# Northrop Grumman Foundation Excellence in Engineering Education Award

## PROGRAM SUMMARY:

This award is to recognize excellence in the field of engineering education as outlined in the NSTA Position Statement on the Next Generation Science Standards (NGSS), Section II Conceptual Shifts in the NGSS. The award consists of $5000 for classroom materials and equipment, a cash prize of $3000, and $2000 to attend the NSTA National Conference on Science Education. The recipient of the Award will be honored during the Awards Banquet at the NSTA Conference.

## ELIGIBILITY:

The applicant must be a K-12 public school science/technology teacher. Individuals must have a minimum of 3 years teaching experience. Awardees will have exhibited excellence in engineering science education.

## CRITERIA FOR JUDGING:

Excellence of contribution of service and leadership in engineering science education, is the main criterion for selection of the recipients. Among the types of outstanding service that are considered by the committee are:

- ★ Active leadership in engineering education
- ★ Foster observation, investigation, and creative thinking
- ★ Promote scientific inquiry
- ★ Provide opportunities to connect science educators and their students with the broader engineering science and technology community
- ★ Provide students with interdisciplinary, multicultural, and multi-perspective viewpoints to demonstrate how engineering transcends STEM boundaries
- ★ Use appropriate technologies such as modeling, simulation, and distance learning to enhance engineering education learning experiences and investigations
- ★ Support of the NSTA Position Statement on the Next Generation Science Standards as they relate to engineering which states: "5.Science and engineering are integrated in the NGSS, from kindergarten through 12th grade. Integrating engineering and technology into science standards is not a new concept, but these important subjects have failed to receive the attention they need and deserve. Investigations in technology and engineering "provide opportunities for students to deepen their understanding of science by applying their developing scientific knowledge to the solution of practical problems" (see NGSS, Appendix A). The NGSS elevates the importance of engineering and technology by integrating them into the standards."

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## AWARD SUBMISSION REQUIREMENTS:

- ★ A narrative describing the applicant's service and leadership in engineering education program/practices, engineering implementation techniques, broader engineering science and technology community connections; and interdisciplinary, multicultural, and multi-perspective viewpoints to demonstrate how engineering transcends STEM, not to exceed character equivalent of 750 words.
- ★ A character equivalent of one-page description of how the applicant will use the funds for classroom materials and equipment, and the state of the applicant's current facility/equipment/materials.
- ★ A lesson (character equivalent of up to 5 pages) supporting the objectives described above, along with examples of student work representative of that lesson. Supplemental sample materials (character equivalent of up to 3 pages), documents, and/or photographs are encouraged as pdf files.
- ★ Three letters of support with at least one from an education colleague who can describe the merit of the applicant's work. Letters should not exceed two pages each. Letters of support shall accompany packet. Letters sent separately will not be considered.
- ★ A resume or vita, not exceeding character equivalent of two pages, which includes a brief description of the applicant's teaching experience, education, and previous awards and recognition.
- ★ All attachments shall be in pdf format.

Upon receipt, all applications become the property of NSTA. Applications will not be returned. Late or faxed applications will not be accepted. Completed applications must be received by December 15, 2017. Use the on-line submission form at *www.nsta.org/awards* to complete your application. Questions send e-mail to *awards@nsta.org*.

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