# Instructions for Authors

## Content:

The Journal of STEM (Science, Technology, Engineering and Mathematics) Education: Innovations and Research electronically publishes peer-reviewed:

(a) real-world case studies and other innovations in education
(b) research articles from educational research that informs the readers on teaching and learning endeavors in STEM, and
(c) articles that discuss recent developments that impact STEM education in such areas as policy and industry needs.

The case studies may include color photographs, charts, and other visual aids in order to bring engineering topics alive. The research articles will focus on innovations that have been implemented in educational institutions. These case studies and articles are expected to be used by faculty members in universities, four-year colleges, two-year colleges, and high schools. In addition, the journal provides information that would help the STEM instructors in their educational mission by publishing:

(a) a comprehensive list of articles that appeared in other journals,
(b) grant announcements related to STEM education, and
(c) advertisements from companies.

## Case Studies and Other Innovations in Education:

Case studies and other innovations in education accepted for publication will deal with issues important to STEM practitioners. They are expected to be well founded in STEM content, informed by educational research, and tested through assessment of impact on student learning. The journal not only emphasizes cases based on field research, but also accepts secondary-sourced cases. The journal encourages case studies that cut across the different STEM areas as well as cover non-technical issues such as finance, cost, management, risk, safety, etc. The case studies are expected to be framed around problems facing a decision-maker in an organization. Previously published cases or articles (except those appearing as a short overview in proceedings, posted on web pages, or presented in conferences or workshops) are not eligible for consideration. The journal would accept cases synthesized from author experience. Cases must be accompanied by a comprehensive "Instructor's Guide," which includes at least the following elements:

(a) a one-page synopsis of the case.
(b) identification of the intended course and audience. Identification of any associated readings or theoretical materials that teachers might draw on to relate the case to their field or course.
(c) assignment questions for students, accompanied by a full analysis of each question.
(d) an epilogue or follow-up information about the decision actually taken.

## Research Articles:

Articles accepted for publication will describe experiments, innovations, awards, and programs involving STEM education. In addition, articles emphasizing recent developments that impact STEM education in such as areas as policy and industry needs would be published. The articles that describe educational innovations are expected to describe the details of the experiments, provide visual materials that make the experiment clear to the reader, and discuss the impact on implementation in classrooms. Articles need to include an evaluation or assessment of the benefit of the instructional innovation.

## Submission Process:

Four copies of the manuscript or an electronic version of the case study/article in Microsoft Word should be submitted to one of the editors-in-chief:

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The authors should suggest the names of four reviewers, out of which one reviewer would be chosen. Cases submitted for review should be accompanied by a cover letter from the corresponding author, including the following paragraph: *"In submitting this case to the Journal of STEM Education: Innovations and Research for widespread distribution in print and electronic media, I (we) certify that it is original work based on real events in a real organization. It has not been published and is not under review elsewhere. Copyright holders have given permission for the use of any material not permitted by the "Fair Use Doctrine". The host organization has signed a release authorizing the publication of all information gathered with understandings of confidentiality."* The submission must include the name and contact information of the author and all co-authors.

Upon acceptance of the case study or an article, the authors ***must provide a digital text file that does not contain any photographs or charts embedded in the text from applications such as Microsoft Word or PowerPoint. Original photographs or digital images of at least 300 dpi resolution must be provided to the journal.*** Typically, photographs submitted from the World Wide Web are not of sufficient quality. Authors also have to sign a copyright form transferring copyright. A Publication fee will be assessed for each article that will be electronically published. The author(s) will receive a final electronic version of their article.

## Review and Acceptance Process:

A key element of publication will be the short turn-around time between the submission of the case study and its publication in the journal. The editors will work with the authors in order to achieve a fast turn-around time in the review and publication process. The case study or article will be reviewed by teachers, researchers, and practitioners in the appropriate discipline. Frequently, editorial board members will serve as reviewers. In addition, reviewers are appointed on an as-needed basis.

## Developers of the Journal:

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