

# Science and Technology with Religious Aspect from Wings of Fire, an autobiography of APJ Abdul Kalam

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## Abstract

Wings of Fire are an autobiography of APJ Abdul Kalam. It illustrates the life of APJ Abdul Kalam, who grew up as a renowned scientist to lead India's space research and missile development programs. The present paper flings light on the spirituality, science, and achievements of APJ Abdul Kalam. Spirituality protects us from hopelessness while achieving our goals and provides us endurance against failure and hardships. Kalam sees science and technology as ideology-free areas and accentuates the cultivation of scientific temper and entrepreneurial force.

Moreover, an eminent scientist, APJ Abdul Kalam, is also a thought-provoking writer. The rare confluence of scientific brilliance and wisdom in him is truly unique. Apart from his technological triumphs, his writings significantly contribute to humanity. Kalam, a recipient of India's three highest civilian awards – the Padma Bhushan, the Padma Vibhushan, and the Bharat Ratna, was well known across India and abroad.

**Keywords:** Achievements, Spirituality, Science, Humanity, and Religion.

## Introduction

Autobiographies written in modern India are very remarkable. In Autobiography, Anderson defined autobiography by quoting Philip Lejeune's words found in Autobiographical Pact:

*"a retrospective prose narrative produced by a real person concerning his existence, focusing on his individual life in particular on the development of his personality."*<sup>1</sup>

Mahatma Gandhi's **My Experiments with Truth**, Jawaharlal Nehru's **An Autobiography**, Srinivasa Sastri's **My First Meeting with Gokhale**, Dr. Sarvepalli Radhakrishnan's **My Search for Truth**, Vijayalakshmi Pandit's **So I Became a Minister**, and APJ Abdul Kalam's **Wings of Fire** are some of the famous Indian autobiographies.

Wings of Fire are an autobiography of APJ Abdul Kalam, former President of India, known as a missile man and rocket engineer. He was born in a middle-class Tamil family in the island town of Rameshwaram. His father needed more formal education and wealth.

Kalam's great strength lies in his understanding of himself, society, and the nature of work. He has a mind which can practically accept anything. He is spiritually bound and is not affected by the ordinary events of the world. He practically applied the idea of single-minded devotion to his goal throughout his life. Kalam

discussed the significant aspects of his personality that transformed him from a humble and rural person to an extraordinarily talented scientist, spiritual guru, and the President of India.

### Spirituality

The genesis of all greatness in humanity depends on nurture, which is very accurate in the case of Abdul Kalam. As a child, he was very interested and always questioned his father about divine power, human suffering, and spirituality. Spirituality protects us from depression while achieving our goals, relieves us from stress, and gives us patience against failure and difficulties. It gives us hope of achieving our dreams. APJ Abdul Kalam started *Wings of Fire* as the seeds of spirituality were rooted and ended it as if he attained spiritual fulfilment. Initially, Kalam narrated as if he began to achieve spiritual maturity with the companionship and observation of spiritually matured people who explained the mystic spiritual concepts and thoughts in an easily understandable language. Kalam closed *Wings of Fire* with the words:

*"I am a well in this great land  
Looking forward at its millions of boys and girls  
To draw from me  
The inexhaustible divinity  
And spread His grace everywhere  
As does the water drawn from a well."*<sup>2</sup>

Throughout the novel, we may trace the various spiritual beliefs of Kalam that have tempered him into the person he is. An indomitable spirit, replete with enthusiasm and hope, marks most of his literary expressions. He is a visionary who ushers in fresh ideas for a better tomorrow. His scientific explorations do not dissuade or dislodge his faith in God. In the words of Abdul Kalam: *"I wonder why some people tend to see science as something which takes man away from God. For me, science has always been the path to spiritual enrichment and self-realization."*<sup>3</sup>

Kalam's multiple identities are constructed on his spiritual belief, which is based on the universal philosophies of major religions

like Christianity, Hinduism, and Islam. For example, "trials" are the basis for Christians, "karma" is the basis for Hindus, and "prayer" is the basis for the Muslim religion. Prayer is considered one of the five pillars of Islam. Kalam's narration proves that he overcame many trials with patience and dedication. He felt that he has a working partnership with God. In his early childhood, he learned about the significance of prayer from his father. He narrated his life as if his spiritual belief helped him to overcome dilemmas and failure and to contribute his best, which required more ability than he possessed. He also showed another quality that man should have to get God's blessing.

As Kalam himself says, he has always been a religious person in that he maintains a working partnership with God. Kalam's father could convey complex spiritual concepts in straightforward, down-to-earth Tamil.

