Education Section

Dr. A.P.J Abdul Kalam-"A Man Beyond Science"

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Dear Sir,

The extraordinary charismatic personality of Dr. Kalam has sensitized every individual in our nation. His reach to the people was beyond the bar of caste, color and creed. An ordinary man, who came from a humble family of Rameswaram, Tamil Nadu, India, reached to the highest national rank by being the 11th President in Indian Republic. He has been a very sincere worker of his field and was a continuous source of inspiration for all generation of people. Among the awards which he deservingly earned in his lifetime, few of them include Padambhushan (1981), Padma Vibushan (1990), Bharat Ratna (1997) King Charles Medal-II (2007) and many more. However, the greatest award was the respect he commanded among common man and specially youth for whom he is an unyielding source of inspiration. His speeches and his perspective towards "Science and its Utilization for People" are a worth beyond words.

He graduated from Madras Institute of Technology in aerospace engineering and later remained associated with Defense Research and Development Organization for nearly 40 years. He started his career with a project of developing a small helicopter for Indian army.

Dr Kalam developed India's first indigenous Satellite Launch Vehicle (SLV-3) which successfully placed the satellite, Rohini in the near orbit of earth in July 1980 and made India an exclusive member of Space Club. Subsequently, he played important role in development of missiles like Agni and Prithvi which made India a self sufficient in its Defense Power. He was called as "Missile Man" for his contribution in missiles development.

Dr Kalam has played a pivotal role as Chief scientific Advisor to Prime Minister between July 1992 to December 1999, it was during this time that "Pokhran-II" the nuclear test was conducted. His hard work in this field made India a Nuclear Power.

Dr Kalam had significant contributions to medical science which are less discussed in Indian media and literature. He advocated, the role of biotechnology in medical science research, emphasized the use of science and technology for the benefit of common man. India's first indigenous low cost cardiac stent was developed by him

in collaboration with Dr. Somaraju Bhupathiraju known as Kalam-Raju stent during 1994 – 1996. It reduced the cost of stents by $1/4^{\text{th}}$ compared to prevailing market rate. Approximately 2000 Kalam-Raju cardiac stent has been fitted to many needy patients and showed the path of affordable health care [1]. Although, the medical field has progressed to drug eluting stents, this invention was a landmark in its time. In 2012, they developed a tablet computer for purpose of rural health care service, which was named the 'Kalam-Raju tablet'.

One of his great achievement was the development of light weight calipers for polio affected children by using carbon-carbon and carbon-polymer materials (glass-filled polypropylene which are used in missiles) during 1995 – 1996, thus reducing weight of the caliper to $1/10^{\text{th}}$ of the original weight. Over 50,000 children were benefitted with these calipers which reduced their pain significantly, while walking.

Throughout his life, he took up the mission to ignite and inspire young minds towards national spirit by meeting school students across the country. He has also written many thought provoking and inspirational books such as "Wings of Fire", "Ignited Minds" and "India 2020", which has become house hold names with youth of India. During the last decade, Dr. Kalam has addressed over five million youth below the age of 17 and inspired them to become an active participant of India Vision 2020. He had addressed several Children Science Congresses across the country.

Though, everyone who is born has to leave for the heavenly abode, but Dr. Kalam has left the legacy of his scientific achievements, thoughts and teachings as a source of inspiration for generation to come in future India and the world. Today, we really are gratefull to the almighty for giving us the opportunity to live in an era when we could share the sunlight with such a great personality. May his soul rest in peace.

REFERENCE

[1] www.sbmtindia.org/activities/kalam_raju_coronary_stent. [Internet] 2015. [Last accessed date 2015 July-28].

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