

CONVOCATION ADDRESS

OF

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Government of India



सत्यमेव जयते

AT

THE 11<sup>TH</sup> CONVOCATION OF  
INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI

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Dr M K Bhan, Secretary, Department of Biotechnology, and Chairman, Board of Governors of IIT Guwahati, members of the Board of Governors, Prof Gautam Barua, Director, IIT Guwahati, members of the Senate, distinguished invitees to the Convocation, faculty and members of the staff, dear graduating students and their parents and guardians, ladies and gentlemen.

As an IITian, I feel particularly privileged to be invited as the Chief Guest of this 11th Convocation of IIT Guwahati. This institute located in the North East of India, has made significant progress in its fifteen years of existence and has established its name as an institute of excellence. It has lived up to the brand name of IIT. This is no insignificant achievement considering that it was established in the early nineties. The IITs have contributed substantially to the country's development. In fact they have contributed towards ushering in the era of knowledge economy in the world. This has significance in the context of a paradigm shift in the economic development policy of the government which now requires that we face global competition. This we are able to do because the contribution of past IIT graduates has given the government confidence that not only can we face global competition, we can excel and thrive with it. In the present scenario education is accepted as one of the most significant factors contributing to the economic growth of a nation. It is also now recognised that technical progress, innovation and efficiency increase are critical elements in an economy's growth. Thus your predecessors have put a bigger challenge for you. You have to excel in a rapidly innovative and competitive world.

The pace of innovation and technical change is accelerating for we have perhaps more scientists and technologists alive today than all those who lived on this earth before. A rapidly growing technology means that products and processes become obsolete sooner. Companies have to reap their benefits in ever shorter periods of time. This encourages growth of large multi-nationals.

Yet in the knowledge economy, the innovative economy, developments in IT and the internet have created opportunities for individuals for start ups that can rapidly become global names. I hope many of you would exploit this opportunity in the days to come.

The number of institutions of higher education and research started in the 1950s and 1960s - the IITs, the CSIR laboratories, the national universities – have stood the country well. However, we did not set up new institutions till this IIT was set up. Now we recognise the need for institutions of higher learning with state-of-the-art facilities. The Government has rightly launched a new wave of expansion. Of course without a focus on primary education and health this cannot provide opportunities to all our citizens.

IIT Guwahati is an institution of the 21<sup>st</sup> century. I am therefore happy to see that this leading institute of academic excellence has developed state-of-the-art infrastructure and has built excellent academic resources. The campus with its natural beauty and serene surroundings is an ideal place for learning and for engaging in research. I am happy to note that it attracts students from all parts of the country and has become a role model amongst institutions of the North East. From the reports presented by your Director, I foresee that it will be an anchor in moderating and benchmarking research and development activities that focus on development on the entire North Eastern region and in the larger perspective of economic growth of the nation.

An IIT in the North East will inspire students in this region to aspire to join it. In times to come it will increasingly attract a significantly larger number of students from the North East. It is the responsibility of the institution and the society at large to create an atmosphere of confidence and ambition so as to motivate prospective students of this region to pursue science and technology education, lead a fulfilling life of creativity and meet the growing demands of highly trained persons required for these segments.

Significant policy initiatives have been put in place at the national level to revitalise the education sector in the country. It has been observed that even with a relatively small number of science students, we do not have enough institutions to absorb them. Seeking opportunities of quality higher education in technology related subjects, many of our students are forced to relocate. We need a large expansion of technical education in this region. For new quality institutions to come up here, we must open up the education sector for massive private participation. Private institutions, however, should not deny access to deserving students. They must provide financial assistance to all those who need it. And the government can help facilitate it. 'Admission on merit

and financial aid on need' should be the motto. Regulatory mechanisms must be replaced by quality control mechanisms. The Knowledge Commission in its recent report has stated that engineering education is among the key enablers of growth for transforming India's economy. The quality of teaching and research in this sphere will play a critical role in the emergence of our country as a global knowledge leader. It will also provide vital inputs for enhancing productivity across sectors. In the past two decades, we have seen an eight-fold increase in the number of institutions imparting engineering education at the undergraduate level. Yet, there are some fundamental issues that need to be addressed. To strengthen the knowledge base of the country and to emphasise the role of science, the Knowledge Commission has even recommended bridging the gap between science and engineering.

