

CV of Dr R.Rajendran

Dr Rajendran joined Naval Science and Technology Laboratory (NSTL) of Defence Research and Development Organization (DRDO) in 1984 after completing bachelor degree in mechanical engineering from Government College of Technology, Coimbatore affiliated to University of Madras. He earned Master and Doctoral degrees from IIT Bombay. He developed empirical, analytical and numerical models for underwater explosion damage of ship panels and ambient temperature underwater explosion bulge test for submarine pressure hull.

His methodologies developed for predicting underwater explosion damage went into the design guidelines of International Ship Structures Committee in ultimate strength and accidental damage sub-committee reports. His experiments on underwater explosion cavitation served as bench mark for the development of theoretical models across the world.

He worked for land based nuclear submarine development at Kalpakkam from 2000. He developed nuclear transportation cask drop test and energy absorber, established structural integrity of nuclear shut off rods through stress wave propagation studies, measured residual stress in submarine pressure hull, validated biological shield tank design and developed shock qualification methodology for nuclear fuel bundle.

His contributions on energy absorber and stress wave propagation in shut off rods entered into International Nuclear Information System Repository of International Atomic Energy Agency, Vienna, Austria.

He worked on aero-engine materials technology from 2009. He established dynamic elastic properties, strain hardening exponents and strength co-efficients, developed low thermal conductivity thermal barrier coatings, established engine component condition assessment and mechanical behaviour of coatings. He spearheaded the development of erosion resistant nano coatings. He developed surface science and engineering laboratory.

Dr Rajendran is a reviewer for several international journals. He has 3 patents and 36 international journal papers to his credit.

Currently Dr Rajendran is working on Aircraft landing gears and secondary power systems.