

Convocation Address

at

“Indian Institute of Technology Kanpur”

Speech by

Shri. Kapil Sibal

**Hon'ble Minister for
Science & Technology and Ocean Development**

on

June 5, 2006

at

Indian Institute of Technology Kanpur
Kanpur-208 016

Honorable Chairman, Board of Governors of IIT Kanpur, Professor C. N. R. Rao, Honorable Members of Board of Governors of IIT, Kanpur, Professor Sanjay G. Dhande, Director, members of the Academic Senate of IIT Kanpur, Mr. Sanjeev S. Kashalkar, Registrar, all faculty, staff, and our precious students waiting to be delivered into the real world, all the graduating students and their family members, ladies and gentlemen. It is both an honour and a privilege to be here with you today for the thirty eighth convocation of the Indian Institute of Technology Kanpur. I am thankful to Professor C. N. R. Rao and Professor Sanjay G. Dhande for giving me this opportunity to be in your midst on this joyous and solemn occasion and be a part of this memorable function at an institution which symbolizes excellence and nurtures the spirit of adventure in the student community in their onward journey of discovery of the world and the self.

1. This is an important day for all of you who have come to receive your degrees. It represents a major milestone in your careers and my wholehearted congratulations to you for all your achievements. I know only too well the time, effort and dedication that is required to obtain such a prestigious academic qualification. You have toiled hard, occasionally more than 18 hours a day, to earn your degrees. I am sure you all will agree with me when I say that there is another group in the audience who need to be congratulated today: your families who have silently sacrificed so that you could succeed in your academic career. Your success today is the result of years of patience, support and the love of your parents and families as well as the dedication and commitment of your faculty,

who too deserve to share in your success and glory. While today is a day of great celebration, the sun will rise tomorrow for another day... and as you awake at sunrise a new life awaits you beyond the portals of this great institution.

2. Before I go to other things, let me guess what some of you might be thinking while sitting here. It is indeed a time to rejoice in your accomplishments and some of you must be so doing. As you think about the future, the prospects are bright and the world is yours to grasp. The benefits of the material world seem accessible and with a degree from this institute, the corridors of corporate power are invitingly open for you to walk through. The world of science beckons you to discover. The knowledge that you have thus far acquired might make

you feel heady. But let me remind you of the famous words of T. H. Huxley ***“if a little knowledge is dangerous, where is the man who has so much as to be out of danger?”*** The acquisition of knowledge should be a constant endeavour. For that path opens up endless opportunities. The more you learn, the less you think you know. Knowledge is a means of discovery and the path to discovery leads to horizons that you will never reach in your life time. Remember this as you embark upon a wonderful absorbing journey. Civilization in the last two centuries through innovations has moved from the “steam engine” to the “search engine” and I just hope that your thirst for search is a constant endeavour, in which you use science and the knowledge you have acquired at this institution for the well being of humanity. I do not wish to

sermonize, but I do feel that in our onward journey in life, some of us only view things from the top. Planet earth looks beautiful from the sky. City of New York is a delight to watch from skyscrapers, but it is important to look at the reality on the ground, the misery, the squalor, the burden of the common man; a life of constant struggle, of discrimination, of poverty, of bloodshed, of hatred. Whatever you do in life, howsoever high you may be, do look down and see if you can, the real world from proximity. Use of science & technology are not ends in themselves and as you walk into the real world, do not use science & technology for that purpose alone. Use science & technology to solve the everyday problems of humanity.

3. Being here reminds me of my days at

Harvard. Dr. Charles Eliot, the eminent educationist, was often asked, “How had Harvard gained its reputation as the greatest storehouse of knowledge?” His sly reply used to be “it is because the freshmen bring in so much of it & that the seniors take away so little of it.” Jokes apart, IITs generally, and more particularly this IIT, are the cre’me de la cre’me of technical education in India. I would not be exaggerating if I say that perhaps the only ‘brand’ of India that is well known globally is the IITian. I believe the establishment of IIT at Kanpur with US assistance was the precursor for the Indian brand equity becoming known globally. This came about due to the cross-flow of Indian & US technical professionals and recognition of the excellence of the Indian mind. This later provided the initial impetus for

outsourcing of a variety of IT services to India. The success story of the Indian IT industry is now history. This has had a far-reaching impact. It helped to build up confidence in Indian industry abroad, brought in competition and helped enhance and establish the country's brand equity globally. In a sense, it also helped to alter the conventional image of India then as a 'land of snake charmers and elephants' to a 'knowledge power house' that is today respected and feared alike. The 'I' of India has now come to be synonymous with IT.

4. Also, the success of the Indian diaspora in the US mostly spurred by IITians, in diverse careers & businesses, attracted the attention of major MNCs to India's potential in the IT sector and later in other areas such as pharmaceuticals, engineering

design, etc. I believe there are today R&D and technical centers of over 300 leading MNCs located in India, be these such companies as GE or Intel or IBM or Microsoft or Lucent or Pfizer or Du Pont. Together, these companies employ over 80,000 scientists and technologists thus enlarging the S&T workforce in the country. More multinationals are flocking to set up their R&D centers in India.

