

# VIDYASAGAR UNIVERSITY



## *Eighth Annual Convocation*

*Address by*

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*&*

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I am deeply obliged to the Vice-Chancellor and other authorities of the Vidyasagar University for having given me the privilege of addressing you on the occasion of the University's Annual Convocation. I would like to extend my hearty congratulations to all candidates who are receiving their degrees, diplomas and special certificates of recognition on this day. A degree or a diploma from a university immediately distinguishes you from the vast majority of your fellow countrymen. A degree certifies that you have acquired a sufficient level of learning, skill and culture to be able to lead a civilized life. A society does not civilize itself by accident; it occurs through a process of learning, by creative interpretation of experience and by creating new knowledge. Universities are ordained to lead the creative reinterpretation of human experiences and to be trendsetters in generating new knowledge.

The Vidyasagar University, Midnapore established in 1981 and named after the great educationist and social reformer, Ishwar Chandra Vidyasagar has been effectively catering to the higher education and development requirements of the region. The university has responded to the national and global challenges in higher education, keeping its integrity and stated objectives of the intellectual, social, cultural and material development of the society around. While taking care of quantitative growth, the university has also focused on the relevance and quality of the educational offerings resorting to internationally accepted methods of self-evaluation, assessment and accreditation. I congratulate the Vice-Chancellor, the members of the Executive Council, the academic bodies, teachers, non-teaching staff and students for their dedicated team work in bringing laurels to the university.

## **Education, knowledge- driven economy & social cohesion**

Universities have a significant role in supporting knowledge-driven economic growth strategies and in the construction of democratic, socially cohesive societies. Higher Education is more than the capstone of the traditional education pyramid. It is a critical pillar of human development world over. In today's life long learning framework, higher education provides not only the high skills necessary for every labour market, but also the learning and training essential for teachers, doctors, nurses, engineers, civil servants, humanists, artistes, entrepreneurs, scientists, social scientists and several such personnel. It is these trained individuals who develop the capacity and analytical skills that drive local economies, support civil society, teach children, lead effective governments and make important decisions, which affect the entire society. Universities are clearly a part of all tertiary education systems, but the diverse and growing set of higher education institutions in every country - colleges, technical institutions, community colleges, nursing schools, research laboratories, centers of excellence, distance learning centers and the like – form a network of institutions that support the generation of the higher- order capacity necessary for development.

Higher education assists the growth and improvement of the institutional regime through the training of competent and responsible professionals needed for the overall development of the society. Its academic, research and extension activities provide crucial support for the national innovation system. They constitute the backbone of a country's information infrastructure in their role as repositories and conduits of information. In addition, the norms,



values, attitudes and ethics that the universities provide to the students are the foundation of the social capital necessary for constructing healthy civil societies and cohesive cultures.

In order to successfully fulfill their educational, research and informational functions in today's world, universities need to be able to respond effectively to changing education and training needs, adapt to a rapidly shifting tertiary education landscape and adopt more flexible modes of organization and operation. Institutions are transforming themselves to respond to evolving educational needs particularly in the context of a globalization and a borderless market. New forms of competition and changing information and communication technologies emerge as part of this.

Let us examine some activities, which assist the universities and higher education institutions in the construction of democratic, knowledge-driven societies. Supporting innovation by generating new knowledge, assessing global stores of knowledge and adapting knowledge to local use is one broad area. This could be the ingredients of a national innovation system. Contributing to human capital formation by training a qualified and adaptable labour force is another necessary activity in this regard. High-level scientists, professionals, technicians, basic and secondary education teachers and future government, civil service and business leaders will be the parts of this workforce. The third important activity along these lines is providing the foundation for democracy, nation building and social cohesion.

Universities are the main locus of both basic and applied research.

It is important to maintain advanced teaching and research programs at the post-graduate level. Countries that have located a higher share of their research and development activity in the educational sector have been able to achieve significantly higher productivity. Graduates of post-graduate programs are needed to staff R&D institutes, as well as high-technology concerns. Such institutions and firms are the main mechanisms through which the results of research are infused into the local economy. Tertiary education and training constitute the single greatest long-term leverage point available to all levels of government in upgrading industry.

