Programming

- The goal of the programming category is to encourage engineering students to produce a piece of readable software. The teams will use their software development skills, their technical writing abilities, and their project management skills to design a solution to a posed problem. This solution will then be presented to company executives (judging panel) for approval. The winning solution will not necessarily be the most technically correct but the one that has the most real-world application and is most thoroughly thought out.
- Each Programming team will comprise a **maximum of four (4) competitors**.

Communications

- Students must describe an engineering topic in terms that the general public can understand and present in front of a panel of judges; of whom do not necessarily have a technical background
- Each Communications Design team will comprise a **maximum of two (2) competitors.**

Innovative Design

- The objective of this challenge is for competitors to combine their knowledge, creativity as well as their teamwork skills in order to develop a new product that is an improvement over the old design. Competitors will then present this newly developed product to the judges for grading.
- Competitors may have graduated within a year prior to the competition provided the project entered was completed before graduation. A letter will be required from the supervising professor confirming that no changes have been made to the project since the competitor's graduation. This letter must be dated no more than 30 days prior to the competition and be submitted to the IEC chair.
- Competitors not presently enrolled in classes, or on co-op are still eligible provided they are considered an enrolled/active student by their institution or, the elapsed time has not exceeded one (1) year. At least **half** of the team members must be enrolled in **undergraduate** studies.
- Teams of **one to six (1-6) members are accepted**. All team members must meet the general eligibility requirements for OEC.
  - **All years of study are accepted**

Junior Design

- Participants must use their engineering problem solving skills to design and create a physical prototype for a given challenge. They must use their mechanical skills and test out their prototype. They will then present their designed solution to a panel of judges. Teams will be scored on the quality of their solution as well as their ability to market and present their solution to judges. This competition is weighted more towards prototype functionality than design defense.
- Each Junior Design team will comprise a **maximum of four (4) competitors**. **The team must be entirely composed of students who have not yet started their 3rd engineering academic year by the time OEC 2024 (Winter 2024) starts.

Consulting

- The competitor's task for this competition is to take the role of a hired consultant. Students must develop and present a logical solution to the client (i.e. the judging panel), regarding a complex real world engineering issue. The solution must demonstrate an awareness and consideration of: the economic impact of the proposed solution, the environmental implication of the proposed solution and the social impact.
- Each Consulting Engineering team will comprise a **maximum of four (4) competitors.**

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