EDITORIAL

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To begin with, I throw up a question to ponder upon, which concerns all of us. I do not have the exact demographic data, but the number of Indians with age between 5 years and 25 years is easily estimated to be about forty crores. How do we get these young people to be educated acquiring variety of skills and knowledge required to be useful to the society? To escalate the challenge, this has to be achieved within a span of five to ten years, otherwise we lose a generation. Whatever we do, this goal simply cannot be reached by recruiting more and more teachers to teach in classrooms. (Where are we going to get the teachers from?) A large part of the solution lies in building up the facility and culture of distance education. By employing appropriate technologies, it is possible to reach nook and corner of our country and the domain expertise of the available teachers can be used to make an impact on enormously large number of students as compared to class room teaching. The distance education may not completely make up for every educational requirement like laboratory training in physics and engineering or treating actual patients in medicine and surgery. These requirements need to be dealt with separately. In a nutshell a systematic planning and development of the field of distance education is inevitable in a country like India, where young people are looked upon as the major resource to its prosperity. An effective development and implementation of the infrastructure and the eduware for this program is a challenge that we have to take and succeed in it. In view of this, Physics Education is now an on-line journal, can be accessed from anywhere and will soon support multi-media inputs, so as to become an effective platform for distance education. We certainly welcome contributions involving distance education techniques like simulations of processes and from people who would like to describe their experiences in developing and using courses for distance education.

Coming to this particular issue, I find it pretty interesting. I must mention the article by Archimann Raju, a junior college student, on the brachistochrone problem with resistance. The algorithm presented by him is of general applicability and can be actually used in practice. A similar kind of work dealing with Snell-Descartes law for massive particles is presented by D.N.Basu. S.Shivakumar's article answers a long standing question in students' mind: why are complex numbers needed in quantum mechanics? Although this question is succinctly dealt with in quantum mechanics text books like Modern Quantum Mechanics by Sakurai, we feel that this article will make the salient features clear to a large class of students, especially those who do not have an easy access to books like Sakurai. The regular features like 'Physics Through Problem Solving' by Ahamad Sayeed and 'Physics through Laboratory' (the article on compound pendulum by Pathare et al.) are educative as always. The paper by Sanjay Harrison and Sindhu Vincent is an example of a quick estimate of the gas pressure in a balloon using very simple experiments. Finally, in his article on Higgs boson Prof. Ramachandran eliminates the myth that Higgs boson is responsible for creation of mass in all situations.

I wish you a happy reading.

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