

Editorial

Biman Nath, Associate Editor

It is often said that teaching is an art. A good teacher is not someone who simply informs the students of some formulae and derivations, but someone who enthralls them, educates and inspires them. Stephen Prokofyevich Timoshenko, the scientist we feature in this issue, was a legendary teacher and a writer of textbooks in engineering, apart from being a renowned scientist. He revolutionized the teaching of engineering by insisting on honing the mathematical skills of students, which would allow them to tackle a large variety of problems in a methodical way.



We present excerpts from his autobiography in the ‘Reflections’ section, which brings out his dissatisfaction with the method of teaching of engineering in USA at the beginning of the last century and how he introduced his ideas of improving upon them. It also contains some gems of advice for novice teachers : “...though I know in advance what I am to say to the students, I never give a lecture without careful preparation. Every lecture is written out, but during the lecture I never use my notes.” A couple of articles on his textbooks and his research on bending of beams bring out the different aspects of Timoshenko’s life and work.

Although we often hear stories about important achievements of ancient Indian mathematicians like Aryabhata or Bhaskara, they are seldom explained to us in the language of modern mathematics, or their relevance in the history of mathematics is rarely pointed out in a candid manner. An article in this issue on an important mathematical discovery by Aryabhata explains it lucidly and puts it in the proper perspective.

Another article (to be completed in two parts) on the large electron positron collider explains the elementary ideas in the physics of elementary particle. In the biology section, there is an article on dragonflies that will interest every nature watcher, and glial cells make a reappearance in an article that discusses their relevance for critical diseases.

“...though I know in advance what I am to say to the students, I never give a lecture without careful preparation. Every lecture is written out, but during the lecture I never use my notes.”

Timoshenko