

4th Convocation Address of International Institute of Information Technology

India's Future : 'IT' as in 'Indian Talent'

By

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1. Dr. Y.S. Rajasekhara Reddy, Hon'ble Chief Minister of Andhra Pradesh, Prof. Rajeev Sangal, Director, International Institute of Information Technology, Hyderabad, proud graduates, their equally proud parents and friends, all members of the family of IIIT, distinguished guests, ladies and gentlemen.

2. I consider it to be a great honour and a special privilege to have been invited to deliver the convocation address of IIIT. In a short span of time, this institute has created a unique niche for itself. The institute has the dream of becoming a global center of excellence in IT education, research and technology development. This dream that can be converted into reality, if we create the right 'ambition' and the right 'ambience'. I see the presence of both here. I have no doubt, therefore, that this dream will be fulfilled.

3. Let me begin by extending my wholehearted congratulations and my very best wishes to the young graduates. You are going to enter a new exciting world, which is changing rapidly. There are extra-ordinary opportunities for those, who are prepared to face the challenge of change. Indeed, only those of us will survive and succeed, who will be able to anticipate the change and also exploit the change. And those who do this will one day lead the change. We in India should have the ambition of leading the change and make things happen on our own terms.

4. Speaking about change, there are several things that have undergone a change in recent times. One of the most important one is the perception about India. Let me explain. I was reading Times magazine recently. I browsed through the interview of Peter Mandelson, who is Tony Blair's most valued adviser. I was struck by what I read. He said 'in the space of a decade, China and India have emerged as dramatic, dynamic competitors. Over here and in America,

there is a sense that this has put our jobs and livelihoods at stake'. Would you have ever imagined a change of perception of India from a poor and deprived country to a challenger to US & Europe?

5. Just about an year ago, I was having a dinner with the famous economist Jeffrey Sachs. We were discussing the Goldman Sachs report, which predicts that India along with China and USA will be the three top economies of the world by 2050. Jeffrey Sachs said that he disagreed with this report. I wondered why. I thought he meant that India could not perhaps be the part of this privileged pack. I was surprised when he said something quite to the contrary. He said that this could happen sooner than 2050, and also that if India plays its card right, it could occupy even a higher position.

6. What factors cause a rapid turnaround for a country? The turnaround in the fortune of different countries at different points in their history has been attributed to different factors. For USA, it was roads and railways, which led to the big spurt in its economic growth. For Britain, the same factor was textiles. For Denmark, it was milk and milk products. For Sweden, it was timber and timber products. For Middle East, it was oil. What is the oil for India in the 21st Century? I strongly believe that it is IT. And by that I do not mean IT as in 'Information Technology' but IT as in 'Indian talent'. It is this talent that is going to catapult India to great heights in the comity of nations. Other nations have already recognized the power of Indian talent. Let me share my own experience with you.

7. As a member of Indo-German Consultative Committee, I remember attending a meeting in Bonn. There was a presentation by a senior German member. He expressed a concern that one third of Germany in the next 10 to 15 years will be more than 60 years old. A question was put to our German friend. Germany and Japan became economic powerhouses because they excelled in technological innovations. But

then innovation is the domain of the young. How could a predominantly old Germany survive when it becomes old? The reply came quickly from our German friend. He asserted that in the twenty first century, Germany will be sourcing the innovations from a country that is expected to lead in innovation due to the quality of its talent, namely, the Indian talent!

8. We all thought that he was being nice to the Indian delegation. But that is not the case. What he predicted is already happening. One hundred and fifty major companies from USA and Europe have set up their research, design and development centres in India in the last five years and they are not small. Some of them employ 2000 to 3000 employees. They include big names such as Boeing, Daimler Chrysler, Du Pont, General Electric, General Motors, Intel, IBM, Microsoft, Siemens, Unilever and so on. And more are coming every day. Why is this happening? As legendary Jack Welch, the CEO of General Electric (GE) said during the inauguration of GE's R&D Centre in Bangalore 'India is a developing country but it is a developed country as far as its intellectual capital is concerned. We get the best intellectual capital per dollar here – thanks to the amazing quality of Indian talent'. I believe the key word in his remarks is 'Indian talent'.
9. What is so unique about Indian talent? The uniqueness of the Indian mind has been well accepted. It was the Indian mind which recognised the power of the fusion of mind, body and spirit for the first time. The products of Indian mind have influenced the events of the twentieth century. For example, we could not talk about digital economy if binary digits, comprising the numerals 'zero' and 'one' did not exist. But who invented zero? We all know that it was the Indian mind, which invented the concept of 'shunya' or the zero.
10. But then you would say here he is one more of those Indians gloating about the glory of our past. Let me assure you that this great journey of

Indian mind continues unabated. For instance, we always worry about the fact that in Olympics after Olympics we hardly win any medals inspite of being a country of a billion. But I am proud to say that when it comes to the Olympics of mind, we win all the time. Last year, in the Science Olympiads for the school children, we had sent 19 young Indian children. There was a competition amongst eighty nations. Do you know how many of them returned with medals? All 19 of them. So powerful was the quality of those young minds. And so is the case with the quality of all the minds, who have gathered here in this hall today.

