



Presents  
*Ramachandra Rao Dasari Distinguished Lecture Series*  
2022

Date: May 16, 2022, Time: 12:00 Noon, Venue: L-14

**Indigenous Laser and Photonic  
Systems for Utilization in Nuclear  
Power and Societal Applications**

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**Abstract:** Laser after its invention is rightly described as 'a solution looking for a problem' and in real life lasers continued to provide unique and novel solutions to variety of problems for more than 5 decades. Nuclear research and power program, societal health program have imposed challenging problems. RRCAT at Indore is engaged in development of laser/photonic systems to address some of the problems in these indicated areas. The talk will cover laser and photonic systems developed at RRCAT and deployed in field applications in the areas of nuclear, industrial and societal health.

Shankar V. Nakhe, Outstanding Scientist, is currently Director, Raja Ramanna Centre for Advanced Technology (RRCAT), Indore. He graduated in Electrical Engineering from Walchand College in 1985 with first rank in the Shivaji University. He joined Department of Atomic Energy in 1987. He subsequently obtained M.S. (Engg. Sc.) from I. I. Sc. Bengaluru. The Oriental University awarded him PhD (honoris causa) in 2021. He is the President of Indian laser Association. At RRCAT he worked on design, development and utilization of various laser and electronic systems. He played a key role in the development of the fiber Bragg grating inscription facility at RRCAT.

**About Prof. Ramachandra Rao Dasari**

Prof. Ramachandra Rao Dasari was a Professor of Physics at IIT Kanpur for 16 years (1962-1978). During that period, he built one of the largest laser laboratories for research in India in that time, trained a large number of Ph.D. students in laser research and interacted with several R&D laboratories. His pioneering work later led to the formation of a vibrant Center for Lasers and Photonics (CELP) at IIT Kanpur offering interdisciplinary training and research. As physics panel member of UGC, he had initiated number of new initiatives for the improvements in undergraduate education and organized workshops for training of teachers. Prof. Dasari left IIT Kanpur in 1978 and after spending 2 years in Canada he joined M.I.T. U.S.A., where he served for the next 40 years, becoming Associate Director of the MIT laser biomedical research center. He has published more than 400 research papers and has guided several Ph.D. and M.Tech. students. He passed away peacefully on April 12, 2020. He leaves behind an endowment for an annual R. R. Dasari Distinguished Lecture Series, and since 2005 lectures are being delivered every year by erudite scholars at IIT Kanpur on lasers and photonics.

