

Ernest Hoaby Innovation Scholarship

Ernest Ardell Hoaby (1933 - 1967) was a highly-regarded faculty member in the NDSU EE department from 1957 - 1967, whose main area of interest was Biomedical Engineering. He worked in industry at Autonetics in Anaheim, CA, Wright Patterson Air Force Base in Dayton, OH, Ulteig Engineering in Fargo, ND, Boeing in Seattle, WA, and IBM in Rochester, MN. He was a member of ASEE, Phi Eta Sigma, Sigma Tau, Eta Kappa Nu, and Tau Beta Pi. He played in the state championship basketball game for Lisbon High School in 1950. He served his ROTC commitment in Yaak, MT and attained captain in the USAF reserve. He played in a country and rock'n roll band called the Four Tunes while teaching at NDSU. He built several homes in southeastern North Dakota, including one for his family. He is survived by five children. His wife has remarried and continues to live in Fargo.

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The Ernest Hoaby Scholarship rewards student innovation as defined by:
An innovative design or device, which improves upon a prior design, device, algorithm, or method of doing something.

Eligibility

- Individuals or teams may apply.
- Students must be registered at the time of submitting an innovation application.
- Students must complete Part I in its entirety for the application to be considered.
- False or misleading statements will automatically disqualify an application.

Award Criteria

Primary considerations:

- Originality of the design, device, or process.
- Usefulness of the design, device, or process.
- Broadness of its application.

Secondary consideration:

- Personal achievement: succeeding though having a disadvantaged background.

Awarding Guidelines

- Zero to three awards per year, ranked as Blue (excellent), Red (very good), White (honorable mention).
- All winning applications, including White Awards, must entail relatively significant innovations.
- Estimated top awards for 2011 are \$1,000 for an individual and \$1,800 for a team.
- Award amounts may increase over time as NDSU grows the Scholarship Fund.

Due Date: Friday, 25 March 2011

Award Date: Results will be announced the 3rd or 4th week of April 2011.

Application Form for the Ernest Hoaby Innovation Scholarship

Part I – The Innovation:

- (a) Title or Name of the Innovation or Innovative Design.
- (b) Identify the name and status (3rd year, 4th year, etc.) of each contributor. Do not include GPA as it will not be considered. If you had faculty advisors that aided or coached you in the innovation (or the project containing the innovation), state who they were.
- (c) Brief description of the innovation or innovative design. What does it do?
- (d) What is new or unique about this innovation?
- (e) Describe the prior art (or technology) to your innovation. What is your innovation replacing or improving? Include copies of two recent yet relevant patents from patent searches that help show the prior art that you are improving upon. (Patent copies are not needed for an innovation that is a process.)
- (f) Why or how is this innovation useful? How does it improve upon a prior design, technology, or product. (Examples: new function, better reliability, better maintainability, lower power, higher speed, lower cost, etc.)
- (g) What are the disadvantages of this innovation over the technology it is intended to improve and possibly replace? How does the innovation mitigate these disadvantages or outweigh them with benefits such that the innovation is still worth adopting?
- (h) What applications might your design apply to beyond the ones you originally intended it for?

Part II – Personal Achievement (Optional).

This section may be submitted by individuals as a supplement to Part A.

The Hoaby Innovation Award may take into consideration an applicant's personal achievements when making award decisions. Special consideration will be given to students who have worked through a disadvantaged background to get into college or the field of engineering. The term 'disadvantaged' can include such things as (but are not limited to) low-income, a language barrier, loss of parents, addiction issues that affected family life, and limited education opportunities while growing up. Some consideration may also be given to students who have performed significant community service of some type.

If you feel that this section applies to you and you wish to share it with the ECE department members who will make the award decisions, then please attach a personal statement summarizing your achievements. If you are a recipient of a Hoaby Scholarship, your personal statement will remain on file in the ECE department.

Information regarding Evaluations and Winning Submissions:

Reviewers: NDSU ECE faculty and at least one external reviewer evaluate the applications. All external reviewers will hold the applications in confidence and review them strictly for evaluative purposes.

Winning submissions: A brief description of winning submissions will be posted on the Hoaby Innovation Center website within a few months after the application due date. Students will be given an opportunity to review and comment on the description of their winning submission before it is posted. Students' comments will be taken into consideration before final editing and posting of the description. The Hoaby Innovation Center will exercise care to reasonably ensure that the element of an innovation that has patenting potential, if it exists, is not revealed or made public on the website, unless the element has already been made public.