



Prof. A. P. Dimri

5<sup>th</sup> Talk of  
IMS – IMD Lecture Series

Live Talk  
9<sup>th</sup> September, 2022  
1100 -1200 IST

To commemorate the 75<sup>th</sup> anniversary of Independence of India, the country is celebrating **Azadi Ka Amrit Mahotsav**. Indian Meteorological Society (IMS) and India Meteorological Department (IMD) are jointly celebrating this Mahotsav by organising a series of popular lectures on contemporary topics.

**ABOUT THE SPEAKER** : Prof. A. P. Dimri, currently Director of Indian Institute of Geomagnetism, Mumbai, India and is actively working in the field of Atmospheric Science from the past three decades. He has served many important Government as well as educational institutions in India and abroad starting from as a scientific carrier in Defense Research & Development Organization (DRDO), Snow & Avalanche Study (SASE) Chandigarh and at School of Environmental Sciences JNU Delhi a professor (till date). In his main contributions he has 75 publications in leading national/ international peer reviewed journals as well as 7 books/ chapters in books to his name. Along with these scientific contributions he is also a member of several prestigious organizations such as Indian Meteorological Society and American Geophysical Union. He served as a council member of the Indian Geophysical Union from 2014-16 and has been awarded with various fellowships.

**ABOUT THE TALK** : **Himalayan Weather**. The present talk includes regional climate dynamics and its variability, statistical and dynamical downscaling of numerical model outputs, extreme events and their physical understanding as well as Western Disturbances, especially Himalayan glacier and associated water/hydrological budget. In changing global context, he has defined the term 'Indian Winter Monsoon' to explain the precipitation occurring during winter and snowfall distribution in respect of glacier replenishment provides an insight for recharging of the snow-fed rivers and overall ecology of the region. It is seen that temperature distribution over mountains in the form of Slope Environmental Lapse Rate modeling specific to the monsoon glacio-hydrological regime of Himalaya. The variability of Indian Summer Monsoon on intra-seasonal, inter-annual and inter-decadal time scales in relation with different atmospheric forcings such as Potential Vorticity, Quasi-biennial Oscillation (QBO) as well as solar cycle interplay a dominant role between different phases of QBO and Indian Summer Monsoon rainfall (ISM), and found the good ISM rainfall during west phase in comparison to east phase of QBO. The linkage of inter-annual changes in ISM with ENSO in the past and showed a weakening of ISM intensity in the last 180 years. It is also observed that the evaluation of the latest generation of multiple regional climate models under CORDEX-South Asia project utilizes information in studying the Indian Summer Monsoon characteristics in more detailed manner.

**Youtube link:** <https://youtu.be/jNbZKsRh7yo>