



“Azadi ka Amrit Mahotsav”

41ST IITM's 'Prof. R. Ananthakrishnan' Colloquium



Late Prof. R. Ananthakrishnan

(Ex-Director & Honorary Fellow of IITM, Pune started his research carrier 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. R. 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.



Dr. Dipanjan Dey

Title of the Talk: "Lagrangian Tracing and Analysis of the South Asian Summer Monsoon Precipitation"

CV: Recent doctorate in Atmospheric Sciences and Oceanography from the Department of Meteorology, Stockholm University, Sweden. Primary area of research is focused on tracing atmospheric water between evaporation and precipitation regions.

ABSTRACT: The evaporative sources and their variability responsible for the South Asian summer monsoon precipitation were investigated using Lagrangian atmospheric water-mass trajectories. The results indicated that evaporated waters from the Central and South Indian Ocean are the dominant contributors to the total South Asian summer monsoon rainfall, followed by the contribution from the local recycling, the Arabian Sea, remote sources and the Bay of Bengal. It was also found that although the direct contribution originating from the Bay of Bengal is small, it still provides a route for the masses of water that come from other regions. The outcomes further revealed that the atmospheric waters originating from the Central and South Indian Ocean are responsible for the net precipitation over the coastal regions of the Ganges-Brahmaputra-Meghna Delta, Northeast India, Myanmar, the foothills of the Himalayas and Central-East India. Evaporated waters from the Arabian sea are mainly contributing to the rainfall over the Western coast and West-Central India. Summer monsoon precipitation due to the local recycling is primarily restricted to the Indo-Gangetic plain. No recycled precipitation was observed over the mountain chain along the West coast of India (Western Ghats). The inter-annual variability of the South Asian summer monsoon precipitation was found to be mainly controlled by the water-masses from the Central and South Indian Ocean.

Date: 16th June 2021, 1130hrs

<https://youtu.be/Zlp01PVja6M>

#AmritMahotsav