

Obituary

Dr R Krishnan, FNAE
(December 26, 1935 - April 16, 2021)



Dr Rangachari Krishnan, FNAE born on December 26, 1935 passed away on April 16, 2021. He started his career with AEET (renamed as BARC in 1966) as a trainee in the first batch training school in 1957. He was head of the Metallurgy division when he left BARC to join DRDO in 1985 where he worked in several capacities. He retired from DRDO as Director, Gas Turbine Research Establishment (GTRE) in 1995. Post retirement, he was involved in Agastya Foundation and CSTEP.

In his research foray, Dr Krishnan started the X-ray metallography work with the study of textures in metallic uranium fuel elements. He then established a good electron metallography laboratory for studying phase transformations and structure property correlations. He was the first to predict the existence of stacking faults in uranium. Thereafter he studied extensively phase transformations occurring in several Zr and Ti based alloys and steels to correlate the structure with mechanical properties. He helped in the flow-sheet preparation for fabrication of nuclear cladding materials. He participated in the 100MW Dhruva reactor (BARC) fuel development activities. At NCML (DRDO), he contributed in alloy selection for marine vessels for the Indian Navy. At GTRE (DRDO), he was responsible for selection of high temperature materials for turbine applications and helped establish fabrication and welding procedures. He has carried out failure analysis investigations using metallographic techniques and suggested solutions to avoid recurrence of critical failures in future. Dr Krishnan had over hundred publications in refereed journals.

The structural metallurgy laboratory started by Dr Krishnan at BARC is one of the best in the country and has contributed greatly in understanding the behaviour of several metals and alloys. He established the Aeronautical Materials Testing Laboratory at Hyderabad for evaluating mechanical properties of high temperature materials.

Dr Krishnan was a recipient of INSA Brahm Prakash Memorial Medal (2001), and National Metallurgists' Day Award by Ministry of Steel and Mines (1977). He was President, The Indian Institute of Metals (IIM) (1993-94). He was a Fellow of the Indian Academy of Sciences, Bangalore; National Academy of Sciences (India), Allahabad; Indian National Academy of Engineering; the Aeronautical Society of India and the Astronautical Society of India.

May God Bless his Soul to Rest in Peace