

## Dr A P J Abdul Kalam's vision

It now appears certain that Dr A P J Abdul Kalam will be elected the 11th President of India. Swarnalatha R of Structures Division recently attended a lecture by Dr Kalam in which he outlined his technological vision for 2020.



Over the Easter weekend, Dr A P J Abdul Kalam, Professor of Technology and Societal Transformation, Anna University,

\*Prof S Narasimhan

“Prof S Narasimhan is a much-loved figure among the MIT faculty, alumni and students, having taught at the aeronautical department for a phenomenal 36 years. During his lecture, Dr Abdul Kalam reverentially recalled the two years when he studied structures under Prof SN. Incidentally Prof SN was himself present at the lecture.”

delivered the Prof SN's\* 60th Birthday Endowment Lecture organized by the Department of Aeronautical Engineering, Madras Institute of Technology, Chennai, to a predominantly under-graduate audience. He spoke on 'Aerospace Systems: A Perspective' - which we realised was really a peek into his second book Vision 2020.

Dr Kalam's lecture presented a compelling Indian techno-logical scenario for the year 2020: "once the core technologies are given due thrust, the people's lives would change due to IT, biotechnology and space technology", he remarked, adding that "nano technology and micro devices should also have matured and taken over".

Dr Kalam also introduced a new statistic to measure technology penetration: "value addition per worker". An Indian worker, he explained, had a 'value' of only about Rs 200 while his Korean counterpart was worth Rs 1600 (even workers from Malaysia, Philippines, Thailand had values above Rs 200). "Our value will go up once we raise Indian design content", he said.

Some vignettes from Dr Kalam's vision:

- Space technologies will, among other things,

## Some Moments with the Essence of Greatness

Anyone who has read "Wings of Fire" will first be struck by the down-to-earth attitude of that illustrious author-personality, who reached heavenly heights of greatness. So was I, not only on reading the book, but also throughout the afternoon of 30 March



2002. Dr Abdul Kalam was on his way to Madras Institute of Technology, Chennai, to deliver Prof SN's 60th Birthday Endowment Lecture, the eleventh in the series, at 3.00 p.m. Notwithstanding a detour of about 4 km, imposed due to extensive construction work off MIT main gate, and a long wait at a level crossing, Dr Kalam arrived in time at the Rajam Memorial Hall - to a standing ovation from the assemblage of students, faculty and alumni of MIT. (As an alumnus of MIT, I was on the same route headed to the same venue, following the motorcade). His 20-minute talk touched upon his vision for India in 2020.

An informal get-together followed, at the Aeronautical Engineering Department library, where the warmth of the ambience and the presence of a national figure did much to take one's mind off the hot and humid Chennai afternoon. Of course, there it was more like an alumnus coming to his roots than a VVIP "sparing his precious time to be amidst all of us..." routine. Those present included faculty and their families, other alumni like self: there ensued several introductions. When my turn came, I drew my husband forward and we introduced ourselves. When Dr Kalam heard of my Commission in the Air Force, he recalled the time that he had

enable 100 million phone connections and real time universal language translation.

- Communications will assume another dimension with an aero-telecom network
- Microelectronics will play a key role with the usage of MEMS and application to convergent digital technologies in education, e-commerce and entertainment.
- The dream of a hyperplane with a 15% payload factor should take shape.
- Antibalistic missiles, networked to satellites and capable of killing nuclear weapons, will be part of national defence.
- Information warfare will dominate future war and prove more lethal than nuclear warheads.

Dr Kalam also revealed three cherished Indian dreams close to his heart ("I wish they take concrete shape after the success of GSLV and LCA"): the hyperplane, the deep penetration strike aircraft (DPSA) powered by a supersonic combustion jet engine and the supersonic passenger jet.

Firmly asserting that national development is above geo-politics ("all of us must share this dream of a developed India by 2020"), Dr Kalam said: "thinking leads to progress; non-thinking leads to the destruction of individuals, organizations, and nations".

appeared at the Dehra Dun Selection Board but was not selected ("Wings of Fire", pp 22-25). My husband is a logistics officer in the IAF and hence aware of the totally different cup of tea that is frontline defence. He later remarked that had Dr Kalam been successful then, India would never have achieved all she did once Prof MGK Menon and Dr Vikram Sarabhai discovered this failed recruit!

I had carried my copy of "Wings of Fire", signed and lovingly gifted to us by my father. This same copy is now



infinitely more priceless: the author himself autographed it with a few very kind words! Dr Kalam left some time later, after talking individually and severally to all who approached him. We left a good 10 minutes behind the motorcade, only to find ourselves once again behind it at the same level crossing! One was struck anew by the ordinariness of an extraordinary human!

*Swarnalatha R*