



IITM's 'Prof. R. Ananthakrishnan' Colloquium (44th)



Late Prof. R. Ananthakrishnan

(Ex-Director and Honorary Fellow of IITM, Pune started his research career as a research scholar in the field of light scattering under the guidance of noble laureate Prof. C.V. Raman and was awarded D.Sc. in 1937 from University of Madras. Then he

joined IMD and occupied several positions up to DDG and then he worked as Director IITM during 1968-1971. He was awarded Padmashree by President of India in 1969 and C.V. Raman Centenary Medal in 1988. He was elected as an INSA Fellow in 1961 and was also member of many learned and professional societies like (Indian Academy of Sciences, Maharashtra Academy of Sciences). He was associated with many technical committees and working groups of WMO Geneva. He was editor of reputed national and international journals in Meteorology.

Prof. Ananthakrishnan was deeply associated in organizing and teaching Msc./M.Tech. Courses in Meteorology at University of Cochin and University of Pune. Under his able guidance 12 persons were awarded Ph.D.

Research contribution of Prof. R. Ananthakrishnan covers a wide range of topics viz. Light scattering and Raman Effect, Solar Physics and Meteor Astronomy and Meteorology. In the field Meteorology his work covers: Aerology, Dynamics, Thermodynamics, monsoon circulation, Tracks of storms and depressions. Atmospheric pressure and oscillations, Indian rainfall and features associated with onset of southwest monsoon and identification of errors in upper air data. To meet defense needs he organized the publications entitled 'Climatology of Himalayas, Tibet and adjoining areas. There are 110 national/international (research papers/technical contributions) papers to his credit and a book entitled 'An Introduction to Meteorology'. This textbook is found to be extremely useful to all the new comers in the field of meteorology. Prof. R. Ananthakrishnan pursued his research and guided researchers in atmospheric science even after his retirement as an honorary fellow of IITM till his last days.



Prof. D. Pallamraju

Title of the Talk: "Space Weather Science & its effect on Societal Applications"

ABSTRACT: The Space Weather refers to the physical conditions within the space environment which includes the conditions on the sun and in the space between the sun and the earth. Adverse Space Weather conditions can cause disruption of satellite operations, communications, navigation, and power grids, leading to several of socio-economic losses. This is a harsh reality we have to live with in the present times as we are increasingly dependent on the satellite systems and sub-systems in our social life. Global scientific community has recognized the severe magnitude of the issue and various methods and approaches are being attempted to predict the adverse Space Weather conditions. During this talk several components of the sun-earth system that either participate in, or are affected by the Space Weather will be introduced. The adverse impacts on the ground and on the equipment placed at different latitudes on the earth and at different heights (within the purview of the space environment) will be discussed. Presently, there are no reliable methods to unambiguously predict or forecast the space weather effects. However, several research groups across the globe are carrying out efforts to understand the processes/mechanisms by which the effects between the sun and the earth are communicated. This is a major research issue of current interest and has attracted the attention of both scientists and policy makers. The present plans that are underway in India with regard to future space missions for space weather studies will also be touched upon so that one can appreciate the magnitude of the efforts being carried out to address important and highly pertinent issue.

<https://youtube.com/live/dBGNTHZGsfk?feature=share>

Date: 13th February 2023, 1630 hrs