

---

# EDITORIAL

We would like to wish you all a happy new year. We are delighted to present to you the 4(3&4) issue of the *Journal of STEM Education: Innovations and Research*. Please note that we have renamed the journal (from the *Journal of SMET Education*) to reflect a change in usage by the National Science Foundation, which has adopted the term “STEM” to emphasize that the focus needs to be on science, technology, engineering and math. As some of you may have noticed, our website address has also changed, to [www.jstem.org](http://www.jstem.org). Unfortunately, we released our previous website address, [www.jsmet.org](http://www.jsmet.org), not realizing that it would be immediately picked up by a Rumania-based pornographic site. It was amazing to see the speed with which the alternate site came up! We wish to apologize for any embarrassment this may have caused to those of you inadvertently visiting the old address.

Another major change will also be ushered in this year. The board of directors of the Institute for STEM Education and Research has recommended that we move to electronic publishing of the *Journal*, replacing the current print copy editions. This will make it possible to publish the journal more quickly and substantially reduce the amount of time it takes between acceptance of a paper and its publication. In light of this recommendation, the journal will go fully on-line starting with the 5(1&2) issue in 2004. No more paper copies of the journal will be printed, although hard copy reprints of articles will be provided to authors at cost for distribution to colleagues. In addition, it was decided that the website would be made available to the widest possible audience and would thus not be restricted by subscriber logins. Given our goal to make the journal accessible to all educators, we must reluctantly impose an article publication fee in order to cover our costs. Authors whose papers are accepted for electronic publication will have to pay a fee in order for the article to be published. This policy will go into effect immediately and our authors will be informed of their options. We hope you agree with us with regard to this policy change. Our intention is to make the acceptance to publication cycle time as short as possible and to make the journal accessible to a much broader audience. We are excited by the new opportunities opened up by this change and hope you will continue to visit our website and submit articles/case studies to the *Journal* in its new electronic incarnation.

In the current issue, we are publishing seven articles. The first article, written by Dr. Nam Suh, discusses how the mechanical engineering department at MIT is reaching out to include the disciplines of physics, information, and biology, while maintaining its strong foundation in design. The second article, by Drs. Clewett and Tran, describes how Micro-Electro-Mechanical-Systems (MEMS) can be used as a vehicle to teach engineering and physical science concepts to middle-school students. The assessment results show a significant improvement in attitude and the comments show an overall increase in interest from the students. The third article, by Dr. Dahm, discusses a game involving the selection of investments that was integrated into a course on engineering economics. Student response to the exercise was extremely positive; they found it both enjoyable and beneficial.

In the next article, Dr. Pan discusses an innovative method to teach parallel computing, then Dr. Adams shows the importance of building successful student teams in engineering classrooms in her article. She stresses that it is an important use of classroom time, ensuring that students learn how to become part of an effective team, a skill which will be invaluable in their later careers. Drs. Chen, Sobh, and Tibrewal discuss a software application that visualizes data structures and their associated insertion and deletion operations. They anticipate that this tool can be used to supplement traditional instruction. Finally, Drs. Budny and Paul discuss the process of educating new students and parents, helping them build realistically expectations of the challenges inherent in the first year of a student’s university experience.

In an additional piece, Dr. Kulonda describes his experience attending a LITEE workshop during March 2002. He argues that participants were not *taught* the case method, they were *immersed* in it and concludes that the LITEE workshop can be very helpful in improving engineering education. In this context, we are proud to announce that the LITEE workshop has been now been approved as a CASEE dissemination channel (the Center for the Advancement of Scholarship on Engineering Education, an initiative of the National Academy of Engineering).

We hope that you enjoy reading this issue of the *Journal of STEM Education* as much as we have enjoyed editing it. As always, it has been a pleasure and a privilege to work with our contributors. Please send us your feedback, and look forward to seeing the next issue at our (new!) website: [www.jstem.org](http://www.jstem.org).

**P.K. Raju and Chetan S. Sankar**