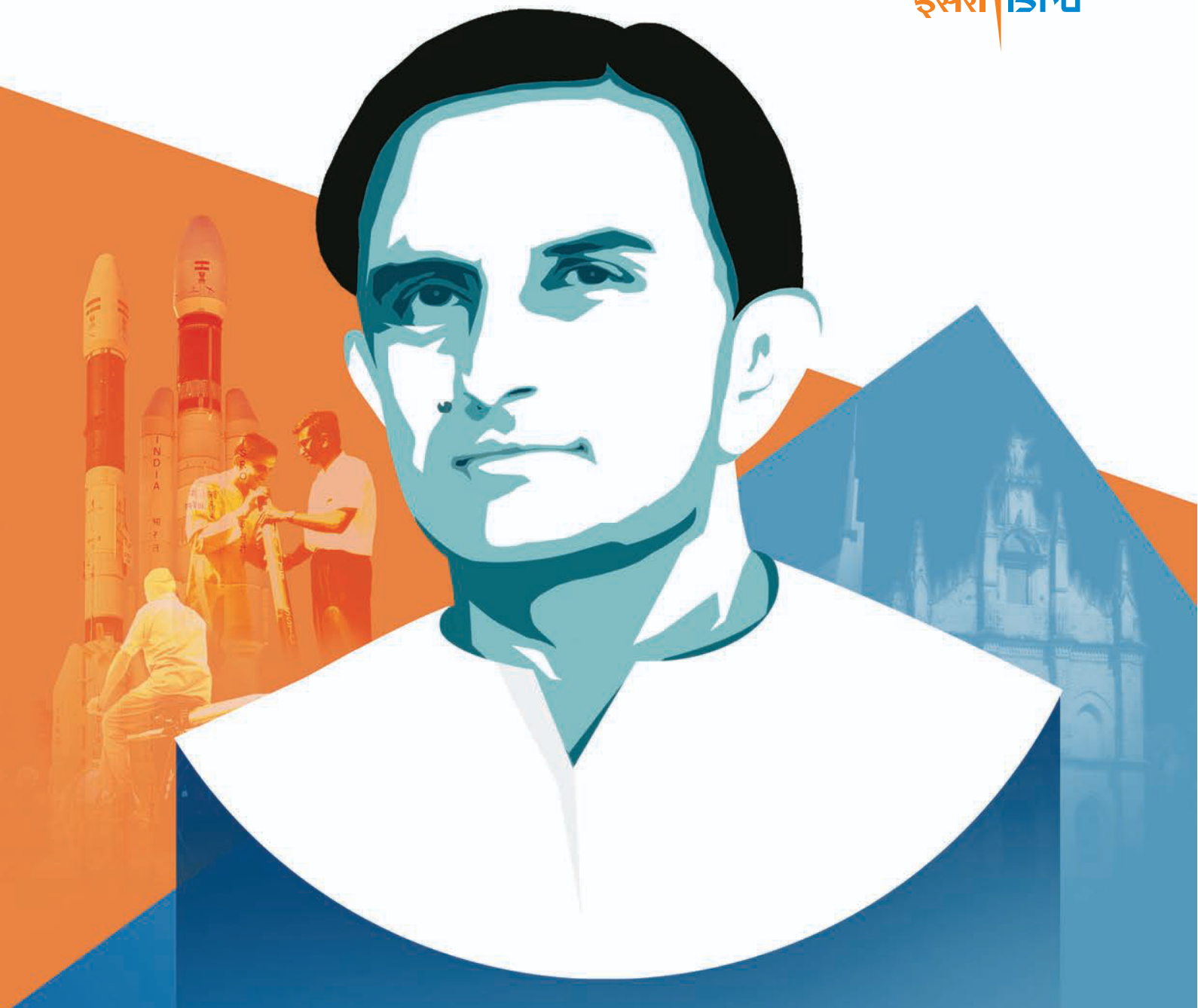

VIKRAM A. SARABHAI

There are some who question the relevance of space activities in a developing nation. To us, there is no ambiguity of purpose. We do not have the fantasy of competing with the economically advanced nations in the exploration of the moon or the planets or manned space-flight. But we are convinced that if we are to play a meaningful role nationally, and in the community of nations, we must be second to none in the application of advanced technologies to the real problems of man and society

Vikram had a dream on space research. He proposed experiments with sounding rockets.

He was born on 12th August, 1919 in a renowned Industrialist family of Ahmedabad, India. As a child, he underwent the schooling in Montessori system and he was curious explorer which developed his interest in science and mathematics. Liking to his taste his father Ambalal set up a workshop and engaged few people to help him in his experiments in house. His family was actively involved in the freedom struggle and had become host for several freedom fighters like **Mahatma Gandhi, Motilal Nehru, Jawaharlal Nehru, Moulana Azad, Madan Mohan Malvya, Dr. S Radhakrishnan, etc.** He had blessings of Rabindranath Tagore even from his child hood. Their house called as 'The Retreat' was famous location in Ahmedabad for all the to top-notch people.