11. It is the power of the Indian talent that has given the prestige to Indian IT industry like in no other industry. Infosys and Wipro have caught the imagination of the world. Around 600,000 software professionals contribute to 20% of our exports, and their average age is just around 27 years. Can you imagine 0.06 percent of Indian population making such a difference?

12. This Indian talent has created great waves across the shores of India. The dominant position of Indian diaspora in the American IT industry is legendary. Whether it is Suhas Patil of Cirrus Logic or Gururaj Deshpande of Sycamore Networks or Vinod Khosla of Sun Microsystems, all of them have been stars in their own right. And the Indian talent goes beyond IT. We are then reminded of Victor Menezes of Citibank and Rajat Gupta of McKinsey and Raghuram Rajan of IMF and Rakesh Gangwal of US Airways and Arun Netravali of Bell Laboratories. The list goes on. They have all done us proud. But then you would say that I am citing these examples of Indians in USA. What about India? Would Patil, Khosla, Gupta, Netravali have succeeded in India? Let me respond to this question by narrating an anecdote again.

13. I was involved in the process of interview for the Chief Innovation

Officer of National Innovation Foundation, which I chair. I found that the individual that we were interviewing had an experience in branding a product. I said 'I want to brand my India. How would you do that?' He was puzzled. He had branded a soap, a refrigerator, but he wondered as to how he could brand a nation? I said 'I will make it easy for you. Let me tell you as to how other nations brand themselves. For instance, US brands itself as a land of opportunity!' He immediately replied, 'I will brand India as a land of ideas'. Now here is the issue. India is a land of ideas but it is US that is a land of opportunities. That is why our young people with aspirations go to USA, which provides them an opportunity to reach their own potential. The challenge before all Indians, whether they are in India or abroad, is to make India the land of opportunity.

14. Is India becoming a land of opportunity? I believe it is. Look at the of Indian industry today. It is beginning to realize that if they do not innovate, they will perish. Indian drugs and pharmaceutical industry survived so far by copying known molecules. Now at least ten Indian companies are inventing their own new molecules by getting into discovery research. I spoke to several pharma industry leaders. Collectively, they are looking to employ now hundreds of bright young Ph.D.s. In fact, they are complaining about the shortage of suitably skilled Ph.D.s. in India!

15. There are other sectors where magical changes are taking place. In auto industry, the wheel has turned the full circle. Fifty years ago, it was British Morris Oxford, which was sold as Indian Ambassador on Indian roads. Today, it is Indian Indica that is being sold as City Rover on London roads! Why did this happen? It happened because Indian talent was given an opportunity due to a vision of a leader and because of a conducive policy of the Government.

16. In March 1978, JRD Tata had said 'If Telco was allowed to make a car,

we would have been as good in it as we were in trucks'. But he was not allowed to make the Tata car. Why? Because India was a closed economy. It had not opened up. It had policies which killed competition. In 1991, the then Finance Minister and the present Prime Minister opened this economy up. Ratan Tata was allowed to make the cars. He had the courage to give this challenge to 700 engineers, who had never done an auto-design in their life. He invested Rs. 1760 crores, the highest that have been invested in backing up an indigenously designed, developed and manufactured product. What was the result. The result was a world class car, namely Indica. What is the lesson in this? The 'Indian Talent' of 700 engineers found an expression only when the Government policies allowed competition and a visionary leader, who trusted the 'Indian Talent' baited on them. The winner was India.

17. We lament the loss of the best Indian Talent to the western world. But as we make India as a 'land of opportunity', more talent will return to India. This is already beginning to happen. I spoke to the Chairman of NASSCOM, Dr. Kiran Karnik, recently. NASSCOM have done research on returning Indian professionals. He told me that during the last two years over 20,000 professionals have returned. I went to Jack Welch R&D Centre in Bangalore a few months ago. They have 2400 professionals working there. They told me that 700 of them were young Indians, who had returned in the last 3 to 4 years. I met someone from Intel last month. He told me that in their Indian R&D Centre, they are having 2600 professionals. 400 of them have come back from USA over the last 3 to 4 years. Admittedly, this is a trickle of Indian talent in returning. It is not a torrent yet. But it is heartening to see the change.

