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SPECIAL CONVOCATION
and the
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ANNUAL CONVOCATION

24 DECEMBER 2006

ADDRESS BY

GUEST-IN-CHIEF

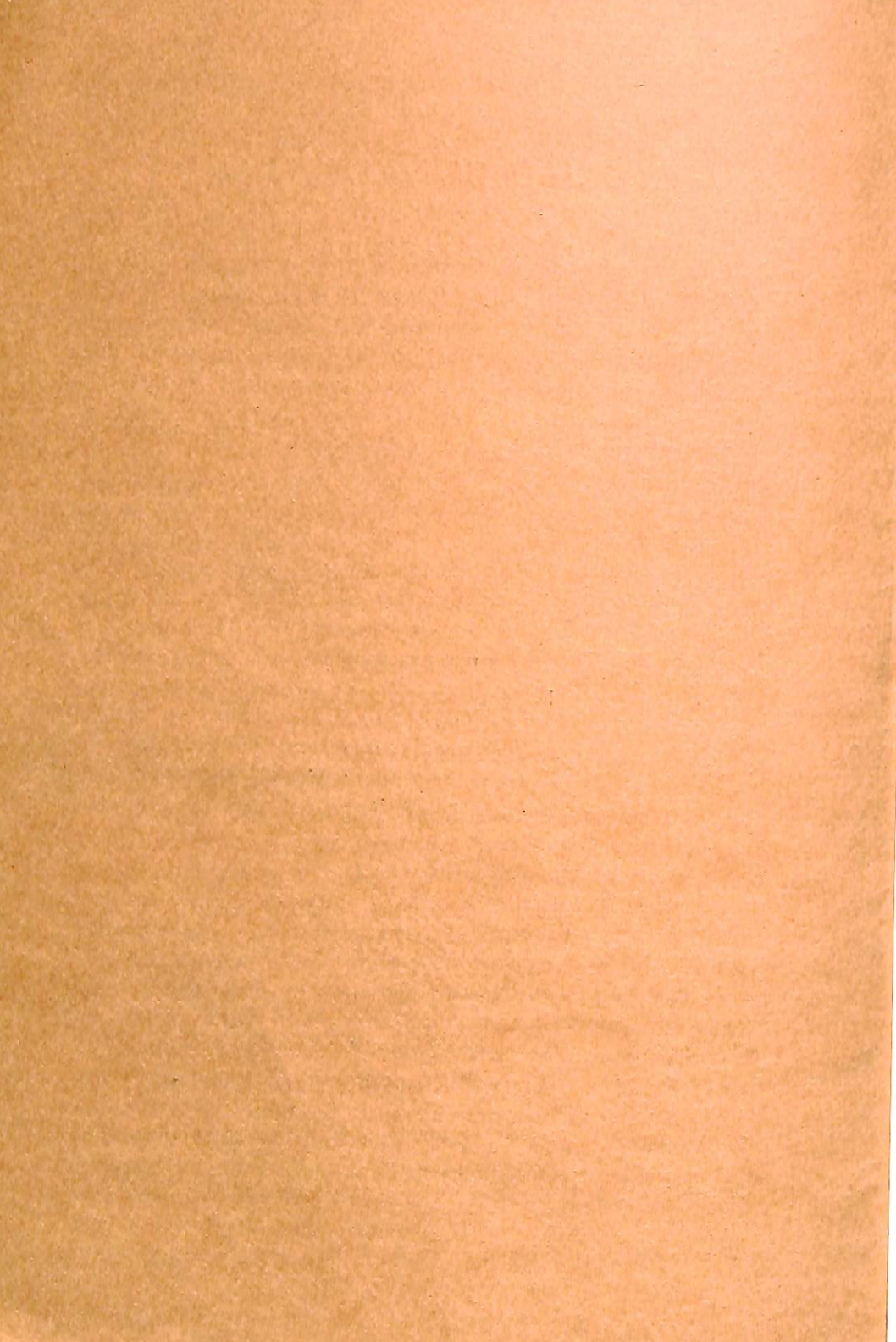
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Governor of West Bengal and Chancellor of the Jadavpur University Shri Gopal Krishna Gandhi ji, Vice Chancellor Professor Shyamal Kanti Sanyal , Members of the University fraternity, distinguished faculty, dear graduating students, ladies and Gentlemen

