11TH ANNUAL CONVOCATION

MAULANA AZAD ***NATIONAL INSTITUTE OF TECHNOLOGY, BHOPAL***

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INSTITUTIONS OF EXCELLENCE

Chairman, Board of Governors, Director, Deans, faculty and staff members of the Institute, Distinguished Guests and Graduates who have just received certificates and medals and their proud parents, friends from Media, Ladies and Gentlemen. My Greetings to all of you.

I am delighted to be among this august gathering and the enthusiastic Graduates on the occasion of the 11th Convocation of the Institute. It is a great day for the Graduates as they receive the certificates of their hard work and entry to a greener pastures with full of hope for a colourful career. My best wishes to you all to rise to greater heights in your career path.

MADHYA PRADESH – A PROSPEROUS STATE

You are fortunate to have studied in NIT– an Institute of National Repute at Bhopal, the place well-known for historical importance. Madhya Pradesh is one of the best performing states in India, with a strong drive by the Government to make it an ideal state of prosperity. The strategic location of the state, strong resource base with diamonds, copper, coal, bauxite, limestone, manganese, availability of surplus land & diverse forests, plenty of water, surplus electric power, good labour force and constant economic growth of more than 10% annually during the last five years are the strong points favouring assured prosperity for the people of Madhya Pradesh. In the recent Global Investors Summit, the Industry

Captains of India assured for the large scale investment in the State in agricultural food processing, precision and electronics manufacturing, Software development and Services. The Government has allotted 20,000 hectares of land bank for development of new industrial corridors and simplified regulatory procedures to enable speedy implementation. I am sure all these developments will generate large scale employment and will help the Graduates to get suitable positions in the State itself.

RESEARCH EXCELLENCE IN ANCIENT INDIA

India has a long and renowned history as a country of learning, knowledge and innovation. India's glorious past is embedded with a rich scientific and technological heritage from the Vedic age. The ancient scientists of India were far visionary than others in the world of that time in many fields such as mathematics, medicine, aviation, astronomy and so on, to name a few: Acharya Kapil enunciated the concept of cosmology and transformation of energy in 3000 BC; Acharya Bhardwaj pioneered the aviation technology and spacecraft for travel between planets in 800 BC; Acharya Kanad was the first to profound the theory of atom in 600 BC; Acharya Charaka in 800 BC was the principal contributor to Ayurveda, a system of medicine and lifestyle developed in Ancient India Acharya Sushrut performed plastic surgery in 600 BC to restore damaged nose;. Bhaskaracharya was the first to discover gravity 500 years before Isaac Newton; Aryabhat a genius in mathematics was the first to proclaim that the earth is round and rotates on its axis in 500 AD. Today's information technology is based on the binary numbers of which 0 was the contribution from India. Such was the greatness of India. We, Indians, have the GENE with us which can be activated to make us genius. As the new world is moving towards knowledge society, it is the God given opportunity for the six hundred million youth of India to bring back the glory to make India a global leader among the comity of Nations.

SCIENCE AND TECHNOLOGY IN PRESENT INDIA

During the last five decades since independence, India has made all-round technological progress with many accomplishments. The first Green Revolution in 1970s resulted production of 262.3 million tonnes on food grains today and the second green revolution is poised to produce 400 million tonnes by the year 2020. Operation Flood made the country self-sufficient in milk production and today, India is the largest producer of milk in the world. India is in the top ten of the telecommunication network with 943.5 million connections. Advancements in healthcare technologies have resulted in increase of life expectancy and medical tourism. The quest for tapping natural resources for power generation has given new directions through wind and solar energy. The nuclear tests in 1974 and in 1998 made India a nuclear weapon state, and India has mastered harnessing this nuclear energy into power generation to meet the growing demand for electricity, with an aim of reaching 20000 MW power generation by 2020. With established strength in super computing systems, software and communication and a large pool of talented software specialists, India has emerged as a strong nation in the field of information technology and ITES, with a revenue crossing $100 billion in this year.

SPACE AND DEFENCE

Spectacular achievements came from space missions particularly due to large scale application of space in the common man's life, tele-education, tele-medicine and most recently the missions to the Moon and Mars. Operationalization of strategic missiles- Agni & Prithvi made India a strong Nation as nuclear weapon state. BRAHMOS Supersonic Cruise Missile has been inducted in our armed forces making India the only country to have supersonic cruise

missile in the armoury. This most advanced missile gave India the cutting-edge technology and to come out of fifth country syndrome. Our academic institutions including NITs significantly contributed in developing critical missile technologies to combat the Missile Technology Control Regime (MTCR) imposed by the developed Nations. India possesses re-entry technology, supercomputer, phase-shifters for phased array Radar, advanced navigation and guidance, sensors and systems and many other denied technologies. The growth of the technology level in advanced areas closer to the developed countries made India a nation of Strength, as **Strength respects Strength**. With this background of technological advances, India aims to have new aerospace ventures including Hypersonic plane, manned mission to the Moon and to Mars and eventually to set-up our industry there to mine the rare materials. Future research areas include Fusion technology which is a vital need for energy generation especially from Helium 3 to be mined from Moon and Mars, the application robotics, unmanned flying sytems and introduction of nano-bio-info technologies. I see a great opportunity for the young graduates in the years to come on greater missions and higher level technologies to make our country a global leader.

SCIENCE AND HUMANITY

Dear Graduates, as you know, the growth of science and technology has been phenomenal in the recent past, improving the quality of life of the human being. Emergence of new technologies has opened myriad of applications and now it is left to the ingenuity and imagination of the human mind to explore and exploit them further. With the established base of multiple technologies all over the world, scientific minds have to come together for new innovations. With science, technology and innovation, our youth can solve many of the major global problems. Academic research is indispensable

for innovation and therefore vital for new value to bring transformation in society. This I am saying to you, as I am convinced that Nation's prosperity is powered by Technology, which comes out of Research and Innovations at Institutions like NITs.

A PAGE IN THE HISTORY

Our spiritual wisdom and civilization have been our strength. The brain power of our people is far superior to those from any other country and we are in demand everywhere. The onslaughts of invaders for more than 1000 years and the numbing effects of colonisation did not deter us. We have learnt to adjust rifts and divisions in our own society. But in the process of all adjustments, we also lowered our aims and expectations and settled down to a lower mindset. From the great knowledge givers to the world and richness, we came down to the lowest strata of prosperity, when we got the freedom. It is time to regain our heritage and wisdom to enrich our lives. We need to home-grow our own model of development, based on our inherent strengths to tell the world that Indians are great people.

My dear friends, you are in the blossom phase of your career. Creativity, Innovation and perseverance are the important factors that drive you for the success in all your endeavours. There is no world impossible in your dictionary. You can do it!

So friends, everything is in your hand. You must make yourself ready to do a remarkable work, which will find a place for you in the history of the world. You know that history is not written for cowards and one who thinks small. If you think big, if you have a vision, and if you help others, if you do a great task or invention, or a great project, you will find a page written in the history of the world. I wish the

names of those who studied in this great institution be imprinted in that book.

Swami Vivekanand said,

> "**Take up one idea. Make that one idea your life – think of it, dream of it and live on that idea. Let the brain, muscles, nerves, every part of the body, be full of that idea, and just leave every other idea alone. This is the way to success**."

Wishing you all the best in your future endeavours.

THANK YOU.