

Editorial

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In 1994, the Indian Academy of Sciences commissioned a study on the status of University science education in the country. The Academy report made several recommendations to improve the obviously unsatisfactory situation. Among these was a proposal to start a journal of science education aimed at undergraduate students and teachers, which led to the birth of *Resonance* in 1996. Eleven years on, it is heartening to see that *Resonance* is having some impact in this regard. However, the debate about the state of science education



in the country rages on. The problems are well known: boring classrooms, ill-equipped laboratories, uninspiring teachers, and more importantly, exams that stress rote learning rather than understanding. The solutions are not so obvious, but the overall situation does seem to be improving. New institutions for high-quality undergraduate education have been or are being established (IISERs at Kolkata, Pune, and three more locations, NISER at Bhubaneswar). The Government has instituted fellowships for encouraging young students to take up careers in science (KVPY), and there are several programmes for students to undergo summer research training. But I think one of the biggest changes is the setting up of R&D facilities by multinational corporations. To take one example, the US-based global technology leader General Electric (GE) has set up its largest R&D facility outside the US in Bangalore. The multidisciplinary R&D centre is hiring MSc's and PhD's in all the sciences, and paying them handsome salaries. Scientists, researchers, and engineers work in virtual teams with their counterparts worldwide in frontier areas of science and technology. Parents and students need to know that such opportunities are opening up, and it is not just an MBA that guarantees a good career.

In this context, I am reminded of Einstein's famous quote "Imagination is more important than knowledge". Einstein epitomised the value of this statement more than anyone else, by using his imagination to come up with audacious new theories of space and time. In an educational system that stresses factual knowledge, it is very important to have such imagination if one is to be creative. The same sentiments were echoed in 1878 by the young van 't Hoff, who is the featured scientist in this issue. Van 't Hoff would know, being the recipient of the first Nobel Prize in Chemistry and the father of modern physical chemistry. His lecture titled "Imagination in Science," delivered when he took up a professorship at the University of Amsterdam and reproduced in the Classics section, should serve as an inspiration to all of us.

