## Editors Page

The scientific journal 'Vayumandal' has been a longstanding flagship publication of the Indian Meteorological Society (IMS). The journal features original research papers and reviews in different fields of meteorology and allied sciences. The IMS has been making concerted efforts to improve the visibility, scientific quality and wider uptake of 'Vayumandal'. Towards achieving the above goals, the newly constituted SC has taken several initiatives. The Editorial Board of VayuMandal is reconstituted and expanded. The Editorial Board has 18 members who are among national and international experts from diverse areas of specializations covering, Monsoons, Hydrology, Climate change, Tropical Meteorology, Satellite Meteorology, Data Assimilation, Environmental Modelling, Advanced NWP, Forecast Verification, Data Science and AI/ML.

The current issue of the journal is VM 49 (1) Jan - June – 2023. The Review Articles touch upon diverse areas and topics of current research interest. One of the articles by Panda et al., reviews the current research on atmospheric aerosols and their influences on radiation, cloud, and precipitation over different parts of the globe, and, their role in influencing extreme weather events and large-scale circulations. Another article by Panda et al., reviews the Atmospheric and Ocean characteristics associated with NIO tropical cyclones with focus on intensity and movement.

An article by Shankar et al., addresses the issue of environmental pollution in urban cities, using hourly air quality and associated meteorological datasets from 2016 to 2023 over Patna. The study also reports that the PM2.5 concentration is significantly affected by Visibility, MSLP, CO, and O3. They have also tried to predict PM2.5 using random forest model.

Paper by Priyanka Kumar et al., is a review on earthquake monitoring over India. The study highlights the use of advanced sensor technologies, automatic processing, data acquisition, digital processing and smarter communication that play an important role in monitoring of seismic activities and to provide adequate information almost instantly. The study further demonstrated use of Probabilistic Power Spectral Density (PPSD) based on the standard spectral density plots in diagnosing the seismic noise in digital seismic telemetric monitoring network and in determining the noise conditions in selected sites before establishing a countrywide seismic network of Indian domain.

Another important paper by Giri et al., reviews the Indian geostationary meteorological satellite program - INSAT, discussing successive improvements in meteorological payloads onboard the INSAT-series satellites, and their spatial and temporal resolutions, including the third generation of INSAT satellites - INSAT-3D and INSAT-3DR. Different imageries and geophysical products generated from the imagers and sounder along with their potential applications are also briefly discussed.

The paper by Rijoy et al., -describes the ST Radar at Cochin, which is the World's first atmospheric wind profiler radar operating at 205 MHz range is an active phased array radar to study the near equatorial atmospheric processes. This wind profiler radar commissioned at Advanced Centre for Atmospheric Radar Research (ACARR), Cochin University of Science and Technology (CUSAT) is designed, developed, and installed indigenously, and hence became the part of the prestigious "Make in India Program" of the Government of India. This Radar provides high resolution wind information from 315 m to 20 km in all weather conditions, which enables better understanding of the dynamics and physics of the atmosphere and weather systems. Another added advantage of this radar is its capability of exploring space weather activities, ionospheric disturbances, tracking of celestial bodies in the radar vicinity and Radio Astronomical studies. This article describes the technical details, salient features, and application potential of 205 MHz. ST radar at ACARR, CUSAT.

This volume also features the summaries of IMS chapter activities, highlighting the vibrant and active participation of members in observing and celebrating various activities, organizing lectures and competitions for school children, honoring and recognizing contributions from key personalities, arranging popular science talks etc.

**A.K. Sahai, R. K. Giri , R. G. Ashrit, and Sunny Chug**