



Physical Research Laboratory, Ahmedabad

COLLOQUIUM - 12-30

Speaker: Prof. R. Rajaraman

Emeritus Professor, School of Physical Sciences, Jawaharlal Nehru University, New Delhi and Co-Chairman, International Panel on Fissile Materials.

Title: Nuclear Energy: Problems and Prospects

Abstract

Nuclear Energy has had a roller coaster history since its inception over 65 years ago, enjoying periodic revivals followed by setbacks – the most recent being the reactor disaster in Japan. In India too, our government's ambitious nuclear program, while significantly boosted by the Indo-US nuclear Deal, has since run into some stumbling blocks. Questions persist among the lay public on whether nuclear energy is desirable. Unfortunately, an educated judgment on this is not easy. Issues of public concern—reactor safety, radiation hazards, disaster liability, the economics etc --- together with a minimal appreciation of the underlying science and technology, cover a wide spectrum of expertise, making the subject immensely complicated. In this lecture we will sketch the history and prospects of nuclear energy globally and in India and throw some light on its different facets.

The Speaker

Prof. R. Rajaraman received his Ph.D. in 1963 from Cornell University under the supervision of the Nobel laureate Prof. Hans Bethe. Subsequently he was in the faculty of Cornell University, the University of Southern California, and the Institute for Advanced Study in Princeton before returning to India in 1969 at University of Delhi. He moved in 1976 to Indian Institute of Science, Bangalore and then shifted to J.N.U in the year 1993. Over the years he has also been a long-term visiting scientist at Harvard University, M.I.T., Stanford University, Princeton University and CERN, Geneva. His primary research work for nearly five decades has been on different areas of theoretical physics, including Nuclear theory, Particle Physics and Quantum field theory, Statistical mechanics, Solitons and Quantum Hall systems. In addition he has also been working on policy issues on nuclear disarmament and civil nuclear energy, both in the global and the Indian context. He has done technical research on missile defence systems, nuclear weapons accidents, unauthorized launches, Early Warning, nuclear civil defence and fissile material production. He played an active role in the 3 year long public debate on the Indo-US Nuclear Deal. His current interests include policies related to public perceptions of radioactivity and nuclear energy. Prof. Rajaraman is a Fellow of the Indian Academy of Science, and Indian National Science Academy. He is recipient of the Shanti Swarup Bhatnagar Prize in Physics, S.N.Bose Medal of the Indian National Science Academy and Dr. G.P. Chatterjee Memorial Award of the Indian National Science Academy. Currently, he is a Vice President of the Indian National Science Academy, New Delhi.

Wednesday: 17 October, 2012, 16:00 hrs.

K.R. Ramanathan Auditorium, PRL

Tea at 15:30 hrs.

ALL ARE WELCOME



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