

Editorial

Numbers appear in all aspects of our life including both engineering and education. Education institutions are concerned about the number of students enrolled, the number of students graduating, the number of degrees offered, the number of library holdings, the number of faculty members, and an abundance of other numbers. Some institutions, if not all of them, are concerned about the ratings they receive by various agencies and magazines. Educators and researchers are sometimes judged by the number of papers and pages they publish, the number of grants, the number of courses taught; not to mention the students' ratings. For students, marks are an essential concern. For journals: the number of readers, subscribers, citations, issues per year and pages published are of particular importance.

Numbers help with decision making; they would be the only input if decisions were done by a machine. However, decisions and judgments made by humans necessitate thinking beyond numbers. The same numerical value assigned to a characteristic could be good or bad depending on the purpose. A large number of students in a classroom may be welcome from a financial point of view but not from a pedagogical point of view. An incomplete set of numbers could lead to less than optimum decisions. The same applies to using numbers beyond the intended purpose or range of applicability.

Numbers are important, but one should not be obsessed with them or believe that human effort could be judged by a single number. We advise students that although marks are important, they are not the only goal to which they should direct their efforts. It is very shortsighted and wasteful to work solely for marks rather than sound education. For certain, one of the reasons employers conduct interviews is that they feel marks alone may not represent other important skills and knowledge. Similar advice applies to educational institutions, educators, researchers and journals. Obsession with numbers is unhealthy; numbers should be used in combination with other considerations and in a thoughtful way. Additionally, one has to be wary of the limitations and the suppression of information with numbers. It was attributed to Newton that he said: *It is the weight, not the number of experiments that is to be regarded.*

In this issue we have a large number of heavy-weight papers. The issue starts with the first part of the special issue on *Applications of Engineering Education Research*. The issue is guest edited by Professor Susan Lord and Professor Cynthia Finelli to whom I am very grateful. Also presented in this issue are papers addressing various topics of interest in engineering education. I would like to thank all the authors for making these important contributions.

Enjoy issue number 26-4!

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