

## **Speech of Bharata Ratna Shri Pranab Mukherjee, Former President of India delivered during Convocation 2019 at Jawahar Lal Nehru Stadium on 23rd November 2019**

I am happy to be present amongst young bright graduates, students, faculty and esteemed management of the K R Mangalam University today.

Let me begin my convocation address by congratulating all the young graduates. This achievement provides each of you with a launching pad for a bright future. Your academic journey so far has been possible due, in part, to the inspiration you have received from your teachers, and in part to your own efforts. Convocation is an important milestone in the lives of a student. It is not only a badge of achievement, but also a stepping stone in the flight of life, which broadens your horizons and opens your intellect towards greater challenges in the future.

I congratulate each one of you.

It is good to know that K R Mangalam University imparts quality higher education in diverse fields of study, providing students with exquisite experiences through knowledge, collaboration and partnership. The University, I am informed has recently announced a highly creative initiative - The Institute for Inventions, Innovations, and Entrepreneurship (TIIE), which caters training on some of the most interesting and state-of-the-art arenas or themes that include Artificial Intelligence, Creative Design, Data Science and Robotics. This corroborates the adage that quest for knowledge expansion knows no bounds. I want to congratulate KRMU for this ambitious journey.

Invention is the bedrock of human development and it gives me great pleasure to know that the university is providing impetus to this sphere. In this context, I am reminded of what Dr. Sarvepalli Radhakrishnan had said in 1966 in his Message to the Nation on the occasion of Independence Day, and I quote, **“Science and technology will help us to solve the problems of hunger and poverty, of disease and illiteracy, of superstition and deadening custom, of vast resources running to waste of a rich country inhabited by a poor people.”**(unquote). **We stand on the brink of a technological revolution that will fundamentally alter the way we live, work, and relate to one another.**

In its scale, scope, and complexity, the transformation will be unlike anything humankind has experienced before. We do not yet know just how it will unfold, but one thing is clear: the response to it must be integrated and comprehensive, involving all stakeholders of the global polity, from the public and private sectors to academia and civil society. This phenomenon has been referred by many as the Fourth Industrial Revolution.

When compared with previous industrial revolutions, the Fourth is evolving at an exponential rather than a linear pace. Moreover, it is disrupting almost every industry in every country. And the breadth and depth of these changes herald the transformation of entire systems of production, management, and governance.

Some of the major components of the fourth industrial revolution are **Artificial Intelligence, Internet**

**of Things, 5G Technology, Drones, 3-D Printing, Nanotechnology** and so on. I am sure these technologies will play a defining role in almost all fields that you all are currently graduating in. In whatever stream of learning, you are, I would urge you to carefully adopt them for positive purposes and to provide the necessary impetus to nation building.

The impact of this technological revolution on economies and society can be shaped by policies at the local, national and global levels. As the physical, digital, and biological worlds continue to converge, new technologies and platforms will increasingly enable citizens to engage with governments, voice their opinions, coordinate their efforts, and even circumvent the tedious nature of public processes. Simultaneously, governments will gain new technological powers to increase their control over populations, based on pervasive surveillance systems and the ability to control digital infrastructure.

Ultimately, the ability of government systems and public authorities to adapt will determine their survival. If they prove capable of embracing a world of disruptive change, they will endure. If they cannot evolve, they will face obsolescence. This will be particularly true in the realm of regulation. Current systems of public policy and decision-making evolved alongside the Second Industrial Revolution, when decision-makers had time to study a specific issue and develop the necessary response or appropriate regulatory framework. The whole process was designed to be linear and mechanistic, following a strict “top down” approach. But such an approach is no longer feasible.

My dear students,

Both public and private institutions have a definite role in building India. Since independence, India has embarked on a robust path of building institutions of excellence. Both the Government and the private sector have contributed to this grand endeavour. But we have a long way to go.