At the outset let me say how privileged I feel to be part of your 51st annual convocation and to have the opportunity to share a few thoughts with you this morning. Before I do that, I would like to offer my heartiest congratulations and very best wishes to the young graduating students and the medal and prizewinners. May you continue to excel, attain your aspirations and serve the nation and the humanity through the attributes you have imbibed through your association with this university? I realize that this is a very joyous occasion for you and all of you must be looking forward to celebrating it with family and friends and so let me first comfort you by assuring you that mine will be a short presentation.

I have heard with much attention and appreciation the report of the Vice Chancellor Professor Sanyal about the progress and achievements of your university. I have also visited the web site of the Jadavpur university and noted the wide range of teaching, research and outreach activities that you are engaged in. I have personal knowledge of the chemistry department here and greatly value the sustained and extensive contributions made by colleagues here over the years. Two of your outfits, the mechanical and the electrical engineering departments are in their centenary year and it is for very good reasons that Jadavpur university has been selected as a university for potential for excellence by the UGC. This recognition and enhanced level of funding should enable Jadavpur University to renew and upgrade its infrastructure for teaching and research and move along with renewed vigor

and necessary restructuring so that you can continue to march towards a better future.

A convocation address is traditionally a thought provoking, intellectually stimulating discourse. However, this morning due to my own limitations, I will not be able to discharge that expectation. Instead, my endeavor will be to raise a few issues that I consider are important and of topical concern to universities and higher education sector in the context of our country.

a. Higher education scenario in India - Crying need for reform, restructuring and rejuvenation

"The universities as the makers of the future can not persist in the old patterns however valid they may have been in their own day. With the increasing complexity of society and its shifting pattern, universities have to change their objectives and methods, if they are to function effectively in our national life." (S. Radhakrishnan commission report, 1948)

Let this excerpt from the seminal report written more than half a century ago and which continues to be most relevant and inspirational even in the present context be my starting point. It is hardly necessary to emphasize before this informed audience that the state of universities and higher education and research is central to the prosperity and future of our country. In a rapidly globalizing and competitive world, where economic progress, wealth generation and human well being in general are increasingly knowledge driven, availability of skilled and high quality human resources is going to be an indispensable element of development and progress. It is in this context that universities and institutions of higher learning world over and more importantly in our country- a developing economy and an aspiring world power- have a pivotal role. Universities by their very definition and structure are the fountainheads of vigor, youthful energy and vibrancy. They are expected to be the generators of new ideas, creators of knowledge, promoters of arts and aesthetics and must serve as

repositories of a nation's intellectual wealth. Universities therefore need continuous recharging and rejuvenation through influx of new ideas, ongoing reforms and re-tuning of directions and priorities through purposeful internal churning as well as enlightened external stimuli.

India has a vast and numerically very impressive higher education system, one of the largest in the world, with nearly 360 universities, 17000 colleges, and student registration touching 10 million and with close to half a million faculty (teachers). This massive structure can be a formidable force, a world-beater human resource engine in the emerging knowledge regime. If unleashed to its potential, it can make the dream of an 'Indian century' a reality. Yet, for the size of our country with a population touching 1.1 billion, the spread and reach of higher education system is not quite adequate. Only 13% of our students enroll into the higher education stream compared to the world average of 23% (cf. 55% in the developed countries). A huge expansion of HE system in years ahead is inevitable and the expected success of the *Sarva Shiksha Abhiyan* is likely to generate further pressures.