### **Science Education and Research in Universities**

Access to a sound research and development base in fundamental sciences and technology is possible only with a high-quality research training programme. The quality of the undergraduate and postgraduate education in our universities and colleges is an area of concern in this regard. The thrust for science education and fundamental research in Indian universities is decreasing day-by-day. Without adequate higher education and research in science providing a critical mass of skilled and educated scientists, no country can ensure genuine development. At the national level, we should aim to tighten the links between higher education and research institutions, taking into account the fact that science education and research are closely related elements in the establishment of knowledge.

The science education imparted in colleges has a significant impact on the quality of the post-graduate teaching and research in

universities and other academic institutions. A sound basis in science and aptitude for undertaking science as a career are moulded in the collegiate undergraduate education. Attracting the best talents for studies and research in fundamental sciences is essential for this purpose. The declining quality of teaching and training to those who enter the research career now-a-days is a matter of grave concern. In recent years, there has been a serious decline in the quality of those who seek teaching and research careers in science. A look at many of the several thousands of colleges and universities which offer degree and postgraduate qualifications across the country will reveal the lack of facilities, motivation and declining interest in the promotion of science. In some States of the country, where the professional colleges are being sanctioned indiscriminately without any study of the demand, there are few takers for degree courses in traditional disciplines like chemistry, physics, mathematics and biology. Classical disciplines like botany and zoology are slowly disappearing from the collegiate education scenario. Science teaching is at its lowest ebb in our country at a time when science internationally is poised for major leaps forward. Many of the emerging frontiers technologies and cutting edge technologies are not homogeneous disciplines; they are conglomerations of almost every disciplines of science. It is therefore very important to have a close look at inputs and outputs of the undergraduate science education in the colleges.

Lack of well-qualified, talented and motivated students for research in Indian universities is a major issue. Science departments in universities across the country are facing a major crisis with financial resources, quality manpower and motivated students declining at an alarming rate. Research requires substantial infrastructure,



sophisticated instrumentation, well-endowed laboratories and significant budget for consumables. The expensive instrumentation needs to be very frequently upgraded also. Maintenance costs are also exorbitant. It is no longer possible to practice quality science education or scientific research on meagre budgets.

Research is an integral part of the university system. The qualities of teaching and research are interlinked. Maintenance of standards and quality of teaching and research is an area of great concern. Research in India is mainly carried out by universities, national research laboratories and research organizations. Unlike in the developed countries there is not much of research in industrial establishments. Originally the entire research was conducted in universities. University research is generally the sum total of all the doctoral researches leading to Ph.D. degrees. Even specifically targeted mega research projects from major funding agencies are mainly executed through the research work of a large number of Ph.D. students with limited participation of post-doctoral fellows. Post-doctoral research as a full-time engagement has not yet come into stay in India. With the stipulation of Ph.D. degree as an essential qualification for almost all academic positions a trend for “research for Ph.D. sake” is also very much there.

By definition and by practice all over the world, Ph.D. is only training for research. There are institutions internationally, which offer Ph.D. degrees based mainly on course works including a definite component of research. Training in methodology of research in a particular discipline, state-of-the-art practices and approaches (experimental and didactic), result analysis, projections and

implications of a particular problem are the main targeted objectives of a doctoral programme. There is also a requirement of an original piece of contribution in that area. Originality in concept and approach is also intended. The stated condition is that the doctoral thesis should create some new knowledge. Value judgement of these criteria is often very delicate and difficult.

The quality of the doctoral research programme varies depending on several factors. The guidelines proposed by the universities also significantly vary. Even within a University there are variations discipline-wise. Even for research registration several different types of criteria are employed.

Suggestions for ascertaining minimum level of quality for doctoral work pertain mainly to:

- (1) Suitability of a candidate for undertaking a particular research problem;
- (2) Flexibility in changing the direction of research;
- (3) Minimum requirements for a Ph.D. Supervisor;
- (4) Role of Pre-Ph.D. seminars, presentations and scrutiny;
- (5) Internal mechanisms within the faculty/dept. to prevent dilution of quality;
- (6) Post-Ph.D. Thesis Viva/defence of thesis;
- (7) Publications – impact factors of Journals – citation and bibliometric analysis;



- (8) Thesis adjudication guidelines;
- (9) Judging of the composite quality of research from a Dept. through periodic assessment of the impact of the research – making public the value judgements on this;
- (10) Inadequacy or irrelevance of the rules for Ph.D. registration, evaluation and awarding of Ph.D. degrees; and
- (11) International trends in Ph.D. evaluation.