In the light of the recommendation of the Knowledge Commission, the Central Government has already initiated setting up institutions of excellence, including seven new IITs, IIMs, National Institute of Science, Education and Research (NISER), IIITs , NIDs and NIFTs across the country.

Speaking on a broader platform, the XIth Plan (2007-2012) places a high priority on education as a central instrument for achieving rapid and inclusive growth with specific emphasis on expansion, excellence and equity. This is reflected in the proposed allocation of Rs. Three trillion, a five fold increase over the Xth Plan. The share of education in the total plan will accordingly increase from 7.7% to 20% representing a credible progress towards the target of 6% of the GDP.

Focusing on the Higher Education Scenario, specifically in the North East region, it is to be highlighted that higher education in the region is characterised as 'single track' focusing on general education and within that, a major concentration in the arts. Over 80% of the three lakh students enrolled in colleges are in the arts, which bears testimony to the assertion that the standard of science teaching is poor in the region. Further, college enrolment is low in the region. It is evident that higher education in the North Eastern region needs to become more relevant to the needs of the population. Each of the North Eastern states has a Central University which, as an autonomous entity, can chart its own growth and development plans and a major thrust would be to focus on areas related to the region's needs, such as agro-based sciences,

biotechnology, patent awareness, organic farming, water conservation, veterinary sciences and seismology, horticulture, medicinal plants and food processing.

I am glad to know that IIT Guwahati has taken a leading role by integrating Science and Engineering at the B.Tech level programs. I am told that Physics, Chemistry and Mathematics departments at IIT Guwahati are offering BTech programmes in Engineering Physics, Chemical Science & Technology and Mathematics and Computing, respectively.

It is, however, not enough to know science and engineering. Technical training is one thing, education is another. IIT students should have a good measure of the humanities and social sciences. I recognise the difficulties of providing 'education'. I did my Doctor of Science degree in Civil Engineering from MIT. While doing this I felt that I needed to get some 'education' and I took all the graduate and advanced graduate courses in economic theory and development. In the end I got a Masters Degree in Economics too. But the sad story was, Economics had become so technical that I felt that I had got still more technical training but not adequate education. I do hope you will have wider interests outside your fields of specialisation, for it will lead to a richer, fuller life.

I am glad that IIT Guwahati is working on projects that are of relevance to this region. I appreciate its involvement in flood control projects, in earthquake research, in the oil sector, and in harnessing the bio-resources of the region. I expect much more though. I expect major breakthroughs to emerge from your research. Breakthroughs that will change the economic scenario, breakthroughs that will bring joy and hope to the millions of people who are struggling to eke out a living. Agricultural practices must be transformed and technological solutions must be put forward to improve productivity, to increase value addition, and to reduce waste.

The city of Guwahati is expanding and your government has released a draft master plan visualising the future expansion of the city. I am informed that a study has been initiated to develop a comprehensive mobility plan for the Guwahati Metropolitan area. Certainly, IIT Guwahati has a decisive role to play in shaping the growth of an environment-friendly city, and to de-congest the city. IIT Guwahati can play an effective role in planning and developing a better mass communication system for the city.

I am optimistic that today's graduating students will undoubtedly make the best use of this hard-earned privilege and not only live up to the responsibilities that go with it, but also lead happy, involved and joyous lives.

My dear students, you are on the thresholds of a professional career ahead and I wish you the very best for everything. Always remember – work hard, enjoy life and remain focused, because you have been specifically chosen and skilled to make the lives of your fellow beings more comfortable, and in doing so, making your existence fruitful and meaningful. I congratulate all of you, your proud parents, your near and dear ones, and the faculty of this esteemed institution who have guided and taught you, and I once again wish you all the very best.

Thank you.

Jai Hind

Dr. Kirit S. Parikh