18. The challenge before us is to convert this trickle into a torrent. Government can do a lot in this. I am happy to see some recent initiatives taken by the Government of India through its Department of

Science & Technology. One of the notable initiatives is Ramanujan Fellowship. Any young outstanding Indian scientist, who wants to return to India, will be given a monthly remuneration of Rs. 50,000 with Rs. 5.00 lakh per year for contingency to help him in his research. This Fellowship will be available upto 5 years. There is no upper limit on the number of such Fellows. Hopefully, such Fellows will find a challenging opportunity in an institution or industry. We need many more such initiatives.

19. I have talked about getting the Indian talent back that was lost to us. But what about spotting talent and nurturing it in India? We need to 'catch them young', as they say and then mentor them. Let me give an example of what my own CSIR is doing.

20. CSIR has set up the CSIR Diamond Jubilee Invention Award for school children. The objectives of this to spot creativity and innovativeness amongst children and create interest and awareness for intellectual property amongst the children. Any Indian student enrolled in an Indian school below the age of 18 years can compete in this award competition. We have run this competition for three years. We have received thousands of entries. It was amazing to see the power of Indian talent. The age group of these young inventors ranged between 11-18 and from class six to twelve.

21. The Braille developed by Madhav Pathak from a Jabalpur school received the first CSIR Diamond Jubilee Award. Madhav Pathak improved a conventional Braille slate to make writing easier for the blind. It was very tedious for a blind child to memorize more than 300 combinations, since reading and writing is done in the opposite way for a conventional Braille slate. Madhav's innovation makes it possible to read and write from left to right. This invention later received international prizes too.

22. But CSIR does not stop at just spotting the talent. It nurtures it too. CSIR applied for patents in the name of Madhav. Further, the model developed by Madhav was improved by one of CSIR's laboratory, namely, Central Scientific Instruments Organization (CSIO) in Chandigarh. A prototype was developed by CSIO and was evaluated at a blind school in Chandigarh. The new prototype is an improved pocket version providing more space to read and write both for conventional Braille writers and the new Braille writers. We will take Madhav's innovation forward now. Who knows what difference the product coming out from this young Indian talent can make to the blind of the world?

23. I do strongly believe that we need to do much more to spot and nurture young talent all around the country. This process has to begin from the level of school children itself. And this cannot just be the responsibility of the Government. The corporate world must contribute it in a big way. In this context, I am happy to see the efforts by leading corporates, such as Tatas, Birals, Reliance, Mahindras, WIPRO, etc. Interestingly even multinational companies such as Microsoft, INTEL, BASF, Dupont are also searching and recognizing young Indian talent.

24. A timely spotting and supporting of talent can make a huge difference. Let me tell you my own story. I was born in a very poor family. My father died when I was six. My mother, who was uneducated, did menial work to bring me up. I went barefoot till I was twelve. I studied under streetlights. I remember that after my Secondary School Certificate Examination in 1960, although I had secured eleventh rank among 135,000 students in the state, I was about to leave the school, because my mother could not fund my college education. And I remember Sir Dorab Tata Trust coming in with a scholarship of 60 rupees per month. This Trust by Tatas supported me until my graduation. That 60 rupees added so much value to my life but it did

not subtract any value from the Tatas.

25. I would say that every Indian, whether in India or abroad must help the cause. On 3rd July this year, I addressed 3,000 NRIs in Atlanta in USA. At the end of my talk I gave an idea. Apparently, there are 300,000 professionals in Silicon Valley whose average income is more than 200,000 USA dollars. This makes it an annual income of 60 billion dollars. Supposing they would be able to spare one cent out of 10 dollars in supporting and nurturing young Indian talent, we would have 300 crores in Indian rupees. If we assume that a total support to a single student will need Rs. 10,000 per year, we are talking in terms of helping 3 lakh students. The central point I made is that the loss of one cent out of 10 dollars will not make any difference to them. But it will add so much to the Indian talent pool. The idea was received with great enthusiasm. That convinced me that you can take an 'Indian out of India' but not 'India out of an Indian'. Therein lies our hope.

26. I have, by now, developed the reputation of being a 'dangerous optimist' about the great future of India. The reason I earned this reputation is attributed by some to the address that I delivered to the gathering of 5000 scientists at the Science Congress in the year 2000 in Pune. I had said "The next century will belong to India, which will become a unique intellectual and economic power to reckon with, recapturing all its glory, which it had in the millennia gone by". This confidence comes to me because of the demonstrated power of this great Indians talent, to which I have made a repeated reference today.

27. Finally, I would like to again congratulate IIIT. Let IIIT assume the reputation of become 'Indian Institute of Innovative Talent', well known not only for capturing and nurturing talent but building the innovative capacity in this talent to create world beating products, process and

services that will catapult this nation to great heights. I wish all the IIT family the very best in its journey up the limitless ladder of excellence.