Is our higher education system functional? Yes, but barely so. Indeed, there are many who quite justifiably like to credit our higher education system for chugging along despite innumerable constraints and limitations- both real and self-inflicted. But, is sticking to this survival syndrome justifiable? Do we not owe our aspiring generation a better deal? What is to be done and what are the impediments?

Besides the all-pervasive stagnancy in the higher education system, there are serious anomalies and problems with regard to access, equity and quality. In addition, there are critically important issues of funding, governance, autonomy and accountability that are crucial to an optimally functioning university system. One will not be very off the mark to say that a near crisis like situation pervades the higher education sector and we are frittering away much of the talent, energy, vibrancy and ambitions

of our young population. Clearly, an overhaul of the higher education system through far reaching reforms and restructuring is called for without any further delay, to harness the full potential of our youth towards national and human good. Such a diligence through a process of debate and dialog among various stakeholders with firm political consensus can only ensure that India will have the knowledge capital and human resources to lead it triumphantly into the 21st century. Patchwork solutions are not the way forward.

There is a reason to be hopeful and optimistic about the future of our universities and colleges as our HE system is basically robust, cost effective (at least in public domain) and has exhibited a certain degree of resilience; but, long years of neglect and degeneration have paralyzed it. However, through missionary approach and visionary interventions it can be rejuvenated. We might have missed an opportunity but there is a prospect to leap-frog into a promising future.

b. A call for setting-up a national education commission....

It may be appropriate to recall that the last major reform (Kothari commission, 1968) in HE was affected nearly four decades ago and the more limited recent effort (NPE, 1986) is also now two decades behind us. The world has changed dramatically in the intervening years and the problems and challenges that nations confront today were beyond imagination even a decade ago. It is the most opportune time to set up a national education commission with a time bound and clearly defined mandate of preparing a blue print to navigate our education system in general and HE in particular, to ensure that the high quality minds and trained human capital continue to flow from the portals of our institutions and that access and opportunity is available to all.

c. A paradigm shift in undergraduate education – crafting a new learning system

Issues and areas of concern in higher education are

manifold and complex, ranging from pedagogic to structural but this is not the forum to dwell on all of them. However, I will take this opportunity to share my thoughts on a couple of issues. The most commonly pursued (and popular) stream in HE is the first degree program leading to a Bachelors degree in science/ arts/ commerce among others. How do these programs equip the learner *vis a vis* the needs and expectations of the knowledge and skills driven competitive regime that dominates the real world? There is a stark mismatch between 'what is needed' and 'what is offered' and therefore an urgent need to re-engineer the first degree (bachelor level) programs.

What needs to be done? Foremost is to strike a proper balance between 'learning' (knowing from reading and studying) and 'skills' (broadly the ability to do things well); a major departure from essentially 'learning' centric offerings at present. The 'skill' portfolio needs to be flexible and expansive with provision for acquiring 'multiple and switchable skills'. Since there are limits to the range of 'skills' that can be imparted within the time domain and framework of a structured program, the best course is to equip every learner with a set of 'core skills' that can be tuned and amplified in addition to the discipline based learning.

What would constitute 'core skills' for every graduate? A possible wish list would include 'skills' in numeracy (quantitative/analytical thinking), language and communication, accessing and managing information (data mining) and imbibing the spirit of competitiveness and innovation (out-of-the-box view of things). These attributes of 'core skills', essential for employment, entrepreneurship, knowledge and wealth creation, are not to be viewed as contradictory but are inherently complementary in the pursuit of learning for scholarship and intellectual enrichment.

