

# PLASMA SCIENCE & TECHNOLOGY FOR SOCIETAL BENEFITS:

## Applications and Potential through Nanotechnology Route

*A Public Lecture by*

**Dr. Venkat N. Ramani**

Plasma Science and Technologies are finding increasing applications, day by day, in the fields of Medicine, Healthcare and Environmental needs of society. Prevention and effective decontamination of the environment or sterilization can be achieved using Plasma Cleaning. Plasma Cleaning can modify bio-medical surfaces by coatings on invasive tools and parts that enter the living bodies which need to be bio-compatible and have long life. As a therapeutic application, it finds importance in annihilation of cancer cells, wound healing, dental cleaning, and cosmetic changes to human body. Significant advantages in preservation and life-enhancement of vegetables, fruits, pulses and nuts, removal of harmful pesticides from the surface of vegetables and fruits, increasing germination of seeds etc. have made the plasma technology very relevant in the Food area. Advent of nanotechnology has led to further exploitation of the plasma technologies in many walks of life. The range of nanopowders and their applications are wide. Nanopowders can be used as drug carriers in plasma medicine, as an agent to control wettability in textiles, as a coating material in optical windows, as an energy storage medium in batteries, and so on. There exist multiple routes for realization of any nanopowder and the plasma route is by far the most superior and efficient among them. Plasma Technology produced Nanopowders can open up ways and means to control Air and Water Pollution in a big way, with economic feasibility.

**The Lecture will be equally inspiring to physical scientists, life-scientists, technologists, medical professionals, social scientists and even non-scientists. Students, in particular, are encouraged.**



Dr. Venkat N. Ramani, Plasma Physicist turned Entrepreneur, is MD ADITYA HIGH VACUUM PVT. LTD. and Director, PLASMA & VACUUM TECHNOLOGIES, Ahmedabad.

He has set up fabrication facilities for custom-built & Special purpose Vacuum systems and components that he has been providing to various Universities and R&D laboratories such as ISRO, BARC, IPR, PRL, etc., He has been actively involved in the Vacuum and Leak Testing of various systems and components of Nuclear Power Corporation of India, Reliance Industries, BOC India Limited, L&T, etc. He conducts Training Courses for professionals from industries.

He is recipient of many awards including Young Scientist Medal of Indian National Science Academy and has over 100 publications. He is an International Member of the Leak Testing Committee of American Society for Non-destructive Testing since 2015.

**Date:**

Tuesday, February 6, 2018

**Time:**

5:00 PM - 7:00 PM

**Venue:**

UChicago Center in Delhi

DLF Capitol Point Building  
Baba Kharak Singh Marg  
New Delhi 110001

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