2021 ASEE Biomedical Engineering Division – Call for Papers

The Biomedical Engineering Division (BED) of the American Society for Engineering Education (ASEE) invites papers for the **2021 Annual Conference and Exposition in Long Beach, California, June 27-30, 2021**. Note the following submission schedule:
- Abstract Submissions: Open – Tuesday, September 8, 2020
- Abstract Submission: Due – Monday, October 12, 2020
- Draft Paper (for abstracts that are accepted) Due – February 8, 2021
- Revised Paper (for draft papers that are accepted) Due – March 22, 2021

Summary Points for this Call for Papers
- The Biomedical Engineering Division encourages submissions related to biomedical engineering education and research
- We accept four types of papers: work in progress (WIP) papers, evidence-based practice papers, research papers, and panel papers.
- **This year, we seek to specifically catalyze engagement with our community, thus authors are encouraged to note we added a new Panel option for paper submissions.**

Please consider submitting on topics relevant to biomedical engineering (BME) education and joining us at this exceptional conference. Authors are encouraged to submit papers on any relevant topic in BME education. Sessions in typical years have included papers on
- BME design, entrepreneurship, and commercialization
- BME courses & curriculum, laboratories & modules, and teaching interventions & pedagogy, assessment
- Professional development and industry engagement
- BME education research
- Diversity, equity, and inclusion

Paper Submissions

New this year, submissions can be targeted to **one of three tracks**: full paper, work in progress, and **panel track.** It is strongly suggested that all papers include a brief review of the current state of the education literature with regard to the submitted work.

1. **Full paper track:** There are two types of full paper submissions: educational research and evidence-based practice. When submitting either type of paper, you should be confident that you meet the following:

a) *Educational research topics:* these types of submissions should have a clear research question, and results that address the question. The quality of the research data should support a clear conclusion and outline the connection to theory, either in the framing or interpretation of the study.

b) *Evidence-based practice topics:* these types of submissions should have a clearly stated intervention and related assessment data that evaluates the impact of the intervention. The quality of the assessment data should support a clear conclusion regarding the impact of the intervention.

2. **Work in Progress (WIP) track:** WIP submissions describe an ongoing effort in educational research or evidence-based practice specific to BME education. A submission falls into this category because ideas have yet to be put into practice, or because assessment data is still in

the process of being collected and analyzed for impact. At the conference, WIP submissions are presented in either a poster or postcard session.

> a) *Poster Session* – These submissions will be presented during the division's poster session in the convention hall. The poster session format provides authors with a venue to present research and course innovations in a public setting. Authors are expected to stand near their poster for the entire session to engage with poster session attendees.

> b) *Postcard Session* – This is a novel session type in which authors pitch their work with a two-slide overview of their work in five minutes or less. After the pitch is made, attendees will have the opportunity to engage with and provide feedback to the authors in a poster session format.

Accepted WIP submissions will be designated as postcard or poster session by the Program Chair-Elect based on reviewers' evaluations of novelty, technical merit, outcomes, and relevance to biomedical engineering education. In either format, the WIP track gives authors an opportunity to get feedback from the BME education community on ongoing efforts. If you are able to collect additional data and draw a clear conclusion at a later date, you can resubmit the same topic as a full paper in a future year. ***When submitting a paper to this track, you must start your title with "Work in Progress:" and select the "Work in Progress" checkbox in the online submission system.***

3. **Panel Track (NEW THIS YEAR):** In an effort to encourage more innovative presentations at ASEE, we are encouraging informal panel sessions as defined in the 2019 ASEE Conference Playbook[1]. To do this, you will need to seek out colleagues who are willing to write a paper (12-page limit) around a panel topic of your choosing and presenting their panel in the format of "**Question the Method**" or "**Engineering Shark Tank**." Four to six authors or collaborators will need to write independent papers, which will be peer reviewed. The panel title must be identified in the first sentence of your abstract. Authors are encouraged to provide a common panel summary paragraph in the introduction of their papers to help readers and reviewers contextualize the papers as part of a panel session. (Note: a minimum of four of the panel papers must be accepted for publication to proceed in this format, otherwise, papers will be incorporated into other sessions.)

Review to Publish

ASEE BED has implemented a "review to present" requirement. It is expected that the submitting (primary) author will support the division by reviewing both abstracts and papers for the division. If the submitting author is a student, they should designate a co-author to fulfill their review requirement. Note that primary authors submitting more than one abstract will not receive an increased review load. Those who are unable to fulfill this commitment by the timelines required may have their own papers rejected by the session chair, regardless of paper quality.

Abstract submission

1. For both tracks, you must submit an abstract by the deadline above. Abstracts are generally up to 1 full page of text (750 words maximum).
2. Abstracts should follow the guidelines specified in the ASEE author's kit (see link below).
3. Because ASEE uses a double-blind review process, be sure to omit any information in your abstract or references that identifies you or your institution.
4. If the program chair determines that your full paper submission does not meet the criteria for that track, your submission may be reclassified into the WIP track.

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[1] https://sites.asee.org/bed/wp-content/uploads/sites/24/2019/08/ASEE-Conference-Playbook-Version-1.0.pdf

5. Reviewers will evaluate your abstract based on the criteria listed below.

Draft and revised paper submission
1. If your abstract is accepted, please note the reviewer comments as you write your paper, which must be submitted by the deadline above. Also, note that acceptance of your abstract does not guarantee that your paper will be accepted.
2. Draft papers should be a maximum of 3 pages for WIP submissions; they are generally 8 pages or longer for full papers.
3. Because ASEE uses a double-blind review process, authors' names or institutional names should not be included in the abstract, references, filename, or document properties.
4. Reviewers will evaluate your paper based on the criteria listed below.
5. If the program chair determines that your full paper submission does not meet the criteria for that track, your submission may be reclassified into the WIP track.

Reviewers will evaluate your submission based on the following criteria
- Originality – does this describe an innovative approach?
- Scholarship – does this review and build on appropriate prior work?
- Goals – are the goals strongly developed and explicitly stated?
- Research approach – is the approach novel, sophisticated, and/or appropriate?
- Results – are data collection and assessment results clear and logical?
- Conclusions – are the conclusions well formulated? If this is a full paper submission, are there sufficient results to strongly support the conclusions?
- Relevance – does this paper make a significant contribution to the field of engineering education?
- Order – are the ideas presented in a clear and logical manner?
- Style – is the writing clear, concise, consistent, and easy to read?
- Writing mechanics – is the writing free of grammatical, spelling, and proofreading errors?

All abstracts and papers must be submitted electronically via ASEE's Monolith system. Authors are expected to consult the Author's Kit at the link below before submitting. You will be able to find submission deadlines, required formats, and other information via the ASEE website:
https://www.asee.org/documents/conferences/annual/2021/2021-Authors-Kit.pdf

If you have questions regarding the abstract and paper submission, please contact:
- 2021 BED Program Chair, Dr. Aileen Huang-Saad, University of Michigan, aileenhs@uinch.edu
- 2022 BED Program Chair-Elect, Dr. Tanya Nocera, The Ohio State University, nocera.15@osu.edu

Come to Long Beach in June 2020 to see and present cutting-edge work in Biomedical Engineering education! We hope to see you there.