

# Arthur L. Williston Contest

ASME's Williston Medal is presented annually to the student engineer or recent graduate who authors the best paper in the area of civic service.

## 2018 TOPIC

### Mining the Deepest Reaches: Outer space edition

NASA's Asteroid Redirect Mission aims to collect a multi-ton asteroid and place it in a stable orbit around Earth's moon. This mission sought to advance technologies needed to protect the Earth from fatal asteroid collisions; moreover, it was to be an initial step towards mining resources from distant bodies. Private companies, such as the Asteroid Mining Company, are also developing space mining technologies. However, the Outer Space Treaty restricts "the exploration and use of outer space" to "peaceful purposes" pursued "for the benefit... of all mankind."

Discuss one or more of the engineering challenges related to deep space travel and in-situ resource utilization. How can we ensure that all technologies developed and resources collected through these endeavors benefit all of mankind per the Outer Space Treaty?

## AWARD

First place receives formal Society recognition including a bronze medal, an honorarium of \$1000USD, a certificate, travel allowance to attend two days of the 2018 International Mechanical Engineering Congress & Exposition, and publication of the winning paper's abstract in *ASME News Online*. Second place receives a \$500USD honorarium and certificate; third place receives a \$250USD honorarium and certificate.



## CONTEST RULES

1. Papers that fail to comply with these contest rules will not be considered by the General Awards Committee.
2. **Eligibility:** ASME Student Members or ASME Members who received a baccalaureate degree in mechanical engineering or mechanical engineering technology not more than two years prior to the contest deadline are eligible. The paper must be the work of an individual and not a team.
3. **Format:** Entries must be formatted as follows: Double-spaced on letter (8½"×11") paper with one-inch margins all around or A4 with equivalent margins. Maximum length is 12 pages, including cover page, abstract (not to exceed one page), references, figures, and footnotes. The cover page shall list 1) the title of the paper; 2) the author's full name, address, the school from which s/he graduated or expects to graduate, actual/expected date of graduation, ASME membership grade & number, and signature; and 3) the full name, address, ASME membership grade & number, and signature of a sponsor who assures that the paper addresses the contest topic and complies with the rules of this contest.
4. **Sponsor:** A Member who has taken an active role in encouraging or guiding the author's participation. The sponsor confirms the author's compliance with the rules of this contest.
5. **Submission:** Email papers as a Microsoft Word document (\*.doc, \*.docx) or Adobe PDF (\*.pdf) to [mckivorf@asme.org](mailto:mckivorf@asme.org).
6. **Deadline:** Papers must be submitted by 11:59 pm Eastern Time (US) on March 1, 2018. Papers submitted after the deadline will not be considered.
7. **Evaluation:** ASME's General Awards Committee will score all papers complying with these contest rules on a 100-point scale with up to 40 points awarded for originality of solution and relevance to the topic, up to 30 points awarded for argument development and persuasiveness, and up to 30 points awarded for presentation and effective communication.
8. **Results:** Participants will be notified of the contest's results by **June 30, 2018**.