



THE BPPIMT - NEWSLETTER

A Quarterly In-House Magazine

of

B.P. Poddar Institute of Management and Technology

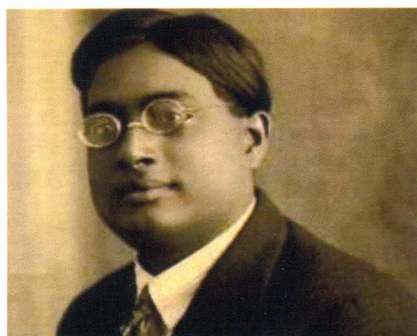
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Issue - XVI, JULY 2012 Chief Advisors: Prof (Dr.) Sutapa Mukherjee Editor in Chief: Prof Emeritus (Dr.) S.C.Chakravartty
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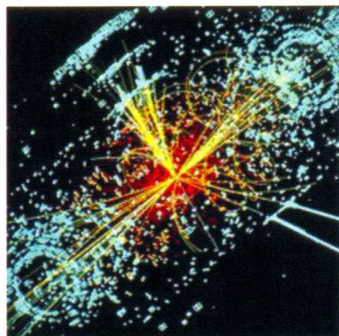


Late B.P. Poddar
(1920-1981)
Founder
B.P. Poddar Group

Satyendra Nath Bose: The neglected namesake of God Particle



Prof. S N Bose



Possible signature of a Higgs boson



Prof. P W Higgs

CERN announced on 4th July 2012 that they had experimentally established the existence of a Higgs-like boson or God Particle. The announcement marked a milestone in the history of Quantum Physics – God Particle, had been discovered. The particle shares its name with Satyendra Nath Bose and Peter Ware Higgs. Higgs is a British theoretical physicist and emeritus professor at the University of Edinburgh. He is best known for his proposal of broken symmetry in electroweak theory, explaining the origin of mass of elementary particles in general and of the W and Z bosons in particular. This so-called Higgs mechanism, which was proposed by several physicists besides Higgs at about the same time, predicts the existence of a new particle, the Higgs boson (which was often described as "the most sought-after particle in modern physics", and popularly known as "God Particle").

While Peter Higgs' list of awards don't find an end, the other scientist whose namesake is a part of this God Particle, has been brutally glossed over. His contributions never found the international acknowledgement of a Nobel Prize, and the irony is even more glaring in the fact that several researches but the foundational one on the 'Boson' particle have been honored with that ultimate recognition. Satyendra Nath Bose undoubtedly deserved a Nobel.

The God Particle, which has created such a deafening brouhaha in the last few days, wasn't one that just came into being. The Higgs boson particle, based on the Bose-Einstein Statistics, was one that had its hypothesis in place – thanks to the work of S N Bose and Einstein. With its existence now on its way to embrace the pedestal of the truth, one might be forced to wonder why was it that while on the one hand Physics is replete with mentions of Einstein, on the other, Bose is a man who is hardly in the radar of recognition. The name of S N Bose, despite being the *name* behind the naming of the particle that has shot to prominence yet again, doesn't appear the way it deserves to.

Satyendra Nath Bose, in early 20th century, along with Albert Einstein, engendered the basic tenets of the particles called bosons. And what followed thereafter is a saga of friendship, symbiosis and a relationship that transcended the mortal realms well into the immortal. Bose-Einstein Statistics, the Bose-Einstein Condensate and work on bosons are glowing reminders of that phenomenal relationship – which gave rise to several foundational elements of advanced physics.

With the Higgs-Boson particle on the threshold of solid discovery, S N Bose might have been happy with his work being the fulcrum of it all. Pride is not the only emotion that an Indian would feel at Bose's name being a part of that which is supposed to be the crux of all matter. The feeling is an amalgam of an inarticulate rush of emotions. A thousand Nobel Prizes couldn't have done what the God Particle has done to the Indian scientist. Almost four decades since his demise, the man has been re-instated as an immortal – and this time, the entire world has been jolted out of a stupor. Satyendra Nath Bose isn't a man who can be forgotten in the blink of an eye.

