

Contribution of Jagdish Chandra Bose to Physics -A Review

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ABSTRACT

Sir J.C. Bose was born in 1870 in Bengal now in Bangladesh .His father was a magistrate and a leader of brahmo samaj. Received natural science tripas from the University of Cambridge and a

B.Sc from the University of London in 1884 .His contribution to physics, botany and natural science are many.

Bose made a remarkable contribution to the theory of microwave He ignited gun powder and rang a bell at a distance in 1894. He stated that invisible light can easily pass through brick walled buildings. His demonstration of remote wireless signaling has priority over Marconi. According to Mott, Boss was 60 years ahead of his time. He is considered as father of radio science.

He was elected fellow of Royal Society in 19 20 .He is the doyen of Indian scientists.

Sir Jagdish Chandra Bosh was born in Bikrampur, Bengal, near munshiganj, district of Bangladesh on November 30th 1870. His father, Bhagwan Chandra Bose, was a brahmo and leader of the brahmo samaj and worked as a deputy magistrate.

Boss's education started in a vernacular school. later he joined His school in 1869 and then St Xavier's school at Kolkata. He passed the entrance examination of University of Calcutta and was admitted to St Xavier's college, Calcutta. He came in contact with Jesuit father Eugene Lafont, who played a significant role in developing his interest To natural science. He received a bachelor's degree from University of Calcutta in 1879.

Bose wanted to go to England to complete for the Indian civil service. However, his fathers, a civil servant himself, cancelled the plan. He wished his son to be a scholar. Bose went to England to study medicine at the University of London. However he had to quit because of ill health.

He secured admission in Christ's college, Cambridge to study natural science. He received natural science tripas from the University of Cambridge and a BSc from the University of London in 1884. Among Bose's teachers at Cambridge where Lord Rayleigh, Michael Fortes, James Darwin, Francis Darwin and Sidney Vines.

According to professor Shibaji Raha, director of Bose Institute, Kolkata Bose also received an MA from Cambridge University in 1884.

Researches in physics

After the British physicists James Maxwell, Oliver lodge and German physicist Heinrich, Bose made a remarkable contribution to the theory of microwave. He reduced the waves to the millimetre level. He realised the disadvantages of long waves for studying their light like properties.

In 1893, Nickola Tesla demonstrated the first public radio communication. One year later in 1894 Bose ignited gunpowder and Rang a Bell at a distance using millimetre range wavelength microwaves at Town Hall of Kolkata. Bose stated that is invisible light can easily pass through brick walls building etc. According to him messages can be transmitted by means of it without the meditation of wires.

Bose first scientific paper, is on "polarisation of electric rays by double- refracting crystals" was communicated to the Asiatic Society of Bengal in May 1895. His second paper was communicated to the Royal Society of London in October 1895. In December 1895, the London journal "electrician published Bose's paper, on "a new electro-polariscope".

Bose's demonstration of remote wireless signalling has priority over Marconi

Bose was the first science fiction writer in Bengali language.

Sir Nevil Mott, Nobel Laureate in 1977 remarked that "JC Bose "was at least 60 years ahead of his time.

Prior to his death in 1937,he set up the Bose Research Institute at Kolkata.

He is considered one of the fathers of radio science.He was elected fellow of the Royal Society in 1920,becoming the first Indian to be honoured by the Royal Society in the field of science.

J.C Bose 'a list of researchers in the field of physics, botany and natural sciences in long.He is the Doyen of Indian scientists. He is called as father of modern Indian Science. He is a Biophysicist.

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