

# Call for Papers

**2019 ASEE Annual Conference and Exposition, Tampa, FL, June 16-19, 2019**

**Abstract submissions: Open = September 4<sup>th</sup>, 2018**

**Closed = October 15<sup>th</sup>, 2018**

The [Energy Conversion and Conservation Division \(ECCD\)](#) invites papers for the 126<sup>th</sup> ASEE Annual Conference and Exposition. The division is multi-disciplinary and is honored to share innovative pedagogy related to all forms of energy generation, distribution, use, and conservation with the engineering education community. Authors should consider submitting technical papers for oral or poster presentations, as well as recommendations for Workshops, Special Panels, Outreach Events, and Service Projects.

**Topics of Interest include but are not limited to:**

- Innovative Research and its dissemination into grades P-20
- Innovative teaching and learning strategies
- Research methods to assess teaching and learning strategies
- Curriculum content innovation
- Hands-on Projects for grades P-20
- Novel experiments and use of laboratory equipment and their impact on learning
- Integrating research and engineering education
- Impact of problem-based learning, collaborative learning, cooperative learning, discovery learning and inverted learning
- Outreach programs that involve energy conversion and conservation industry
- Renewable Energy Sources
- Manufacturing – all processes including 3D printing
- Energy conversion technologies
- Energy storage technologies
- Engineering for sustainability and emissions reductions
- Worldwide energy supply/demand issues
- Electrical distribution and power systems
- Industrial and commercial scale energy conversion and conservation
- Discipline-specific engineering research relating to energy conversion and conservation (electrical, mechanical, nuclear, chemical, aerospace, civil, computer, textile, petroleum, biological, agricultural, natural resources, etc.)
- Role of engineers in the formulation and enforcement of public policy related to energy at all levels.
- Research Experiences for Undergraduates (REU) projects related to energy conversion or conservation.

The 2019 ASEE Annual Conference and Exposition Author's Kit can be found on [this webpage](#). Authors should submit an abstract of 300 words or less on their paper topic. All ASEE papers are published to present. Panels must also submit an abstract and may submit a full paper. Papers accepted for publication in the Proceedings must be presented by at least one registered conference participant in a designated technical session or poster session. ECCD will not accept work-in-progress (WIP) papers or papers that overlap significantly in content that had been (or will be) published elsewhere.

ECCD sponsors a First (\$300), Second (\$200), and Third (\$100) Best Paper award to be presented at the Business Meeting during the conference. Please also find the attached diversity and best papers rubric in the appendix. I hope you would consider and submit an abstract to the ECCD, and feel free to contact me with any questions!

Ted Song, Ph.D.

2018 ECCD Program Chair

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## 2019 Best Diversity Paper Rubric

Diversity Statement: <http://diversity.asee.org/DiversityStatement>

Please adapt this rubric to value both research and practitioner based manuscripts equally.

		3 = Excellent	2 = Good	1 = Satisfactory	0 = Needs Improvement
CONTENT (50%)	Originality & Impact	Content contains highly original treatment of, or new perspective on a key diversity topic. Highly Impactful Effort.	Content contains some original treatment of, or new perspective on a key diversity topic. Impactful Effort.	Content contains moderately original treatment of, or new perspective on a key diversity topic. Moderately Impactful Effort.	Content contains minimal original treatment of, or new perspective on a key diversity topic. Weakly Impactful Effort.
	Research or Practitioner Approach	The research or practitioner approach is novel and/or sophisticated and appropriate, and is consistent with the perspective (quantitative, qualitative, mixed, other).	The research or practitioner approach is advanced and appropriate, and is consistent with the perspective (quantitative, qualitative, mixed, other).	The research or practitioner approach is basic, but still appropriate, and is consistent with the perspective (quantitative, qualitative, mixed, other).	The research or practitioner approach is inadequate and/or not appropriate for the purpose of the paper.
	Results or Outcomes	Data collection and assessment results/outcomes are very clear and logical, strongly supporting the paper goals.	Data collection and assessment results/outcomes are clear and logical, supporting the paper goals.	Data collection and assessment results/outcomes are somewhat clear and logical, moderately supporting paper goals.	Data collection and assessment results/outcomes need improvement.
	Scholarship or Context	Content reviews or builds on appropriate prior work or contextualizes practitioner purpose to a significant extent.	Content reviews and builds on appropriate prior work or contextualizes practitioner purpose to a moderate extent.	Content reviews and builds on appropriate prior work or contextualizes practitioner purpose to a limited extent.	Content does not review and build on appropriate prior work or contextualize practitioner purpose.
	Relevance	The paper makes a highly significant contribution to diversifying engineering.	The paper makes a significant contribution to diversifying engineering.	The paper makes a moderate contribution to diversifying engineering.	The paper makes a minimal contribution to diversifying engineering.
FOCUS (35%)	Goals	Diversity goals/objectives are strongly developed and explicitly stated.	Diversity goals/objectives are developed and explicitly stated.	Diversity goals/objectives are not fully developed and/or stated.	Diversity goals/objectives are not developed and/or stated.
	Order	Presentation order of ideas is explicitly and consistently clear, logical and effective.	Order of ideas is reasonably clear, logical and effective, but could be improved.	Presentation order of ideas is occasionally confusing.	There is little apparent structure to the flow of ideas, causing confusion.
	Conclusions	Conclusions, implications, and discussions are very well formulated and are strongly supported by the results/outcomes.	Conclusions, implications, and discussions are well formulated and are supported by the results/outcomes.	Conclusions, implications, and discussions are moderately effective and are only partially supported by the results/outcomes.	Conclusions, implications, and discussions are minimally effective and do not appear to be supported by the results/outcomes.
LANGUAGE (15%)	Style	The paper is clear, concise, and consistent. It is easily understandable and a pleasure to read.	The paper is mostly understandable, with occasional inconsistencies that could be improved.	Multiple sections of the paper are difficult to read/understand. The paper could be better structured or more clearly explained.	The paper is difficult to read/understand due to sentence/paragraph structure, word choices, lack of explanations, etc.
	Mechanics	The writing is near perfect with little to no grammar or spelling errors.	Minor grammar or spelling errors are present, but do not detract from the content. Content is clear.	Some grammar or spelling errors are significant and detract from the content. Paper requires further editing.	Pervasive grammar or spelling errors distort meaning and make reading difficult.