If every graduate is to acquire 'core skills', it is imperative that the degree programs will have to be redesigned in terms of timeframes, course loads and

disciplinary depth. An appropriate balance has to be struck between the number and level of disciplinary specializations vs the desirability of having a broader interdisciplinary exposure. Should we not strive for a more flexible menu for a bachelor's degree that provides for freedom of choice to a student from offerings in social sciences, humanities, natural sciences and management? These changes in the graduate programs are not difficult to implement and let us hope that some of our institutions will be bold enough to dare.

d. Restoring the primacy of research in the universities

Research and teaching are inseparable and intimately conjoined. For an academic, teaching is sheer joy and brings satisfaction but that is not enough; research provides the avenue for the expression of creative energy and instincts and enriches the intellectual life of a university in a way that nothing else can match. There was a time when most of the research in our country emanated from the universities and academic institutions. Regrettably, it is not so anymore. In India, the center of gravity of scientific research, an activity with which I have more familiarity, has shifted away from the universities and HE institutions. This may be the scenario with other disciplines as well. There may be many valid causative factors for this shift and drifting away of research tradition from the universities but this needs restoration. We as universities and academic institutions must value, recognize and put a premium on research. The culture and tradition of teacher-researcher which flourished at one time need to be rediscovered. Let us recall that great minds and icons of our times like Acharya J. C. Bose, Acharya P. C Ray, Professors C. V. Raman and S. N. Bose among many others taught and researched in the colleges and universities.

For bringing back the vigorous research culture in the universities, particularly in science and engineering, some strategic repositioning will be necessary in view of

the changed circumstances. The perception and practice of research, particularly scientific research has undergone a sea change in recent years, compared with what they were for most of the 20th century. Therefore, new ways and thinking must go into nurturing and promoting research in the university set-up. In the days gone by, scientific research flourished, driven largely by the individual curiosity and enterprise of the faculty and students. Intellectual enrichment was an end in itself and few questions were raised about the relevance or otherwise of research.

However, the focus has now been dramatically transformed. There is increasing pressure to relate scientific research to the needs of society and the marketplace, in order to attract funding. While individual creativity would still remain the mainstay of scientific endeavor, greater emphasis and support for cooperative research is on the anvil. Contemporary research is interdisciplinary, mostly at the interface, capital intensive and requires large teams to tackle major problems. Networking is the new 'mantra' all around and researchers in science and engineering will be required to increasing adept to the culture of collaboration and sharing.

e. **The pristine glory of the universities....**

These are best of times; these are worst of times

Charles Dickens in the '*Tale of two cities*'

Universities need to rediscover their autonomy, independence and commitment to values and ascend to occupy the hallowed space that befits them. It does not help to always blame the politicians or the bureaucrats, although their complicity in perpetuating many of the ills of the universities cannot be overestimated. Those who work and make their living through serving the universities too cannot claim to be unblemished in this regard. In my humble view, commitment to integrity, sense of fairness and objectivity and upholding of academic values are the best insulation against any extraneous meddling.

Teachers and administrators within the academic fraternity should not only educate, nurture and enthuse the young generation but also lead by example. Preparing enlightened citizens for tomorrow is an integral responsibility of the universities and educational institutions. Being in the academic arena for a long time, I do realize that the ground realities are sometimes awesome but it is not prudent to resign and shelter behind the often repeated argument that universities only mirror whatever is happening in the rest of the society. Why can't universities model themselves as the agents of change? Everything possible at our command should be done to inculcate the spirit of enquiry and entrepreneurship among the students and provide an ambiance "...where the mind is without fear and the head is held high...", where scholarship can flourish and academicians can freely glimpse the world of seamless knowledge.

My thoughts and suggestions this morning may be viewed as soaked in idealism and appear to be somewhat distant from the reality that confronts the everyday life in our institutions. But, bridging that divide and crafting success in less than conducive prevailing milieu is the real challenge.

Finally, my dear students, I implore the new graduates of this fine university to set new benchmarks in scholarship, values and service to the nation and humanity. I thank you for your patience and may God bless you all.





PRINTED BY S. K. BASU AT JADAVPUR UNIVERSITY PRESS, KOLKATA-700 032

JUP—185/2006-2007/1,500