5. You may well ask, why am I recounting this. It is to tell you that you are graduating at a time when India is on a very impressive growth path. It is the right time to be in India. Our Prime Minister has now set a target of 10% for GDP growth, having crossed the 8% mark, now a couple of years in a row. We have a vast foreign exchange reserve of around \$150 billion.

The capital markets are presently a little volatile but they have been soaring in 2006. FDI is doubling every three years. In short the Indian economy, compared to countries of similar size, is near its peak. This is reflected in over 25000 Indians from abroad returning in the past 3 years to set up their own ventures here.

6. You may well say then, with such impressive economic attainments what is holding us back, why don't we have more of "Bangalores, Hyderabad & Punes"? You must appreciate that India is the largest functioning democracy in the world, sustaining one-sixth of mankind with enormous religious, ethnic and linguistic diversity. China does not have such diversity. Governing/managing such a large heterogeneous nation, especially with

a multi-party democratic set up is a truly challenging task. I can assure you that it is much more challenging than managing a Fortune 500 company that several IITians now head.

7. So when you are tempted to blame politicians and bureaucrats for the ‘mess that the country is into’ and readily offer arm-chair solutions, which most multinational management consulting companies are so fond of offering us, I wish to merely remind you what the Prophet Mohammed said, “God changeth not what is in a people until they change what is in themselves”. Also, the Father of our Nation Mahatma Gandhi had rightly said, “We must become the change we want to see”. So don’t blame others, get down and wet your feet in the water, and

change the system and you don't have to become a politician or a bureaucrat to do that.

8. You are fortunate to be perhaps at the best technical institution in the country. Let me take stock of the status of technical education in India. Since the mid-eighties, owing to liberalization of the economy, there has been a mushrooming of engineering and technical education institutions in the private sector. Technical education in India has developed at a rate greater than anywhere else in the world, and we now can boast of the second largest number of engineering stock in the world today, with perhaps over 40 lakh graduate engineers with a current annual enrollment at around 5,00,000. As a result of this unbridled growth, the quality of

education in most of these institutions has suffered. Graduate engineers from most such institutions end up joining call centers or in dismal vocations - a tremendous loss of young talent.

9. Also if we were to draw up a list of some of the main problems that are confronting us in the new century, I believe these are poverty, water, disease, environment, violence and terrorism and especially for us in India, destruction of our traditional social fabric. It is obvious that none of these can be adequately tackled from the sphere of specific individual disciplines. They clearly represent transdisciplinary challenges. This should not represent a problem as long as the learning received by those who go through institutions of higher education is coherent and

challenging. This is unfortunately not the case in most of our technical institutions, since uni-disciplinary education is still widely predominant in almost all our technical institutions and universities, although there are a few exceptions like yours, perhaps.

10. It is customary for a person giving this type of address to preach from the pulpit words of wisdom. I know that the IIT graduates are very mature, and I am sure by this time, all of you must have already decided on your career path ahead. So there is hardly much that I can tell you. Nevertheless here are five points that may be worthwhile for you to keep in mind:

i. All you need for a successful career is a sound mind, a healthy body and above all, a genuine

desire to be of help to as many people as possible;



- ii. Don't forget the boost or help that someone sometime somewhere gave you that made all the difference;
- iii. Life's battles are not necessarily won by the person who is stronger or faster or cleverer but by the person who thinks and has the will to win;
- iv. Every failure will teach you a lesson that you need to learn provided you keep your mind open and are willing to be taught; and
- v. In today's world everyone is rushing to succeed without caring

for or even at the cost of others.
Don't become a victim of this
syndrome.

11. Having said this, let me assure you once again that tremendous opportunities await you, thanks to recent achievements and advancements in science & technology. We are now living through two momentous patterns of scientific-technological change: an overlapping of a computer - communications revolution and a nanotechnology-biology-information revolution that is in the offing. Each alone is powerful enough but combined, the two patterns guarantee that we will be in constant transition as one breakthrough or innovation follows another. We will then witness and be a part of constant transition as each new development is succeeded by

an even better one. We are thus entering into an Age of Transitions and I believe it will last beyond my life time. So you are in the world at the most of exciting and opportune of times.

12. So let me wish you well in the years ahead. May you bring joy to yourself and to your families and to your fellow beings around you. The real test of life is not the frequent challenges in the examination hall. The challenges of life are not resolved by answering questions. They are resolved by asking questions. As you move out today at the end of this wonderful and momentous occasion, ask yourself the question: who am I? Why am I here? What am I destined to do? And can I leave behind IIT Kanpur a better place than it was when I came to it? Wishing all good



luck, in your career and life.

Thanking you.
