The Indian Institute of Science, Bangalore, which is celebrating its centenary year, has emerged as one of India’s pre-eminent higher education institutes, writes Shivkamal.

The prestigious Indian Institute of Science (IISc), one of India’s premier research institutions, located in Bangalore, the IT hub of the country, has just entered its centenary year in May. The last 100 years have seen world-class research activities being undertaken at the IISc, some of which have brought it worldwide fame.

Not many research and academic institutes have reached the level attained by IISc, which is known for its result-oriented academic programmes. The Institute has been able to make many significant contributions primarily because of the uniqueness of its character. It is neither a national laboratory – concentrating solely on research and development (R&D) and applied work – nor a conventional university – concentrating mainly on teaching.

The IISc is involved with research in frontier areas and education in technologically important areas. The IISc was the first Institute in India to introduce innovative integrated PhD programmes in biological, chemical and physical sciences for science graduates.

The IISc is the brainchild of Jamsetji Nusserwanji Tata, the founder of the house of Tatas, who envisaged the Institute to promote original research into all branches of learning. It was on May 27, 1909 that the constitution of the IISc was approved by the then viceroy Lord Minto and the necessary vesting order signed.

Prof P. Balaram, director, IISc, has planned several initiatives to commemorate the centenary celebrations. According to him, the celebrations will include the setting up of five state-of-the-art laboratories, a modern international visitors’ hostel, international seminars, a special IISc centenary conference, lecture series and a documentary film, in association with the Union Ministry of Information and Broadcasting, to capture the history and achievements of the Institute during the last 100 years. The celebrations will officially commence with the release of a postage stamp featuring IISc.

With Bangalore emerging as a hub of aviation research and support related activities, IISc has planned to expand its facilities in this area. Work has already commenced on a new building-cum-lab for the existing department of aerospace engineering. This apart, the biological sciences and physical sciences laboratories are also being expanded.

After achieving worldwide fame as a global destination for investments in information technology and biotechnology, Bangalore is gradually gaining attention as a potential nanotechnology hub. Recognising this, the IISc is opening a new centre for excellence in nano-electronics as well as a modern library. Both facilities are coming up near the National Institute of Advanced Studies (NIAS) wing in the 443-acre campus.

Prof C N R Rao, who headed the IISc in 1984, has been promoting the cause of nano-technology for the last one decade. As honorary president of the Jawaharlal Nehru Centre for Advanced Scientific Research, which is part of the IISc, he has...
The IISc has signed a memorandum of understanding with the Karolinska Institute in Sweden, to work together in the areas of biosciences and bioengineering.
AIMING TO BE AT PAR WITH THE BEST

The Indian government is committed towards furthering the transformation of the Indian Institute of Science into a premier world-class university at par with some of the best – Massachusetts Institute of Technology or the universities of Harvard and Stanford (in the US), or Cambridge and Oxford (in the UK).

To this end, the government announced a special grant of $25 million to the IISc a few years ago. Moves are also afoot to set up two other institutes on similar lines in Pune and Kolkata to meet the huge demand for quality post-graduate science education.

The IISc also has plans to double the size of its campus over the next few years. This is towards enhancing its interactions with industry and research laboratories around the globe. Part of the expansion plan has already begun and new laboratories for aerospace engineering, biology, physics, nano-electronics, nano-science and nano-engineering have been set up. The IISc is also toying with the idea of introducing undergraduate programmes.

And with its alumni spread around the world – many of them in key positions in top international corporates and research bodies – the IISc is seeking greater interaction with them. An alumni conference was held in Silicon Valley a few months ago, and alumni chapters are being set up across the US. Top American companies including IBM, Google, Boeing, Applied Materials and Monsanto were co-sponsors at the conference.

Some alumni members have contributed funds, setting up chairs in different faculties. Others are helping the IISc in recruiting scientists, who can be lured back home to India to head departments.

A hundred years hence, the institute has lived up to his dream and continues to do pioneering work in frontier areas of science.

Raman, J R D Tata, Vikram S Sarabhai and C N R Rao. Besides formal education and research, the Institute has been playing an active role in offering short-term courses to scientists and technologists. The Continuing Education Programme covers a wide range of topics and over 1,500 working scientists and engineers take up such courses every year.

The IISc also has a Centre for Scientific and Industrial Consultancy, through which the know-how generated in the Institute percolates to industries via industry-sponsored projects. The Jawaharlal Nehru Centre for Advanced Scientific Research through organic links with the Institute has been sharing facilities on its campus.

When Jamsetji Tata conceived the idea of setting up the IISc, it was with the aim of establishing a scientific institution that would emerge as a premier research body.

A hundred years hence, the Institute has lived up to his dream and continues to do pioneering work in frontier areas of science.

HELPING ASCETISM, SCIENCE: The chance encounter between Jamsetji Tata and Swami Vivekananda led to the establishment of the IISc.