After completing schooling, he joined R.C. School, Ahmedabad for matriculation and Gujarat university for graduation. In 1937, he and his brother Gautam went to London for higher studies. When the second world war was broken-out during 1940, his father asked them to come back to India. Vikram continued his post-graduation **work under the Nobel Laureate Sir CV Raman at Indian Institute of science, Bengaluru.** Later he took up research on cosmic rays under Sir CV Raman and become friendly to senior Homi J Bhabha.

During his stay at Bangalore, out of his passion towards music and fine arts, he used to visit theatres for watching performances. He became close Mrilanalini Swaminathan who was trained in Bhartanatyam from Tagore's shanthinikethan and abroad. They married each other during 1942 and blessed with a son and daughter Karthikeya and Mallika.

After the second world war, he returned back to UK to continue his research at Cambridge. His was referred by Rabindranath Tagore to the Cambridge university and carried out his doctoral thesis on **"Cosmic Ray Investigation Experiments with Gamma Rays'** under Prof. Millikan and his thesis was evaluated by another distinguished Nobel laureate Prof. Patrick Blackett.

During 1947, he return back to India and getting involved himself in the industrial and scientific activities. His father asked him to look into new business practices in the textile area. His aunt Anasuya was a freedom fighter and social activist who worked for the welfare of textile workers. With this spirit, Vikram has formed ATIRA **"Ahmedabad Textile Industry's Research Association' for modernising the textile machinery during 1947**.

After independence Pandit Nehru had given lot of importance for scientific laboratories and CISR Simultaneously, he formed **PRL (Physical Research Laboratory)** in his own personal property. **Dr. Ramanthan, Proful Bhavasar, EV Chitnis, UR Rao joined PRL, out of passion towards research.** Vikram used to go to Kashmir, kodaikanal for studying the effect of cosmic rays.

Parallelly he also constantly expanding his industry base like Sarabhai chemicals, Baroda and acquired a Culcatta based sick company through their license collaborated with ER Squibb & sons, New York for producing pencilling and Streptomycin. Similarly he used to manage other industries like Sarabhai Merk Ltd, Swasthik Oil Mills, Synbiotics Ltd, Sarabhai Engineering Group and Sarabhai Glass etc.

To balance the other part of life, he established **Darpan Academy of performing Arts along with his wife Mrinalini, Science community centre for children and Nehru Foundation for Development for community development.**

During 1950 Ford Foundation had a proposal to setup management institutions in India. He requested Ford Foundation to setup the management institute and he also went to Harward to request them to get involved in the project. Harward agreed to Vikram's proposal and IIM-A had come in effect during 1962.

Vikram had a dream on space research. He always discusses this with his students at PRL and his senior friend Homi J Bhabha. He has chosen a location near Trivandrum which is on magnetic equator to study electronic jet streams on either side of equator. He proposed experiments with sounding rockets. With the help of Homi J Bhabha, the **Indian National Committee on Space Research (INCOSPAR) was formed during 1961** and Vikram was only choice as Chairman of the committee as proposed by Bhabha. Sarabhai also was inducted to the board of Atomic Energy Commission.

Vikram announced the opportunities to work in space research, attracted to this people like HGS Murthy, APJ Kalam, R Arvamudan, Eswardas, Ramakrishna Rao, SC Gupta were few among many. The team went to study and survey the location near Trivandrum which is nearer to magnetic equator. Vikram formulated a firm plan for getting international space agencies on a common platform for this research. He went around to USA, UK, USSR and France for the co-operation on the space research. In a positive response to that, the sounding rocket programme was launched. NASA has supported with supplying Nicke-Appache rockets, CNES supplied Radar and USSR has given a helicopter and Minsk computer.

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The first launch pad at Thumba was established with the support of local community and administration. The SSTC (Space Science & Technology Centre) at Thiruvananthapuram and Experimental Satellite Communications Earth Station (ESCES) at Ahmedabad. On the other hand he was made as chairman of Electronic Commission and he established ECIL. The launch station was established at Thumba named as TERLS (Thumba Equatorial Rocket Launching Station) with range and telemetry systems. After a remarkable effort in setting up the infrastructure, the inaugural flight was launched on November 21, 1963, with a sodium vapour payload. Several agencies from USA, France, UK etc. started accessing the TERLS for scientific experiments and the site was dedicated to UN in the year 1972.