Research assessment exercise has to be carried out systematically in universities, keeping in mind the targets set for the programmes. Fundamental research differs from target-oriented research because in the former one is exploring unknown territories. Such research has to be evaluated in terms of quality of output and its impact. In such exercises, the tools of evaluation should not hinder the very objectives of basic research. New ideas and unconventional approaches need to be encouraged in fundamental research in universities. Revolutionary basic research has an inherently large uncertainty and may take long period for achievement of results. In the case of applied research, definite objectives and time-bound activity have to be set and provided all necessary support. Accountability of the research has to be ensured by measurement of performance against planned targets.

The University system in the country should ensure that

- (i) Science education in colleges and universities in the fundamental areas is revamped to match the international trends
- (ii) Interdisciplinarity and transdisciplinarity are necessary in teaching programmes to prepare students for the necessary understanding and mastering the complexities of modern science
- (iii) Research in fundamental sciences has to be encouraged at all levels.
- (iv) PG departments should have facilities for research.
- (v) Performance evaluation at all levels starting from heads of institutions /departments to students be objectively carried out.
- (vi) Linkages between colleges, universities and national institutions have to be established/strengthened with focus on the academic interests of the university system.
- (vii) Governance structures in the university system have to be restructured and decentralized giving flexibility and autonomy to talented teachers and quality institutions.

## **Strengthening of teaching/research programmes in arts, languages, humanities and social sciences.**

Adapting to the changing environment is not only a matter of restructuring university education, introducing emerging areas and applying new technologies. It is equally important to ensure that students are equipped with core values needed to live as responsible citizens in complex democratic societies. A meaningful education should stimulate all aspects of human intellectual potential. It should not simply emphasize access to global knowledge in science, technology and management, but should also uphold the richness of local cultures and values, supported by the time-honoured and eternally valuable disciplines of the humanities and social sciences, including philosophy, literature and the arts.

With increasing importance of information technology, biotechnology and related emerging areas, there is an observable decline in the interest towards education in conventional subjects in humanities, social sciences, languages and art subjects in our country. This is again an undesirable trend. Promotion of relevant education and training in these subjects with proper integration of ICT and other emerging skill-related areas is very essential. Restructuring of the curriculum and adoption of state-of-the-art methods for imparting and receiving knowledge in these subjects would greatly enhance the relevance of these courses. As a nation, we need trained manpower social scientists, men of letters, artistes, linguists and the like as any other skilled manpower. Therefore, the need of strengthening education in such subjects through value addition and restructuring has to be emphasized and properly looked into. The liberal education purpose of the university system should



remain in place with the due emphasis. The concept of a unitary multifaculty university with all areas of knowledge, skills and professions with the overall objective of universal knowledge has to be promoted. The overemphasis on applied knowledge or science neglecting the fundamental sciences will not lead us to anywhere. The generation of knowledge, transmission of knowledge, storage and retrieval of knowledge and utilization of knowledge all should be pursued by the university. If one acquires real knowledge, he will also know how to apply it. There is only knowledge and applicable knowledge. No knowledge is there which is not applicable. The applicability is a question of context. The context has social, cultural and regional connotations. A person acquiring knowledge should also be educated of this context. Herein comes the importance of the awareness and education in social sciences and humanities and moral and ethical concerns. If you acquire knowledge and skills in any emerging area without a proper backing of the humane universal ideals, you may not achieve proper use of knowledge or you may even fail the very purpose of acquiring knowledge or education.

**Dear young graduates,** the established systematic education you have achieved through the university system might have created some prejudices in you. Some of the learnings and skills you have gathered may become out of place at a later time or in a different context. You may even have to unlearn many things. The process of unlearning is very difficult, much more difficult than learning. The award of a degree should not be taken as the culmination of the educational process. The degree or diploma is only a license for learning. After the educational process in a university or institution, you should have the humility to admit, as the proverb

goes, that "What I have learnt is just handful, what remains to be learnt is as big or vast as this Universe.

**Dear students**, you know that only 6 or 7% of your age group gets the privilege of entering into a college or a university in our country. Out of this chosen few you come out successfully. You have a moral obligation to serve and help the vast majority who are not getting the privilege of higher education. Your dedication and your determination to serve the society at large can only make the society in your immediate vicinity and the nation self-reliant, strong and developed.

Congratulations and best wishes to all of you once again.

