on the overall suitability of the solutions, not on skills in manipulating computer programs.

Solutions will be judged in two categories: individual and team. There are; however, other academically sound approaches to using the problem, and it is expected that some student advisors will use the problem as classroom material. The following confidentiality rules, therefore, apply:

For those individual students or teams who have entered into the design competition: The problem may not be discussed with anyone (students, faculty, or others, in or out of class) before or during the period allowed for solutions. Discussion with faculty and students at that college or university is permitted only after complete final reports have been submitted to TIChE.

Submission of a solution for the competition implies strict adherence to the following conditions: (Failure to comply will result in solutions being returned to the appropriate student advisor for revision. Revised submissions must meet the original deadline.)

ELIGIBILITY

Interested Engineering Departments shall inform of participation to ITChE no later than May 27th, 2022. Each Department can only present not more than two teams. Each team consists of no more than three students and each team member must meet all eligibility requirements.

For fairness, teams will be given a team code and use it for communication during the competition. No student names or institutions will be identified.

TIMELINE FOR COMPLETING THE SOLUTION

In order to be eligible for an award, a solution must be sent to TIChE through e-mail no later than midnight of February 3rd, 2023.

REPORT FORMAT

The body of the report must be suitable for reproduction, that is, computer-generated and in a printable format. Tables, supporting calculations and other appendix material may be handwritten.

The solution itself must bear no reference to the students' names and the institution by which it might be identified. Only the team code given to the teams appear on the report. Please expunge all such references to the degree possible.

Final submission of solutions to TIChE must be in electronic format (PDF). The main text must be 100 pages or less, and an additional 100 page or less is allowable for supplementary material. The final submission to TIChE must only consist of 1 electronic file.

SENDING THE SOLUTION TO TIChE

There should not be any variation in form or content between the solution submitted to the Student Advisor and that to TIChE. The Student Advisor sponsoring the student(s) is requested to maintain the original manuscript(s).

The electronic PDF file with the team code shall be e-mailed to tichedesignproject2023@gmail.com