In the meantime there was a shocking news to the scientific community, the accidental death of Dr. Homi J Bhabha in a plane crash. Dr. Sarabhai has succeeded Bhabha as chairman, DAE. Continuing his contribution to the atomic research programme he established the de-salination plants and Agro Industry complex with an intention to generate seeds and food after production of nuclear energy. He also established **Uranium Corporation of India Ltd at Jaduguda, Bihar, Faster Breeder Test Reactor (FBTR), Kalpakkam and Variable Energy Cyclotron Project, Calcutta.**

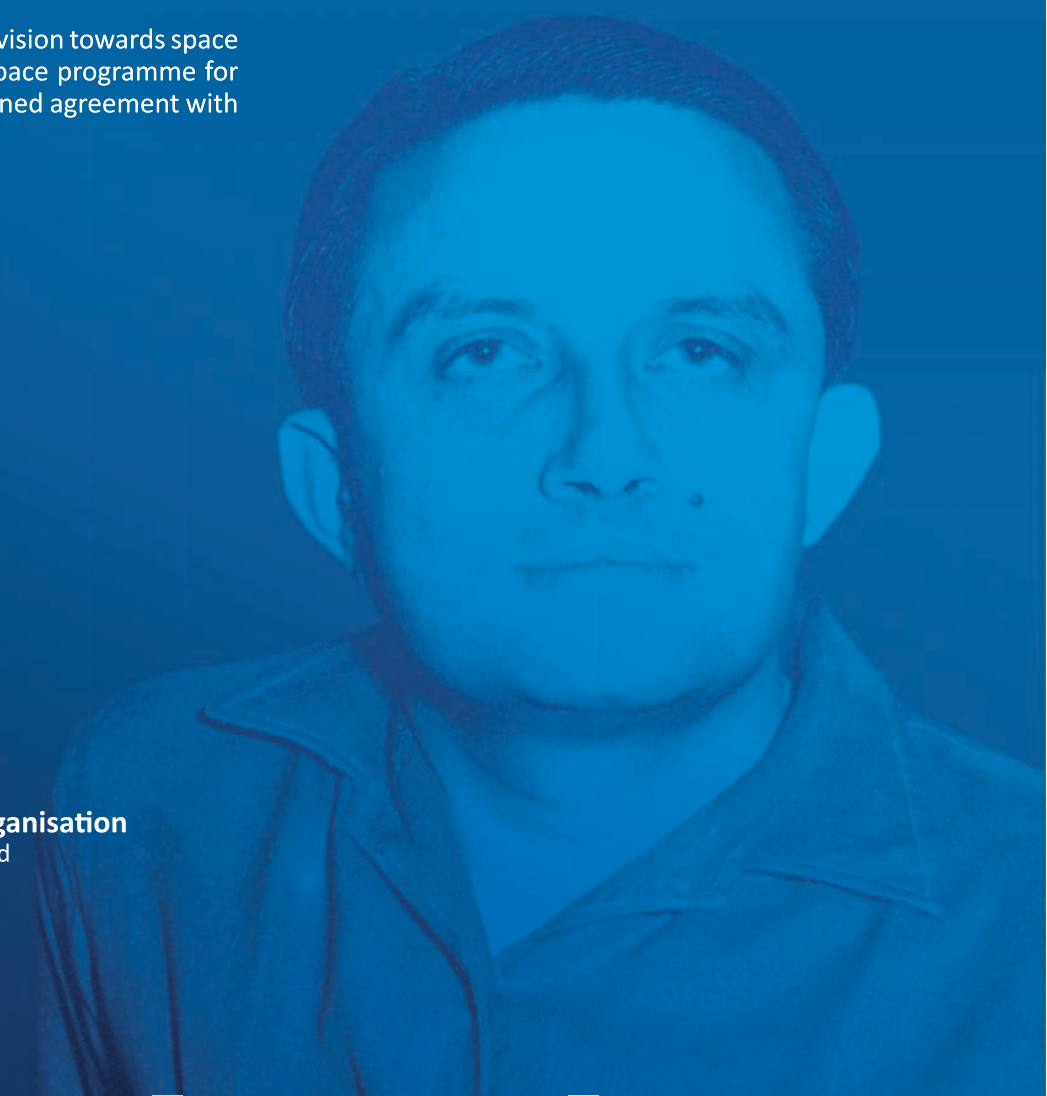
During the course of time his vision towards space expanded, he visioned the space programme for common man at large. He signed agreement with NASA for utilising the services of ATS satellite and launched a very popular programme SITE (Satellite Instructional Telecommunication Experiments) which was the largest community. He established Rocket Production Facility and Rocket Fabrication Facility on the hills of Veli. This complex has been turned as Vikram Sarabhai Space Centre at a later time.

To his contributions, he was appointed as Scientific Chairman of the UN Conference on the Exploration and the Peaceful Uses of Outer Space, Vienna. He had very wide contacts across Globe with the scientific community. He made India represented in the popular space fairing nations of the world.

Dr Vikram Sarabhai passed away at 52 years of age on 30 December, at Kovalam Guest House (Halcyon Castle), Thiruvananthapuram, India.

He was awarded **Padma Bhushan and posthumously awarded Padma Vibhushan by Governement of India.**

In 1974, a moon crater was named after Dr Vikram Sarabhai. The International Astronomical Union at Sydney, Australia decided that Crater BESSEL in the Sea of Serenity will be known as the 'Sarabhai Crater'.



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