He once told Kalam: *"In his own time, in his place, in what he is, and in the stage he has reached- good or bad- every human being is a specific element within the whole of the manifest divine Being. Adversity always presents opportunities for introspection."*<sup>4</sup>

### Science:

Kalam's belief in the power of science to resolve society's problems and his views of these problems as a result of the inefficient distribution of resources are modernistic. Besides being an eminent scientist, APJ Abdul Kalam is also a thought-provoking writer.

Abdul Kalam graduated from the Madras Institute of Technology, majoring in Aeronautical Engineering. There were disappointments and distractions, but his father's inspiring words anchored him in the periods of nebulous drift.

In the words of Kalam: *"He who knows others is learned, but the wise one is the one who knows himself. Learning without wisdom is useless."*<sup>5</sup> Kalam was heavily involved in developing India's first indigenous Satellite Launch Vehicle (SLV) while he was the Project Director. Since he was the Chief Executive of the Integrated Guided Missile Development

Programme (IGMDP), he also significantly developed many missiles in India, including *Agni* and *Prithvi*. He has also served as the Chief Scientific Adviser to the Defence Minister and Secretary Department of Defence Research & Development.

APJ Abdul Kalam visited NASA's Langley Research Center in Hampton, Virginia, and Goddard Space Flight Center in Greenbelt, Maryland. Kalam attempted to develop the Polar Satellite Launch Vehicle (PSLV) and SLV-3 projects, which proved successful. *Agni*, *Prithvi*, *Akash*, *Trishul*, and *Nag*- the missiles that raised India's repute to international reckoning as a missile power.

#### **Achievements:**

Everything can be achieved for anyone, and every human has the capability and competency to do something. The things an achiever requires are, first, the desire to do something within him; second, the belief that he can achieve it and last, but not least, the expectation from whatever the achiever does.

In the words of Kalam: *"To succeed in life and achieve results, you must understand and master three mighty forces- desire, belief, and expectation."*<sup>6</sup>

On Wednesday, April 29, 2009, he became the first Asian to be bestowed the Kalam has received honorary doctorates from several universities, including Carnegie Mellon University and the Nanyang Technological University of Singapore. The Government of India honored him with the Padma Bhushan in 1981 and the Padma Vibhushan in 1990. In the words of Kalam: *"On Republic Day 1990, the nation celebrated the success of its missile program. I was conferred the Padma Vibhushan along with Dr. Arunachalam."*<sup>7</sup>

Kalam is the Third President of India to have been honored with the nation's highest civilian honor- the Bharat Ratna in 1997 for his work with ISRO and DRDO and his role as a scientific advisor to the Indian government- before being elected to the highest office, the other two being Sarvepalli Radhakrishnan and Zakir Hussain. Kalam says, *"If someone asks me*

*about my achievements in Indian rocketry, I will pin it down to having created an environment for teams of young people to put their heart and soul into their missions."*<sup>8</sup>

Many politicians and scientists appreciated Kalam for his remarkable achievements. After the success of the *Agni* launch, Prime Minister Rajiv Gandhi said that the *Agni* launch is: *"a major achievement in our continuing efforts to safeguard our independence and security by self-reliant means. The technology demonstrated through Agni reflects our commitment to the indigenous development of advanced technologies for the nation's defense. The country is proud of your efforts."*<sup>9</sup>

God creates every creature on this beautiful planet to fulfill a particular role. Unlike *Wings of Fire*, Kalam started *Turning Points* with the climax of his presidential period and proceeded to narrate the story where *Wings of Fire* ends.

*Turning Points'* publisher wrote: *"Turning Points take up the incredible Kalam story from where Wings of Fire left off. It brings together details from his career and presidency ... It offers insight not only into an extraordinary personality but also a vision of how a country with a great heritage can become great in accomplishment, skills, and abilities through effort."*<sup>11</sup>

Kalam has a great memory capacity that helped him to complete scientific projects. In **The Kalam Effect: My Years with the President**, P. M. Nair expressed his admiration for Kalam's memory in these words: *"memory was amazing – photographic and with plenty of films to register information."*<sup>12</sup>

Apart from his technological accomplishments, his writings significantly contribute to humanity. Dr. Sarvepalli Radhakrishnan says in **My Search for Truth**: *"Science helps us to build up our outer life, but another discipline is necessary to strengthen and refine the living spirit"*<sup>13</sup>

#### **Conclusion**

*Wings of Fire* reveal a great imaginative power, looking ahead and grasping the truth that

underlies facts. It delineates a vision incorporating spirituality, science, and achievements of APJ Abdul Kalam. Kalam observed from his experience that people analyze problems and failures instead of dealing with them. His life teaches many strategies to face challenges to lead a successful and fruitful life.

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