



# Annual Convocation Ceremony

Wednesday, 24 January 2018

## CONVOCAATION ADDRESS

by

**K. Kasturirangan**

Chairman, Committee on

National Education Policy

Emeritus Professor,

National Institute of Advanced Studies



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Gujarat

**Sardar Patel University**  
**Vallabh Vidyanagar**

**60<sup>th</sup> Annual Convocation**

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**Convocation Address**

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Hon'ble Governor of Gujarat, His Excellency Shri O.P. Kohli Ji, Chancellor of Sardar Patel University, Professor Shirish Kulkarni, Vice-Chancellor, Members of the Senate, Deans, faculty and staff, distinguished guests, my dear students, Ladies and Gentlemen.

I deem it a privilege to be invited to address the 60<sup>th</sup> Convocation of Sardar Patel University. I would like to thank the Chancellor, Vice-Chancellor, Members of the Senate and other Members of the University for this unique honour done to me. I take this opportunity to greet each and every one of you who is present here on this august occasion.

Vallabh Vidyanagar is known as the educational hub of Gujarat and true to its name has an average literacy rate of 90.70% which is higher than the National average of 74.04%, providing an ideal setting to inspire young minds to perform to the peaks of excellence. This unique township is home to many colleges offering up to 25 post graduate programs

affiliated to Sardar Patel University. It is also known for its student friendly environment and student diversity. Both the town and the University are named in honour of Sardar Vallabhai Patel- the indomitable Iron Man of India. Sardar Patel University with its quest for academic enrichment and pursuit of excellence has established itself as an institution of erudition with 149 affiliated colleges and a total of 67000 students. I would like to congratulate Sardar Patel University which celebrated its Diamond Jubilee recently. With an eventful evolution, from its humble beginnings in 1955, as a residential rural university it has now transcended into one of the premier institute of higher education and research in Gujarat with International repute. It also finds its place among the topmost 50 Universities in India. The mission of this University is the regeneration of rural Indian life with the application of the study and research in all the disciplines of knowledge in tune with the modern global developments, while at the same time providing adequate emphasis to the educational needs of rural India. Apart from the 11 major faculties, like Arts, Science, Business Studies, Management, Law, Medicine, Engineering, Homeopathy, Pharmacy etc. this University also imparts education by exploring new and emerging areas of higher learning like Applied Polymers, Computer Application, Nanotechnology, Bioinformatics, Biotechnology, Genetics, Material Science and Media Studies. I am happy to note that Sardar Patel University has been recognised as a “Potential Center of Excellence”, for its outstanding work in the field of Polymers, by the University Grants Commission (UGC), New Delhi. I delighted to see that you have a qualified and committed faculty. Sardar Patel University ensures quality education by not only providing best of the teaching contents but also combining the same with research. To have had the

opportunity to study at this institution of higher learning is a matter of privilege to each one of you. In the process, it has given you the necessary confidence to face the most demanding challenges in your future life. May the value system that this Institution has instilled in you inspire you to set high standards in all your future endeavour. High and noble aspirations are indeed the guiding stars in your journey towards achieving perfection and realizing your true potential.

Universities are the foundations on which Nation building rests. They symbolise academic freedom, acting as perennial sources to generate and disseminate new ideas and knowledge. Among the different models of institutions providing opportunities for higher learning in the contemporary world, Universities still occupy a central place with time-tested methodologies and value systems. They provide an effective ecosystem for interaction among diverse disciplines, a crucial element for development of an integrated view of this modern and complex world. In this process they set the example and standards for enlightened citizenship. The search for knowledge and ideas has been the hallmark of our intellectual heritage. The following quotation from *Rigveda* very effectively highlights the same-

आ नो भद्राः क्रतवो यन्तु विश्वतः ॥

*“Let noble thoughts come from everywhere unhindered and overflowing.”*

Open mindedness always characterized our thinking process. The large number of scientific and related manuscripts speaks volumes of the profound thoughts fostered by Indian savants over the centuries. Such a tradition knew no barriers.

It is to be recognized that, even in the modern scientific context, traditional sciences have not taken a back seat. It is imperative that this rich heritage is suitably blended with modern thoughts by our seats of higher learning to ignite and kindle creativity in young minds, for them to play an effective role in an ecosystem characterized by competition at global level.

My dear young friends, as you begin the journey of your professional life, you should be prepared to face the rigors, excitements and uncertainties all the way. Beat the fatigue with the fountain of talents and creativity that is within you. Never lose sight of your goals and aspirations, whatever may be the obstacles. “A block of granite which is an obstacle in the path of the weak becomes stepping stone to success in the path of the strong”. You are on the threshold of a new life. I have no doubt that I stand in front of a group of youngsters who represent the new leaders of a new century; the next generation of inventors, entrepreneurs and executives. Your superior minds coupled with the best of education that you have received will give you a passport to succeed anywhere. Your ideas and success are sure to not only enhance the value of your own life but also influence the society through providing a chance of improving the life of many. Many of you in this institution have studied computer science, communication, material sciences and other related subjects of engineering and technology. They are key areas of expertise in ushering the knowledge revolution, an important component of the 21<sup>st</sup> century human enterprise.

