

Young Design Engineer's Paper Competition

Translate your capstone design project experience into an ASME published technical paper!

Overview

The purpose of this competition is to emphasize the importance of clear technical communication while providing an introduction to technical society (ASME) paper publication. The International Design Engineering Technical Conference (IDETC) is the ideal venue for exemplary student capstone design projects. The paper submission process is the same as that required for practicing engineers and design professionals. Technical session(s) will be dedicated to this competition during the IDETC.

The competition is for undergraduates who are members of ASME. One author may be the faculty mentor on the project. Authors and presenters must be undergraduates or must have received their bachelor's degree no longer than 6 months from the date of submission of the final paper.

Guidelines for Submission

Information for guidelines and deadlines for the abstract, paper submission, copyright form, paper revision and final acceptance will be provided as part of the conference plan.

Paper Organization

A suggested approach for the paper would be to follow the Product Realization Process. This could include the following components:

1. Establish Need
2. Develop Specifications
3. Develop Conceptual Designs
4. Perform a Decision Analysis
5. Establish an Embodiment Design
6. Final Design
7. Build the prototype
8. Testing and Test Results
9. Marketing and Business Plan

Awards

Each of the top 5 teams are eligible to send up to 3 team members to the conference with financial awards to be determined in the near future. To receive the award at least one person from the team must attend and present the paper at the conference.

Judging Criteria

Projects will be judged based on the following criteria:

1. Solution to the design problem creativity and sound use of engineering principles used in producing a design that solves the problem both effectively and efficiently.
2. Design Process: This includes a demonstration of the use of various design principles and methods in formulating the solution such as peer review of ideas, brainstorming, customer needs assessments, searching of the existing art, etc.
3. Quality of the written project summary clearly and efficiently describes the important aspects of the design including the problem solved, method of solution, and any experimental verification of the design. This should be produced with an eye toward submission to an ASME conference or publication. The target audience is other engineers. Spend your time and effort on mechanical design.
4. Quality of the oral presentation at the IDETC. This will be based on visual aids, preparation, organization and depth of engineering content.

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