SPEECH BY THE PRESIDENT OF INDIA, SHRI PRANAB MUKHERJEE AT THE INAUGURATION OF THE GOLDEN JUBILEE OF NATIONAL INSTITUTE OF TECHNOLOGY (NIT), TIRUCHIRAPPALLI

TIRUCHIRAPPALLI, TAMIL NADU: JULY 19, 2014

- It is my privilege to be here today for the inauguration of the Golden Jubilee celebrations of National Institute of Technology (NIT), Tiruchirappalli. I congratulate everyone associated with this premier centre of technical education on this beautiful occasion.
- 2. I am also glad to have made use of this opportunity to visit Tiruchirappalli, which is a historical city famous for engineering marvels. The Grand Anicut, or the Kallanai dam, built across the Kaveri River by the Chola King, Karikala Chola, in the Second Century AD, is considered the oldest water regulatory structure in the world. The temple complex at Tanjavur is one of the largest in the country its apex, the Kumbam, carved out of a single granite rock weighing 90 tonne is another engineering feat. Traditional idol-making at Swamimalai, which developed two thousand years ago, is the basis for investment casting technology, now adopted for advanced gas turbine engines. Tiruchirappalli is a bustling industrial destination today, marked by the presence of important engineering establishments like Bharat Heavy Electricals Limited, Ordnance Factory, mechanical workshop of the Indian Railways and number of ancillary industries.

Ladies and Gentlemen:

NIT Tiruchirappalli is one of the top technical schools and one of the 3. largest suppliers of engineers in our country. Formerly called Regional Engineering College, it was started in 1964. Its first Principal, Professor P.S. Manisundaram, was a visionary who nurtured this College from scratch. Tracing the origins of the older NITs like yours, one can draw a parallel with the genesis of post-1947 modern industrial India, when steel plants, refineries, dams and heavy engineering industries were being set up. Most of these NITs were established in rural locations or in green-field industrial sites, with the aim to spur local development. Your Institute, which was set up alongside BHEL, was one of them. Such vision brought about a pulsating eco-system of industry and technical institution that fostered close interaction. The NITs have made remarkable progress over the years. That their growth since inception is primarily the result of indigenous efforts, without help from foreign institutions, is truly praiseworthy.

4. Another notable feature of the NIT system is its student mix, which by design has a national character, making each campus a microcosmic-Bharat. The bright young minds – the would-be engineers and scientists - are an asset to the nation. Hopes and expectations from them are many. I am confident that the students, including those of this institute, will understand their responsibilities well. They will always, with a sense of obligation, perform their duty for the well-being of their fellow countrymen and development of the nation.

Ladies and Gentlemen:

- The IITs and NITs are the front-ranking institutions for engineering 5. education in India. Yet, according to prominent international surveys on universities, Indian institutions do not figure in the top two hundred places. Since September 2012, I have been expressing my worry about our performance and restating in all my interactions with higher educational institutions the need to take the rating process seriously. It is therefore encouraging to see international rating agencies starting to recognize the quality of our institutes. Some of our IITs are in the top 50 in civil and electrical engineering. Five institutions are amongst the top 20 universities amongst BRICS nations. The number of Indian institutions in the top 100 in Asia has increased to 10 this year from 3 in 2013. I am confident that our institutes would replicate these initial successes in the overall rankings. The NITs, in particular your Institute, should take a cue from successful Indian institutions on how to approach the rating system. Featuring in international rankings has several positive spin-offs, in terms of intangibles like boosting the spirits of students and faculty, to more tangible benefits like better placement for students. More importantly, active participation in rankings will propel the development of institutions in the right direction.
- 6. India has recently become a permanent member of the Washington Accord, which is an international accreditation agreement amongst 17 countries for professional engineering degrees. I appreciate the efforts of all involved, including this Institute, in taking India into this privileged academic group. India's entry will enable global recognition of our degrees and increase the mobility of our engineers. It will enjoin our technical schools to adhere to global benchmarks in quality. This will be the real test.
- 7. To identify the challenges facing NITs and work out strategies, a Conference of the Directors of NITs was organized in Rashtrapati Bhavan last year. I am hopeful of the suggestions made at the Conference being implemented in a time-bound manner. To address faculty shortage, vacant faculty positions must be filled up on priority

and external talent injected by hiring experts from industry, laboratories and foreign universities on short-term basis. Academic curricula must have an industry-focus. Industry interface cell must be set up to establish linkages with the local industry and industry associations.

- 8. ICT networks must be utilized fully to enable knowledge sharing and intellectual collaboration beyond the campus. Academic cooperation is a must for healthy exchange of ideas and expansion of knowledge boundaries. It is heartening to note NIT Tiruchirappalli having active collaboration with leading global universities that augurs well for students' prospects.
- 9. Augmentation of student capacity must be facilitated by quick upgradation of infrastructure. E-classrooms must be made available for smarter dissemination of lectures and tutorials. I am told that NIT Tiruchirappalli is working on the concept of virtual campus, which if executed will enable greater access to better quality education.

Ladies and Gentlemen:

- 10. Knowledge and innovation are the underpinning of progress and prosperity in the twenty-first century. In this age of globalization, we can derive competitive advantage only from an eco-system that is conducive to new learning, research and innovation. NITs must work towards promoting scientific temper in their students. I am glad to learn that this Institute has set up centres of excellence in emerging areas like corrosion and surface engineering, safety, health, energy and environment.
- 11. Using innovation as a bridge, we must muster enough technological prowess to be counted as an advanced nation. Yet, given the present socio-economic condition of our country, the thrust of research must be to erase backwardness and wipe out deprivation. Innovations must improve the state of the underserved, who want a positive difference in their lives. Institutions like yours must support ingenuous ideas that promise betterment for those aspiring to rise up the socio-economic ladder help a farmer till the soil better, an artisan perfect his craft or a small entrepreneur improve the productivity of his venture. I am happy to note that this Institute has a Centre for Rural Technology aimed at developing modern and cost effective technologies for application in the rural areas.
- 12. We pin our hopes on IITs, NITs and other technical institutions to nurture world-class, professionally-competent engineers who will not only take India to new heights in technology but also improve the quality of life of our countrymen. We must, therefore, develop in our budding

engineers an understanding of the society. I am pleased to know that students of this Institute are being exposed to the world outside through initiatives like Joy of Giving that provide service to orphanages and the needy. Always remember the words of wisdom of Swami Vivekananda, which I quote: "The education which does not help the common mass of people to equip themselves for the struggle of life, which does not bring out the strength of character, a spirit of philanthropy, and the courage of a lion -- is it worth the name?" (unquote).

13. I once again wish all of you on this joyous occasion. I also wish you all best of luck for the future.

Thank you. Jai Hind.
