

ENGINEERING PROJECTS – Use as a guideline to determine if a presentation meets the necessary requirements.

Engineering Projects are judged on the following five criteria.

ENGINEERING APPROACH

- Is the problem scope defined? Does it serve a purpose?
- Is the proposed solution somewhat novel?
- Does the project address most aspects of the problem?
- Is the presenter able to reason from his findings to suggest additional work?

PROCEDURAL PLAN

- Is the design process documented? Is it appropriate and complete?
- Is the construction feasible and cost-effective?

ANALYTICAL APPROACH

- Is the rationale for the solution clear?
- Did the presentation include the mathematical approach?
- Does the presenter correctly understand the statistical analysis?

PRESENTATION

The presentation should, preferably, be in the form of a free talk employing good oral communication skills. The time restrictions in the rules necessitate planning and rehearsal.

- Is the presentation clear and easy to understand?
- Do the audiovisual aids enhance the audience's understanding?
- Did the presenter speak clearly and refer to notecards rather than read from them?
- Is the student's competency with the principals such that he can answer questions with clarity, and elaborate where necessary to make a point?

JUDGE'S OPINION

This criterion covers simply the judge's overall reaction to the nature of the project and its handling by the student.

- Is the project of proficient quality in all areas?
- Is the entire project appropriate for a student at the presenter's current grade level?

SCORING

- Judges score the student on their individual worksheets after each presentation.
- The student is rated numerically by his success in each of 5 independently-evaluated criteria. For each of the 5 criteria the lowest score is 1, the highest score is 5. Use integer scores only.
- Students are not in competition with each other for some single top award; rather they are evaluated on how well they succeed in fulfilling the 5 criteria. Therefore, there is no limit to the number of each award that may be awarded in a given Presentation Room.
- PJAS Awards are based on the average of all judges' scores

Average	Award
4.0 or higher	First Place Award
3.0 – 3.99	Second Place Award
Below 3.0	Third Place Award

SCORING RUBRIC

Exceeds Characteristics	5
Meets ALL of the Characteristics	4
Meets MOST of the Characteristics	3
Meets FEW of the Characteristics	2
Meets NONE of the Characteristics	1