

PRESIDENTIAL ADDRESS

Before I address the meeting, you will, I am sure wish me to refer to the loss suffered by our Association in the passing away of one of our old members late Naresh Chandra Bose. The Council has already passed a resolution condoling his untimely death and it is my melancholy duty to request you to stand with me for a moment in silent tribute to his memory.

I have great pleasure in welcoming you all to this our 44th Annual General Meeting, especially the visitors who have taken the trouble to join us tonight. I also take this opportunity to express my heartfelt gratitude to the members in electing me as the President for this year.

In the history of the world, in all ages we engineers have played a great role in shaping the social structure and activities of men. Dating back to prehistoric age when we had nothing more to boast about than the bow and arrow, we gradually invented agricultural implements, cooking utensil, textiles from various fabrics. In course of time men took up irrigation work along with which river crafts and sailing boats came into existence for transport purpose. The invention of the wheel initiated a revolution in land transport. The art of building gradually improved from original mud huts with thatched roof to structures of stones and bricks. The discovery of metals, specially iron and their uses was one of our great achievements. The discovery of electromagnetic induction laid the foundation of electrical industries. We have now discovered atomic energy and electronics engineering holds forth the prospect of an immense improvement of the material welfare of mankind. Several new material such as plastics and other synthetic materials are now available for almost every purpose.

In early days, there were perhaps no institutions for turning out engineers or craftsmen. Occupational skill was handed down the generations through succession or on the master craftsman—apprentice basis. Even under the British regime, there was no technical institution for a very long time. Towards the end of the 17th century, the East India Company had Indian Pioneer force at several stations, as a part of their military establishments. Later a school for surveyors was established by the East India Company in 1754 in Madras, which was perhaps the most ancient engineering institution in India, on western lines. Next we come to the era of provincial colleges of engineering at Madras, Roorkee and Poona. Bengal Engineering College came into existence in 1857.

Technical education in India during the early 20th century was mainly in the hands of the provincial Governments. Integrated approach to the training of technical personnel was not made on all India basis till the end of the Second World War. The idea of separate institutions at the diploma level was non-existent and as the industries in the country was not much developed the need of craftsman's training courses was not visualized before that.

That industrial development of a nation was essential for survival in modern times, became clear soon after the war. The shortage of scientific and technical man power was felt in almost all industrially advanced country during the post-war period.

India, to take her right place among the nations of the world is also ambitions to enter into the field of large scale industrialisation. We have been lagging behind in industrial advancement and now we are determined to muster all our resources in materials and men to fulfil our objectives. The country is short of trained technical personnel. But, during our first and second plan period we have been able to make a considerable headway in our technical training programmes in all spheres, from turning out graduates and research workers to the training of craftsmen in various trades. Our third five-year plan envisages still a heavier undertaking in this line.

I am not going to burden you with statistical figures or financial implications but you will no doubt be interested to know what we have done in West Bengal since independence.

At the graduate level there were only two colleges, Bengal Engineering College at Shibpur and the College of Engineering & Technology, Bengal at Jadabpur. In 1950 the Central Government established the Indian Institute of Technology at Kharagpur. Since then we have established a Regional College of Engineering at Durgapur and two more colleges, one at Jalpaiguri and the other in North Calcutta have been started recently.

At the diploma level, the College of Engineering & Technology had a wing for training in Mechanical & Electrical Engineering and after partition an Overseers Course was also started there. Government of West Bengal organised three institutions for diploma courses in Civil, Mechanical and Electrical Engineering and Draughtsmanship at Burdwan, Vishnupur (Bankura) and Calcutta. With the partition of Bengal, the only Survey Institute at Maynamati being lost to us Government started a Survey School at Bandel. Since then we have established sixteen polytechnics

including one for Mining Engineering at Asansol and one for training of supervisory personnel on Sandwich system in Calcutta. Four more polytechnics are expected to function shortly. For the printing industry a Regional School of Printing Technology has been established in Calcutta. We have also in view to start a polytechnic for women this year. This polytechnic at present will cater for Electrical Communication, Architectural Draughtsmanship, Medical Laboratory Practice, Pharmacy, Library Science and Secretarial Practice.

The present emergency due to the unexpected Chinese aggression has put us on guard and we are all out to meet any fresh aggression from any quarters whatsoever. Schemes have been formulated to change the pattern of training, for early specialisation to get a quicker turn out as also increasing the intake in the existing pattern of three-year diploma courses.

The Commerce & Industries Department of the Government of West Bengal is now heavily engaged in establishing new training centres all over West Bengal, to supply the needs of the industrial development of the country. To meet the present emergency, Government of India have recommended shortening the duration of institutional training—six months and three months in place of the present training schemes of eighteen months' duration.

At the school level a Technical Stream has been introduced in many schools in the State. The school leavers at this stage are mainly admitted in Engineering Colleges and polytechnics. A five-year integrated course has been introduced in colleges for these students.

With the advancement of modern industry, complicated machine tools and various other types of equipment of high engineering precision and power are being used. It was felt that the rapid and large scale industrial development of the country will not progress unless it is properly supported by an adequate educational system which will not only train engineers and technologists but a strong cadre of young skilled workers of fine quality and with an enlightened mind, who constitute the base of technical manpower. At present the skilled workers are trained in diverse ways at different age levels with special emphasis on manual skill only.

As a solution to the above problem, a number of Junior Technical Schools have been established, ten in number so far, which seek to divert boys of 14+ from academic type of education in Secondary Schools to one which is specially designed to condition them for different productive

occupation of a technical nature while continuing their formal general education. The course is of three-year duration. General education and technical training are provided in a coordinated manner so that on completion of the course, the boys will come out equipped with a fair amount of skill in a particular line of technical work and associated engineering knowledge as also with a minimum level of education necessary for life.

A boy who has completed Junior Technical School Course will have more than one channel open to him for advancement. He may join industry either as an apprentice or an operator. If he has the necessary ability and resources, he may join a full-fledged technical institution for diploma courses. The Junior Technical school boys, who have joined industry need not have any apprehension regarding opportunities of professional advancement since he can also attend part-time day or evening courses in a polytechnic.

You may ask, to what extent our Association may contribute towards the country's drive in her technical training programme. We may provide guidance and assistance to educational institutions confronted with their various problems. Constructive programmes for encouraging professional consciousness of the engineers, should be sponsored. Our library is our great asset and it should be kept furnished with modern publications and journals.

We are at present working under a handicap. Government of India appears to be very reluctant in granting any recognition to our efforts. We are fortunate however that our appeal to the Chief Minister of West Bengal for recognition, is now under consideration of Government.

In conclusion, I shall be failing in my duty, if I do not say a few words about the outgoing council members and office bearers. You will, no doubt, agree with me that we should place on record our appreciation of their commendable work for the cause of the Association. And finally, I wish all success to the new Council and office bearers.