**2019 Best Paper Rubric for ECCD**

\*This rubric has been borrowed from the diversity committee and altered to satisfy the needs of the ECCD.

		<b>3 = Excellent</b>	<b>2 = Good</b>	<b>1 = Satisfactory</b>	<b>0 = Needs Improvement</b>
<b>CONTENT (50%)</b>	<b>Originality &amp; Impact</b>	Content contains highly original treatment of, or new perspective on a key energy topic. Highly Impactful Effort.	Content contains some original treatment of, or new perspective on a key energy topic. Impactful Effort.	Content contains moderately original treatment of, or new perspective on a key energy topic. Moderately Impactful Effort.	Content contains minimal original treatment of, or new perspective on a key energy topic. Weakly Impactful Effort.
	<b>Research or Practitioner Approach</b>	The research or practitioner approach is novel and/or sophisticated and appropriate, and is consistent with the perspective (quantitative, qualitative, mixed, other).	The research or practitioner approach is advanced and appropriate, and is consistent with the perspective (quantitative, qualitative, mixed, other).	The research or practitioner approach is basic, but still appropriate, and is consistent with the perspective (quantitative, qualitative, mixed, other).	The research or practitioner approach is inadequate and/or not appropriate for the purpose of the paper.
	<b>Results or Outcomes</b>	Data collection and assessment results/outcomes are very clear and logical, strongly supporting the paper goals.	Data collection and assessment results/outcomes are clear and logical, supporting the paper goals.	Data collection and assessment results/outcomes are somewhat clear and logical, moderately supporting paper goals.	Data collection and assessment results/outcomes need improvement.
	<b>Scholarship or Context</b>	Content reviews or builds on appropriate prior work or contextualizes practitioner purpose to a significant extent.	Content reviews and builds on appropriate prior work or contextualizes practitioner purpose to a moderate extent.	Content reviews and builds on appropriate prior work or contextualizes practitioner purpose to a limited extent.	Content does not review and build on appropriate prior work or contextualize practitioner purpose.
	<b>Relevance</b>	The paper makes a highly significant contribution to energy engineering education.	The paper makes a significant contribution to energy engineering education.	The paper makes a moderate contribution to energy engineering education.	The paper makes a minimal contribution to energy engineering education.
<b>FOCUS (35%)</b>	<b>Goals</b>	energy goals/objectives are strongly developed and explicitly stated.	energy goals/objectives are developed and explicitly stated.	energy goals/objectives are not fully developed and/or stated.	energy goals/objectives are not developed and/or stated.
	<b>Order</b>	Presentation order of ideas is explicitly and consistently clear, logical and effective.	Order of ideas is reasonably clear, logical and effective, but could be improved.	Presentation order of ideas is occasionally confusing.	There is little apparent structure to the flow of ideas, causing confusion.
	<b>Conclusions</b>	Conclusions, implications, and discussions are very well formulated and are strongly supported by the results/outcomes.	Conclusions, implications, and discussions are well formulated and are supported by the results/outcomes.	Conclusions, implications, and discussions are moderately effective and are only partially supported by the results/outcomes.	Conclusions, implications, and discussions are minimally effective and do not appear to be supported by the results/outcomes.
<b>LANGUAGE (15%)</b>	<b>Style</b>	The paper is clear, concise, and consistent. It is easily understandable and a pleasure to read.	The paper is mostly understandable, with occasional inconsistencies that could be improved.	Multiple sections of the paper are difficult to read/understand. The paper could be better structured or more clearly explained.	The paper is difficult to read/understand due to sentence/paragraph structure, word choices, lack of explanations, etc.
	<b>Mechanics</b>	The writing is near perfect with little to no grammar or spelling errors.	Minor grammar or spelling errors are present, but do not detract from the content. Content is clear.	Some grammar or spelling errors are significant and detract from the content. Paper requires further editing.	Pervasive grammar or spelling errors distort meaning and make reading difficult.