Let me make a few observations that could have a crucial influence on your decisions in shaping your future. India is at a critical juncture in its growth and development. With a strategy that addresses several facets of its development,

encompassing faster and sustainable growth, India aspires to become a major economic power and has witnessed notable progress in several key areas including science and technology, manufacturing, agriculture as well as several aspects of social development including education and health.

Today, India is already the seventh largest economy in the world when measured by nominal GDP. With a sustained growth rate of 8% it is expected, that by 2050 or perhaps even earlier, our share of world GDP will increase to about 6% amounting to more than \$ 10 trillion and could surpass Japan to become the third largest economy in the world. India, with such a large economy coupled with the advantage of size, population and resources should witness accelerated all round growth in the coming years. Further, in order to capitalize its demographic dividend, we need to create an environment conducive to the growth of economy which ensures sufficient expansion in good quality employment opportunities. In fact, only those countries will be successful where its youngsters can sense the change to lead.

In the context of National growth, the focus on productivity enhancing elements, driven by science and technology (S&T) and especially those that flow from human capital, organizational structures and innovative approaches to solving problems will be of great importance. In the years to come, institutions like yours could play a pivotal role in supporting many of our developmental strategies. My dear students, you are indeed privileged to ride on the cusp of India's socio-economic growth; you have before you several opportunities to choose from. It is not out of place for me to mention that in the recent times, several initiatives that have been undertaken by our Government under the visionary directions of our Hon'ble Prime Minister Shri Narendra Modi

Ji is already finding its impact in the context of taking India to its rightful place in the comity of Nations.

Over the past few years, our developmental plans have laid strong emphasis on investment in research and developing capabilities in S&T. As a consequence, a strong base has been built in terms of institutional infrastructure, R&D facilities and development of human resources. This is evident from our performance, which has resulted in significant S&T led achievements in strategic sectors of nuclear, space, defence and industries, besides of course basic sciences. There is, however an urgent need to strengthen the role of S&T in the context of addressing the issues of societal development. This has been highlighted by our Hon'ble Prime Minister during one of his Mann Ki Baat address to the Nation. He has exhorted the scientists and technologists to find simple, affordable and innovative solutions to address the problems of the society such as health, drinking water, quality education, environment and improving agricultural productivity. This clarion call from our Hon'ble Prime Minister needs to be placed in the scientific and engineering agenda of our nation as a priority bringing the benefit of science and technology for improving the quality of life of individual citizens.

My dear students, excellence is an all pervading concept, whether it relates to our professional performance or in dealing with day to day aspects of personal life. There is thus a need to self-motivate to perform to the best of our ability. The related aspects include among other things practicing and nurturing thoughts which are highly enriched, pursuing our efforts with emphasis on ensuring highest levels of quality, creating systems with due attention to perfection; all adding up to necessary credentials capable of meeting most rigorous demands of modern society.

To exemplify this point, let me use Indian Mission to Mars. To reach Mars, the demands on the precision for propulsion, guidance and navigation system are an order of magnitude higher compared to that to reach our nearest neighbour, Moon, which itself demanded, an order of magnitude improvement compared to the requirements to conduct near earth orbiting and geo-synchronous missions. The enormity of these technological requirements can be judged from the sensitivity analysis of the trajectory to reach Mars. In terms of the overall attitude (orientation) targeting requirement to reach the Mars, the accuracy called for, is of the order of 0.01 arc seconds. In simpler terms, for a 20 km dispersion, from the normal, this accuracy is like shooting a 1cm diameter coin placed at a distance of 200 km! Further, a propulsive error of a mere one m/s in the velocity given to the spacecraft by the propulsion system travelling at a speed of about 10 km/s leaving for Mars can generate as much as 200,000 km error in the position when the spacecraft reaches Mars. An exercise in excellence encompassing, perfection, precision and accuracy!

These considerations of quality and excellence are not unique to Space activity alone, neither is it a one shot affair; it has to be sustainable. The concept of excellence should be made a part of our national culture, elevating those islands like Space to continental proportions. Nations which subscribe to this culture have the most decisive advantage to successfully compete with others in any endeavour.

Notwithstanding the considerations of professionalism, challenges, opportunities, risk and so on, you need to explore the limitless frontier of knowledge throughout your life. My dear students, the path to great achievements and success will put enormous demands on you and call upon you to bring to

bear the highest degree of professionalism inspired by being a part of a fast changing knowledge ecosystem. This in turn will imply continuous updating of your knowledge and thus making the process of learning a continuous one. The ancient Indian wisdom, reflected in the following Subhashitam shloka is apt to the situation and I quote:

आचार्यात् पादामादत्ते पादं शिष्यः स्वमेधया ।  
पादं सब्रह्मचारिभ्यः पादं कालक्रमेण च ॥

A student learns one quarter from his master

The second quarter accrues from one's own intelligence

The third from fellow-students

Time and experience confers the last quarter"

Unquote:

I wish you all the very best in your professional and personal life.

**Thank you.**

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