**Research and innovation** are the keystones for widening the country’s production potential. Our future growth will result not so much from the utilization of our resources with existing technology than from its better usage through more advanced technology. Unfortunately, investment in research in our country is lacking. R&D expenditure as a percentage of GDP is a mere 0.8 percent in India. Compared to that, it is 3.6 percent in Japan, 2.7 percent in the US and 2.0 percent in China. Higher academic and research institutions must be the hotbeds of research activity. Building a sound research eco-system calls for a slew of measures like collaborative partnerships and better financial incentives for attracting and retaining research talent. To imbibe a scientific temper and a spirit of inquiry in students, research at the under- graduate level must be promoted.

As per the latest World Bank data India spends 3.8 % of GDP on education which is below the world average of 4.4 %. It also states that as a percentage of GDP, United States of America spends 5.2%, Brazil 5.9%, Japan 3.8%, Sweden 7.7%, Canada spends 5.3% on Education. From a dismal literacy rate at 12% at independence to 74% now (as per census 2011) and a revolutionary Right to Education in place, we have covered a long distance. But far more needs to be done.

*(Source: NITI Aayog)*

According to rankings by reputed agencies, no Indian institution of higher education features in the list

of top 300 universities in the world. [*Source: World University Rankings 2020, compiled by UK-based Times Higher Education*]. I have been making this remark before higher academic institutions almost as a ritual now. My sole purpose is to impress upon the universities to adopt a more methodical approach to the ratings process and also effect holistic changes for better academic management. A higher ranking boosts the morale of students and teachers by increasing their growth opportunities. It can also help retain meritorious students who otherwise prefer getting higher education abroad resulting in the much loss-worthy ‘Brain Drain’.

How do we transform our universities into centres of excellence? At first, there is a need to link education with research and innovation in a seamless manner. Education disseminates knowledge while research creates new knowledge. Innovation converts that knowledge into wealth and social good. Promoting interdisciplinary research and research at under-graduate level, boosting collaborative research, and inspiring bright students to take up research are some of the steps required in this direction.

I am glad to know that KRMU has been instrumental in providing innovative ways and means to nurture the inquisitiveness of the students. I appreciate the fact that the University also undertakes world-class research and development of high impact with the industrial interface for the benefit of the society as a whole. While innovation and entrepreneurship should be given substantial stimulus, grassroots cannot be put on the sidelines. Rather, our inspirations for innovative solutions should generate from the grassroots.

My dear students,

This year marks the 150<sup>th</sup> Birth Anniversary of our Father of the Nation, Mahatma Gandhi. Gandhiji’s concept of education is creative, original, revolutionary, skill development based and based on societal needs. He says, (quote) **“By education I mean an all-round drawing out of the best in child and man – body, mind and spirit. Literacy is not the end of education not even the beginning”** (unquote).

Gandhiji’s method of teaching was therefore, different from the current one. He emphasized the importance of these five principles in his method of teaching:-

1. To achieve mental development, training of senses and parts of the body should be given.
2. Reading should precede the teaching of writing.
3. More opportunities should be given for learning by doing.
4. Encouragement should be given to learning by experience
5. Correlation should be established in the teaching methods and learning experiences.

My dear students,

The objective of education is not merely the acquisition of knowledge and the production of competent manpower. At a macro level, education leads to nation-building. At the micro level, it must result in character-building in students. The graduating students of today will pursue diverse

careers in academics, in finance, in legal space, in communication, in software, in architecture, in the creative arts, in technology and in public service. Most of you will be very successful individuals. But you must always bear in mind that our country is still burdened with persistent poverty, hunger and disease and that institutions like yours are islands of excellence in a sea of less endowed institutions. You must in some manner, however small it might be, give back to the society and the people who have nurtured you.

With these words, I want to once again congratulate each one of you for this achievement. This occasion will forever be etched in your memory, constantly reminding you of the time you spent fruitfully at KRMU. I wish you all the very best and a bright future ahead.

**Thank You Jai Hind**