

Dr M. R. Srinivasan: A Gentle Visionary

Dinesh K. Srivastava

National Institute of Advanced Studies, Bengaluru 560012

Email: Dinesh.srivastava@nias.res.in

Dr. M. R. Srinivasan (1930–2025) was a pioneering Indian nuclear engineer and is hailed as the father of India’s civil nuclear programme. He played a key role in developing indigenous nuclear power reactors and establishing institutions like the Nuclear Power Corporation of India Ltd (NPCIL). As former Chairman of the Atomic Energy Commission, his leadership ensured India’s self-reliance in nuclear technology despite global restrictions. For his contributions, he was honoured with the Padma Shri, Padma Bhushan, and Padma Vibhushan.

Early Life

Malur Ramasamy Srinivasan was born in Bangalore on January 5, 1930. He completed his schooling at the Intermediate College, Mysore, and joined the College of Engineering, Bangalore (now University of Visvesvaraya College of Engineering (UVCE), established by Sir M. Visvesvaraya), from where he obtained his B. Tech. in Mechanical Engineering. He next went to McGill University, Montreal, Canada, where he completed a master’s degree in 1952 and a PhD in gas turbine technology in 1954. He breathed his last at Udagamandalam (Ooty) on 20 May 2025. He is survived by his wife, Geetha Srinivasan, his daughter, Sharada Srinivasan, and his son, Raghuvir Srinivasan.

His Life and Work with the Department of Atomic Energy

Dr M. R. Srinivasan was one of the pioneers of India’s atomic energy programme. He joined the Department of Atomic Energy,

India in September 1955 and began his illustrious career working closely with Dr Homi Bhabha on the construction of Apsara—India's first nuclear research reactor—which attained criticality in August 1956. This achievement marked the beginning of his extraordinary journey of scientific leadership, technological innovation, and institution-building in India's nuclear landscape.

In 1959, Dr Srinivasan assumed the role of Principal Project Engineer for India's first atomic power station in Tarapore, Maharashtra, and, in 1967, he became the Chief Project Engineer of the Madras Atomic Power Station. In these formative roles, he was instrumental in laying the foundation for India's nuclear power generation capabilities.

Throughout his distinguished career, Dr Srinivasan held several key leadership positions. He served as Director of the Power Projects Engineering Division in 1974, Chairman of the Nuclear Power Board in 1984. He was appointed Chairman of the Atomic Energy Commission and Secretary to the Government of India, Department of Atomic Energy in 1987. That same year, he became the Founder-Chairman of the Nuclear Power Corporation of India Limited. After his retirement, he was appointed a Member of the Atomic Energy Commission, a position he held till his passing away. Under his visionary leadership, India witnessed the development of 18 nuclear power reactors— seven of which are operational, seven are under construction, and four are in the planning stage at the moment, marking a significant stride toward national energy security and technological self-reliance.

Dr Srinivasan, a visionary engineer, institution builder, and policy architect, played a foundational role in shaping India's indigenously developed nuclear power technologies. His steady leadership ensured continuity, stability, and sustained growth during pivotal phases of the nuclear programme. He fostered a culture of collaboration among engineers, scientists, and industries, strengthening the national ecosystem for nuclear energy development. His efforts turned a newly independent nation into a nuclear powerhouse.

Awards and Recognitions

In recognition of his extraordinary contributions to the nation, Dr Srinivasan was awarded the Padma Shri in 1984, the Padma Bhushan in 1990, and the Padma Vibhushan 2015, by the Government of India.

In a statement, the Department of Atomic Energy, celebrated the legacy of Dr Srinivasan, which is etched into the very framework of India's peaceful nuclear energy programme. It also stated that his commitment, clarity of thought, and relentless pursuit of excellence will continue to inspire generations of scientists, engineers, and technologists.

In other responsibilities, he was a Senior Adviser at the International Atomic Energy Agency, Vienna, from 1990 to 1992. He was a Member of the Planning Commission, Government of India from 1996 to 1998, where he looked after the portfolios of Energy, and Science & Technology. He was a Member of India's National Security Advisory Board from 2002 to 2004 and again from 2006 to 2008. He was also Chairman, Task Force on Higher Education, Karnataka from 2002 to 2004. Dr Srinivasan was a Founder Member of World Association of Nuclear Operators; Fellow, Indian National Academy of Engineering and Institution of Engineers (India) and Emeritus Fellow of the Indian Nuclear Society.

His other prestigious recognitions included Kannada Rajyotsava Award, 2017, Diamond Jubilee Award of the Central Board of Irrigation and Power, Best Designer Award of the Institution of Engineers, Sanjay Gandhi Award for Science & Technology, Om Prakash Bhasin Award for Science & Technology, Homi Bhabha Gold Medal from the Indian Science Congress, Distinguished Alumnus Award by Visvesvaraya College of Engineering, Bangalore, and Homi Bhabha Lifetime Award of Indian Nuclear Society.

My Early Interactions with Dr M. R. Srinivasan

I first met him in the late 1980s, when he came to Kolkata to host the banquet for an International Symposium on Nuclear Physics. I was talking with a distinguished and well-known Professor of Nuclear Physics, Peter Hodgson, when he walked

over to us. Being very young, I got very nervous, but he immediately put me at ease. I was not sure that he would have anything in common with Prof Hodgson, but it turned out that he had recently read his two famous books on nuclear physics and soon engaged with him in a riveting discussion!

Soon afterwards, he was to host the conference banquet of the First International Conference on Physics and Astrophysics of Quark-Gluon Plasma, which we organised in Mumbai. He won the admiration of all present with his charm and promise of all support for a large-scale collaboration with CERN, Geneva.

More Interactions

In 2009, we invited him to deliver Raja Ramanna Memorial Lecture at Variable Energy Cyclotron Centre, Kolkata. He sent a 21-page handwritten text of the lecture in his exquisite handwriting, without a single correction. He had wanted me to get it typed in large fonts. That long writeup in his own hand is a valuable document with us.

Years later around 2018, I was to face him during a meeting of the Atomic Energy Commission, from which our institute was asking for substantial funding for setting 'A National Facility for Rare Isotope Beams' (ANURIB). I was pleasantly surprised with the depth of his questions and his keen understanding and appreciation of our objectives. Of course, we got the funds we had asked for. No wonder that Prof V. S. Ramamurthy, a colleague of ours from the Bhabha Atomic Research Centre, who rose to become Secretary of the Department of Science and Technology used to call him, "a walking encyclopedia". He was firm but gentle in his dealings and gave all his wisdom, expertise, and guidance, which endeared him to us.

He was a very firm believer in nuclear energy, for a rapid deployment of power to lift our masses from poverty and suffering, and he was always ready to participate in public debates, TV debates, and written numerous articles in its defense, and given numerous talks, at all forums, where he defended it strongly.

Last Meeting

We last met him a few months ago, when we visited him at his Bengaluru residence with a request in connection with starting an Oral History Archive, where our students could talk to legendary scientists of our country. We wanted to have the first chapter with him. I had heard of his extremely sharp memory. I was meeting him after almost a decade, and yet he addressed me by my name and thanked me once again for the help he had received from us during his visit to Kolkata in 2009. We made our request, he immediately agreed, but later he had indifferent health, and we felt that we should wait for him to recover fully. Alas.