

'Integrated approach will be IISER thrust'

The scientific community is rejoicing over the fructification of eight years of untiring effort in securing the Centre's nod for a world-class institute for science education and research. Former Pune University vice-chancellor **V.G. Bhide**, who, along with eminent scientist Govind Swarup, is one of the prime movers of this initiative, speaks to **Vishwas Kothari** on the project

How would you react to the PM's recent announcement about the Union Cabinet approving the Indian Institute for Science Education and Research (IISER) proposed in Pune and Kolkata?

It's a welcome move, considering the kind of effort that went and the collective support from almost all leading scientists in the country. From (Govind) Swarup to Prof. C.N.R. Rao, R.A. Mashelkar, Anil Kakodkar, Yash Pal, R. Chidambaram, to name a few.

The proposal has seen a couple of changes in government, modifications, debate and deliberations on the name and location and involvement of virtually every top person who matters in the field. The scientific advisory committee to the PM, under Prof. C.N.R. Rao, provided the real thrust.

What were the considerations behind mooted the institute in 1997?

Originally, we had conceived an Advanced Centre for Science and Technology (ACST). The trend of bright boys and girls shying away from sciences was causing great concern vis-a-vis the emerging global scenario, which will be dominated by science and technology. There is no national institute in basic sciences as there are in technology (IITs) and managements (IIMs). We realised that post-10+2 studies, students either go to engineering or basic sciences and unlike in the past, technology is becoming more dependent on science.

We decided to have an institute devoted to basic and applied sciences in an integrated approach to enable the students to witness the tremendous opportunities for them.

In what way do you propose to meet these objectives?

It is intended that we begin with a five-year integrated course, post-10+2 studies. The first year will have common contents like basic physics principles, mathematical techniques and tools, statis-

tical analysis and life sciences.

Post-first year, students will get the specialisation option in chosen areas and post-third year, they will appear in an aptitude and ability test to decide whether to opt for basic or applied sciences for further two-year specialisation. Those completing basic sciences will get an M.Sc and those completing applied sciences will get a post-graduate (PG) degree. Students will also have a drop-out option post-third year.

What are the practical components?

There will be a nine-month internship programme spread over the summer vacation, post-fourth year, and the final year. Those in basic sciences will get hands-on experience at research labs in India and abroad and those in the applied field will be part of mission-mode projects by organisations like the department of atomic energy, ISRO, CSIR labs and private firms.

What about staff and infrastructure?

It may take two/three years for the building and allied set-up. At the academic level, we have decided to start admitting students

from June, 2006, using NCL and UoP facilities for research and studies. We intend to start with 50 students. On a regular scale, IISER will have 200 students and three programmes viz. post-10+2 integrated M.Sc and PG in applied sciences; post-B.Sc doctoral research and a post-M.Sc study for PhD. An additional one-year job-oriented course focusing on applied sciences is being planned for those not opting for research.

Course staff apart, there will be joint appointments from institutes like IUCAA, NCRA, TIFR, etc. Twenty per cent of the staff will be visiting scientists from India and abroad. The IISER will have state-of-the-art research equipment suited to the thrust areas like advance material sciences; information and communication technology; biotechnology; genetic engineering; bioinformatics and basic sciences.



V.G. Bhide