SPEECH BY THE PRESIDENT OF INDIA, SHRI PRANAB MUKHERJEE AT THE THIRD CONVOCATION OF INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH (IISER), PUNE

Pune, Maharashtra: 15-06-2014

- I consider it as a privilege to be a part of this Third Convocation of the Indian Institute of Science Education and Research (IISER), Pune, which was established in 2006 to augment higher education in science in our country. I am glad to have this opportunity to visit this Institute, which is my first to any of the IISERs.
- I congratulate all the students who have graduated today. You have received your training from one of the best emerging institutions of India. This will have a strong positive impact on your career. Having chosen a path of your own fascination, pursue it with passion and seriousness. Be creative. Think about doing things in a new and efficient way. At the same time, have this realization that as bright young minds, you are capable of contributing so much towards the welfare of society. Think about how you can make the world around you a better place. Act in a manner that always results in greater good for your fellow beings. Your conduct must befit your education and make your alma mater proud.

Friends:

- 3. Science plays a vital role in the advancement of human life. Its study is central to technological progress. To prepare our nation to switch to a knowledge-based society, greater emphasis has been laid on science education. IISERs are a product of this effort to push the country to the frontiers of scientific knowledge. Five IISERs were established with IISERs Pune and Kolkata being the first to be set up in 2006.
- 4. A seat of higher learning must recognize no boundary except those of the human mind itself. IISERs have designed themselves as researchled teaching universities. They have created a niche for themselves through world-class infrastructure for teaching and frontier research, attracting the best of the faculty, building an eco-system for fundamental and inter-disciplinary research and evolving integrated methods of education.

- 5. In this era of information and communication technology, the distinction between the teacher and taught is vanishing. Education is emerging as a process of collaborative learning and teamwork. IISERs have made an excellent beginning in teaching of science as it is required for practice. Their focus is on nurturing the culture of science through a learner-centric, inquiry-driven teaching, in contrast to the conventional lecture-based teaching.
- 6. IISER Pune, in particular, has made rapid strides during its few years of existence. A green campus, modern research facilities and enabling eco-system have nurtured this abode of knowledge where tomorrow's science begins today. I had the good occasion to meet some of the under-graduate and PhD students today who explained to me their projects with a great sense of pride, passion, joy and enthusiasm. I also had the opportunity to know about the science outreach programmes of IISER Pune, which is taking science beyond the campus to enable young people to experience the thrill of science. I am hopeful that this initiative will ignite the minds of school children and attract them towards science.

Friends:

- 7. There is boundless energy and initiative amongst the youth of our country. To meet their scholastic needs and aspirations, new institutions have been created and the capacity of existing ones expanded. This process of boosting the country's higher education infrastructure must continue unabated. Having said that, necessary steps must be taken to ensure that the institutes particularly the ones recently established like **IISERs** operate at full capacity. Scale-up of physical infrastructure must be achieved. At the same time, maintenance of educational standards must not be lost sight of.
- 8. I, as the Visitor of about 98 Central level Institutions of higher education, have been meeting with the Vice Chancellors of Central Universities and Directors of NITs. Recently, I had interacted with the Directors of IISERs and the Indian Institute of Science, Bangalore, to capture their vision. It is our shared understanding that Indian institutions, in order to attain global reckoning, can ill-afford to teach

students anything less than contemporary. Higher education cannot be rendered on the turf of vintage knowledge. It must be driven by newer thinking and innovation. Our institutes must imbibe these attributes while preparing the next generation.

Friends:

- Our higher educational institutions do not match global standards as brought out by international surveys and rating agencies. Though subject-wise, a few institutes manage to garner higher rankings IITs of Madras and Bombay are amongst the top 50 institutions in civil engineering, while IITs of Delhi and Bombay are in the top 50 in electrical engineering their achievements are mostly peripheral as they are not within the top 200 universities in the world in overall ranking. Our country led the world in the field of higher education in ancient times. I do not find any reason why today, we cannot occupy our rightful place in the comity of nations when we have excellent faculty and brilliant students.
- 10. Greater internationalization and collaboration with top global institutes, hiring of foreign faculty and drawing of students from abroad must receive sustained focus. Centres of Excellence must be built to nurture the core competence of our institutions in select areas. Periodic peer review using international benchmarks must be instituted to not only bring international visibility but also understand shortcomings in academic management. I am happy to note that IISER Pune has already set up an International Expert Committee to review its performance and suggest future directions.
- Our institutions must never be found wanting in their proclivity for cutting-edge research. They must identify and initiate new and frontier research, especially in multi-disciplinary areas in energy, environment and health. They must forge collaborations with reputed international institutions, which they can leverage for international research funding. They must promote innovation and act as a platform for the flowering of ingenuous ideas in common man. They must beat their current inertia and establish productive association with the industry through internships and research projects. They must have a dedicated industry-interface cell that can interact with innovation incubators for

monetizing ideas and working towards knowledge transfer. They must together create an 'innovation web' to establish linkage between advanced research centres and grassroots innovators.

Friends:

- 12. Our institutions and other stakeholders in the educational domain must have the requisite functional systems within them to realize the multiple goals for quality up-gradation. This calls for a governance structure in the higher academic institutions that is flexible, monitorable and transparent. This will facilitate quick decision-making and enable adequate support for creative pursuits.
- 13. Our country today requires a pool of talented science graduates. IISERs must be geared to train students to pursue rewarding careers in science and technology. I am delighted to learn about the achievements of IISER Pune in terms of its research publications, scientific collaborations, faculty peer recognitions, research grants and student achievements. Its inter-disciplinary approach in faculty organization, research and teaching is commendable. I congratulate everyone at IISER Pune for making this possible. I also applaud the management for its clear vision. I am confident that IISER Pune would progress to become a top-ranking institute in the times to come and make a difference to science education and research in our country. I wish you all success.

Thank you. Jai Hind.
