



सत्यमेव जयते

# **CONVOCATION ADDRESS**

**OF**

**SHRI ARJUN SINGH  
MINISTER FOR HUMAN RESOURCE  
DEVELOPMENT  
GOVERNMENT OF INDIA**

**AT**

**THE 7th CONVOCATION OF  
INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI  
MAY 30, 2005**

Chief Minister of Assam, Shri Tarun Gogoi, Chairman, Board of Governors, IIT Guwahati, Shri A.K. Saikia, Director of IIT Guwahati, Prof. Gautam Barua, Members of the Board of Governors, Members of the Senate, Faculty, Staff, Graduating Students of the Institute, Ladies and Gentlemen,

I am indeed very happy to be here today to participate in this Convocation of IIT Guwahati. As you are aware, this Institute was conceived during the Prime Ministership of the Late Rajiv Gandhi as part of the Assam Accord in 1985. The foundation stone of the Institute was laid in July 1992 by Shri Narasimha Rao when I was the Minister of Human Resource Development. I have, you would understand, a special attachment to IIT Guwahati and am glad to see the progress made by the Institute in the ten years of its existence; it is expanding rapidly and the extensive construction taking place is witness to this. I am informed that the Institute is doubling its student hostel capacity in the next two years. The Ministry is fully behind the Institute in its developmental plans; we are providing all the possible financial and other support. Further assistance will be provided to the Institute to enable it to harness its full potential.

The IITs are the premier technical Institutes of the country. The alumni of these Institutes have made IIT a globally known brand. Absolutely impartial method of selection of students through JEE and GATE, continuous evaluation system, participative management of faculty and students, and tireless efforts of all, including the staff, have played significant role in the success story of the IIT system. But there is no room for complacency. In this competitive age, we must constantly strive to excel, else we will be left behind. India will have to compete with China, Korea, Japan, Singapore and Israel besides European and American universities. The IIT image will be sustainable only when we are able to establish the quality mark in both education and research. I want to dwell on two aspects that I feel the IITs need to pay attention to.

The first is the area of research, particularly applied research. India is competing with the leading countries in many spheres. To maintain our momentum, it is necessary to produce technology indigenously that will provide inputs to industry. The days of "screwdriver" technology are gone. Industry is now becoming ready to develop their own designs and processes in manufacturing. The IITs must be ready to provide the necessary support. While they have done well in basic research, they haven't done as well in applied research. One of the major reasons has been the lack of support from industry. This is fortunately changing, and the IITs need to change gear, so to speak, to meet the challenges that are before us. Most of us here are carrying mobile phones. When will my mobile phone be based on chips designed at IIT Guwahati? In 2007? This region is rich in petroleum products. When will we see petrochemical plants being set up with technology developed at IIT Guwahati? I hope in the near future. When will we find that the age old tea manufacturing factories of the State have adopted new designs and models developed at IIT Guwahati? Very soon I hope, because the tea industry is in crisis. Floods in the North-East are a major problem. I would like

to see concrete suggestions and solutions emerge from this Institute. I am not talking about one more simulation of a model and a study thereof. I am talking about work based on field study, work incorporating new technical innovations, work that provides revolutionary solutions. Every IIT has to likewise identify problems that industry needs solutions to, problems of the surrounding environment, problems of national significance. Solutions for such problems must be sought with new vigour.

The second aspect I wish to touch upon is the areas of activities of the IITs. The traditional model is to have Departments in the major Engineering disciplines with Departments in the basic Sciences and in Humanities to provide support to these Engineering Departments and to carry out fundamental research. The emphasis on teaching has been on the Engineering disciplines. The time has come to broaden this outlook. It is no longer meaningful to compartmentalize Engineering and Science. There is likely to be more experimentation in Chemistry than in Computer Engineering. Is Biotechnology an Engineering discipline or a Science, or both? The strengths of the Science Departments in the IITs need to be harnessed to provide opportunities to a larger number of students to get quality undergraduate education in the IITs. In this regard, I am glad to note that most of the IITs including IIT Guwahati, have started integrated M.Sc. programmes in the Sciences. This needs to grow and more innovative courses started. Research in the so called basic sciences will get a fillip when quality students graduate from these premier Institutions. The Humanities Departments can also play a role. One IIT has proposed a dual degree programme with a degree in Law along with an engineering degree. Another has proposed a five year programme in Economics. Since excellence is the hallmark of the IIT system, it is felt that the students of IITs should be provided the freedom to grow in multi-dimensional form. It should be possible for an IIT student to specialize in Science or Engineering or Social Sciences or Law or Management. Knowledge does not know boundaries of a discipline. Inter-disciplinary research is the contextual call of the day. In such an atmosphere, IITs should flourish as bouquet of different disciplines of knowledge. New Masters' programmes, particularly with inter-disciplinary orientation could be developed. The Government is ready to provide the necessary financial support to expand the activities of the IITs in these directions. At the same time, the IITs must constantly upgrade their Engineering curriculum to keep pace with the changes in technology.

Graduating students, today is a special day in your life. I am sure you will cherish your IIT degree. I hope you will also do your IIT proud by putting in your best to become an active and responsible citizen of our nation. Be sincere in your work, be scrupulously honest, act with humility, care for the weak and the downtrodden, and remember the institution which nurtured you.

JAI HIND.

(Arjun Singh)  
Minister of Human Resource Development  
Government of India